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ENTREPRENEURIAL ORIENTATION AND ENTREPRENEURIAL PERFORMANCE OF CENTRAL JOHANNESBURG INFORMAL SECTOR STREET TRADERS

BY

CHRISTIAN WILLIAM CALLAGHAN

A dissertation submitted to the Faculty of Commerce, Law and Management, University of the Witwatersrand, Johannesburg, in fulfilment of the requirements for the degree of Master of Commerce.

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ABSTRACT

Informal sector participation has been described as a trap associated with impoverishment (Cassim, 1982); as the survivalist responses of marginalised persons with no alternatives (Habib, 2005); yet it has also been described as potentially dynamic (House, 1984). The former conceptions prescribe an identity to informal sector participants, with little consideration given to individual potential and individual action as means to escape impoverishment and a survivalist condition.

An entrepreneurial orientation is associated with increased earnings in certain environments according to Lumpkin and Dess (1996), a process orientation that can be learned. Research testing the relationship between entrepreneurship and performance has been problematic due to the different definitions offered by different entrepreneurship scholars (Cunningham and Lischeron, 1991; Lumpkin and Dess, 1996). In this context, entrepreneurial orientation as a construct was utilised to overcome these challenges. Entrepreneurial orientation or certain of its dimensions have been associated with positive effects related to performance (Chow, 2006; Coulthard, 2007; De Clerq and Ruis, 2007; Jantunen, Puumalainen, Saarenketo, and Kylaheiko, 2005) or with negative relationships (Naldi, Nordqvist, Sjőberg and Wiklund, 2007).

Innovativeness, competitive aggressiveness, risk taking propensity, autonomy and proactiveness, the dimensions of an entrepreneurial orientation (Lumpkin and Dess, 1996), and the effects of certain contextual factors were tested as to their associations with entrepreneurial performance. Entrepreneurial performance was defined in this context as a construct comprising earnings and continuance satisfaction. In terms of entrepreneurial performance, the contention of Lumpkin and Dess (1996) that an entrepreneurial orientation is associated with learning: the how of entrepreneurship, or the learnable process conception of Stevenson and Jarillo (1990), was also tested by investigating contextual factors and how they shaped an entrepreneurial orientation and contributed to entrepreneurial performance.

In this context a quantitative investigation of informal sector street traders and providers of street-side services was undertaken using a survey format. The specific relationships influencing entrepreneurial orientation and entrepreneurial performance were investigated. Results contested assumptions that prescribed a theoretically permanent and immutable survivalist orientation to certain informal participants in that education and learning related factors were found to be associated with entrepreneurial orientation and increased earnings. Entrepreneurial orientation was found to be associated with increased earnings along the dimension of risk taking propensity, and higher levels of autonomy were found to be associated with continuance satisfaction. The relationships between entrepreneurial and contextual factors were investigated and insights developed regarding potential street trader upliftment.

DECLARATION

I hereby declare that this dissertation is my own, unaided work. It is being submitted in fulfilment of the requirements for the degree of Master of Commerce in the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in any other university.

_____

CHRISTIAN WILLIAM CALLAGHAN

Signed on this the _____ day of _____, 2009

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CHAPTER 1

INTRODUCTION

1.1. JUSTIFICATIONS FOR AND OBJECTIVES OF THE DISSERTATION

Significant political, social and economic change has been a characteristic of the South African environment for the past decades (Nasser, du Preez and Herrmann, 2003; Padayachee, 2005; Peberdy and Rogerson, 2003: 79). State enforced constraints on urban residence, entrepreneurship and migration were removed as the transition to democracy took place, and the informal sector expanded significantly as a result (Morris and Pitt, 1995). The informal sector in South Africa has become a significant contributor to the economy, with estimated sales of thirty two billion rands in 2002 (Ligthelm, 2005: 199). According to Abedian and DeSmidt (1990: 404), the rapid urbanisation of the African population in recent years has given birth to an "entirely new set of economic activity, much of which has escaped official recognition."

Certain generalised and homogenous associations in terms of impoverishment and powerlessness have been ascribed to informal sector participation (Cassim, 1982; Habib, 2005; Tokman, 1978); a tension exists between these conceptions and perceptions that certain informal sector participants potentially have choices for upliftment (House, 1984): a lack of consensus is evident. A lack of clarity exists as to the validity of a homogenous conception of individual mechanisms or of the potential for upliftment for informal sector entrepreneurs.

The argument presented in this study is that the experience of entrepreneurship at its most elemental is fundamentally a complex phenomenon (Jantunen et al, 2005; Kilby, 1976), and therefore is not congruent with generalised conceptualisations of informal street traders that ignore individual entrepreneurial orientation.

A state of fragmentation exists in entrepreneurship research according to Cahill (1996: 603). The unique values and attitudes of individuals drive entrepreneurial behaviour according to some theorists (Cunningham and Lischeron, 1991), and different perspectives in terms of the development of entrepreneurial theory exist. An entrepreneur has been primarily conceived as a bearer of risk by Mill (cited in Carland, Hoy and Carland,, 1988), yet primarily as a combiner of resources by

Schumpeter (2002). However, according to Gartner (1988), the focus of entrepreneurship should be the creation of a venture.

An entrepreneur, however, does not stop being an entrepreneur once the enterprise has been created, and entrepreneurial behaviour does not stop at this point (Kuratko Hornsby and Naffziger, 1997). The entrepreneurial process is fundamentally a non linear, disjointed and often unique interaction of many variables (Bygrave, 1989).

According to Levesque and Minniti (2006: 178) research on new firm creation shows that "entrepreneurial behaviour is, to a large extent, an embedded phenomenon and that most of its triggering factors and their relative importance depend on contextual circumstances and may vary very significantly in intensity across locations." This would imply that context is fundamentally important in terms of entrepreneurship research.

In terms of this developing informal sector context, perspectives such as dual labour market theory regard the informal sector participant as being predominantly constrained by structural factors: these individuals are seen to have little choice or ability to utilise personal or individual factors to uplift themselves (Cassim, 1982). In contrast, human capital theorists such as Becker (1975) argue that individuals are not homogenous, and that increased endowments of individual human capital could improve the welfare of individuals through the effect of increased individual productivity.

In this work it is argued that an increase in potential performance is possible through individual behaviour associated with an entrepreneurial orientation. This argument is supported by Lumpkin and Dess (1996). This fundamental argument was tested by investigating the associations between contextual factors and entrepreneurial orientation dimensions, and the associations between contextual factors and entrepreneurial orientation dimensions as predictors of entrepreneurial performance.

It is argued that the conception of all informal sector participants as a homogenous group of individuals is not congruent with the conception of certain of these individuals as entrepreneurs able to utilise entrepreneurial processes and learn

entrepreneurial processes related to their entrepreneurial development, according to the conception offered by Stevenson and Jarillo (1990).

According to Stevenson and Jarillo (1990), conceptions of entrepreneurship are considered to be bounded by three dimensions that relate to three questions: the "why", the "how" and the "what" of entrepreneurship; these correlate to psychology and sociology, management, and economics.

Elements of the entrepreneurial orientation construct are considered to be developed according to this how dimension, an entrepreneurial orientation being related to how to succeed entrepreneurially. It is argued that this orientation includes components that could be developed or learned in the same manner envisioned by Stevenson and Jarillo (1990) as relating to the domain of management.

Opportunity is a necessary condition for entrepreneurship, yet not a sufficient condition: the individual is important in that the opportunity needs to be taken up and this is related to factors unique to the individual (Shane and Venkataraman, 2000). Zahra and Dess (2001), however, took issue with this conception as not taking into account the importance of the environment when opportunity and the individual are considered.

The definition of entrepreneurship in this study follows Shane and Venkataraman (2000) in terms of opportunity being a necessary condition for entrepreneurship. The use of the entrepreneurial orientation construct offered by Lumpkin and Dess (1996), however, takes the argument of Zahra and Dess (2001) into account in that the behavioural process of entrepreneurship is considered with regard to context, and therefore the entrepreneurial environment.

Entrepreneurship is therefore defined here as the pursuit of opportunity. This research focused upon the process of opportunity pursuit: the behaviour and processes of entrepreneurship that an entrepreneurial orientation represents (Lumpkin and Dess, 1996), which is related to the "how" of entrepreneurship (Stevenson and Jarillo, 1990). It is argued that certain contextual factors and entrepreneurial orientation dimensions do contribute to gross earnings and continuance satisfaction for

individuals within the informal street trading context, and that entrepreneurial orientation is shaped by contextual factors.

Whilst it is acknowledged that survivalist and non-entrepreneurial participation are dominant in the informal sector (Tokman, 1978), the argument pursued in this work is that more complex behaviour is at work. It is argued that certain portions or fringes of the informal sector do not fit this description and exhibit behaviours more aligned with the conceptualisation of the informal sector participant as an entrepreneur. It is also argued that individual levels of endowment of entrepreneurial orientation have an effect on earnings and satisfaction for informal sector participants.

What shapes entrepreneurial orientation in the Johannesburg informal sector and its potential contribution to entrepreneurial performance have been little researched. Accordingly, the following research questions were developed:

- what contextual factors shape an entrepreneurial orientation?
- to what extent do contextual factors and each dimension of an entrepreneurial orientation contribute to entrepreneurial performance?

Derived from the above research questions was the following subordinate research question: What specific typology or combination of entrepreneurial orientation dimensions contributes most significantly to entrepreneurial performance?

The investigation of how context shapes entrepreneurial orientation and of the contribution of context and entrepreneurial orientation to entrepreneurial performance of the informal trader might improve insight into the phenomenon of informal entrepreneurship. Gaining a greater knowledge of the experience of entrepreneurship at its most fundamental level, including the entrepreneurial orientation of its most elemental practitioners, might enrich this understanding.

In terms of enriching this understanding, however, different definitions offered by different entrepreneurship scholars (Lumpkin and Dess, 1996) have made testing the effect of entrepreneurship on performance problematic, and the entrepreneurial orientation construct offered by these authors is used to resolve this. The

entrepreneurial orientation construct is therefore used to test the relationship between an entrepreneurial orientation and entrepreneurial performance in the Johannesburg informal sector context.

In terms of this informal sector context, it is argued that the dimensions of entrepreneurial orientation and entrepreneurial performance are associated with learning, according to Stevenson and Jarillo's (1990) conception of the "how" of entrepreneurship. Entrepreneurial behaviour, as represented by entrepreneurial orientation, is taken to constitute "a potential source of competitive advantage" (Jantunen et al., 2005: 223). Entrepreneurial behaviour contributes to performance differentially along the dimensions of proactiveness, innovativeness, autonomy, risk taking propensity and competitive aggressiveness, according to specific context (Lumpkin and Dess, 1996).

In order to rectify this deficiency in the literature, that of the absence of an understanding of the informal sector participant and a consideration of the individual's specific endowment or contribution of entrepreneurial orientation dimensions to performance in this specific context, the aim of the empirical research undertaken was to:

- investigate the factors which might contribute to the shaping of an entrepreneurial orientation in the Johannesburg informal sector context;
- investigate the potential contribution of informal sector contextual factors and entrepreneurial orientation dimensions to entrepreneurial performance.

In line with these aims, the potential for individual entrepreneurial upliftment in terms of earnings and continuance satisfaction was assessed for inner city street traders. Earnings and continuance satisfaction represent the components of a construct "entrepreneurial performance". This investigation was undertaken in an attempt to gain insight into the effects of entrepreneurial orientation in this context.

The objective of this research is to test the hypothesis that relates entrepreneurial orientation dimensions and contextual factors, and relates these entrepreneurial orientation dimensions and contextual factors to entrepreneurial performance. The

model of the tested relationships is illustrated in figure 1. According to this model, the associations of contextual factors with total entrepreneurial orientation and with the individual entrepreneurial orientation dimensions of proactiveness, autonomy, competitive aggressiveness, risk taking propensity and innovativeness are tested. The contributions of contextual factors, total entrepreneurial orientation and the individual dimensions of entrepreneurial orientation to entrepreneurial performance and its two component factors: earnings and continuance satisfaction, are also tested in this research.

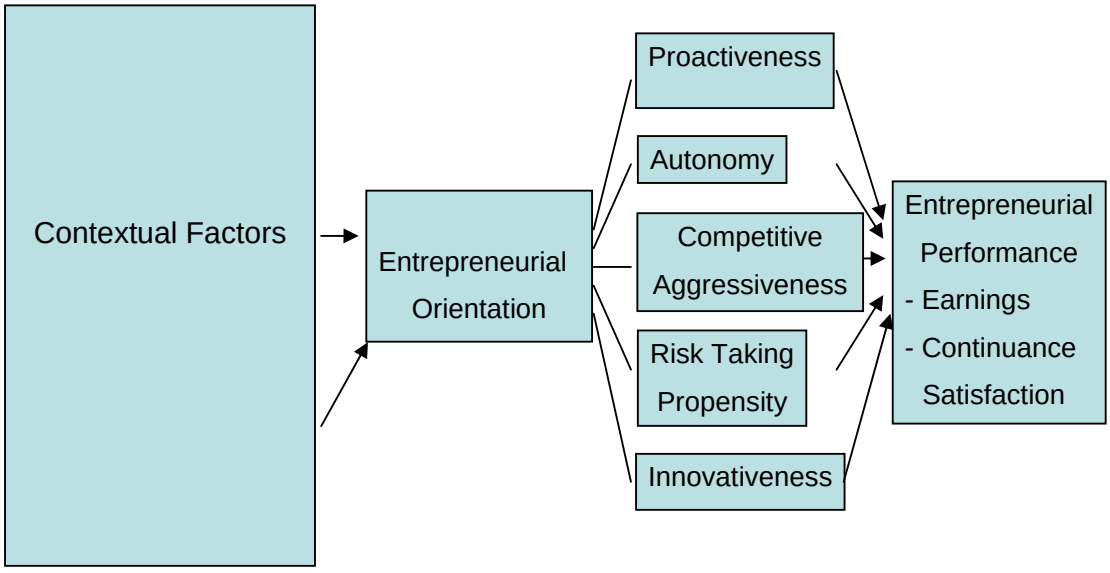

Figure 1. The Model of Tested Relationships

Entrepreneurial performance in this research is taken from Lumpkin and Dess' (1996) broader conception of this construct. Two components are derived: earnings and satisfaction. Earnings represent gross earnings and satisfaction is taken to represent continuance satisfaction. Continuance satisfaction is taken to be associated with continuing in informal sector street trading.

Lumpkin and Dess (1996) contend that entrepreneurship theory should be tested in terms of its relationship with performance, and also suggest that a contingency approach should be adopted in this regard. An entrepreneurial orientation construct should be used for this purpose, according to Lumpkin and Dess (1996), and this approach was taken in this work. Theory relating to entrepreneurial orientation was extended into and tested in the Johannesburg informal street trading sector. The relevance of the study is considered in the following section.

1.2. RELEVANCE OF THE RESEARCH

This study provides an insight into the factors that influence the earnings realised and satisfaction experienced by street traders and into the specific contribution of entrepreneurial orientation in this context. If these relationships were presupposed by generalised theories that ignored individual entrepreneurial factors related to upliftment, this might result in a misunderstanding of the phenomenon of informal sector entrepreneurship in itself: entrepreneurship in its most basic form.

Such misunderstanding might deny a more insightful understanding of the phenomenon of entrepreneurial enterprise at its most elemental form. In terms of the relevance of this research, various conceptions are each briefly considered in this section. The impact of convention is initially briefly considered in terms of the level of entrepreneurship researched in this work.

Thereafter, entrepreneurial theory in terms of its development in a dynamic context; degrees of entrepreneurship; elementary entrepreneurship and social upliftment through enterprise development are conceptions mentioned. After this, conceptions related to entrepreneurial long term aim and individual entrepreneurial orientation; employment creation; and the alignment of policy maker assistance are discussed. A brief discussion of discriminatory informal sector effects related to entrepreneurial orientation then follows. The section concludes with a consideration of the localisation of international insights.

In terms of convention, practice might draw from theory or from established enterprise precedent. An example is the process of benchmarking (Price, 2007). More developed entrepreneurial enterprises might have, to a greater extent, integrated structures and processes dictated by convention, or theory. However, processes based on the precedent created by other enterprises might not offer the degree of insight into embryonic entrepreneurship that the informal street trading context might contribute.

This study sought to measure the degree to which street traders are entrepreneurial according to a measurement of entrepreneurial orientation. An investigation was made into which entrepreneurial dimensions were associated with entrepreneurial performance in this context. It is argued that these are important findings, which significantly extend contemporary entrepreneurial theory into the informal context. A lack of the insight thus generated would deny a deeper knowledge of entrepreneurship and enterprise in its most basic form. This lack of insight would in turn contribute to the loss of an opportunity to understand entrepreneurial theory within a dynamic context that is currently changing.

In order to develop theory regarding entrepreneurship, research should focus more on continued entrepreneurship and on degrees of entrepreneurship (Davidsson, 1991). This study focused on continued entrepreneurship and degrees of entrepreneurship, using the construct offered by Lumpkin and Dess (1996). Continuance is significant as an entrepreneur has been affected by the entrepreneurial process; this study offers an opportunity to explore the factors relating to embryonic entrepreneurship, where degrees of entrepreneurship might initially develop.

At more advanced levels, what might be encountered is a higher degree of application of conventional practice. This study was significant in that it examined entrepreneurial orientation in one of the few contexts that persons without access to resources or finance can directly enter the entrepreneurship career path. This study focused on how the informal sector might act as a training ground for potential entrepreneurs (De Soto, 1989), who might arise from the poorest sectors of our society, with findings potentially contributing to an improved understanding of societal upliftment from the nexus of poverty and unemployment.

The extension of entrepreneurship theory into the context of the informal sector was undertaken to rectify a deficiency in the literature. This deficiency was addressed through the extension of entrepreneurial orientation related theory into the elemental entrepreneurial context that the street trading informal sector represents. Preston-Whyte and Rogerson (1991: 227) argue that "the role of personal motivation and long-term aim is a critical one for future research on the informal economy". Dewar and Watson (1991: 185) argue that there is a considerable body of evidence to indicate that different motives exist amongst informal sector operators. An entrepreneurial orientation might be associated with different entrepreneurial motivations according to individual entrepreneurial dimensions: these manifesting in different effects in terms of earnings and satisfaction. Understanding these individual entrepreneurial dimensions is therefore considered to be important for research into informal sector entrepreneurship.

Actions aimed at stimulating informal sector activities contribute to employment creation and "are a direct attack on poverty" (Dewar and Watson, 1991:184). Informal sector activities are usually the "smallest, most fragile concerns" (ibid.: 184) and these are responsive to the needs of the poorest in society. By attempting a classification of the "genesis" states of entrepreneurship and dimensions of the entrepreneurial orientation, this study attempts to shed light on the ambiguities and complexities that obstruct our understanding of processes of entrepreneurship. It is argued that this knowledge contributes to an improved understanding of how to possibly stimulate informal activity.

The provision of assistance to entrepreneurial enterprises, however, needs to occur within the context of a strong understanding of processes of growth and change in these enterprises to avoid potential mismatches between policy measures and the needs of these enterprises (O'Farrel and Hitchins, 1988). The specific alignment of policy maker assistance with the entrepreneurial orientation of these individuals might possibly be enabled through studies such as this one, through a differentiated approach to the provision of assistance according to each specific entrepreneurial orientation typology.

In terms of the discriminatory relationships that exist, the identification of specific associations relating to discriminatory effects could significantly inform further research or resultant policy maker action. It is the intention of this work to contribute to the development and upliftment of this group of people in terms of the development of applicable insights relating to entrepreneurship.

Reducing the problem space around the dimensions of entrepreneurial orientation and their effect in this context promotes understanding of which specific relationships relate to increased performance. This also allows the specific nature of discriminatory effects to be highlighted. Increased knowledge of the specific nature of discriminatory and unfair effects specific to the individual street trader relating to entrepreneurial activity allows for increased understandings of processes and interventions affecting the upliftment of these individuals, along specific dimensions.

Entrepreneurial knowledge should focus on the phenomenon of continued entrepreneurship in order to be able to develop more theory, as the mechanisms that underlie the behaviour of entrepreneurship are not sufficiently understood, according to Davidsson (1991). The South African context provides localised insights into continued entrepreneurship. This allows for the extension of and testing of internationally developed theory relating to the behaviour of entrepreneurship within the local environment with regard to local participants. A consideration of the degree to which these findings can be generalised to other contexts is, however, also important. The inherent limitations of this research also bear consideration; these issues are considered in the following section.

1.3. LIMITATIONS OF THE RESEARCH

There are two limitations associated with this study. These include limitations related to the generalisation of research findings and the limitations relating to methodological processes. The former is considered in this section, whilst the latter is considered within chapter four, which specifically addresses the methodology.

This was research undertaken within a specific context, and therefore this work needs to be considered in terms of its ability to be generalised to other contexts. The overarching principle with regard to this was that along certain dimensions, the more similar another context is the more it would be possible to generalise the findings of this study to other contexts. South Africa's significant political and social changes and the resultant influx of people into the inner cities after the democratisation of the country (Peberdy and Rogerson, 2003:79; Padayachee, 2005; Nasser et al., 2003) represent a certain specific context relating to the informal sector. In terms of the limitations associated with the research along the dimensions of similarity and difference and the potential generalisation of the findings of this research, three considerations will be discussed:

1. Relatively "stable" entrepreneurial theory that generalises well across contexts versus theoretically demarcated interactions with context.
2. Learning orientated factors that might contribute to the body of research that relates education or human capital dimensions to individual development across contexts.
3. The effects of factors inherent to the individual that might offer a contribution in terms of tested theory relating individual factors, such as age or gender, to themes of inherent discrimination or entrepreneurship in general.

- The first consideration: "stable" entrepreneurial theory

Generalised entrepreneurial theory and demarcated generalisation into context are outlined as follows. In terms of the generalisation of entrepreneurial theory into context, according to Levesque and Minniti (2006: 178) the triggering factors of entrepreneurship and relative performance "depend on contextual circumstances and may vary very significantly in intensity across locations." According to this conception, and conceptions similar to this, variance might exist that might constrain the generalisation of such contextually dependent relationships to other contexts.

However, the "how" of entrepreneurship which relates to the domain of management (Stevenson and Jarillo, 1990), and the behaviour or processes of entrepreneurship (Lumpkin and Dess, 1996) represent a process orientation that is applied to context. This process orientation of Lumpkin and Dess (1996) and the "how" orientation of

entrepreneurship (Stevenson and Jarillo, 1990) are regarded in this work as representative of the stable component of the interaction of entrepreneurship and context. It is therefore argued that knowledge derived from the testing process offers two differentiated types of results, one relating to a relatively low level of potential generalisability and the other relating to a higher level of generalisability. It is therefore argued that these different types of results are associated with different levels of research limitations.

"Stable" entrepreneurial theory relates to the process of entrepreneurship, and it is argued that certain of these results might be generalised across contexts. Stable entrepreneurial theory concerns the process of entrepreneurship and caters for the effect of context. An example of such theory is Lumpkin and Dess' (1996) entrepreneurial orientation theory. Such findings would add to the body of knowledge associated with entrepreneurial process. For this type of result the limitations of the research in terms of generalisation to other contexts are considered to be low, in that process is less proximal to context.

In terms of this first category of stable entrepreneurial process theory versus theoretical demarcation into context, the theoretically demarcated interaction with context represents the extension of more stable entrepreneurial theory into more varied contexts. A tipping point is expected to be passed as findings relate more to the effects of specific context than to process. Past this tipping point, and closer to context, research findings would be expected to be less appropriately generalised into other contexts. This would represent a more serious limitation for the research in terms of its ability to be generalised to other contexts.

However, even with regard to the most specific contexts, there would be expected to be some context in the developing enterprise world that might be similar according to some specific dimension. The specific limitation of the research in terms of generalisation would then be dependent upon the degree of similarity or difference along a specific dimension. Research findings strongly related to specific context could therefore only be generalised to the extent that the component infrastructure of manifested relationships is similar in other contexts. This type of result is considered

to represent a strong limitation of the research in terms of its potential generalisation to other contexts.

According to Lumpkin and Dess (1996) the effects of the dimensions of an entrepreneurial orientation vary according to context. According to this, this research attempts to make a contribution to the body of research by providing knowledge of the degree of generalisation of entrepreneurship theory that is possible. This is achieved through the establishment of the degree to which the findings conformed to certain theory and reviewed research findings. This might enable further research into the specific potential for generalisation that exists with reference to context and entrepreneurial orientation potentialities. Variance across contexts, however, might also be found with regard to learning, or human capital theory.

- The second consideration: learning orientated factors

Limitations of the research in terms of generalisation may also relate to the results of the testing of learning or human capital theory. Certain findings that relate to the impact of education and learning factors might have the potential to be generalised, to the extent that aspects of human learning might be similar across contexts. The testing of theory that relates certain learning related factors to entrepreneurial orientation dimensions might be generalised to the extent that certain aspects of learning and human capital theory is stable across contexts. It is therefore argued that certain of the findings can be generalised to the extent that aspects of the human learning process are common to people across contexts.

- The third consideration: factors inherent to the individual

Findings related to the testing of theory relating to individual factors, such as age or gender, might also transcend certain dynamics of context. Certain discriminatory effects in terms of entrepreneurial relationships might also transcend context. The findings of this research may offer further researchers a conception of the extent that context does influence the degree of generalisation possible within entrepreneurial orientation theory with regard to certain factors inherent to the individual.

A justification of the research was undertaken above and the objectives of the research were outlined. Theoretical limitations were briefly considered with regard to potential generalisation. At this point the following section provides a brief outline of the process followed with regard to the dissertation.

1.4. BRIEF OUTLINE OF THE DISSERTATION

Chapter one provides an introduction to entrepreneurial orientation. A justification for the research is undertaken and the aims and objective of the study are outlined. The gap in knowledge relating to the lack of a consideration of entrepreneurial orientation within the informal sector is discussed. The following research questions are introduced: "What factors shape entrepreneurial orientation in the informal street trading context?" and "What contextual factors and entrepreneurial orientation dimensions contribute to entrepreneurial performance?" The chapter concludes with a consideration of the limitations of the research with regard to generalisation.

Chapter two presents a broad overview of entrepreneurship theory related to entrepreneurship and entrepreneurial orientation. From this broad consideration, the literature review then focuses in on theory related to the specific entrepreneurial orientation dimensions.

The entrepreneurial orientation dimensions: proactiveness, competitive aggressiveness, innovativeness, autonomy and risk taking propensity are considered according to the conceptions offered by Lumpkin and Dess (1996), these representing an extension of the three entrepreneurial orientation dimensions tested by Miller (1983) with the additions of autonomy and competitive aggressiveness.

A review of literature relating to entrepreneurial performance and its components: gross earnings and continuance satisfaction follows on from the review of the entrepreneurial orientation dimensions. The literature is reviewed within the framework offered by the research questions in terms of relevance, and predicted associations are derived from the theoretical and research literature.

Chapter three reviews the informal sector context and provides a broad overview of the South African and Johannesburg city informal sector context. Contextual factors are explored with regard to the literature in terms of their potential contribution to shape the dimensions of an entrepreneurial orientation and in terms of their contribution to entrepreneurial performance.

Several contextual factors are reviewed. Gender, inherent to the individual, is a factor that might be associated with discrimination in terms of the effect of context. Age, years in Johannesburg, hours worked per day and days worked per week are further contextual factors explored. Initial investment represents the investment of capital and allows for the investigation of returns on capital and of relationships between initial investment, entrepreneurial orientation and performance.

The level of tertiary education, experience and number of training courses attended are explored as contextual factors associated with learning. Earnings as a variable is considered as a contextual factor that may contribute to entrepreneurial orientation, and is also considered as a component of entrepreneurial performance.

Order of capture is considered as a variable that would pick up variance in terms of the roll out of the study, or other effects underlying the tested relationships. The rental stand variable is included to capture differentiation between street stands and rental stands. Continuance satisfaction is included as a contextual factor as well as an entrepreneurial performance dimension, and is considered to the extent that satisfaction might contribute to entrepreneurial orientation. With the majority of the informal sector composed of individuals of foreign origin and from different areas, relevant associations were considered through the use of the South African origin variable and the Johannesburg local variable.

These factors are all explored in terms of their shaping of an entrepreneurial orientation and in terms of their contribution to earnings and continuance satisfaction. Following the review of literature relating these factors and dimensions, the consideration of the methodology of the study is undertaken in chapter four.

Chapter four, the chapter relating to research methodology, introduces the methodological processes utilised in the dissertation. The chapter begins by placing the research within certain research paradigms. A consideration is made of the ontological and epistemological positioning of the research.

Thereafter, the research hypotheses are outlined, and the scope of the study is discussed. The population from which respondents are drawn is considered in terms of geographic demarcation and an estimation is made of the size of the population.

Limitations are considered in terms of methodological processes. The relatively limited amount of contextual factors, the drawbacks of cross-sectional versus longitudinal research, causality limitations and challenges posed by culture, obscurity and self selection are briefly discussed.

Data collection processes are considered in terms of ethical considerations, sampling processes, sample size calculation, sampling protocol and method of interviewing. The instrument is considered in terms of its design, scale construction, piloting, reliability, and validity.

The characteristics of the survey respondents are discussed, and the chapter is concluded with a consideration of the processes of the data testing in terms of statistical testing procedures, confidence limits of the statistical testing, Cronbach's alpha, and multiple linear regression processes.

Chapter five, the results chapter, reports the results of the testing process, and the specific results of the tested hypotheses. The results of the statistical tests undertaken are reported without discussion. The diagnostic processes are reported. Descriptive statistics are also reported in this chapter. The discussion and analysis of these reported results is deferred to chapter six.

Chapter six presents the analysis of research findings, this representing a discussion of the results of the empirical research testing theory that related contextual factors to entrepreneurial orientation dimensions. Also discussed and analysed are the results of the testing of theory relating contextual factors and entrepreneurial orientation

dimensions to entrepreneurial performance. The discussion of the results of the hypothesis testing process is undertaken with reference to the two research questions.

The results of the process of hypothesis testing are related to theory presented in the literature review, and results are discussed with a view to the development of understandings drawn from this process and the answering of the research questions.

The discussion is also related to an assessment of the potential for individual entrepreneurial upliftment in terms of earnings and continuance satisfaction due to the effects of entrepreneurial orientation. The implications of the findings in terms of inherent inequality or discriminatory effects are also discussed.

Chapter seven concludes the research process with a summary of the empirical research results. Issues for further research are considered. Conclusions relating to the discussion of the testing of the theory, the implications for the research question, potential upliftment and discriminatory effects are presented, with issues for further research being considered according to new questions raised by the research.

CHAPTER 2

ENTREPRENEURIAL ORIENTATION AND THE INFORMAL SECTOR STREET TRADER

2.1. INTRODUCTION

In this chapter, the theoretical literature broadly relating to entrepreneurship and literature more specifically relating to entrepreneurial orientation and entrepreneurial performance are reviewed. The dimensions of an entrepreneurial orientation and entrepreneurial performance are explored with regard to the literature, to the extent that this literature relates to the research questions: "To what extent do informal sector contextual factors shape an entrepreneurial orientation?" and "To what extent do contextual factors and entrepreneurial orientation dimensions contribute to entrepreneurial performance?"

Entrepreneurship theory is broadly reviewed, particularly conceptions of entrepreneurship in behavioural terms. Theory about the relationship of entrepreneurship to its environment or context is also reviewed. A justification is made to support the argument made by Lumpkin and Dess (1996) that the manifestation of entrepreneurial orientation and its effects may differ according to context.

Thereafter, a summary of the definition of entrepreneurship outlined in the introduction is used to extend theory relating to the broader entrepreneurship literature into a consideration of entrepreneurial orientation theory. Various dimensions of entrepreneurial orientation are considered in terms of understandings offered by Lumpkin and Dess (1996): innovativeness, proactiveness, competitive aggressiveness, autonomy and risk taking propensity. This is followed by a consideration of the dimensions of entrepreneurial performance: earnings and continuance satisfaction.

2.2. ENTREPRENEURSHIP: A BROAD OVERVIEW

According to Cunningham and Lischeron (1991: 45), the selection of the "appropriate basis for defining and understanding the entrepreneurial person creates a challenging problem for academic researchers and writers". Cunningham and Lischeron (1991) propose that different schools of entrepreneurial thought can be categorised according to research relating to: personal characteristics; the recognition and pursuit of opportunities; a management perspective; and the adaptation process used by existing ventures such as the process of intrapreneurship.

Below, a discussion of broad categorisations of entrepreneurial theory relating to the individual in entrepreneurship ensues before a discussion of entrepreneurship as enterprise or firm behaviour. The entrepreneurial context is also explored. The informal context, however, is reviewed in the following chapter. The following broad review includes a justification for the case made for the importance of the entrepreneurial context in terms of entrepreneurship research.

2.2.1. ENTREPRENEURSHIP: THE INDIVIDUAL, THE ENTERPRISE, ENTERPRISE BEHAVIOUR AND ENTREPRENEURIAL CONTEXT

Entrepreneurial literature is reviewed in this section according to theorists that focus on the individual, the enterprise, enterprise behaviour and the entrepreneurial context. Entrepreneurial theory that relates to the individual is broadly considered as follows.

- The Individual

According to Herron and Sapienza (1992), the individual entrepreneur is the most important unit of analysis in entrepreneurial research since it is these individuals that start new organisations. Herron and Sapienza (1992) offer a conceptual model of entrepreneurship with the individual as central to entrepreneurship research, and that considers personality traits and behaviours that are influenced by contextual factors, including values, skills and the potential for learning. Individual skills are more of a primary factor than personality traits, and the interaction of these factors is important according to Herron and Sapienza (1992). This research considers the individual, by necessity, since the individual street trading enterprise consists of an individual trader;

the street trader is the enterprise. Learning factors are also included in the model of tested relationships undertaken in this work.

Differences exist with regard to theoretical conceptions of individual factors and entrepreneurship. In terms of the individual dimensions of entrepreneurship, the origins of definitions of entrepreneurship extend to Cantillon's definition (circa 1700) of an entrepreneur as "a rational decision maker who assumes the risk and provides management for the firm" (Carland et al., 1988:33). Mill's focus on risk as a separation factor of entrepreneurs from managers is another early seminal contribution to entrepreneurial theory (Mill, cited in Carland et al., 1988: 33). However, Gartner (1988) stresses the creation of a venture as a cornerstone of the definition of an entrepreneur, and states that "who is an entrepreneur?" is not the right question as the act of entrepreneurship, as entrepreneurial behaviour, should be the focus of entrepreneurship study.

Shapero and Sokol (1982) criticise individual centred perspectives of entrepreneurship, including McClelland's (1961) theory relating to entrepreneurs having a higher need for achievement. Shapero and Sokol (1982) argue that, in terms of McClelland's (1961) need-for-achievement theory, too many of the segments of the data are defined away in the theoretical process, this resulting in an oversimplification of the subject. The individual centred approach is also criticised by Shane (1996) who argues that the "trait" approach, whereby an individual's distinguishing characteristics, including personality characteristics, are related to entrepreneurial variables, is often studied according to a flawed approach. According to Shane (1996) entrepreneurial experience, for example, as a dependant variable may suffer from sample selection bias, with small specific samples and single industries being used. Shane (1996) argues that this process is often undertaken without evidence of the turbulence of rates of entrepreneurship being taken into account. Entrepreneurial theory relating to the enterprise is briefly considered as follows.

- The Enterprise

In contrast to the theories of individual-based factors that impact the entrepreneurial process, Covin and Slevin (1991) take a firm-behaviour perspective, reasoning that firm behaviour represents action and measurability, and a that a firm's behaviour can

be managed. Covin and Slevin (1991) offer a model of entrepreneurship with firm performance as the dependant variable, with clearly defined variables relating to environmental, organizational and individual factors, and including moderator effects as well as direct effects.

Innovation, proactiveness and risk taking are utilised as measures of entrepreneurship in a study of the relationship between entrepreneurship and enterprise typologies undertaken by Miller (1983). Theorists offer various different factors as determinants of entrepreneurship, including personality factors; psychodynamic characteristics; socio-cultural background factors; environmental and structural factors; decision making; and structure according to Miller (1983).

Miller (1983) argues that the factors that determine entrepreneurship need to be contextualised according to the type of enterprise that entrepreneurship is explored in relation to. Much of the conflict in the literature, according to Miller (1983:771) arises from a "failure to distinguish among company types in examining the correlates of entrepreneurship".

According to Carland et al. (1988) both behavioural and trait theorists are mistaken for not pursuing the "why" of entrepreneurship, and all the parts of entrepreneurship and their interactions need to be understood. For Stevenson and Jarillo (1990) entrepreneurship theory can be understood as having certain dimensions: the "why" dimension associated with psychology and other sciences that seek to explain why entrepreneurship occurs and the "how" of entrepreneurship, which represents enterprise behaviour. According to Stevenson and Jarillo (1990) enterprise behaviour can therefore be learned. This learned enterprise behaviour, or "how" of entrepreneurship, according to Stevenson and Jarillo (1990), is associated with the field of management. An entrepreneurial orientation represents entrepreneurial behaviour, which can be exhibited by enterprises or by individuals, according to Lumpkin and Dess (1996). Enterprise behaviour is therefore relevant to entrepreneurship, according to these conceptions.

The individual street trading enterprise represents both an individual and an enterprise. In terms of this, enterprise literature associated with larger enterprises is

also reviewed in order to provide an insight into similarities and differentiating factors associated with entrepreneurial orientation and entrepreneurial performance. Theory relating to the entrepreneurial context is reviewed as follows.

- The Entrepreneurial Context

In terms of these above understandings, research has developed to include three broad areas of entrepreneurship theory: theory relating to the individual, to the enterprise, and to contextual or environmental factors. Shane (1996) is an example of a theorist that extends research to all three of these areas. Shane's (1996) research includes the following variables influencing levels of entrepreneurship: the traits attributed to the entrepreneurial founders; internal factors of the firm; and external contextual or environmental factors. It is argued that this dissertation tests theory relating to all three of these areas; it offers an integrated process of testing theory relating to the individual, to entrepreneurial behaviour in terms of entrepreneurial orientation and to context in terms of tested contextual factors.

According to Covin and Slevin (1991) the entrepreneurial process can be viewed as an entrepreneurial posture that impacts firm performance, with three groups of factors that have a strong effect on this entrepreneurial posture: external variables, strategic variables and internal variables. In terms of the external factors affecting entrepreneurial posture or firm performance, the following is a consideration of the context of entrepreneurship.

The following review is undertaken to support and broaden an understanding as to why context is important in terms of entrepreneurship research, and provides a justification for the research of entrepreneurial orientation with specific regard to context, the importance of which was highlighted by Lumpkin and Dess (1996). The introduction of context might be seen to offer a significant increase in the dimensions along which a contextualised enterprise may differ from an enterprise in isolation. As a contextual factor, the effect of multiple start-ups or clusters of enterprises by an individual owner might offer an example of enterprise performance that might differ from single ownership enterprises.

Many firm start ups may be in a category separate from other individual start ups in that they might be started by owners involved in other enterprises at the same time, and consequently some research may show little or no growth in small firms when in fact growth is occurring in the form of clusters of small firms (Scott and Rosa, 1996). This might be an effect that extends to the informal sector. According to this, entrepreneurial performance, in terms of growth related effects, is expected to be lower for enterprises that are part of a cluster of enterprises.

Scott and Rosa (1996) identify an increase in this phenomenon of clusters of multiple enterprises owned by entrepreneurs being associated with increases in capital assets, knowledge and business experience, with as many as one in five firms in their investigation being part of these clusters. According to Scott and Rosa (1996), these enterprises might behave atypically when compared to individually operated enterprises.

Scott and Rosa (1996) argue that working people are increasingly becoming involved in starting new firms and this diversification as a strategy is found to be associated with lower levels of growth in each unit firm. The increasing complexity created by this growth is dealt with through the establishment of new firms initially and the formation of corporate holding companies at a larger stage of growth (ibid.).

However, multiple business owning entrepreneurs showed lower levels of business failure (ibid.). According to a review of data relating to business survival in United Kingdom enterprises, Scott and Rosa (1996) found these enterprises to have lower failure levels, at about 5 percent, as opposed to the usual start ups at 53 percent within the first five year period. The informal street trading context might also be exposed to a more complex interplay of variables (Scott and Rosa, 1996), that might not be evident in the study of a firm in isolation. It is argued that context cannot be excluded in terms of entrepreneurship research in the informal sector street trading context.

Stearns, Carter, Reynolds and Williams (1995) researched entrepreneurship in terms of the individual characteristics of enterprise founders, structural characteristics of the enterprise and environmental factors or contextual conditions with regard to the discontinuation of enterprises. Stearns et al. (1995) found that internal factors such as

the distribution of authority and spans of control that are associated with an emphasis on the internal conditions of the enterprise do not sufficiently explain new firm survival over time.

The study of a firm in isolation, or without reference to context, might not truly capture the complexity of entrepreneurship, in that the sciences of business, economics, psychology, sociology and politics are important contributors to the field of entrepreneurship according to Bygrave (1989). Theoretical concepts from the social sciences such as sociology and psychology are integrated with the practical concepts of the applied sciences such as economics to gain an understanding of the entrepreneurial process, a process that is fundamentally a non linear, disjointed and often unique interaction of many variables (ibid.). If this consideration of the complexity of the entrepreneurial context is necessary, in the specific context of the inner city street trading population, a consideration of entrepreneurship in terms of population research might be necessary. Literature relating to populations is reviewed in the next section.

After a study of 3562 enterprises and entrepreneurial orientation comprising proactiveness, innovativeness and risk taking propensity, within the Chinese enterprise context, Chow (2006: 17) makes the point that it "should be noted that the highly significant negative correlation with the environment and entrepreneurial orientation confirms that a favourable environment is effective" in promoting enterprise entrepreneurship. This supports an argument that a consideration of the entrepreneurial environment is important for entrepreneurship research.

For Shane (1996), the environmental approach to entrepreneurship regards entrepreneurs as products of environmental factors best studied longitudinally. However, according to Shane (1996), the environmental approach may suffer from a lack of focus on the interdependence between different populations, by ignoring or not controlling for some "trait-based" factors and not taking enough notice of changes in technology and population growth over time. In terms of the importance of the interdependence relating to populations (Shane, 1996), the following theory relating to population effects is reviewed due to its potential relevance to the entrepreneurial street trading enterprise.

2.2.2. POPULATION EFFECTS AND ENTREPRENEURIAL CONTEXT

In terms of the specific Johannesburg street trading context, a consideration of the interdependence relating to populations (Shane, 1996) might be relevant to the investigation of the effects of entrepreneurial orientation within this context. Theory relating to populations is explored in this section of the literature review, which is used to support the argument that entrepreneurial context is important in entrepreneurship research investigating the effects of entrepreneurial orientation. This then leads into the consideration of literature relating to the individual entrepreneurial orientation dimensions.

From the population ecology perspective of entrepreneurship, the focus is on organisations in environments, and a rates approach is used, and not a traits approach to the study of entrepreneurship, according to Aldrich (1990). From the population ecology perspective, entrepreneurship is researched within a macro-context of societal factors that all influence the resources available to entrepreneurial firms and their potential failure or survival (Aldrich, 1990).

A new enterprise, once operating, is forced to accept the limitations and concomitant benefits of contextual factors, and for certain specific industries, urban enterprises have decreased chances of survival (Stearns et al., 1995). Stearns et al. (1995) suggest that further study should be undertaken into the competitive density of urban areas as a variable worth considerating in entrepreneurial research. Paying attention to the carrying capacity of populations, of population life stages, and of a comprehensive, historical and time-dependent understanding of the context in which entrepreneurship occurs is important for entrepreneurship theory according to Aldrich (1990).

Population ecology can provide insights into the complex condition of firm mortality and survival in that it stresses factors such as the carrying capacity of the environment, and the effect and interdependence of other organisations in a host society (Reynolds, 1991). Firms can adapt to survive or die and be displaced by new firms in a process of random variation, as a type of organisational genetics or environmental conditioning occurs, and emerging social systems result from this process of social organisational interplay (ibid.). The informal sector street trading

population at a point in time may represent the outcome of a process of environmental conditioning. This would support the argument that the entrepreneurial environment or context cannot be excluded in informal sector entrepreneurship research.

Aldrich (1990) researched rates of entrepreneurship over time from an ecological perspective, and argues that the death of firms may free up opportunities and resources for new firms to develop. Contextual insights that provide an understanding of the street trading context might enable an understanding of the complexity inherent in the interplay of factors around the manifestation of entrepreneurial behaviour in this context. Changes might also be expected in terms of entrepreneurial contexts related to density, according to Aldrich (1990). Changes resulting from increasing density might therefore represent a positive or negative effect for enterprises that are part of populations such as the informal street trading population. This potentiality is considered as follows.

When organisational density or the number of organisations in a given population increases, the founding of new firms could be facilitated by density dependent factors such as the increased legitimisation of the organisational form, access to information and skills, and also the opportunity of enterprises to work together (Aldrich, 1990). However, according to Aldrich (1990) negative factors might also arise, such as diminishing marginal returns. Entry barriers could also become entrenched as the concentration of firms increases in the population (ibid.). A limitation of this research is that it is not longitudinal in nature, and that the degree of increasing or decreasing density was not measured in terms of effects potentially impacting upon entrepreneurial orientation or entrepreneurial performance.

From the population ecology perspective, populations also have an effect on each other, with implications for firm survival or failure (Aldrich, 1990). According to Aldrich (1990), there may be a range of possible interactions between populations, and these effects may range from negative effects to positive effects, or may also include symbiosis and win-win scenarios. Differences in terms of context might also extend to regional effects.

O'Farrell and Hitchins (1988) argue that the impact of regional environments may be an important factor relevant to small enterprise survival or mortality. According to O'Farrell and Hitchins (1988) the following are important with regard to small enterprise survival or failure: terms of access to capital, rates of innovation, and shortages of skilled staff, particularly staff with the managerial skills for an enterprise to grow and survive as the enterprise is forced to change its structure. In terms of regional environments, this effect was controlled for through the delimitation of the study to the specific area of the Johannesburg central business district.

Organisations in developed industries can act as incubators for new firms, and knowledge can develop together with the increase in number of firms in a population, this knowledge being available to potential founders, together with potential networks in the industry (Aldrich, 1990). However, within the informal sector context, certain of the effects associated with developed industries might not be appropriately considered to extend to this informal sector. Theory relating to developed industries is included in the review, however, in order to gain insight with regard to the differentiation of these enterprises from smaller enterprises.

Related to survival is also the degree of generalist or specialist orientation according to Aldrich (1990). An increase in population density might lead to efficiency oriented specialist enterprises and efficiency oriented generalist enterprises coexisting, and displacing the others (ibid.). This might indicate that if any factor contributes to efficiency within a context of increasing population density, it might also contribute to the enablement of the survival of these enterprises.

According to this, it is predicted that if the city centre informal population density has increased over time, changes might be reflected in the testing of proxy variables that might capture this effect over time. For example, the experience variable might be associated with more efficient effects in that survival has occurred. The more efficient levels of entrepreneurial orientation dimensions might then be measured in remaining enterprises, if more efficiency orientated enterprises do displace others as Aldrich (1990) conceives this effect to manifest in a population.

Churchill and Lewis (1983) argue that anticipating the changes in relative importance between factors associated with a new firm's development may be relevant to the survival of an entrepreneurial enterprise. If it is possible that changes in development might also be associated with changes in efficiency, then it might be expected that some measure of this effect might be found with regard to testing of the complex interaction of relationships within the informal street trading context.

In terms of the entrepreneurship literature relating to different conceptions around the individual entrepreneur, enterprise behaviour, and the entrepreneurial environment, the following section extends the review of literature to a more specific consideration of the dimensions of an entrepreneurial orientation. This is then followed by a consideration of literature relating to the dimensions of entrepreneurial performance: earnings and continuance satisfaction.

2.3. ENTREPRENEURIAL ORIENTATION

The development of the entrepreneurial orientation construct is a manifestation of a conception of entrepreneurship as enterprise behaviour (Lumpkin and Dess, 1996). The conception of entrepreneurship as enterprise behaviour has been a major development in the entrepreneurial literature according to Coulthard (2007). In terms of the entrepreneurial context that enterprise behaviour occurs within, according to Levesque and Minniti (2006: 178) the relative importance of the triggering factors of entrepreneurship depend upon contextual circumstances. The consideration of literature relating to entrepreneurial orientation is considered in the following section. Entrepreneurial orientation and its five component dimensions: of innovativeness, autonomy, proactiveness, competitive aggressiveness and risk taking propensity (Lumpkin and Dess, 1996) are explored below.

The literature takes the form of a review according to the following structure. A brief summary of the conception of entrepreneurship and entrepreneurial orientation offered in the introduction chapter is first offered below. This is followed by a consideration of the relationship between total entrepreneurial orientation as a construct and the dimensions of entrepreneurial orientation that make up the total

entrepreneurial orientation construct. A review of the literature relating to the individual entrepreneurial orientation dimensions is then undertaken. This is followed by an exploration of theory relating to the dimensions of entrepreneurial performance.

2.3.1. ENTREPRENEURSHIP AS RELATING TO ENTREPRENEURIAL ORIENTATION

In order to stress the theoretical context of entrepreneurial orientation, the relationship of entrepreneurial orientation to entrepreneurship is briefly revisited as follows. The definition of entrepreneurship is taken to be the pursuit of opportunity (Shane and Venkataraman, 2000). An entrepreneurial orientation is defined as the dimensions of entrepreneurial behaviour along which opportunity is pursued, these consisting of proactiveness, innovativeness, competitive aggressiveness, autonomy and risk taking propensity: the processes of entrepreneurial behaviour as developed by Lumpkin and Dess (1996).

This process is considered analogous to the "how" of entrepreneurship, a learnable orientation as offered by Stevenson and Jarillo (1990). The use of an entrepreneurial orientation construct is fundamentally undertaken in order to resolve certain of the contradictions inherent in attempts at the operationalisation of entrepreneurial behaviour and particularly the measurement of the contribution of entrepreneurship as firm behaviour (Lumpkin and Dess, 1996) to performance. An example of this contradiction is that according to certain theorists many critical characteristics are not evident in different individuals described as entrepreneurial by other theorists (Stevenson and Jarillo, 1990).

Lumpkin and Dess (1996:162) argue that any enterprise "that engages in an effective combination of autonomy, innovativeness, risk taking, proactiveness, and competitive aggressiveness is entrepreneurial". For Miller (1983:770), entrepreneurship is "the process by which organisations renew themselves and their markets by pioneering, innovation and risk taking", and it is this conception that Lumpkin and Dess (1996) developed into the larger construct through the inclusion of autonomy and competitive aggressiveness.

In this context entrepreneurship is taken to be characterised by certain processes or characteristics related to the pursuit of opportunity, associated with individuals or enterprises: an entrepreneurial orientation (Lumpkin and Dess, 1996). An entrepreneurial orientation is therefore taken to represent the process of pursuing and seizing opportunity along defined dimensions. Entrepreneurial orientation supports "opportunity recognition in new markets" (Jantunen et al., (2005: 227), and according to Lumpkin and Dess (1996: 136), an entrepreneurial orientation "refers to the processes, practices, and decision making activities", that lead to the essential act of entrepreneurship, involving intentions and actions.

Entrepreneurial characteristics are considered to be behavioural skills and endowments that might be able to be learned, as argued by Stevenson and Jarillo (1990), with reference to their consideration of the "how" inherent in entrepreneurship, which can be learned. For Stevenson and Jarillo (1990), conceptions of entrepreneurship might be considered to be bounded by three dimensions that relate to three questions: the "why", the "how" and the "what", relating to psychology and sociology, management, and economics respectively. It is argued that an entrepreneurial orientation might be developed or learned in the same manner as envisioned in Stevenson and Jarillo (1990) as relating to the domain of management.

The importance of the "why" dimension as conceived by Stevenson and Jarillo (1990) is also important as it pertains to entrepreneurial motivation, this to a large extent theoretically related to earnings and satisfaction, although the motivational dimension itself lies beyond the scope of this work.

Within this context, the pursuit of opportunity is considered core to entrepreneurship by Stevenson and Jarillo (1990), and this fits tightly with the conception of an entrepreneurial orientation in that the five dimensions are taken to contribute to the process of pursuing and seizing opportunity along different dimensions (Lumpkin and Dess, 1996). The concept of entrepreneurship is taken to be related to what entrepreneurs do: behaviour, and this is taken to reflect the characteristics and motivations of individuals.

In this context, deriving from Lumpkin and Dess (1996) and Stevenson and Jarillo (1990), it is argued that the dimensions of entrepreneurial orientation are behavioural

processes that are amenable to development and learning, and are therefore associated with differing levels of educational or learning related contextual factors. Entrepreneurial orientation is considered below.

2.3.2. ENTREPRENEURIAL ORIENTATION

The review of theory extending the conceptions around entrepreneurial orientation and entrepreneurship that were introduced in the introductory chapter was undertaken in the preceding section. At this point, the theoretical relationship between the dimensions of entrepreneurial orientation and the overall entrepreneurial orientation construct is briefly explored. After this, the literature review then extends to an investigation of the dimensions of entrepreneurial orientation. This is followed by a consideration of literature related to earnings and the chapter concludes with a consideration of continuance satisfaction.

According to Naldi et al. (2007:43):

> Entrepreneurial Orientation (EO) is an established construct that has attracted substantial research. Generally this research finds support for positive relationships between all dimensions of EO (including risk taking) and performance. Our findings suggest that such statements may need to be qualified. In some contexts, the relationship may actually be the opposite. This suggests that future EO research would benefit from paying closer attention to organisational context.

If certain dimensions differed in their effect on performance, then the total entrepreneurial orientation construct, as a summed construct comprising these dimensions would only reflect a net effect when tested against performance.

Naldi et al. (2007) argue that "[f]urther, many EO studies use a one-dimensional summated construct rather than a multidimensional one" and that "[o]ur findings suggest that EO may better be viewed as a multidimensional measure where the impact of the dimensions may vary across different organisational contexts". The relationship between the dimensions of entrepreneurial orientation and the total entrepreneurial orientation construct might therefore have necessitated these being tested separately.

Accordingly, in this research, each entrepreneurial orientation dimension is tested separately. The total entrepreneurial orientation construct is also tested. Close attention is paid to context; to the extent that context is expressly tested in terms of its potential to shape entrepreneurial orientation and as to its contribution to entrepreneurial performance. A contingency framework is therefore used.

A consideration of contingency, or taking context into account, is necessary to gauge factors that might have an effect on the entrepreneurial orientation to performance relationship, in that certain environments are less suited to behaviours that might be too entrepreneurial in relation to the environment (Lumpkin and Dess, 1996). According to the perspective of Miller (1983), various different factors as determinants of entrepreneurship need to be contextualised according to the type of enterprise that entrepreneurship is explored in relation to. The specific entrepreneurial orientation dimensions: innovativeness, autonomy, proactiveness, competitive aggressiveness and risk taking propensity are discussed as follows.

2.3.3. INNOVATIVENESS

For Schumpeter (2002: 299), the "purest type of entrepreneur genus" is "the entrepreneur who confines himself most strictly to the characteristic entrepreneurial function, the carrying out of new combinations", in a word: innovation.

According to Lumpkin and Dess (1996: 142) innovativeness reflects a tendency for an enterprise "to engage in and support new ideas, novelty, experimentation, and creative processes that may result in new products, services, or technological processes". Innovation is an important means of pursuing opportunities and so is an important component of an entrepreneurial orientation (Lumpkin and Dess, 1996).

Lumpkin and Dess (1996: 142) credited Schumpeter with "being amongst the first to emphasise the role of innovation in the entrepreneurial process", in the form of a "process of creative destruction, by which wealth was created when existing market structures were disrupted by the introduction of new goods or services" reallocating resources from existing firms to new firms and growth.

According to Maslow (1987) individuals with developed self actualisation needs may desire work that is more creative and innovative. This might be understood to suggest

that the satisfaction of certain lower order needs might allow for the activation of higher order needs (Maslow, 1987), that might conform to a desire for work process more associated with an entrepreneurial orientation: in this case with the specific innovation dimension, for example an entrepreneurial orientation.

In other words, if innovativeness reflects a tendency for an enterprise "to engage in and support new ideas, novelty, experimentation, and creative processes" (Lumpkin and Dess, 1996: 142) and if individuals with self actualisation needs desire work that is more creative and innovative (Maslow, 1987), then innovativeness might be associated with needs at a higher level of the hierarchy of needs as conceived by Maslow (1987).

However, according to Maslow (1987), lower order needs such as physiological and security needs usually need to be satisfied before higher needs such as self actualisation needs are activated. Therefore if earnings were not sufficient in a context such as the informal street trading context to enable the more basic needs to be satisfied, then higher order needs such as self actualisation might not be activated.

This would mean that, to the extent that self actualisation needs such as the desire to manifest creative and innovative behaviours are associated with innovativeness, innovativeness would largely not be expected to be found in a low income context where participants did not earn enough to meet lower order needs. In the case of street traders of foreign origin, if safely and security needs were not being met, perhaps the same effect might be found.

According to these conceptions, innovativeness as a tested dimension of entrepreneurial orientation is predicted to not manifest strongly in the informal sector street trading context. In terms of the testing of this theory it is predicted that few significant associations will be found with innovativeness in this sector.

Lumpkin and Dess (1996: 143) justified the use of innovativeness as a dimension of an entrepreneurial orientation in that it "reflects an important means by which firms pursue new opportunities". This is congruent with the fundamental perspective taken in this study: that the pursuit of opportunity is a conception at the core of

entrepreneurship as argued by Stevenson and Jarillo (1990). An entrepreneurial orientation is therefore considered to represent dimensions associated with learned behaviours reflected in the processes carried out by individuals that are fundamentally important key elements in the pursuit of opportunity.

Innovation can be classified into two types: product market innovation and technological innovation according to Lumpkin and Dess (1996). The most useful classification of innovations (ibid.), is according to the dimensions of product/market innovation and technological innovation, although a certain degree of overlap might exist in reality. Innovation represents a continuum ranging from willingness to try new innovations to a serious commitment to innovation (ibid.).

In enterprises various measures of innovation might exist, such as resources allocated to research and development, in addition to measures such as the number of new product or service introductions and how often changes are introduced in this regard (Lumpkin and Dess, 1996: 143). Certain measures have been used to operationalise innovation as a research variable such as the number of new product or service introductions, and changes in offerings (ibid.). Within the context of the informal sector street trader, this latter conception is utilised to represent a measure of innovativeness in this context.

Certain factors that influence failure rates within populations exist, but innovation is largely not a negative factor in most cases, most innovations being competence enhancing, not competence destroying, according to Aldrich (1990). Most innovations build on existing skills and knowledge, and do not make large areas of production irrelevent (ibid.). If most innovativeness manifested in this informal sector context is competence enhancing, then a positive and significant association between innovativeness and increased earnings would be expected.

The following section considers autonomy and predicted relationships according to the literature reviewed.

2.3.4. AUTONOMY

An "independent spirit" is necessary for entrepreneurship and autonomy refers to independent action in terms of "bringing forth an idea or a vision and carrying it through to completion", including the concept of free and independent action and decisions taken (Lumpkin and Dess, 1996: 140). Entrepreneurs are associated with more of a degree of freedom in combining and organising resources (Bird and Jelinek, 1988).

"A tendency toward independent and autonomous action" is a key component of an entrepreneurial orientation, since intentionality must be exercised (Lumpkin and Dess, 1996: 140). In terms of the review of theory relating to autonomy, the following conceptions relating to autonomy are considered.

Levels of autonomy may differ "as a function of size, management style, or ownership", and "in a firm in which the primary decision maker is the owner/manager, autonomy is implied by the rights of ownership" (Lumpkin and Dess, 1996: 141). The level of autonomy in this research is tested with regard to the individual street trader, who is autonomous to a certain extent by definition, since the enterprise is made up of the individual alone.

In the context of this study, the size of the enterprises surveyed fell into the category of street trader enterprises, which effectively controlled for the type of enterprise and type of ownership. This enabled a measurement of autonomy for each respondent delimited to street trading enterprises.

With reference to entrepreneurship in the context of strategy formulation, two types of autonomy are referred to by theorists (Lumpkin and Dess, 1996). The first type of autonomy refers to decisive decision making where a vision is driven to implementation through individual leadership (ibid.). The second type of autonomy refers to the individual autonomy that enables entrepreneurial activities and decision making at lower levels of an enterprise (ibid.). Both of these types of autonomy are consistent with the concept of entrepreneurial orientation, according to Lumpkin and Dess (1996).

Certain variables have been found to have an influence as causes or moderators of work satisfaction, including "job quality, union membership, autonomy, job tension, flexible working hours" and "realistic expectations, self-esteem, value importance, or sex differences" (Bussing, 2001: 463). Kuratko et al. (1997: 31), in their study of goals that contributed to sustained entrepreneurship, found that "entrepreneurs seek employment autonomy from business ownership", this being a factor related to sustained entrepreneurship. A positive and significant association might therefore be expected between autonomy and continuance satisfaction according to these conceptions.

Certain theories are considered below, in terms of their relevance to autonomy. Maslow's hierarchy of needs theory, Gagne and Deci's self determination theory, theory relating to control as a dimension of autonomy, and theory relating to independence as a component of autonomy are accordingly discussed. The following theories draw from psychology in order to provide an element of completeness as to understanding why autonomy is associated with continuance satisfaction in particular. It is argued that a certain understanding of the conceptual underpinnings of autonomous behaviour is relevant to the discussion of autonomy as an entrepreneurial orientation dimension. This is in spite of this theory extending to conceptions that are beyond the actual testing process.

2.3.4.1. Maslow's Hierarchy of Needs Theory

An individual can manifest autonomous behaviour for a range of reasons. If an enterprise comprises an individual, then certain psychological factors might influence this individual. Maslow's Hierarchy of Needs Theory offers potential insight into how psychological factors might contribute to the manifestation of an entrepreneurial orientation when the enterprise consists entirely of one individual.

Based on Maslow's Hierarchy of Needs Theory it is predicted that autonomy is expected to contribute to earnings and/or continuance satisfaction. According to the functional autonomy of needs, Maslow (1987: 31) states that higher basic needs may become:

> after long gratification, independent both of their more powerful prerequisites and of their own proper satisfactions. For instance, an adult who was love-satisfied in early years becomes more independent than average with regard to safety, belongingness, and love gratification. It is the strong, healthy, autonomous person who is most capable of withstanding loss of love and popularity. But this strength and health have been ordinarily produced in our society by early chronic gratifications of safety, love, belongingness, and esteem needs. Which is to say that these aspects of the person have become functionally autonomous, that is independent of the very gratifications that created them. We prefer to think of the character structure as the most important single instance of functional autonomy in psychology.

According to this, a positive association is suggested in terms of character structure and functional autonomy by Maslow (1987). The implication of this might therefore be that lower order needs are satisfied to a greater extent in autonomous individuals than in less autonomous individuals. However, Maslow (1987) offers this as a conception independently of context.

Psychological strength and health, associated with autonomy by Maslow (1987), might also possibly imply some association with satisfaction. This conception can possibly be inverted; by implication less autonomous individuals are less psychologically strong and healthy. This might further indicate a certain aspect of dysfunctionality, if dysfunctionality can be associated with psychological weakness and lack of health, according to Maslow's (1987) conception.

According to this, dysfunctionality might not be considered conducive to the optimal performance of individuals. This dysfunctionality might be negatively associated with earnings and continuance satisfaction. Conversely, autonomy is predicted to be positively associated with higher earnings and higher levels of continuance satisfaction.

However, Maslow's (1987) conception does not expressly make allowance for context, and it is expected that the influence of context might exert some effect. In terms of including context into Maslow's (1987) conception the predicted positive association between autonomy and continuance satisfaction and earnings might not necessarily be found if contextual factor effects were stronger.

If the influence of context were strong enough in terms of denying the satisfaction of lower order needs, then the positive hypothesised effect of functional autonomy might not be as strong, according to Maslow's (1987) conception of the hierarchy of needs. It would therefore be expected that autonomy would be positively associated with earnings and continuance satisfaction, yet not to the same extent that it would if the context enabled a greater satisfaction of basic needs. It is therefore argued that the influence of a street trading context in which basic needs are not satisfied will have an effect in shaping an entrepreneurial orientation.

According to the above discussion, if a positive association with psychological autonomy can be expected to extend to the autonomous behaviour of an entrepreneur, then a positive association with satisfaction and perhaps earnings might be expected. Another theory concerned with prediction of potential associations between autonomy and earnings and/or with satisfaction is Self Determination Theory.

2.3.4.2. Self Determination Theory

Gagne and Deci (2005: 339) developed three orientations with regard to individual differences. According to these three orientations individuals are regarded as autonomy-oriented where individuals are self-determined and experience social context as "autonomy supportive"; as control oriented where they are controlled and experience social context as controlling; impersonally oriented if they generally display an amotivated orientation (ibid.: 339).

Gagne and Deci (2005: 339) also review studies relating to self determination theory's general causality orientations: the autonomy, control and impersonal orientations, and

find the autonomy orientation to be "positively related to self-actualisation, self esteem, ego development, integration in personality, and satisfying relationships".

According to this, to the extent that higher levels of self-actualisation, self-esteem, ego development, integration in personality, and satisfying relationships might be related to higher levels of satisfaction, an autonomy orientation would be expected to be positively associated with increased levels of continuance satisfaction.

Gagne and Deci (2005) do consider context as being perceived or experienced by individuals according to their individual orientation. According to this, the influence of context might, however, act in the opposite direction, for example, from context toward the individual orientation. In this regard, Gagne and Deci's (2005) consideration of Cognitive Evaluation Theory is briefly considered below.

In cognitive evaluation theory, social-contextual factors that contribute to perceptions of autonomy and competence will also contribute to intrinsic motivation (ibid.: 332). According to this, Gagne and Deci (2005) did consider social-contextual factors with regard to their psychological theory.

Accordingly, an autonomous orientation is expected to be associated positively with continuance satisfaction, yet social-contextual factors are also expected to influence this relationship. In terms of the testing, however, it is expected that more autonomous individuals might be associated with higher levels of continuance satisfaction than less autonomous individuals in the face of common social-contextual factors.

According to Gagne and Deci (2005: 334) certain types of extrinsic motivation might arise from internalisation, whereby individuals "take in values, attitudes, or regulatory structures, such that the external regulation of a behaviour is transformed into an internal regulation and thus no longer requires the presence of an external contingency". The degree to which such internalisation occurs is related to the degree of autonomy (ibid.: 334). This process is considered further as follows.

According to self determination theory, regulations internalised but not accepted as the individual's own, represent introjected regulation, such as those contributing to

feelings of worth (ibid.: 334). In the case of introjected regulation, identified regulation represents autonomous extrinsic motivation whereby individuals "identify with the value of a behavior for their own self-selected goals" and identities, in spite of a lack of intrinsic interest in the activity, as an internal perceived locus of causality exists (ibid.: 334).

In the fullest case of internalisation, integrated regulation, the extrinsic motivation is taken to be fully autonomous or volitional, and involves an integration of aspects of individuals, with "other identifications, interests, and values", behaviour being an "integral part of who they are", emanating from a "sense of self" (ibid.: 335).

The most "developmentally advanced form of extrinsic motivation": integrated regulation shares some qualities with intrinsic motivation yet is fundamentally different in that extrinsic motivation is "instrumentally important for personal goals" whereas intrinsic motivation is associated with an individual being interested in the activity (ibid.: 335).

According to Gagne and Deci (2005), self determination theory is underpinned by the need for competence and the need for autonomy. The need for competence and the need for autonomy underlie the enablement of intrinsic motivation and the process of internalisation, which in addition require a degree of relatedness (ibid.). For Gagne and Deci (2005: 337), self determination theory postulates:

> that when people experience satisfaction of the needs for relatedness and competence with respect to a behaviour, they will tend to internalise its value and regulation, but the degree of satisfaction of the need for autonomy is what distinguishes whether identification or integration, rather than just introjection, will occur. Stated differently, satisfaction of the needs to be connected to others and to be effective in the social world support people's tendency to internalise the values and regulatory processes that are ambient in their world.

However, according to Gagne and Deci (2005:337) this internalisation does not ensure autonomous behaviour. It is necessary for the need for autonomy to be satisfied while the behaviour is internalised for "the value and regulation to be more fully internalised so the subsequent enactment of the behaviour will be autonomous".

Self determination theory therefore proposes a continuum of motivation along the dimension of self determination, extending from amotivation to extrinsic motivation and then to intrinsic motivation (ibid.). In summation, since the autonomy orientation of self determination theory is found to be "positively related to self-actualisation, self esteem, ego development, integration in personality, and satisfying relationships" (ibid.: 339), this is taken to predict a positive association between an individual entrepreneur's measured endowment of autonomy and satisfaction. Although certain positive associations have been predicted between autonomy and continuance satisfaction, theory predicting possible negative associations with autonomy is also considered below.

2.3.4.3. Autonomy and Negative Associations

In terms of potentially negative conceptions around autonomy, research has indicated that individuals with a high need for autonomy are also associated with certain negative behaviours (Porter, Bigley and Steers, 2003: 11). These are discussed as follows.

In terms of Learned Needs Theory, the need for autonomy is defined as "a desire for independence" (Porter et al., 2003: 11). Individuals with a high need for autonomy are associated with a preference for working alone, control over the workplace, and tend to be averse to "excessive rules and procedures" (ibid.: 11). According to Porter et al. (2003), research shows that performance for individuals with a high level of need for autonomy is contingent on participation in the determination of tasks. The response of individuals with a high need for autonomy to external pressures for conformity in terms of group norms has also been shown to not be positive (ibid.).

Thus, individuals with a need for autonomy might not necessarily be associated with certain positive associations in certain contexts. In terms of gaining a more complete understanding of the relationships around autonomy, the following section extends the consideration of autonomy to its constituent components: independence and autonomy (Davidsson, 1989).

2.3.4.4. Control as a dimension of Autonomy

In this section, certain theory relating to the control dimension of autonomy is also reviewed in terms of the predicted associations with autonomy. Davidsson (1989) conceptualises autonomy as a core component of entrepreneurship, this having two contributing elements: control and independence. The expectation of a change in control is taken to represent a change in the "ability to survey and control operations" (ibid.: 216).

In terms of the relationship of work tasks, control, independence and stability to growth willingness, Davidsson (1989: 218) found control and independence to be the variables that displayed the strongest relationship. Davidsson (1989) found independence to be a motivating factor, yet a fear of loss of control was found to be a de-motivating factor. Davidsson (1989) also found that the expectation of a heavier work load was a de-motivating factor.

Expected outcomes can be "important determinants" of willingness to perform a behaviour, "as suggested by expectancy theory" (ibid.: 218). In terms of these findings it is significant that Davidsson (1989) found asymmetric effects with regard to expected outcomes and growth willingness in that an expected loss of control was associated with a deterrent effect yet the opportunity for greater control was not a motivating factor.

However, the opposite relationship to that of control: a motivating effect, was found for independence as a variable by Davidsson (1989). If independence was found to be a motivating effect in terms of growth willingness, then independence as a component of autonomy would be expected to be positively and significantly associated with continuance satisfaction to the extent that growth willingness can be expected to be related to continuance in an enterprise.

A high preoccupation with control is associated with entrepreneurs and this might also entail challenges in terms of being able to take direction from others and direct others, which may influence interpersonal relations according to Kets de Vries (1985). This might also constrain the potential of an enterprise if the degree of control needs to be

lessened to enable growth to occur as later stages of development might need a different degree of control (ibid.).

The level of control associated with changes in the degree of development of an enterprise might also have a bearing on the work tasks as a venture becomes more developed (ibid.). Therefore a high degree of attention to detail might become a problem if the entrepreneur has to let go to some extent as growth occurs and there is a change in work tasks (ibid.).

Hence, control might be a factor with an effect related to the development of enterprises and an effect in terms of the work tasks of an entrepreneur. These potentially negative associations, however, are perhaps not as relevant with regard to owner managed individual street trading enterprises due to the limited developmental stage of these enterprises. Although considered in terms of autonomy, Gagne and Deci's self-determination theory is again considered in connection with their conception of a control orientation. This is undertaken to gain a further understanding of control and its potential associations as a component of autonomy (Davidsson, 1989).

According to their review of studies relating to self determination theory's general causality orientations, Gagne and Deci (2005: 339) found the control orientation to be associated with "public self-consciousness, the Type A behaviour pattern, defensive functioning, and placing high importance on pay and other extrinsic motivators". In contrast to this, an impersonal orientation, in terms of self determination theory's general causality orientations, is associated with an "external locus of control (i.e., the belief that one can not control outcomes) and to self-derogation and depression" according to Gagne and Deci (2005: 339).

In terms of the differentiation between independence and control as components of autonomy (Davidsson, 1989), this differentiation is also made by Gagne and Deci (2005). Gagne and Deci's (2005) conceived association between their control orientation construct and a high importance being placed on pay and extrinsic motivators might predict that earnings might be associated with some aspect of autonomy to the extent that control forms a component of autonomy.

However, due to the contradictory findings of Davidsson (1989) with regard to control and independence as considered above, the predicted effects of control as a component of autonomy might differ. To gain a further understanding of control as to its predicted influence on other factors, further theory related to control is considered as follows.

A psychological theory related to entrepreneurship is locus of control theory (Shaver and Scott, 1991). According to locus of control theory individuals that perceive that they have control over the outcome of events in the face of the complexity have an internal locus of control (ibid.). Individuals with an internal locus of control as a belief may be associated with higher achievement (ibid.).

The opposite orientation to that of an internal locus of control is an external locus of control (Shaver and Scott, 1991). Individuals with an external locus of control are associated with the belief that surrounding factors external to these individuals predominantly dictate the outcome of events in their lives, according to Shaver and Scott (1991). An autonomous street trader would, according to this understanding, seek situations where control over situations could be maximised in the context of potential achievement as a result of individually directed effort (Brockhaus and Horwitz, 1986).

Consequently, to the degree that an internal locus of control is a component of autonomy, in terms of the testing this would predict a positive association between autonomy and increased achievement. If predicted increased achievement is extended to increased earnings, higher earnings would be expected to be positively associated with higher levels of autonomy.

This potential for achievement for an individual with an internal locus of control may also exist for an employee or a manager (Brockhaus and Horwitz, 1986). This supports Stevenson and Jarillo's (1990) conception of entrepreneurship as related to how entrepreneurial behaviour may manifest. Whether the individual is operating an owned enterprise or works as an employee, the individual can behave in the same way as an enterprise can behave: with a certain entrepreneurial orientation shaped by the

individual context. This orientation is considered to be a potentially learned orientation, and the degree to which it is learned to match the context, it is argued, is related to entrepreneurial performance. In terms of learned behaviours, the consideration of learned helplessness is undertaken as follows.

The behavioural effects of losing control also relate to learned helplessness and psychological reactance: where a loss of control or freedom to choose can create a condition of learned helplessness as an individual gives up (Shaver and Scott, 1991). This might be a condition associated with survivalist traders.

If this learned helplessness is reflected in a lower level of autonomy, then it would be expected that this lower level of autonomy would be associated with lower levels of continuance satisfaction. To the extent that these traders might have "given up" according to Shaver and Scott's (1991) conception, this lower tested level of autonomy might be expected to be associated with lower earnings, because giving up might mean less effort is allocated to the enterprise.

For intrinsic interest in an entrepreneurial activity to be maintained, some degree of internally attributed initial success has to be experienced; this may result from the individual's perceived control and freedom to make choices (Shaver and Scott, 1991). Accordingly, autonomy might contribute to intrinsic motivation. Therefore, if autonomy contributes to intrinsic motivation, a positive association between autonomy and continuance satisfaction might be expected along this dimension.

Control over the content of work might entail the choice of enriched activities, these associated with motivator factors as understood by Herzberg (1968), potentially contingent on the degree to which the work tasks of the entrepreneur can be chosen. Therefore, to the extent that the entrepreneur is able to choose satisfying and enriched activities, it might be expected that the entrepreneur will be more satisfied with continuing in an entrepreneurial venture.

This effect would be expected in terms of the testing of these factors to the extent that a higher level of autonomy does transmit an effect toward actually being able to choose the more vertically loaded or enriched work tasks suggested by Herzberg

(1968). If street trading does not offer much opportunity for enriched work tasks then this effect might not be captured, along this dimension of autonomy.

Bussing, Bissels, Fuchs and Perrar (1999: 1005) argue that the perceived controllability of one's work situation serves as a primary means to regulate the person-work interaction, and therefore "influences the development of forms of work satisfaction". According to the model of Bussing et al. (1999), the forms of work satisfaction may be differentiated according to the controllability of the work situation (Bussing et al., 1999).

Bussing et al. (1999) propose certain satisfaction constructs such as progressive satisfaction, stabilised satisfaction and constructive dissatisfaction which are associated with decreasing degrees of controllability of the work situation. Other forms of satisfaction can also exist associated with low controllability of the work situation (Bussing et al., 1999). Bussing et al. (1999) found the degree to which controllability of the work situation existed contributed positively to satisfaction. According to these theoretical conceptions, a positive and significant association between autonomy and continuance satisfaction is predicted, to the extent that autonomy is associated with an increased level of controllability of the work situation.

The level of control associated with an entrepreneur might extend to control over the events of the future, or a certain control orientation relating to the future (Bird, 1988). Bird (1988: 445) argues that entrepreneurs with "a higher need for control (greater perceptions of internal control) experience greater temporal tension". This means that as "the farther into the future that one has vision, the greater the uncertainty and the greater the temporal tension as one attempts to draw that future into the present" (ibid.: 445). To the extent that greater perceptions of internal control are a component of autonomy, autonomous individuals might then be more future oriented. Such a need to be connected with the future might be related to a more comprehensive consideration of the future in terms of an enterprise. This might in turn be expected to have some possible effect on enterprise performance. A tenuous yet positive association might then be expected between autonomy and earnings as a result of this possible effect.

In terms of the theories reviewed above, it is reasoned that most of these support the argument that entrepreneurial orientation, along the dimension of autonomy, is positively associated with entrepreneurial performance, along the dimension of continuance satisfaction. According to Davidsson's (1989) conception of independence being a component of autonomy, independence is considered as follows.

2.3.4.5. Independence as a component of Autonomy

Entrepreneurs are associated with an internal locus of control and individuals with an internal locus of control are self reliant and would seek out independence and autonomy (Shapero, 1975). Yet some entrepreneurs have been associated with difficulties regarding authority relations (Kets de Vries, 1985), which might have an effect in terms of these individuals being suited to the independence experienced by owner managers.

Kets de Vries (1985) argues that some entrepreneurs might be motivated by a preference for creating their own work environment, due to an element of distrust or a drive for recognition, these possibly contributing to a preference for independence. This is often borne out in that problems have been noted in some cases when entrepreneurial ventures are acquired and the entrepreneur has been retained as an employee (ibid.). Problems in terms of adjustment have been associated with these entrepreneurs losing their autonomy within the confines of the enterprise (ibid.). If independence were to be driven by some measure of distrust then this might not necessarily be predicted to reveal a positive and significant association between autonomy and increased earnings. According to this, the expected effect might predict a potentially negative association along this specific dimension.

An individual with a desire for independence might also be attracted to becoming an entrepreneur (Shapero, 1975). The experience of working for oneself, however caused, by push or pull factors, might also result in a desire for independence and hence for entrepreneurship (ibid.). In terms of this the act of being an entrepreneur can shape an entrepreneurial orientation. Therefore it is argued that autonomy is shaped

by exposure to the context of street trading for some individuals. However, this might not be a universal effect and may not extend to all entrepreneurs, according to the conception offered by Shapero (1975). It is thus predicted that some contextual factors would contribute to the shaping of autonomy within the street trading context.

Independence can also be influenced by an element of displacement, as the push factor of a negative experience such as job loss might contribute to self employment on the individual level (ibid.). Societal displacement might also contribute to self employment: as in the case of immigrant groups that have been associated with higher levels of entrepreneurship and also the practice of independent professions (ibid.). It is predicted in terms of this that displacement will be a major contributor to informal sector entrepreneurship in the Johannesburg street trading context to the extent that this population is comprised of immigrant groups or other displaced persons.

The independence from authority relationships for the entrepreneur might entail choices regarding work content that were regarded by Herzberg (1968) as important for motivation and satisfaction. According to Herzberg's Motivation-Hygiene Theory "the factors leading to job satisfaction, when improved (motivators), are not necessarily the same as those leading to job dissatisfaction when negative changes occur (hygiene factors)" (ibid.).

If independence was associated with some greater access to motivator factors such as a sense of achievement, recognition, or the challenging nature of the job (ibid.), then autonomy would be expected to be associated with higher levels of continuance satisfaction.

According to Herzberg's (1968) conception, if these motivator factors were experienced by certain individual street traders at the same time as these traders were exposed to the negative experience of hygiene factors, such as poor working conditions and low earnings, then the motivator effects would have a stronger influence than the hygiene factors. To the extent that autonomy might enable the effect of motivator effects, autonomy would then be expected to be positively associated with continuance satisfaction.

Some factors may not motivate a behaviour "even if positive outcomes" of the behaviour are expected, whereas "expected negative changes for the same factors may reduce" the willingness to perform a behaviour (Davidsson, 1989: 214). With regard to the relationship between expected outcomes and growth willingness, an expected loss of independence was associated with no deterrent effect; however, the opportunity for greater independence was found to be a motivating factor (ibid.).

According to Davidsson (1989: 223), at a very low level of small enterprise, "growth may be expected to have a positive effect as it reduces external dependence on a small number of customers, suppliers and lenders – an effect that is greater than the negative effect of the accompanying internal control loss". However, as the enterprise becomes larger, "the positive effect of increased independence weakens and may be offset by an increased fear of control loss" and the overall effect on autonomy may become negative (ibid.: 223). At the level of the informal street trader, however, the size of the enterprise to some extent is controlled for by the delimitation of the study to owner-managed individual street trading ventures.

In terms of independence, Peters and Waterman (1982:201) stressed the importance of autonomy for entrepreneurship because enterprises were found to be "creating almost radical decentralisation and autonomy" in order to "breed the entrepreneurial spirit", and autonomous "champions" were found to be contributing to entrepreneurship in excellent organisations.

In summation, independent and autonomous behaviour is an important element of an entrepreneurial orientation, an element that includes intentionality (Lumpkin and Dess, 1996). Entrepreneurial behaviour can require independent and autonomous action to overcome constraints extending to bureaucracy and conventionality in certain contexts (ibid.). The characteristic of independence is a necessary condition for the formation and furtherment of new ventures and the development of an idea: the ability and will to take up opportunities in terms of self direction (ibid).

In the sections above, certain theories were selectively reviewed in terms of insight offered into the underlying processes that contribute to the manifestation of autonomy by the individual. These theories included psychological theories. The dimensions of

autonomy as conceived by Davidsson (1989): control and independence, were considered in terms of literature reviewed, particularly predicted associations relating to the larger research questions. Literature relating to the following entrepreneurial orientation dimension: proactiveness, is considered and reviewed as follows.

2.3.5. PROACTIVENESS

Proactiveness is related to initiative and first-mover advantages, and to "taking initiative by anticipating and pursuing new opportunities" (Lumpkin and Dess, 1996: 146). Akin to a dictionary definition of "acting in anticipation of future problems, needs, or changes", Lumpkin and Dess (ibid.: 146) argue that proactiveness may be "crucial to an entrepreneurial orientation because it suggests a forward-looking perspective that is accompanied by innovative" and entrepreneurial activity.

In terms of this, proactiveness is considered according to range of conceptions, and the implications of these according to predicted associations are outlined.

Proactiveness is associated with leadership, and not following, as a proactive enterprise "has the will and foresight to seize new opportunities, even if it is not always the first to do so", according to Lumpkin and Dess (1996: 147). However, being a first entrant into a market is not necessarily a guarantee of a durable competitive pioneer advantage, according to Cahill (1996), but is associated with mixed results. According to the conception of Cahill (1996), increased earnings might not necessarily be predictably associated with higher levels of proactiveness. This would depend on whether this specific context is appropriate to proactiveness as a dimension of entrepreneurial orientation (Lumpkin and Dess, 1996).

Proactiveness, for Lumpkin and Dess (1996), is considered to differ from competitive aggressiveness. Proactiveness relates to market opportunity in entrepreneurship by "seizing initiative and acting opportunistically in order to shape the environment, that is, to influence trends and, perhaps, even to create demand" (ibid.: 147). Competitive aggressiveness, however, relates to market opportunity in entrepreneurship related to competitors (ibid.). In terms of this, proactiveness and competitive aggressiveness are

only related in that both relate to the market yet proactiveness is regarded as related to meeting demand, whereas competitive aggressiveness is regarded as relating to competing for demand (ibid. 147).

In terms of a specific conception of proactiveness, Lumpkin and Dess (ibid. 147) suggest a conceptualisation of proactiveness as a continuum, whereby the opposite extreme of proactiveness is regarded as passiveness rather than reactiveness. According to this, passiveness is the "indifference or an inability to seize opportunities or lead in the marketplace" (ibid.: 147). Reactiveness, however, is associated with a response to competitors, and is therefore different from passiveness (ibid.). Passiveness is therefore expected to be associated with lower gross earnings due to there being less commitment on the part of a less entrepreneurial, less proactive individual to the development of market share. The development of market share is therefore considered to represent proactiveness in this work.

The proactiveness dimension of entrepreneurial orientation most closely resembles Miles and Snow's prospector typology of the entrepreneur (Miles and Snow, 1978) according to Lumpkin and Dess (1996), in that finding and exploiting product and market opportunities are crucial to a conceptualisation of proactiveness. Following this line of reasoning, it is predicted that proactiveness will to some degree be positively and significantly associated with increased earnings.

High levels of entrepreneurial orientation support opportunity recognition and opportunity creation according to Jantunen et al. (2005). Therefore, the reconfiguration of an asset base to match the requirements of changing environments should enhance performance; yet being active may not necessarily imply efficiency (Jantunen et al., 2005). An interpretation could be that proactive changes might not necessarily be efficient, or that earnings might not always be improved through proactive reconfiguration of resources if efficiency is not increased.

In certain contexts, therefore, proactiveness might not be associated with increased earnings if the specific context does not allow for proactiveness to have an effect on efficiency. According to this, a proactive orientation might not necessarily always be associated with increased earnings or performance. Proactiveness is therefore not

considered to be a sufficient condition in a specific context for an increase in earnings to occur. Proactiveness contributes to performance differently according to context (Lumpkin and Dess, 1996). This conception is supported by Jantunen et al. (2005), who argue that if efficiency is not improved then proactiveness will not contribute to performance, depending on the extent that the context might or might not offer the opportunity for an increase in efficiency associated with proactive behaviour.

If proactiveness (Lumpkin and Dess, 1996: 147) is associated with "seizing initiative and acting opportunistically in order to shape the environment, that is, to influence trends" and increase demand, then growth willingness is considered to represent the intent of proactiveness. Growth willingness is a measure of the degree to which the intention to increase demand exists, and growth willingness is therefore taken to represent a measure of proactiveness.

Growth willingness for an entrepreneur may be influenced by education directly and indirectly: directly because individuals "with higher education are likely to have higher aspirations in general, and indirectly through more self-confidence in managing growth and a better ability to spot growth opportunities" (Davidsson, 1989: 224). A positive and significant association between educational contextual factors and proactiveness is predicted in terms of this.

A factor might motivate a behaviour, such as growth willingness, if the behaviour "is expected to bring about a positive change, whereas negative expectations concerning the same factor may have little or no influence on growth willingness" (Davidsson, 1989: 213). In terms of this, any factor that is perceived to reward behaviour associated with street trading, for the individual street trader, would be expected increase the manifestation of that behaviour. In this way, context is expected to shape entrepreneurial orientation, and proactiveness.

If proactiveness were not perceived to be rewarded in this context then it might be expected that lower levels of proactiveness would be manifested in the informal sector context. This would also indicate that the subjective expectations of individual street traders also account for some degree of variance measured in terms of the study. However, only quantitatively measured factors are tested. Further research might offer

valuable insight into the dimensions of entrepreneurial orientation and the subjective perceptions of entrepreneurial orientation for informal street traders.

Some enterprises will have better chances of survival at either the earlier stages of population density or at later stages, the former associated with fast and first mover advantages, and the latter with efficiency as they also out-compete the former as the population density increases (Aldrich, 1990). According to this, as population density increases, the potential positive effect of proactiveness is predicted to decrease relative to the effect of efficiency.

According to this conception of Adrich (1990), if proactiveness is not accompanied by efficiency effects, then there might not be a positive association between proactiveness and performance at later stages of population density. A prediction, therefore, is that proactiveness might not necessarily be associated with higher levels of earnings, to the extent that the informal street trading context might represent a population in the later stages of population density.

If, within populations in the later stage of population density, the importance of efficiency is predicted to rise and efficiency oriented enterprises replace less efficient enterprises (Aldrich, 1990), then the entrepreneurial orientation dimensions found to be associated with higher earnings might also be associated with higher levels of efficiency. If proactiveness is not associated with higher earnings, it might consequently not be efficient in this context.

For street trading contexts that are at a later stage of population density, lower relative scores of proactiveness might be expected to be found in more experienced street traders if proactiveness was inappropriate in terms of earnings in that context, and if entrepreneurial orientation can be learned. Experience might represent the effect of learning, to the extent that no other factors might contribute effects that mitigate against this effect.

This might also predict that an effect in terms of order of capture might exist in terms of the capture of proactiveness, if some street blocks are captured with relatively higher levels of population density than others, and if Aldrich's (1990) conception of

different stages of population density is to be found with regard to different city blocks.

In the above review, certain conceptions were considered in terms of their predicted associations between proactiveness and other tested factors. According to theory considered above such as that offered by Aldrich (1990), proactiveness would be expected to be associated with higher earnings at earlier stages of population density but not necessarily at later stages of population density. Some optimum level of proactiveness as contributing to performance might be expected to exist in terms of a specific context (Coulthard, 2007; Lumpkin and Dess, 1996). Proactiveness is predicted to be positively associated with education related factors (Davidsson, 1989), to the extent that growth willingness is taken to be a measure of proactiveness. Education related factors are expected to shape proactiveness: a positive association between proactiveness and education related factors is expected. These are a sample of the reviewed associations undertaken in the above section. The entrepreneurial orientation dimension of competitive aggressiveness is considered as follows.

2.3.6. COMPETITIVE AGGRESSIVENESS

Competitive aggressiveness, for Lumpkin and Dess (1996: 148), "refers to a firm's propensity to directly and intensely challenge its competitors to achieve entry or improve position": to outperform industry rivals in the marketplace, this characterised by responsiveness in terms of confrontation or reactive action. Competitive aggressiveness or competitive aggression are terms used interchangeably in this work.

Competitive aggression as a dimension of an entrepreneurial orientation refers to "the type of intensity and head-to-head posturing that new entrants often need to compete with existing rivals" (ibid.: 139). In contrast to proactiveness, which relates to market opportunities, competitive aggressiveness (ibid.: 147) refers to how enterprises "relate to competitors" and "respond to trends and demand that already exist in the marketplace" with regard to competitors.

The creation of new demand is considered to not fall within the ambit of competitive aggressiveness, but to be associated with proactiveness (ibid.). Therefore, for the purposes of this study, creation of new demand is considered a measure of proactiveness and not of competitive aggressiveness.

Competitive aggression, as a component of an entrepreneurial orientation, also "reflects a willingness to be unconventional rather than rely on traditional methods of competing" (ibid.: 149), which might extend to changing contexts, how things are done, or expending more resources than the competition. In the following consideration of the literature relating to competitive aggressiveness, different conceptions are considered in terms of their expected or predicted associations. These associations are derived with reference to the potential shaping of competitive aggressiveness by contextual factors, or predicted associations between competitive aggressiveness and entrepreneurial performance.

Competitive aggressiveness represents a process of entrepreneurial behaviour for Lumpkin and Dess (1996). With regard to trait psychology, Maslow (1987: 29) states that:

> it might be possible (theoretically if not practically) to analyse a single act of an individual and see in it the expression of physiological needs, safety needs, love needs, esteem needs, and self-actualisation. This contrasts sharply with the more naïve brand of trait psychology in which one trait or one motive accounts for a certain kind of act─for example, an aggressive act is traced solely to a trait of aggressiveness.

Unlike aggressiveness as considered from the perspective of trait theory, competitive aggressiveness is not taken to represent a trait in this work, but a manifestation of entrepreneurial behaviour: a behavioural orientation. Competitive aggressiveness as a behavioural orientation can be underpinned by a range of underlying psychological factors that may contribute the underlying "why" (Stevenson and Jarillo, 1990). Certain theorists have offered different conceptions of entrepreneurial orientation. An example of this is the original conception of entrepreneurial orientation as developed by Miller (1983).

Lumpkin and Dess (1996: 149) stress that competitive aggressiveness is an important dimension of an entrepreneurial orientation. Miller (1983), however, considers only proactiveness, innovativeness, and risk taking as the dimensions of an entrepreneurial orientation. Lumpkin and Dess (1996) developed the construct further from Miller's (1983) original theory by incorporating competitive aggressiveness and autonomy. In terms of the original theory of entrepreneurial orientation:

> An entrepreneurial firm is one that engages in product-market innovation, undertakes somewhat risky ventures, and is first to come up with "proactive" innovations, beating competitors to the punch. A nonentrepreneurial firm is one that innovates very little, is highly risk averse, and imitates the moves of competitors instead of leading the way. We can tentatively view entrepreneurship as a composite weighting of these three variables. (Miller 1983:771).

Covin and Covin (1990) view competitive aggressiveness of an enterprise to be reflected in attempts to dominate competitors by proactive and innovative measures; by initiating actions that competitors then respond to; by being the first to introduce new techniques or products; and by demonstrating an extremely competitive posture.

In terms of the discourse offered by Miller (1983), the concept of beating a competitor to the punch can be taken to represent something more comprehensive than simple proactivity, to be more in line with the concept of competitive aggression according to Lumpkin and Dess (1996). Lumpkin and Dess (1996) argue that this dimension captures an element of the intensity involved in entrepreneurial competition.

Increased competitive hostility may be associated with aggressive behaviour in high performing enterprises yet may be associated with passive behaviour in low performing enterprises according to Covin and Covin (1990). Higher levels of competitive aggressiveness would therefore be expected to be associated with higher performance in environments of increased competitive hostility.

However, the range of enterprises considered by Covin and Covin (1990) extends far beyond the informal sector street trading venture. Therefore it is with caution that this relationship is interpreted. However, larger enterprises are considered in order to provide insight into the differentiation of the effects of entrepreneurial behaviour. It

might seem more reasonable to consider the informal enterprise to fall into a smaller range. It is possible that these informal street trading enterprises all represent low performing enterprises if the range of enterprises considered by Covin and Covin (1990) extends to large firms. Therefore the predicted association of higher performance and higher levels of competitive aggressiveness may not necessarily be found in the specific context of street trading.

For low performing enterprises, however, whether this passivity may be a response to the low level of performance of the enterprise itself, or a cause of it is unclear according to Covin and Covin (1990). This conception would have implications in terms of the potential shaping of competitive aggressiveness by earnings if a low level of competitive aggressiveness was the result of lower performance. If this were so, a significant association would be expected to be found between earnings or continuance satisfaction as predictors of competitive aggressiveness.

However, Covin and Covin (1990) argue that a passive competitive orientation might place lower levels of constraints upon resources than that of an aggressive competitive orientation. According to this a passive competitive orientation might be more appropriate in certain contexts. According to Covin and Covin's (1990) conception of the possible effect of competitive aggressiveness on resource utilisation, a positive association between competitive aggressiveness and performance is not necessarily expected if competitive aggressiveness is associated with a sub-optimal utilisation of resources in an environment of increased competitive hostility.

If this effect as conceived by Covin and Covin (1990) does occur in the street trading context, and if a lower level of competitive aggressiveness does entail more effective resource utilisation, then this lower level of competitive aggressiveness would represent a level of competitive aggressiveness more suited to this context.

It is argued that entrepreneurial orientation can be learned, according to the "how" of entrepreneurship (Stevenson and Jarillo, 1990). It is argued that an entrepreneur can learn behaviours, and can learn to manifest a level of entrepreneurial orientation more suited to a specific context. If this were the case, that a lower level of competitive

aggressiveness has been learned, then a negative and significant association between competitive aggressiveness and experience is predicted.

However, this might not be the only relationship captured in terms of the testing. It is reasonably possible that if individuals with higher levels of competitive aggressiveness did leave the sector, for example, in high enough numbers to represent an effect across the population of traders, then this would have the effect of being captured as a negative association between experience and competitive aggressiveness.

Therefore in the absence of theory relating to the exodus of street traders with high levels of competitive aggressiveness from the street trading context, it is argued in terms of this work that competitive aggressiveness, in terms of its level, is learned. In terms of this fundamental argument, it was predicted that experience would be found to be negatively and significantly associated, as a predictor, with competitive aggressiveness.

From the population ecology perspective, populations also have an effect on each other, with attendant implications for enterprise survival or failure within these populations, there being six possible interactions between populations ranging from negative effects to positive effects, these including symbiosis, or win-win scenarios (Aldrich, 1990).

Certain groups within the informal street trading context might be considered to be populations with regard to other groups if these groups were large enough. The effects of these groups in terms of their effects on each other, and specifically according to competitive aggressiveness is considered in the following chapter in greater detail, in terms of the contextual factors that might represent differences between groups or populations. Factors representing large groups within the informal sector street trading context tested in this work included foreign origin and local origin. These factors captured traders of foreign origin, and traders that were not from Johannesburg.

Certain groups of people have been associated with a stronger orientation toward entrepreneurship than other groups (Shapero and Sokol, 1982), which may be a result of historic, regional and ethnic factors in addition to economic factors. For Hagan (1962) the interaction of group cultural values underpins a group, and in terms of certain contexts, there may be a degree of rejection of the values of other perceived groups. An example of this is the rejection of western individualistic values and non collective authority relations, and a negative attitude toward entrepreneurship by certain cultures (ibid.).

Many examples exist historically of cultural and social environments that were hostile to entrepreneurship (Shapero and Sokol, 1982). This might therefore have implications for the testing of competitive aggressiveness in the informal street trading context. There may be a degree of overt competition associated with this behaviour in terms of competing for market share at the expense of others, which might run contrary to individual and group values.

According to these theoretical perspectives, a significant difference would be predicted between variables that capture certain dimensions of different cultural origin and competitive aggressiveness. It was predicted that a significant association between South African origin and competitive aggressiveness would be found in terms of the testing of this theory. This effect was expected to the extent that this variable would capture differences in culture.

In this section, theory was explored in order to lay a theoretical foundation with respect to competitive aggressiveness as a component of entrepreneurial orientation. Theory was considered in terms of the testing of theory relating competitive aggressiveness with contextual factors and with entrepreneurial performance. Risk taking propensity as a dimension of entrepreneurial orientation is considered as follows.

2.3.7. RISK TAKING PROPENSITY

Methods or styles of management associated with risk taking are an indication of an entrepreneurial orientation (Lumpkin and Dess, 1996). In terms of the owner-manager being the unit of analysis in terms of the manifestation of entrepreneurial orientation in the street trader enterprise, cognitive orientation in terms of entrepreneurial behaviour is considered with regard to risk taking propensity.

A cognitive orientation that minimises conceptions of regret and reflection may be displayed by entrepreneurs more so than non entrepreneurial individuals, according to Baron (1999). The psychological theories of locus of control and need for achievement both theoretically endow the entrepreneur with a moderate degree of risk tolerance, yet the perceived risk from the vantage point of a confident individual might be lower than the degree of risk perceived by others (Brockhaus and Horwitz, 1986).

The psychological theories of locus of control and need for achievement were associated with a moderate level of risk taking propensity, according to Brockhaus and Horwitz (1986), and an internal locus of control and a high need for achievement have been associated with higher performance by individuals. This might predict that a moderate level of risk taking propensity would be associated with higher levels of performance. However, in terms of different contexts, the effects of the dimensions of entrepreneurial orientation, including risk taking propensity, were expected to differ in terms of their effect on performance according to the specific context (Lumpkin and Dess, 1996).

Entrepreneurs might have a different perception of risk than distanced others that take a rational perspective on scenarios (Shapero, 1975). Risk aversion will tend to be displayed in “choices involving sure gains” and “risk seeking in choices involving sure losses” (Kahneman and Tversky, 1979: 263). These are examples of subjective aspects relating to the nature of risk taking propensity, and the type of variance that might be manifested in terms of the study of risk taking propensity.

Lumpkin and Dess (1996: 163) suggest that future research might demonstrate that "risk taking and autonomy are needed for all types of new entry [entrepreneurship], but that innovativeness, proactiveness, and competitive aggressiveness are present only under certain conditions". This would predict that, within the Johannesburg informal sector context, some minimum level of effect within any entrepreneurial context would be expected to exist with regard to risk taking and autonomy. In terms of the development of a theoretical foundation around the conception of entrepreneurial orientation, the dimension of risk taking propensity is considered further as follows.

According to Lumpkin and Dess (1996: 164) a problem suggested by prior research is that entrepreneurs simply don't "see" the risks that others see, or, alternatively, they see non-entrepreneurial behaviour as "far more risky". All activities might be understood to entail a degree of risk, ranging from low risk behaviour such as investing in bank deposits to high risk behaviour such as engaging heavy financial leverage (Lumpkin and Dess, 1996). A high level of financial leverage, however, may not be enough in itself to classify an enterprise as entrepreneurial along the dimension of risk taking (Miller, 1983). Risk is also experienced in terms of innovatively expanding into untried technologies or entering new markets with new products; effectively, risk is a fundamental aspect of entrepreneurship (Lumpkin and Dess, 1996).

The analysis of how risk is operationalised in research reveals a differing use of terms such as risk propensity, risk perceptions, risk preferences and different understandings of risk (Lumpkin and Dess: 1996). According to Lumpkin and Dess (1996) risk taking propensity is a behavioural dimension of an entrepreneurial orientation along which opportunity is pursued.

Brockhaus (1980: 512) defined risk taking propensity as "the perceived probability of receiving the rewards associated with success of a proposed situation, which is required by an individual before he will subject himself to the consequences associated with failure, the alternative situation providing less reward as well as less severe consequences than the proposed situation".

Lumpkin and Dess (1996) relate the origins of the conception of the bearing of personal risk to the early entrepreneurial literature that regarded entrepreneurs as individuals that worked for themselves, which is of relevance to the informal street trader. Lumpkin and Dess (1996) recognise Cantillon as the first theorist to introduce the term entrepreneurship, and the contribution of the uncertainty and riskiness of self-employment as the differentiating factor between being a hired employee and being self-employed. There is thus an established precedent for the consideration of risk taking behaviour within the ambit of entrepreneurship.

Lumpkin and Dess (1996: 145) stress the inability of researchers "to find consistent patterns when investigating risk taking associated with entrepreneurship", in that "numerous investigators have reported inconsistencies" with regard to risk-taking propensity. In terms of differing conceptions relating to risk taking propensity, the following theory offered by certain theorists is explored.

Entrepreneurial risk can be divided into components, these including the "general risk taking propensity of a potential entrepreneur" and the perceived probability of failure, with the first accessible to research across individuals due to the differences in individual venture probabilities for success and failure (Brockhaus, 1980: 513). General risk taking propensity can therefore be used for comparisons in research (Brockhaus, 1980: 513).

A certain seminal perspective that exists within entrepreneurial theory might be considered as controversial with regard to the testing of risk taking propensity. This is the conception offered by Schumpeter (2002) whereby the bearing of risk is not associated with entrepreneurship. Schumpeter (2002: 299) argues that:

> [t]he entrepreneur is never the risk bearer. In our example this is quite clear. The one who gives credit comes to grief if the undertaking fails. For although any property possessed by the entrepreneur may be liable, yet such possession of wealth is not essential, even though advantageous. But even if the entrepreneur finances himself out of former profits, or if he contributes the means of production belonging to his "static" business, the risk falls on him as a capitalist or as a possessor of goods, not as an entrepreneur. Risk-taking is in no case an element of the entrepreneurial function. Even though he may risk his reputation, the direct economic responsibility of failure never falls on him.

However, in terms of the complexity inherent in the manifestation of entrepreneurial behaviour, risk taking propensity is taken to represent one of the five dimensions that make up an entrepreneurial orientation (Lumpkin and Dess, 1996). It is argued that the use of the entrepreneurial orientation construct has the potential to reconcile certain diverse conceptions around entrepreneurship such as those of Schumpeter (2002) and of Brockhaus (1980) who finds no difference between managers and entrepreneurs according to risk taking propensity.

Another seminal conception, which might at one time have been considered controversial, is that "general risk taking propensity does not distinguish entrepreneurs from nonentrepreneurs" (Brockhaus, 1980: 519).

Brockhaus (1980) examines risk taking propensity through the comparison of entrepreneurs that had in the previous three month period become owner-managers, with a group of employed managers and data taken to represent the general population, and found no significant differences.

In terms of this study, however, Stephenson and Jarillo's (1990) conception of entrepreneurial behaviour as the "how" of entrepreneurship that can be learned and is also manifested by individuals in employment or indeed by enterprises makes this differentiation unnecessary in this context. Entrepreneurial orientation reconciles diverse perspectives through positing the entrepreneurial orientation dimensions as entrepreneurial behaviour used to pursue opportunity (Lumpkin and Dess, 1996).

Brockhaus (1980: 519) found 64 percent of the entrepreneurs tested to have a moderate degree of risk propensity, yet argued that "approximately 68 percent of the general population also would be expected to have scores in this range".

However, in this context, if 68 percent of the general population were found to have a moderate risk propensity and entrepreneurs were found to be indistinguishable from the general population in this regard, then this might only suggest that 68 percent of the general population might be considered as meeting this criterion for entrepreneurial orientation, if they were to engage in entrepreneurial activity.

This finding might therefore also suggest that entrepreneurial potential, at least at the time of Brockhaus' (1980) study, might have been more widespread amongst the general population, regardless of the actual rate of participation of the general population in entrepreneurial activities. As evident from the preceding consideration of definitions and understandings of entrepreneurship, the entrepreneurial orientation construct is used in this work due to its ability to reconcile ambiguities inherent in entrepreneurial literature. Theorists such as Schumpeter (2002) and Brockhaus (1980) have been found to have excluded or included differing factors selectively in their conceptualisations of what is associated with being an entrepreneur.

Forlani and Mullins (2000: 307) argue that certain factors influence entrepreneurial decisions relating to start ups; these factors include risk perceptions, contextual effects and the traits of individual entrepreneurs. According to Forlani and Mullins (2000) risk perception is motivated by funding levels, outcome variability and potential losses. In terms of this it is predicted that risk perception as a component of risk taking propensity might be associated with funding levels, or initial investment. In terms of this conception of Forlani and Mullins (2000) significant association might be predicted between risk taking propensity and initial investment as a predictor of risk taking propensity.

Perceptions of risk and decision making are considered to be cognitive processes that are separate, a view that "is consistent with an abundant body of research into consumer decision-making that judgments about products and services and choices among them involve distinct cognitive operations" (Forlani and Mullins, 2000: 308).

Entrepreneurs may be associated with certain cognitive errors such as excessive confidence and control illusions: positive affective states that can affect perceptions and judgement, according to Baron (1999). Forlani and Mullins (2000: 319) argue that entrepreneurs are biased in their risky decision making which could "result in decisions which lengthen the already daunting odds for venture success". If a higher level of risk taking propensity was associated with a higher level of bias, and if this bias were not appropriate to the context, then a higher level of risk taking propensity would be expected to be associated with lower earnings.

However, it is unclear whether a detrimental link between a higher level of risk taking propensity and a higher level of bias exists in the informal street trading context. For example, potential exposure to harm associated with higher levels of risk taking propensity might be constrained to a greater extent within one context than within another. Similarly it is not unreasonable to consider that a different return on risk taking propensity might exist according to different contexts.

Risk represents uncertainty (variability) and potential loss (hazard) in terms of entrepreneurial outcomes, and the individual's risk propensity might be the most important decision factor considered against "the returns the alternative new ventures are expected to generate, their risks," and other analytical factors (Forlani and Mullins, 2000: 310).

Forlani and Mullins (2000) found variability ($p<0.001$) and hazard ($p<0.001$) to have an impact on risk perceptions, with no significant interaction. Risk propensity was not found to be a predictor of risk perception, according to Forlani and Mullins (2000). Entrepreneurs were found by Forlani and Mullins (2000: 315) to prefer risky choices associated with lower levels of variability yet higher levels of hazard, the latter "presumably to obtain the potential for the greater gains". However, the effect of this acceptance of hazard, as a component of risk taking propensity, will therefore vary according to context.

Forlani and Mullins (2000: 319) suggest that entrepreneurs be aware of their own potential bias and should consider "strategies for mitigating the hazard they appear willing to accept in search of potential gains".

Bias that entrepreneurs might demonstrate might, however, be useful in that portfolio investors with a matching level of risk preference might invest in these individuals and "improve portfolio performance" (Forlani and Mullins, 2000: 320).

Entrepreneurs "often adopt a strong future-oriented perspective that might reduce their tendency to reflect on past events" (Baron, 1999:79). Naldi et al. (2007:43) found risk taking as a dimension of entrepreneurial orientation (consisting of

innovativeness, proactiveness and risk taking propensity) to be negatively associated with family enterprise performance in their study of Swedish enterprises. This might predict that an association between risk taking propensity and earnings might not necessarily be positive, despite the above predicted positive association between a moderate level of risk taking propensity and earnings.

According to Baron (1999: 79) research findings "suggest that entrepreneurs show increased susceptibility to certain types of cognitive errors, ones that lead them to anticipate positive future outcomes (e.g., overconfidence, the illusion of control)". Baron (1999) found that entrepreneurs differed from non entrepreneurial individuals in terms of having significantly lower levels of regret in terms of lifetime measures. This bias that might exist in terms of entrepreneurial consideration of risk is considered further below as the contributions of certain seminal theorists is discussed

With regard to risk taking propensity, any conception of utility might benefit from an understanding in terms of criticism levelled at utility theory. Individuals typically deviate from the predictions of utility theory in that outcomes that are certain are "over-weighted" and outcomes that are only probable are "under weighted" in the decision making process: the certainty effect (Kahneman and Tversky, 1979). Risk aversion will tend to be displayed in "choices involving sure gains" and "risk seeking in choices involving sure losses" (ibid.: 263).

The isolation effect influences decision making as an individual tends to discard "components that are shared by all prospects under consideration", with the result that inconsistent decisions are made when a choice is offered in different forms (ibid.: 263). Individuals are thus susceptible to bias in terms of the perception of risk. Another characteristic that might influence risk propensity relevant to entrepreneurial performance is the potential tolerance of ambiguity inherent in the individual.

Tolerance of ambiguity was defined as "the tendency to perceive ambiguous situations as desirable" and intolerance of ambiguity was defined as "the tendency to perceive (i.e. interpret) ambiguous situations as sources of threat" (Budner, 1962: 30). Budner (1962: 47) argues that: "it appears safe to conclude that one's degree of tolerance-intolerance of ambiguity may lead to a misperception of a relevant stimulus

so as to make the stimulus more congenial to one's personality". If an ambiguous situation was perceived as being a source of threat, then the individual might manifest behaviour that was less risky. A lower level of risk taking propensity might be found for individuals with a low level of tolerance for ambiguity, to the extent that a context is perceived as ambiguous by the individual.

On the basis of testing, however, intolerance for ambiguity is only a minor determinant of behaviour, and it is also dependant on the situation and an evaluation of situations according to Budner (1962). Ambiguous situations are characterised by "novelty, complexity, or insolubility" according to Budner (1962: 49).

Intolerance of ambiguity was found to correlate with career choice by Budner (1962), as individuals with a higher tolerance for ambiguity were found to prefer unstructured areas of specialisation. Individuals with a lower tolerance for ambiguity prefer more structured areas of specialisation (ibid.). Accordingly, an individual with a low tolerance of ambiguity might perceive the structure provided by stable employment as preferable to street trading if the stable job was associated with a lower perceived ambiguity (ibid.).

The autonomous existence of street trading might be therefore be perceived negatively by such individuals to the extent that the street trading context might be considered to be ambiguous. This effect might be picked up in the process of the testing, predicting a negative association with continuance satisfaction for individuals with low measured autonomy if the autonomy experienced in this context were perceived as being associated with ambiguity. Therefore a higher level of continuance satisfaction would be expected to be associated with higher levels of autonomy, if autonomous individuals were associated with high tolerance of ambiguity. Security, as an aspect of risk taking propensity, is discussed as follows.

The expectation of a change in security is taken to represent the extent to which financial and job security might be threatened. In their study of goals that contributed to sustained entrepreneurship, Kuratko et al. (1997: 31) found that entrepreneurs seek "some measure of security for their families".

For Herzberg (1968), security is a hygiene factor and is not considered as fundamentally a factor contributing to motivation or satisfaction, but associated with dissatisfaction. In terms of this, if an individual trader would perceive himself or herself to be financially insecure in street trading, then they might be expected to be dissatisfied with continuing in street trading. This dissatisfaction associated with a lack of security might also be reflected in a dissatisfaction with the autonomy of street trading when contrasted with the security offered by a less autonomous alternative: that of a stable job. The less financial insecurity, the more satisfied a street trader would be expected to be. Therefore higher earnings are expected to be associated with higher levels of continuance satisfaction for certain individuals.

The external environment of the entrepreneur becomes represented within the individual within a larger social context according to Shaver and Scott (1991). Social cognition contributes an understanding as to opportunity recognition (ibid.). This is taken to support the argument that the manifestation of risk taking propensity as a dimension of entrepreneurial orientation is fundamentally shaped by context, and would therefore be predicted to contribute to entrepreneurial performance in different ways.

The preceding review of literature considered theory relating to entrepreneurial orientation and the individual dimensions of entrepreneurial orientation. Predicted associations were considered. In the section that follows, literature relating to entrepreneurial performance in terms of its dimensions of earnings and continuance satisfaction and predicted associations is reviewed.

2.4. ENTREPRENEURIAL PERFORMANCE: EARNINGS AND CONTINUANCE SATISFACTION

Entrepreneurial performance was defined in this work as a construct comprised of earnings and satisfaction, this taken from the broader framework of a conceptualisation of entrepreneurial performance as offered by Lumpkin and Dess (1996). Certain contextual factors and the consideration of earnings as a dependent variable in this study are drawn from Dasgupta (2003), including initial investment,

educational background, hours of work, experience in current work and the age of the individual street trader. The review of these and other contextual factors is undertaken in the following chapter, which expressly considers the specific informal sector street trading context of this study. Certain theory relating to earnings is reviewed below. The chapter is concluded by a consideration of theory relating to continuance satisfaction.

2.4.1. EARNINGS

An overview of theory around the contribution of entrepreneurial factors to earnings follows in this section. Predicted associations are derived from the literature reviewed, and understandings around these associations are developed. A range of reviewed conceptions follow on from each other, according to the consideration of what factors potentially contribute to earnings in the informal street trading context.

Due to the review of contextual factors and their predicted associations being undertaken in the following chapter, these are not considered directly in this section. The associations predicted between earnings and the entrepreneurial orientation dimensions were considered above and are also not considered directly in this section. Therefore the theory reviewed in this section serves the purpose of gaining a further, broader insight into the predicted relationships relating to earnings.

As an overview of this section, literature is initially reviewed that briefly considers the role of earnings in terms of the value of the informal sector and the difference between informal sector earnings and legislated minimum wages. This discussion relates the earnings levels of unskilled work to human capital and the effect of education and learning related factors. The argument of this work is considered in terms of a case made for the prediction that learning and education factors shape an entrepreneurial orientation and that this entrepreneurial orientation contributes to earnings. The case is also made that learning related factors contribute to earnings directly.

After this, the discussion extends briefly to earnings as influenced by entrepreneurial orientation in hostile and less hostile environments. This is followed by a brief consideration of organisational commitment and potential earnings. Thereafter, extrinsic and intrinsic satisfactions are considered to the extent that they relate or do not relate to earnings.

A return to human capital theory follows this and potential associations predicted by Becker (1975) between earnings and continuance satisfaction are briefly considered. After this, process and content theories of motivation are briefly discussed in terms of their implications for the study, and the section is concluded with perspectives of the relationships influencing earnings in other contexts. The literature is reviewed as follows.

The informal sector might provide a valuable contribution to economic upliftment for individuals (De Soto, 1989). Earnings may be relevant to the use of the informal sector as a "stepping stone" to later formal or larger entrepreneurial ventures since the informal sector can act as a training ground for entrepreneurs (De Soto, 1989). This training ground effect might be enabled if there were certain factors found that could increase earnings for individual street traders.

If the inherent value of the informal sector can be considered in terms of the earnings potential of the sector, the earnings of informal sector participants may be compared to alternative employment opportunities. Dasgupta (2003) found non-migrant informal sector participants to earn more than unskilled formal factory workers. In terms of their research in the informal sector, Teilhet-Waldorf and Waldorf (1983:595) found that:

> the most striking finding in our survey is that the daily earnings of our informants in the informal sector were substantially higher than those for unskilled workers in the formal sector, both within the government and private sectors. The earnings for the vendors, which are the most directly comparable, were about three times the minimum wage rate in Bangkok.

However, the value of such a comparison might need to be qualified. For example, the minimum wages of domestic workers falling within the area of the City of

Johannesburg Metropolitan Municipality for the year ended 30 November 2007 was R1066.83 per month (ERISA, 2008). This example of a low legislated minimum wage might indicate that the earnings of unskilled alternative employment for individuals operating in the informal sector might not necessarily be much higher than informal sector incomes.

Dasgupta (2003) and Teilhet-Waldorf and Waldorf (1983) made the above comparisons with reference to unskilled formal sector work. It is an argument of this work that skills are fundamentally a reflection of human capital within an individual. The contention is that entrepreneurial orientation dimensions contribute to increased earnings as learned behaviour, and this contribution manifests differently according to different contexts.

Therefore it is argued that education or learning related factors such as education and training courses shape an entrepreneurial orientation, and that these factors also contribute to earnings directly. The effect of education or learning related factors is considered to be positively related to earnings both in the informal and in the formal sector, notwithstanding the specific influence of the difference of context, according to the conception of Becker (1975).

Human capital theory stresses the potential of the individual to solve the problem of low wages and unemployment through behavioural factors such as the acquisition of skills through an increase in human capital (Becker, 1975). The problem of low wages and unemployment could also be addressed through the development of a process orientation that increases earnings and satisfaction: an entrepreneurial orientation (Lumpkin and Dess, 1996).

In terms of education related informal sector contextual factors, the relationship between the investment in learning and entrepreneurship is dynamic, with each affecting the other over time (Zahra and Dess, 2001). Indications are that education related factors might shape entrepreneurial orientation, and that entrepreneurial orientation might also influence investment in learning. Becker (1975: 95) argues that human capital theory, in considering investment in human capital, is useful in

"explaining actual differences between regions, countries, and time periods", and can contribute to the explanation of the distribution of earnings and other income.

In this context, human capital may also be associated with other additional positive externalities that can increase productivity (Michaud and Vencatachellum, 2003). The specific consideration of learning related factors is further discussed in the following chapter under the sections relating to the specific learning related contextual factor. The contribution of entrepreneurial orientation to earnings is now considered.

With particular reference to hostile environments and the relationship between entrepreneurial orientation and competitive advantage, Covin and Slevin (1989: 77) argue that:

> [a]n entrepreneurial strategic posture may be particularly beneficial to small firms in hostile environments. These environments, as previously noted, contain fewer opportunities and are more competitive than benign environments. Accordingly, it might be expected that successful firms in hostile environments will gear their competitive efforts to the prevailing conditions by aggressively trying to gain or maintain a competitive advantage. Such an advantage will more likely result from the proactive, innovative, and risk taking efforts of entrepreneurial firms than the passive and reactive efforts of conservative firms.

It might be possible that an informal street trader associated with a high level of entrepreneurial orientation might be associated with superior economic performance in a hostile environment according to Covin and Slevin's (1989) conception. According to this, to the extent that the informal sector street trading context represents a hostile environment, a positive association is predicted between earnings and the entrepreneurial orientation dimensions of competitive aggressiveness, proactiveness, innovativeness and risk taking propensity.

This conception, however, according to Covin and Slevin (1989) only relates to successful firms. These successful firms are conceived by Covin and Slevin (1989) as gearing their strategy toward these orientations. The resultant perception is that these firms learn an orientation according to a specific context.

In an environment that is not hostile, however, an entrepreneurial posture might "not be essential for superior performance, and could possibly represent an unwarranted risk" for these smaller enterprises, according to Covin and Slevin (1989: 77). According to this, if an environment was not hostile, then for certain firms, competitive aggressiveness would not be expected to be positively associated with earnings.

De Clerq and Ruis (2007), in a study of Mexican small and medium sized enterprises found a positive association between the organisational commitment of individuals to their enterprise and entrepreneurial orientation. For De Clerq and Ruis (2007: 477) organisational commitment is conceptualised as "a personal attitude capturing the emotional bonding between and individual and his or her organisation". In the same way that organisational commitment transmits an effect to earnings, entrepreneurial orientation is expected to also be positively associated with earnings. However, organisational commitment is not expressly tested in this work.

De Clerq and Ruis (2007: 483) argue moreover that their findings "show that a firm's entrepreneurial orientation should not only be regarded in terms of the strategic actions that are undertaken in the marketplace, but also in terms of the implications that such an orientation may have on internal practices". An entrepreneurial orientation might have a range of effects within an enterprise but these also are not specifically tested in this study.

It is reasonable to accept that different factors might have a different impact on earnings in different contexts. O'Farrell and Hitchins (1988) found that, in terms of their research on small manufacturing enterprises, poor design, poor quality and a lack of price competitiveness were possibly the most important contributors to the failure of these enterprises. However, the examples of the factors that influence earnings in different contexts might not be generalisable to the informal sector street trading context. Theory relating to different contexts is reviewed, however, and the findings of the testing process are expected to show the degree to which theory is confirmed in the tested context.

Individuals can also "start and operate their own firms for a variety of reasons other than maximising economic returns" (Wiklund, Davidsson and Delmar, 2003:248). An entrepreneurial orientation might be associated with different motivations including the motivating effect of earnings and satisfaction. It is therefore expected that the factors contributing to satisfaction might not be the same as the factors contributing to earnings.

For Gagne and Deci (2005: 331) intrinsic motivation "involves people doing an activity because they find it interesting and derive spontaneous satisfaction from the activity itself". In other words, intrinsic motivation is related to satisfaction that is not necessarily related to external consequences of the behaviour, such as earnings. Factors associated with satisfaction deriving from intrinsic factors are therefore not necessarily expected to contribute to increased earnings directly.

Extrinsic motivation, according to Gagne and Deci (2005: 331), "requires an instrumentality between the activity and some separable consequences" such as rewards, which could be tangible or intangible, so that "satisfaction comes not from the activity itself but rather from the extrinsic consequences to which the activity leads". According to this, there might be an expected association between an increase in earnings and an increase in satisfaction, if satisfaction comes from the extrinsic consequences of the entrepreneurial behaviour, manifested as higher earnings. In terms of this necessary instrumentality according to Gagne and Deci (2005) it is expected that, due to the extrinsic satisfaction effect, higher earnings will be associated with higher levels of continuance satisfaction.

Intrinsic or extrinsic motivation might have an effect on the way entrepreneurial orientation is shaped by context, and might have an effect on the way contextual factors and entrepreneurial orientation contribute to earnings and continuance satisfaction. However, the mechanisms by which these effects work is considered to be beyond the scope of this study. These relationships are simply considered due to the insight they offer into relationships that might underlie the associations actually tested.

The two components of entrepreneurial performance: earnings and continuance satisfaction are broadly taken in this work to relate to extrinsic rewards deriving from entrepreneurial activity, and intrinsic rewards deriving from entrepreneurial activity. Although the express consideration of motivation falls outside the scope of this work, some aspects of motivation theory are considered due to insight provided into tested associations.

"Motivation partly depends on earnings" according to Becker (1993: 57). The dimensions of an entrepreneurial orientation may have a different effect on earnings through motivational effects unique to each dimension. Gagne and Deci (2005), however, found the dichotomy between intrinsic and extrinsic motivation problematic in terms of application.

For Maslow (1987: 16) individuals are motivated by needs which are "relatively independent of each other, of other motivations, and of the organism as a whole". According to Maslow (1987), these needs may be ordered hierarchically with the satisfaction of physiological needs having precedence over higher order needs. In terms of this, earnings will represent a way for an individual street trader to satisfy certain of these needs. Thus the importance of this dimension of entrepreneurial performance and its association with dimensions of satisfaction becomes apparent. In consequence, if increased earnings were subjectively or objectively associated with satisfying these needs for the individual, then an association between increased earnings and increased levels of continuance satisfaction would be expected.

According to the expectancy-value theory, expected consequences of a behaviour can be regarded as evaluations of the behaviour's consequences, or beliefs (Wiklund et al., 2003). According to Wiklund et al. (2003) positive expectations of an outcome enhance motivation to pursue that outcome and negative expectations associated with the outcome are likely to reduce the outcome motivation With regard to this, continuance satisfaction might reflect some dimension of this expectation relating to earnings, or the results of continuance in terms of earnings. Expected increases or decreases in future earnings might also be captured in terms of responses relating to continuance satisfaction.

Becker (1975:40) argues that one "way to invest in human capital is to improve emotional and physical health", and working conditions "may affect morale and productivity". The longer the time period for which an activity exists, the higher the return on human capital, which might indicate that health is an important contributor to human capital (Becker, 1975). This would predict that in terms of an investment relationship and earnings, working conditions and other contextual factors that pick up on the relationship between health and earnings will be captured in terms of certain informal sector contextual factors.

Psychic satisfaction, for Becker (1975), refers to consumption on the part of the individual, this related to satisfaction that might improve productivity; accordingly there might be an increase in morale, or satisfaction as a result of increased earnings, and moreover an additional increase in earnings due to an increase in satisfaction. For Becker (1975: 42), the effect of this increase in earnings on productivity might be dependant on "the way it is spent", this in turn being dependent upon tastes, knowledge and opportunities as a spending on certain consumption outside the workplace such as healthcare and other factors related to certain dimensions of better standards of living might increase levels of human capital.

According to Becker (1975), productivity is also influenced by motivation, or the intensity of an individual's work, which is partly dependant on earnings because of the effect of an increase in earnings on morale and aspirations. In terms of this it might be expected that higher earnings may contribute to higher levels of continuance satisfaction.

In terms of the theory predicting an association between earnings and other factors, content and process theories of motivation might entail the consideration of mechanisms and theory underlying tested factors. According to Nel, Werner, Haasbroek, Poisat, Sono and Schultz (2008: 337) content theories focus on the "needs and factors that motivate behaviour": the "what" of motivation, whereas process theories focus on the "origin of behaviour" and the factors that influence the "strength and direction of the behaviour": the "how" of behaviour.

Process theories of motivation are considered more proximal to action than are content theories (Bussing, 2001). According to Bussing (2001: 460) content theories suffer from an evidenced lack of universality in terms of needs and motives: "the impact of constructs from content theories on behaviour and performance is frequently spurious and indirect", with "no specification of mechanisms for how specific needs and motives lead to specific behaviour".

A weakness of process theories, however, is that they "focus almost exclusively on the cognitive processes underlying choice" and are specific to contexts (Bussing, 2001). The relationship between earnings and certain factors is tested, yet the processes and mechanisms relating these factors are considered only in terms of a review, and these processes and mechanisms are not expressly tested in this context.

Gimento, Folta, Cooper and Woo (1997: 774) question what they regard as mistaken assumptions regarding the "unidimensionality" of the relationship between performance and enterprise survival that "are so entrenched in social science research". Gimento et al. (1997) argue that the lowest performing enterprises are not necessarily the least likely to survive.

According to Gimento et al.'s (1997) argument, survivalist enterprise, in that it represents the lowest performing enterprise in the informal sector, might also not necessarily be the least likely to survive. The continued existence of these enterprises at relatively low levels of earnings might make considerations of earnings as relating to survival almost irrelevant.

In this context of undeniable hardship, if a survivalist trader has no realistic alternative in terms of income then this survivalist trader cannot be expected to be able exit the informal sector. In this study this is regarded as being important as an area of study in that upliftment is needed in this sector. It is also argued that it is sometimes the responsibility of research to also consider areas of entrepreneurship that are related to human upliftment.

Performance and continuance threshold levels differ according to industries according to Gimento et al. (1997). The continuance threshold researched by Gimento et al.

(1997) represents the threshold needed by entrepreneurs to continue with their entrepreneurial ventures, whereby a higher threshold represents a higher level of rewards needed for continuance to be maintained.

Retail related enterprises "were characterised by both low performance and low thresholds" which may be due to levels of human capital specific to the industry (ibid.: 776). The implications in terms of this might entail a context in which low levels of earnings predominate, and in which individuals might not need a high level of rewards in order to stay in retail activity.

To the extent that the informal sector street trading context is dominated by retail activity, it is expected that it would conform to the conception of Gimento et al. (1997). Notwithstanding this, it is the argument of this work that earnings within such a retail context can be directly increased through the development of an entrepreneurial orientation suited to this context, and that earnings can be directly increased through an increase in the human capital levels of these street traders. Any theoretical conception that therefore ignores the endowment of entrepreneurial orientation and level of human capital for these human beings will not be able to address certain specific factors relating to their upliftment.

It is argued that discrimination can take many forms, and that discrimination can be perpetuated if debates about agency versus structural constraint do not undertake the investigation of exact and specific orientations such as entrepreneurial orientation and the potential for learning related to potential upliftment. It is earnings that are considered in this study to represent a fundamental measure of the potential for upliftment.

An example of challenges faced by informal and unregistered enterprise is provided by research into another category of informal enterprise: nascent homemakers (Singh and Lucas, 2005). Singh and Lucas (2005) identify a host of relevant impediments facing informal and unregistered enterprise start ups. These impediments include the limited availability of financial resources, discrimination and information asymmetries (ibid.). Similar constraints and impediments to higher earnings might exist for street traders.

This group of informal sector entrepreneurs is also associated with lower levels of education; lower levels of householder income; and lower business potential than their non homemaker counterparts (ibid.). A common theme according to certain reviewed conceptions is the low level of education, or human capital, that researchers and theorists associate with informal contexts. It is predicted that higher levels of education and learning related factors would be positively associated with higher earnings.

Continuance satisfaction is considered a dimension of entrepreneurial performance in that the satisfaction for a street trader is considered an important outcome of the influence of entrepreneurial orientation and context related to upliftment. A broad review of literature related to continuance satisfaction follows.

2.4.2. CONTINUANCE SATISFACTION

An entrepreneurial orientation may contribute to performance through processes and styles of decision making that produce competitive advantage or strategic renewal according to Lumpkin and Dess (1996). This competitive advantage or strategic renewal is not confined to the start-up event, but extends to continuance (ibid.: 162). In terms of this, continuance satisfaction was taken to represent satisfaction with continuing with informal sector street trading.

Certain theory relating to continuance satisfaction within the entrepreneurial context is reviewed as follows. Theory relating to continuance satisfaction and specific entrepreneurial orientation dimensions has already been considered above, in the section of this work devoted to the specific entrepreneurial orientation dimensions. Theory relating to specific contextual factors in terms of predicted associations with continuance satisfaction is also not considered in this section, but is considered in the following chapter according to the specific contextual factor discussed. In this section, theory more broadly related to satisfaction is reviewed.

The review initially briefly considers Maslow's (1987) conception of expressive and coping behaviour. This is followed by a revisited discussion of Maslow's higher order

needs and the implication of these needs for innovative and creative behaviour. A criticism of Maslow's conceptions is then considered, followed by a brief review of theory associated with Herzberg (1968), relating to factors associated with satisfaction.

The difference between hygiene and motivator factors as to how they relate to satisfaction, and the implications of job enrichment theory for satisfaction are also considered with reference to Herzberg's theory. A criticism of Herzberg's theory follows this.

The multi-determined nature of behaviour is then considered, with the review of literature leading into a brief consideration of intrinsic and extrinsic rewards as to how these relate to continuance satisfaction. After this, cognitive evaluation theory and self determination theory are also considered, and certain conceptions reviewed in terms of autonomy are again considered with reference to continuance satisfaction in general. The chapter is concluded by a consideration of operational sophistication and the multi-determined nature of entrepreneurial behaviour associated with continuance satisfaction. The review of literature relating to continuance satisfaction follows.

According to Maslow (1987: 29) there "is a basic difference between expressive behaviour and coping behaviour (functional striving, purposive goal seeking)". For Maslow (1987: 29) "expressive behaviour does not try to do anything; it is simply a reflection of the personality".

Maslow (1987: 29) states that not all behaviour is "expressive or reflective of the character structure" as rote, "habitual, automatised, or conventional behaviour may or may not be expressive" as may most stimulus-bound behaviours. Maslow (1987: 29) argues that "expressiveness of behaviour and goal-directedness of behaviour are not mutually exclusive categories" since average behaviour is usually both expressive and goal-directed. An entrepreneurial orientation is considered to represent entrepreneurial behaviour that is goal-directed. An entrepreneurial orientation is associated with intentionality (Lumpkin and Dess, 1996).

In terms of the informal sector enterprise, the individual *is* the enterprise, and a consideration of entrepreneurial behaviour includes the need for an exploration of

theory relating to individual behaviour. This is needed in order to provide an insight into the behavioural relationships existing within an individual and the satisfaction that is experienced in terms of an activity. This might allow for an understanding of how factors contribute to continuance satisfaction.

According to Maslow (1987) satisfied needs are not motivators of behaviour. Maslow (1987:31) argues that the means to an end may become "ultimate satisfactions themselves", wanted for their own sake. According to Maslow (1987: 31) this would stress the important impact that learning and change have on motivation, which "superimposes upon everything that has gone before an enormous additional complexity".

According to this conception, various factors representing the means within the process of street trading might contribute to continuance satisfaction, which would predict that certain informal sector contextual factors might be positively associated with continuance satisfaction. Once entering the informal sector, whether through push or a pull factors, it is possible that certain individuals might find certain contextual factors associated with the street trading process satisfying.

"The impact of need gratification is almost entirely limited to intrinsically appropriate satisfiers", according to Maslow (1987: 34), and initially deficiency needs, such as physiological, safety and security and belongingness needs, motivate the individual to satisfy them each at a time. Maslow (1987: 34) argues that after deficiency needs are satisfied, then growth needs such as esteem needs, ego needs and self actualisation needs become activated, according to a hierarchy of needs.

This might be understood to suggest that the satisfaction of certain lower order needs would allow for the activation of higher order needs and work process. If these higher order needs were more closely associated with the behaviours of an entrepreneurial orientation, such as creativity contributing to innovativeness, then this possibly would indicate the potentiality of an application of Maslow's theory to some form of entrepreneurial progression from survivalist to entrepreneur. This conception is left for further research.

According to a review of research findings, criticism levelled at Maslow's hierarchy of needs model includes questioning the validity of the hierarchy in terms of the classification of human needs into five distinct categories (Porter, et al., 2003). The exclusivity of focus onto an unsatisfied need has also been criticised, with some research studies found to be supportive and others not (Porter et al., 2003). The activation of a higher need through the satisfaction of the lower need has been another of Maslow's conceptions that has received criticism, but research evidence has been found to support the differentiation of growth needs from deficiency needs according to Porter et al. (2003).

Herzberg's (1968) motivation factors, such as factors relating to the job itself, are considered to be applicable across contexts and individuals. Herzberg's (1968) theory predicted certain relationships that might be more satisfying for all individuals in general. To the extent that these factors were facilitated by an entrepreneurial career or alternative, the entrepreneurial alternative might be considered to appeal to individuals in general, and might be positively associated with continuance satisfaction.

It was expected, however, that net effects would be captured in terms of the effects of factors on continuance satisfaction. According to Herzberg (1968), however, earnings is not a motivator but a hygiene factor. Earnings, as a factor, is therefore not expected to be associated with continuance satisfaction to a greater extent than motivator factors according to Herzberg's (1968) theory. However, motivator factors such as achievement, recognition and responsibility (ibid.) are not tested directly in this work.

Hygiene factors such as earnings, working conditions and work security (ibid.) are the factors that correspond most strongly to context, and it is expected that according to Herzberg's (1968) conception, an association to dissatisfaction would be predicted. Therefore, lower levels of earnings and poor working conditions associated with informal street trading will be predicted to be negatively associated with continuance satisfaction. To the extent that contextual factors pick up the perceived effect of these poor conditions, it is expected that these associations would be captured by the testing process.

Herzberg (ibid.: 56) argues that research indicated that "the factors involved in producing job satisfaction (and motivation) are separate and distinct from the factors that lead to job dissatisfaction". Since "separate factors need to be considered, depending on whether job satisfaction or job dissatisfaction is being examined, it follows that these two feelings are not opposites of each other" (ibid.: 56). This conceptualisation was important for Herzberg (ibid.: 57) since these two differentiated groupings of factors stem from two different sets of human needs.

According to Herzberg (1968), for the individual one set of human needs relate to the animal and biological drives that are environmentally oriented: dissatisfaction factors. The other set of human needs relate to "the ability to achieve and, through achievement, to experience psychological growth" through job content: satisfaction factors (ibid.: 57).

The dissatisfaction or pain avoidance factors, for Herzberg (1968: 57) are termed hygiene factors, these including factors extrinsic to the job such as "company policy and administration, supervision, interpersonal relationships, working conditions, salary, status, and security". The satisfaction related factors are termed growth or motivator factors; motivator factors are intrinsic to the job and include "achievement, recognition for achievement, the work itself, responsibility and growth or advancement" (ibid.).

With regard to these categories of factors, Herzberg (1968: 57) found that motivators, according to research results across a range of jobs, are the "primary cause of satisfaction, and hygiene factors the primary cause of unhappiness on the job". Herzberg (1968), for a research sample, found motivators to have contributed 81 percent to job satisfaction and hygiene factors to have contributed 69 percent to dissatisfaction. According to this, continuance satisfaction is expected to be more strongly influenced by these motivator factors than by these hygiene factors.

Herzberg (1968) suggests that job enrichment would increase satisfaction, yet differentiated between horizontal job loading through which increased exposure to meaningless aspects of work occurs and vertical enrichment whereby increased exposure to motivator related factors results. According to this, the extent that vertical

enrichment is associated with a contextual factor is the extent that such a factor is expected to be associated with continuance satisfaction.

Herzberg's theory "is perhaps the most controversial theory of work motivation", according to Porter et al. (2003: 9). Herzberg's theory has been criticised for its differing theoretical interpretations; a lack of attention to individual differences; the theorised generalised effect of job enrichment across individuals; and the distinct differentiation between motivator and hygiene factors (Porter et al., 2003: 10). According to Porter et al. (2003: 9) research has shown that individual differences have been found to be "an important moderator of the effects of job enrichment".

Maslow (1987: 16) claims that:

> [i]f all the needs are unsatisfied, and the organism is then dominated by the physiological needs, all other needs may become simply nonexistent or be pushed into the background. It is then fair to characterise the whole organism by saying simply that it is hungry, for consciousness is almost completely preempted by hunger. All capacities are put into the service of hunger satisfaction, and the organisation of these capacities is almost entirely determined by the one purpose of satisfying hunger.

When physiological or lower order needs are met, then at once "other (and higher) needs emerge and these, rather than physiological hungers, dominate the organism" (Maslow, 1987: 17); however, as higher needs "in turn are satisfied, again new (and still higher) needs emerge, and so on".

According to Maslow (1987: 18) basic human needs can be ordered "into a hierarchy of relative prepotency". From Maslow's (1987: 18) perspective, when needs have been satisfied in individuals earlier on in life, these individuals are better equipped to "tolerate deprivation of that need in future" and that those "deprived in the past will react differently to current satisfactions from the one who has never been deprived". In terms of this conception of deprivation, it might be expected that differences or variance in terms of measured satisfaction might capture some effect as a result of the subjective consequence of deprivation.

Maslow (1987: 17) furthers considers that "culture itself is an adaptive tool, one of whose main functions is to make the physiological emergencies come less and less often". According to this conception, there may be some form of learning related to culture in terms of its potential adaptation to context.

For Maslow (1987: 28), unsatisfied needs motivate behaviour, and basic needs are not necessarily conscious but can be unconscious. These needs are not exclusive, and most behaviour is "overdetermined or multidetermined", as "within the sphere of motivational determinants any behaviour tends to be determined by several or *all* of the basic needs simultaneously rather than by only one of them" (ibid.). According to this, the complexity of behaviour might manifest in terms of a range of factors potentially emerging as significant in terms of their association with continuance satisfaction.

In terms of continuance satisfaction, this is taken to represent satisfaction with continued entrepreneurship. With regard to this, Kuratko et al. (1997: 31) state that while "it is written that entrepreneurs are goal-oriented individuals, the literature generally focuses only on the start-up process". Kuratko et al. (1997: 31) argue that if "entrepreneurship is the process of starting and operating a business, then earlier models focusing on pre-launch or launch of a venture" are incomplete without considering the operating portion of entrepreneurship.

The process of operating an enterprise has perhaps not received as much attention in entrepreneurship research as has the start up (Kuratko et al., 1997). The focus on continued entrepreneurship is consistent with the perspective of entrepreneurship as behaviour (Lumpkin and Dess, 1996), or the "how" inherent in entrepreneurship (Stevenson and Jarillo, 1990). Continued entrepreneurship is therefore considered in terms of continuance satisfaction.

Kuratko et al. (1997) found their study results to support the conception that intrinsic and extrinsic rewards are motivators of entrepreneurial behaviour to the degree that these rewards meet expectations. In terms of this, certain factors are also tested in terms of the associations of entrepreneurial orientation and contextual factors with continuance satisfaction. If certain dimensions of entrepreneurial orientation or certain

contextual factors are associated with intrinsic satisfaction, then it is expected that the testing could reveal significant associations between these factors.

In terms of enterprise continuance, Gimento et al. (1997: 775) argue that their "findings suggest that some dimensions of human capital have important effects on persistence, even when they do not influence performance" such as age, family experience of entrepreneurship, and intrinsic motivation. According to this, learning and education related factors might have an effect on continuance satisfaction.

Kuratko et al. (1997: 31) conclude that their study supports the belief "that many entrepreneurs are motivated by and sustained through other means than simply making money". According to Kuratko et al. (1997: 29):

> The literature suggests that individuals enter new venture creation motivated by personally relevant goal sets which they believe will be satisfied through self-employment. The results of the current study suggest that practicing entrepreneurs, not just those engaged in start-up, possess personally relevant goals. It is through the achievement of those goals that entrepreneurs are motivated to sustain ownership.

This justifies the importance of including a measure of intrinsic satisfaction, to the extent that continuance satisfaction is expected to pick up the effects of both extrinsic and intrinsic satisfaction associated with entrepreneurial orientation and contextual factors.

Tangible extrinsic rewards, however, according to Gagne and Deci (2005) have been associated with a negative effect upon intrinsic motivation. According to Gagne and Deci (2005) this calls into question the conception of an additive relationship between extrinsic and intrinsic motivation. This also highlights the possibility of an interactive relationship between extrinsic rewards and intrinsic motivation that might extend to a negative or positive relationship (ibid.).

From the perspective of cognitive evaluation theory, external factors, including "tangible rewards, deadlines…, surveillance…, and evaluations… tend to diminish feelings of autonomy, prompt a change in the perceived locus of causality (PLOC) from internal to external…, and undermine intrinsic motivation" (ibid.: 332).

However, certain external factors "such as providing choice about aspects of task management tend to enhance feelings of autonomy, prompt a shift in PLOC from external to internal, and increase intrinsic motivation" (ibid.). However, due to the fundamentally autonomous nature of street trading, an internal locus of causality would be expected to operate, according to the predictions of Gagne and Deci's (2005) conception. Therefore it is not expected that tangible rewards such as earnings would necessarily be negatively associated with continuance satisfaction.

According to Gagne and Deci (2005: 332), cognitive evaluation theory predicts that "feelings of competence as well as feelings of autonomy are important for intrinsic motivation". Research has shown that "optimally challenging activities were highly intrinsically motivating" (ibid.). Positive feedback also motivates intrinsically, yet negative feedback influences perceived competence and decreases both intrinsic and extrinsic motivation (ibid.).

Cognitive evaluation theory indicates that tangible rewards, which are received engagement-contingently or completion-contingently, would "deactivate implicit enjoyment motives", and together with "other extrinsic factors such as competition and evaluations can be detrimental to outcomes such as creativity, cognitive flexibility and problem solving" (ibid.: 333).

Cognitive evaluation theory, however, is problematic in that it is developed from research based on laboratory studies according to Gagne and Deci (2005: 333). Integration with behavioural theories and the dominant expectancy-valence theoretical perspective has also been problematic (ibid.). Most work activities are also fundamentally not intrinsically motivating, and the need people have for monetary rewards is accepted as a fundamental motivator of individuals (ibid.). According to this, earnings are realistically not expected to reduce continuance satisfaction.

Self determination theory has been developed in light of the shortcomings of cognitive evaluation theory, in that autonomous motivation is differentiated from controlled motivation (Gagne and Deci, 2005). Autonomy is defined as "acting with a sense of volition and having the experience of choice" (ibid.: 333) in this context, and autonomous motivation and controlled motivation are both considered distinct from

amotivation, “which involves a lack of intention and motivation”. A contribution of self determination theory therefore is the differentiation of behaviour in terms of degrees of control and autonomy, intrinsic motivation being associated with autonomy, and controlled motivation deriving from the intention of achieving or avoiding consequences: external regulation (ibid.: 334). Theory relating to the underlying mechanics of tested factors has been considered. However, this theory is explored with a view to understanding why certain factors are expected to be found to be associated. The relationships tested are not expected to yield information regarding causality, and therefore these theoretical insights are needed.

In terms of a study of informal traders producing products or services in the Cape Town informal street trading context, Morris and Pitt (1995) found that 64 percent of the tested respondents reported a good or very good outlook for their businesses. Only 3 percent perceived the outlook to be poor or very poor and only 10 percent indicated that they would exit their venture for a formal job opportunity. Twenty-seven percent of these surveyed respondents responded that they might exit their venture for a formal job opportunity, but that it would be considerably difficult for them (ibid.).

In terms of their research Morris and Pitt (1995) found a negative relationship between operational sophistication and willingness to exit on condition of a formal job offer ($p<0.01$). Significant and positive relationships were revealed between operational sophistication and level of formal education ($p<0.05$); operational sophistication and formal occupational training ($p<0.10$); operational sophistication and sales turnover ($p<0.05$); and also between operational sophistication and future growth plans ($p<0.05$) (ibid.).

With regard to informal sector street traders this might provide an insight as to the potential of informal sector trading, if it were possible for street traders to increase their skills such that they joined the category of informal enterprise researched by Morris and Pitt (1995). In terms of this, a higher level of continuance satisfaction might be possible according to these associations if a sufficient level of operational sophistication, such as providing services or of making products is attained in the informal context.

In order to be significant, the testing of various factors and their association with satisfaction would, however, need to reveal a net effect. A net effect in terms of the testing of associations might reflect the cumulative effects of different factors affecting continuance satisfaction; this might represent a multi-determined outcome, which may or may not have been predicted by different theories (the dimensions borne out). However, this process of testing would allow for the acceptance or rejection of theory *in this specific context* according to the tipping point, or net effect as measured by a positive or negative and significant relationship.

In this section theory has been broadly considered with regard to continuance satisfaction. Associations were considered in the different sections (above) relating to entrepreneurial orientation, and in the following chapter contextual factors are related to continuance satisfaction. Repetition was avoided as much as possible. What was unavoidable, however, was the further exploration of certain theory that had been reviewed with regard to specific entrepreneurial orientation or contextual factors and predicted associations with continuance satisfaction. This literature had to be considered a second time with regard to more general predictions or understandings relating to continuance satisfaction. The specific exploration of contextual factors related to continuance satisfaction is undertaken in the following chapter.

2.5. CONCLUSION

In this chapter, the theoretical literature broadly relating to entrepreneurship, and literature more specifically relating to entrepreneurial orientation was reviewed. The dimensions of an entrepreneurial orientation and entrepreneurial performance were explored with regard to the literature, to the extent that this literature related to the research questions: “To what extent do informal sector contextual factors shape an entrepreneurial orientation?” and “To what extent do contextual factors and entrepreneurial orientation dimensions contribute to entrepreneurial performance?”

Entrepreneurship theory was broadly reviewed with reference to how entrepreneurship has been related to conceptions of entrepreneurship as entrepreneurial behaviour. Theory was also reviewed as to the relationship of

entrepreneurship to the entrepreneurial environment or context. A justification was made to support the argument made by Lumpkin and Dess (1996) that the manifestation of entrepreneurial orientation and its effects may differ according to context.

A consideration of the broader entrepreneurship literature was extended into a consideration of entrepreneurial orientation theory and a consideration of the following dimensions of entrepreneurial orientation: innovativeness, proactiveness, competitive aggressiveness, autonomy and risk taking propensity. These dimensions were considered in terms of understandings offered by Lumpkin and Dess (1996). The chapter was concluded by a consideration of the dimensions of entrepreneurial performance: earnings and continuance satisfaction.

In the following chapter theory is reviewed which extends the literature review from entrepreneurship into a consideration of the informal street trading entrepreneurial context. Informal sector contextual factors are reviewed as to predicted associations with entrepreneurial orientation and entrepreneurial performance.

CHAPTER 3

THE INFORMAL SECTOR STREET TRADING CONTEXT

3.1. INTRODUCTION

Levesque and Minniti (2006: 179) assert that "the entrepreneurial process is a multi-layered and complex phenomenon". According to Levesque and Minniti (2006: 179), "understanding the sequence of actions required to start a new firm is, to a large extent, contingent upon the context in which they are taken".

In terms of the review of entrepreneurial orientation and literature relating to entrepreneurship, a broad review was undertaken in the previous chapter. In this chapter the literature review of entrepreneurial orientation and entrepreneurship theory within the entrepreneurial context is focused on literature relating to the informal sector street trading context.

At this juncture literature relating to the informal street trading context is reviewed as follows. The South African informal sector context is considered initially in terms of urban change and context. Next, informal activity is considered as economic activity. Literature relating to entrepreneurship and the influence of context in terms of social and socioeconomic conditions is then reviewed. The chapter is concluded by a review of literature relating to the informal sector street trading context and the consideration of specific informal sector street trading contextual factors. Predicted relationships and associations are derived from the literature reviewed.

3.2. URBAN CHANGE AND CONTEXT

Strict definitions are ineffective at capturing the essence of the informal sector (Barker, 1999; Devey, Skinner and Valodia, 2006). According to Devey et al. (2006: 226), most quoted is the International Labour Organisation (ILO) definition of the informal sector: activities characterised by "ease of entry; reliance on indigenous resources; family ownership of enterprises; small scale of operation; labour intensive and adapted technology; skills acquired outside the formal school system; and unregulated and competitive markets" (ILO, Geneva, 1972, as cited in Devey et al., 2006: 226).

In this context the informal sector is defined as generally unregulated and unregistered activities falling outside the formally regulated sector of the economy. South Africa has experienced significant political, social and economic change over the past twenty years (Peberdy and Rogerson, 2003: 79), a theme echoed by Nasser et al. (2003) and Padayachee (2005). One causal factor was the lifting, from 1986 onwards, of restrictions or state based constraints on urban residence, entrepreneurship and migration (Morris and Pitt, 1995).

A flight of capital and residents at that time from the Johannesburg city centre created a degree of entrepreneurial space for an influx of people from other areas of the country and other countries (Peberdy and Rogerson, 2003). Informal sector growth may result from a discrepancy between the population growth, in terms of urban population increases, and the rate that the formal sector can absorb job seekers according to Ligthelm (2005).

An increase in informal sector activity, including street traders, has occurred in South Africa's cities (Morris and Pitt 1995). This increase has also been associated with an influx of migrants, both South African and from other countries to the cities (ibid.). This influx of migrants has also influenced the nature and composition of South Africa's city informal sectors, according to Morris and Pitt (1995).

Migrants from other areas of the country and ex-homelands were joined by an influx of immigrants (Peberdy and Rogerson, 2003), many of which turned to the informal sector for a livelihood. This exerted a significant influence on the composition of the sector, yet after the democratic government came to power in 1994 the liberal orientation of government towards migrants from the rest of Africa was short lived (ibid.: 80).

Asylum seekers and refugees have little access to governmental support, which pushes many into informal sector participation (Peberdy and Rogerson, 2003). Immigrants have been associated with differences between immigrant and local enterprises in terms of entrepreneurship and enterprise (Basu and Altinay, 2002; Portes, 1998; Reynolds, 1991; Wilson and Martin, 1982). According to this, it is predicted that differences in entrepreneurial orientation will be found between street

traders of foreign origin and street traders of local origin. It is expected that entrepreneurial orientation is shaped by migration and by immigration.

With the informal sector in South Africa being a significant contributor to the economy (Ligthelm, 2005: 199), the development of an "enterprise culture" is considered a potential solution to some of South Africa's economic problems (Nasser et al., 2003). In this context, however, informal street traders are often regarded as having the least potential of informal sector participants (Teltscher, 1994). If street traders are regarded as being associated with the lowest levels of income, then the investigation into relationships between entrepreneurial orientation, contextual factors and entrepreneurial performance might provide insight into this unique context at the lowest level of earnings. This insight might then clarify means to contribute some degree of upliftment for these participants.

Zulu (1991: 116) suggests that "engagement in the informal economy of the townships has not only promoted a lively and highly successful alternative trade", but has greatly enhanced the marketing and entrepreneurial capacity of a multitude of informal practitioners.

Unregistered or informal start-ups are under-represented in studies of entrepreneurial start-ups (Singh and Lucas, 2005). According to Morris and Pitt (1995), at the time of their study, the South African informal sector accounted for 16–40 percent of Gross Domestic Product, employing about four million people, in contrast to the formal sector's employment of approximately 7.7 million people.

However, this informal activity can, to a large extent, be seen as basic survival activity and hence this activity may consist of entrepreneurial as well as non entrepreneurial activity. The informal sector in this context represents economic activity that is unregistered, unlicensed, and unrecorded in the national accounts, thus creating a problem with regard to estimates of the true size and extent of the phenomenon (Morris and Pitt, 1995). In the following section, literature is reviewed and informal sector street trading is discussed, with particular reference to informal activity as economic activity.

3.3. INFORMAL ACTIVITY AS ECONOMIC ACTIVITY

As outlined above, the informal sector is defined, for the purposes of this work, as generally unregulated and unregistered activities falling outside the formally regulated sector of the economy. At this nexus it might serve to examine why definitions may differ between conceptions of the informal sector. This may provide further insight into the informal sector context and contextual factors as they relate to entrepreneurial orientation dimensions and entrepreneurial performance. In this section the consideration of definitional understandings with regard to the informal sector extends into a consideration of informal sector activity as economic activity. A brief outline of the section follows.

The different definitions of informal activity by virtue of different perspectives is initially considered below. This is followed by a consideration of certain negative associations with informal activity. The determinants of the growth of the informal sector are then briefly discussed. A brief consideration of originality and innovation in the South African informal context, persecution and constraints in informal street trading follows together with a brief discussion of the management of street trading by local authorities. Informal activity is then considered as a development solution and its ability to meet the needs of informal sector participants at a low cost. After this, heterogeneity in the informal sector, dualist and petty commodity production perspectives, and product and supply linkages are briefly discussed. This section is concluded by a consideration of the value added by the informal sector and of certain dynamic groups that exist in the informal sector.

Different definitions of the term informal sector exist due to differing perspectives of the phenomenon (Abedian and DeSmidt, 1990). These different definitions and perspectives are influenced by factors such as the particular activity, "group, area or country studied, and of particular relevance, the academic or other parameters" used, in that, for example, the "view adopted by anthropologists or sociologists may differ from that of economists" (*ibid.*: 405).

In writings of the business community and the general public, differences in understandings of the informal sector are also in evidence, according to Abedian and

DeSmidt (1990). These different conceptualisations have resulted in a range of terms being used to represent informal sector activity, including: “underground”; “grey”; “subterranean”; “black”; “submerged”; “shadow”; and “unrecorded” (*ibid*.: 405).

Abedian and DeSmidt (1990: 405) argue that these terms are not value neutral, and that these terms are associated with some form of illegality, illegitimacy or concealment. According to Abedian and DeSmidt (1990: 405), however, the term informal is theoretically related to technology, or the “degree of formal recognition”, (*ibid*.) which would therefore represent some total of unrecorded activity. The term sector might also mistakenly imply a common nature of activities, which might be taken to represent a degree of homogeneity in the phenomenon understood as the informal sector (*ibid*.).

Abedian and DeSmidt (1990: 419) argue that, with respect to the informal economy and determinants of growth, “in South Africa the most important factors are: the growth of the formal economy, the urbanisation of the African population, and the size of the ‘unemployable’ labour force which is in a state of transition from the subsistence to the monetised economy”. With little in the way of entry barriers, these labour intensive, small scale operations of the informal sector persist, largely on a subsistence basis, with personal survival and not return on investment seeming to be the objective, according to Morris and Pitt (1995). In the informal sector long hours, poor working conditions and low income are the rule, mirroring the poverty and unemployment of an area, this often exacerbated by an influx into urban areas that cannot be absorbed into the regional employment complex (*ibid*.).

In terms of race and informal entrepreneurial activity in South Africa, Zulu (1991:122) found his research to “demonstrate both originality and innovation on the part of practitioners, as well as a business acumen that refutes” perspectives that would seek to differentiate amongst races in terms of informal sector achievement. For those subjected to racial inequality, the injustice of apartheid created a moral dilemma by limiting access to resources for those subjected to racial inequality. As a result, a culture of survival in terms of highly entrepreneurial activity might have been created, which extended to a re-evaluation of morality representing the “heroic deeds” of the exploited in the form of informal trade: legal and illegal (Zulu, 1991: 121). The

issue of inequality of access to resources might also conceivably be related to the actions of policy makers with respect to the treatment of informal participants.

Preston-Whyte and Rogerson (1991: 144) state that:

> [p]olicy and planning *for* the informal economy in South Africa is an issue of recent origin. Historical studies have shown very clearly that the country's policy-makers and planners have a long record of suppressing informal economic activities, especially in formal areas. The managers of South Africa's cities showed scant regard for informal enterprise and built up an arsenal of repressive measures. The informal economy was battered by a remarkable array of negative policies which included apartheid legislation such as the Group Areas Act, harsh licensing and strict zoning regimes, official campaigns dedicated to the prosecution of informal activities.

For Kirsten (1991: 158) "the role of the informal sector in providing productive income-generating opportunities outside the formal sector" will depend "on the extent to which constraints on its development are overcome". Another contribution of the informal sector, in addition to that of creating employment, is that it "generates income and stimulates entrepreneurial development", increasing the purchasing power of participants "and, in this way, may stimulate other informal-sector activities and increase opportunities for entrepreneurial involvement" (*ibid*.).

Dewar and Watson (1991: 194) point to certain problems with regard to the operations of local authorities that constrain the development of small enterprise, one problem being the perception of informal sector service and distributive sectors (hawking and vending) as being "a potential source of conflict and nuisance in relation to health, traffic, formal business, and the like." Management of informal sectors has in the past been according to control, and management has not been proactive and facilitative (*ibid*.). Various aspects of informal sector participation often fall within the ambit of different local authorities with different objectives and agendas (*ibid*.: 194).

According to Dewar and Watson (1991: 192) "restrictive regulations form one of the major obstacles to small business promotion in South Africa", these regulations affecting "almost all components of economic operation"; the regulations do not have

an equal effect in that small enterprises are affected severely by any measure that increases overheads to even a small extent.

Stimulating informal sector activities contribute to employment creation and "are a direct attack on poverty" in that these are usually the "smallest, most fragile concerns", which are responsive to the needs of the poorest in society (*ibid.*: 184). Regarding the conceptualisation of the informal sector as a potential developmental solution to unemployment or as "no more than a survival strategy for the urban poor", Dewar and Watson (1991: 185) argue that:

> [t]here is a considerable body of evidence to indicate that different motives exist amongst informal-sector operators. For some, the main motive is profit and growth: profits are frequently reinvested. For others, the motive is survival: meagre profits are often immediately directed towards meeting basic needs. Between these poles are complex and subtle variations in emphasis.

In terms of capital accumulation in the informal sector, this is seen to occur unless "repressed by law", or through exploitative linkages with the formal sector, yet capturing value is possible for the informal trader due to the potential use of location, the sub-division of product offerings and other factors (*ibid.*: 182).

Preston-Whyte and Rogerson (1991: 227) state that "the role of personal motivation and long-term aim is a critical one for future research on the informal economy". Lumpkin and Dess (1996) stress the importance of contingency in terms of the relationship between entrepreneurial orientation and entrepreneurial performance. This research seeks to investigate differences between informal traders with regard to entrepreneurial orientation, contextual factors and entrepreneurial performance and consequent associations between these. The role of personal motivation is considered to the extent that insight is provided into continuance satisfaction as a component of entrepreneurial performance.

With size limitations, low productivity and low skills levels, this sector can be seen to be relatively efficient at meeting the needs of these societal participants at a low cost, and in spite of reported homogeneity across countries, there also exists evidence of diversity (Morris and Pitt, 1995). Teltscher (1994) demonstrated the differentiation of informal trade, arguing that it is inherently heterogeneous in structure, being part of

sophisticated distribution systems operating locally and internationally. According to Teltscher (1994) this inherent heterogeneity exists contrary to the earlier view of homogeneity and isolated nature of the informal economy.

In many cities of Latin America, almost 50 percent of residents are involved in small informal entrepreneurship, and this structurally impacts local labour markets as enterprises from more developed regions of the world use subcontracting to access this informal sector, according to Teltscher (1994). The informal sector then becomes linked in some way with the formal economy, and these two sectors can therefore be studied in the form of one continuum along the dimensions of work and welfare relationships (*ibid*.).

Two views have been associated with the informal sector linkages to underdeveloped economies, namely the dualist approach and the petty commodity production approach, according to Telscher (1994). The dualist approach regards the informal sector as separate from and unrelated to the formal sector (*ibid*.). As migrants into urban areas are supported by this informal sector the informal sector receives positive attention from policy makers who emphasise support for manufacturing enterprises at the expense of traders (*ibid*.).

According to Telscher (1994), the second approach with regard to informal sector linkages to underdeveloped economies was termed petty commodity production: where an informal dependant small enterprise produces for the market. According to Telscher (1994) the terminology and analysis involved in the petty production approach also ignores the importance of informal traders (*ibid*.).

Teltscher (1994) researched 150 informal vendors, and found that 85 percent were self employed with no wage relations. By analysing product and capital supply linkages between these informal vendors and the formal sector, a differentiation was made possible: between product supply by the access to imported capital intensive goods and direct access to manufacturers; and capital supply through sources of capital (*ibid*.). South Africa might be considered similar to other countries in terms of certain of the dynamics of its informal sector.

South Africa has elements in common with other developing and underdeveloped countries and has experienced historical factors that have placed it in a context of change, as a country in the midst of a significantly large transformation: economically, politically and socially (Morris and Pitt, 1995).

As a consequence of the democratisation of the country, the informal sector has expanded in certain areas, this most notably manifested in terms of an increase in hawkers and also an unlicensed minibus taxi industry, this increase in turn fuelled by a large influx into the cities and the emergence of rapidly growing squatter settlements (Morris and Pitt, 1995). Levels of informal sector activity have been reported to be as high as one enterprise operating in every five households, with up to 70 percent of these being operated by females; these ventures include grocery, butchery, tailoring and hairdressing enterprises together with shebeens (*ibid*.).

In their study of 30 informal traders who produced a product or provided a service in a Cape Town township, Morris and Pitt (1995) found only 7 percent of these informal entrepreneurs to be keeping formal accounting records. Most of these informal traders had created the venture out of economic need: being unemployed or to increase income (*ibid*.).

Morris and Pitt (1995) found a relationship between operational sophistication and the level of formal education; formal occupational training; sales turnover and future growth plans. However, these traders differed from most informal sector street traders in that they produced a product or provided a service. Due to this, these traders represent a level of operational sophistication that is more developed than that of most informal sector street traders that trade goods bought for the purposes of selling.

According to Morris and Pitt (1995) controversy exists with regard to conceptions of the informal sector. On the one hand the informal sector is seen by some as a solution to developmental problems due to the large amount of people that it sustains and that survive in it (*ibid*.). However, according to Morris and Pitt (1995) the informal sector is seen by others as being less acceptable, with informal participation seen as merely a form of survival, not even useful for preparing people for formal sector job opportunities. Teltscher (1994), however, argues that informal traders, contrary to

some other views, do add value and that this trade is also productive activity, in that it makes goods available in different locales and for longer hours.

Some dynamic groups do exist within the informal sector, particularly those enterprises that produce goods or provide a service, have an opportunity driven mindset, a future orientation and higher level of operational sophistication, according to Morris and Pitt (1995). Relevant here, however, is the focus of the study by Morris and Pitt: by focusing on informal enterprises that produced a product or provided a service, the most impoverished participants in the informal sector, informal street traders, might have been screened out.

This perspective is useful as it can provide a contrast to street trading, and can possibly represent a way of graduating up within the informal sector to these more rewarding categories of enterprise, representing perhaps some measure of an increase in human capital or applied skill. It is argued that this "graduating up" to higher earnings and higher levels of continuance satisfaction is possible in the informal street trading context.

It is argued in this work that an entrepreneurial orientation is associated with this potential through its positive association with increased earnings and higher levels of continuance satisfaction. It is also argued that learning and education related factors shape an entrepreneurial orientation and contribute to increased earnings in the informal sector in that skills are developed that allow for individual upliftment for informal sector street traders. The influence of social and socioeconomic conditions that might influence the informal sector street trader are considered below in terms of potential effects relating to entrepreneurial orientation, earnings and continuance satisfaction.

3.4. ENTREPRENEURSHIP AND THE INFLUENCE OF SOCIAL AND SOCIOECONOMIC CONDITIONS

According to Shane (1996) 80 percent of new jobs in certain contexts might be contributed by entrepreneurship, and entrepreneurship has importance in terms of

enhancing technological innovation, productivity and per capita incomes. However, in terms of socioeconomic conditions, Gnyawali and Fogel (1994) argue that entrepreneurship might not prosper if societal participants view it with suspicion. Enterprises may fail if they do not gain societal or cultural legitimisation, or if they are founded in an area that has as yet failed to gain this legitimisation (Aldrich, 1990).

A positive attitude toward entrepreneurship and widespread public support is needed to motivate new start ups, and entrepreneurial role models need to exist in the community, for entrepreneurship to prosper within a specific society (Gnyawali and Fogel, 1994). Ozveren (2005) argues that before the industrial revolution economic activities were not separate from social activities, they were embedded in the social context and a subsequent atomisation of the social dimension occurred as society was deliberately ordered around an economic sphere that was placed before all else, disembedded from the social. However, societal context and entrepreneurship are interrelated (Reynolds, 1991), and social change and political factors can influence the emergence of new firms.

Negative public attitudes toward private enterprise and profit making in developing countries may exist (Gnyawali and Fogel, 1994). The sociological perspective of entrepreneurship focuses on the societal and contextual factors, particularly the factors that encourage or constrain entrepreneurship, and examines the implications for factors such as societal modernisation, state intervention and other related factors (Reynolds, 1991).

The policies of the state, or government, can have a significant impact on enterprise survival and mortality (Reynolds, 1991). In certain countries state help for small business has increased the number of new firms; for example, in Japan and Italy certain firms are helped as long as they stay small, which has resulted in the referral of business that creates new firms (*ibid*.). However, in the USA firms seem to be earmarked for support on the basis of their potential to grow large (*ibid*.).

The unrecorded economy reflects entrepreneurial behaviour, with enterprise failure and gross numbers of start ups also being associated with certain factors, the size of this sector being related to the extent of formal constraints such as costs of

registration, taxation or statutory compliance (*ibid*.). The unrecorded economy may increase in size in response to crises or recessions (*ibid*.). The informal economy may also be influenced by the formal economy in that it can be used through subcontracting, for example, to displace dangerous work, or provide low wage work and avoid benefits payouts (*ibid*.).

Certain further theory related to entrepreneurship and different societal perspectives is reviewed below, in the section relating to country of origin. In terms of contextual factors and their contribution to the shaping of an entrepreneurial orientation and their contribution to entrepreneurial performance, the consideration of the economic conditions faced by informal sector traders over the period of the study was regarded as important in order to fully contextualise the tested relationships. Economic conditions as a factor are considered as follows.

- **Economic Conditions**

Economic conditions at the time of the study reflect a decline in the category of discouraged work seekers over the past two years, the unemployment rate having declined from 26.5 percent in March 2005 to 25.6 percent in March 2006 (Statistics South Africa, 2006), and to 23.1 percent for the period April to June 2008 (Statistics South Africa, 2008).

However, this was followed by a slight rise over the period July to September 2008 to 23.2 percent (Statistics South Africa 2008). It is unclear whether this slight rise represents an economic downturn that might influence the informal sector. However, in terms of the above statistics, the sector at the time of this research did reflect changes representing a positive economic climate for the preceding three- or four-year period in terms of decreasing unemployment.

For entrepreneurial continuance, favourable economic conditions were theoretically expected to "increase the income in alternative occupations, and thus increase threshold", yet this relationship was found to be insignificant by Gimento et al. (1997: 776). The threshold referred to here is the threshold needed to be met in terms of expectations of the entrepreneurial process in order to stay in an entrepreneurial

activity. According to this conception, with an improved economic climate entrepreneurs may be expected to need more incentives to stay in an entrepreneurial venture. In this regard, the informal sector was seen to lose 165 000 participants, notwithstanding the slight downturn in the unemployment total, for the period July to September 2008 (Statistics South Africa, 2008).

The economic environment and context in which the study takes place may be relevant in terms of the alternatives, or level and availability of alternatives and concomitant income. In terms of the decline in the unemployment rate from 26.5 percent in March 2005 (Statistics South Africa, 2006) to 23.2 percent for the period July to September 2008 (Statistics South Africa, 2008), this revealed an improving situation in terms of employment over this three year period.

The informal sector in March 2006, excluding agriculture, made up about 18 percent of total employment in the economy, with the formal sector contributing approximately 65 percent of total employment (Statistics South Africa, 2006). This indicates that the informal sector was approximately 27 percent of the size of the formal sector in terms of employment capacity at the time, although the informal sector had shown a larger increase in employment than the formal sector, this representing non agricultural employment (Statistics South Africa, 2006).

For the period July to September 2008 the formal sector made up approximately 69.12 percent of total employment (market production activities) and the informal sector made up 15.93 percent of total employment (market production activities) according to Statistics South Africa (2008).

In terms of the changes between 2006 and 2008, it might be possible to interpret trends with regard to the informal sector and the economic context faced by informal sector street traders. In March 2006 the informal sector made up about 18 percent of total employment, yet only 15.93 percent of total employment (market production activities) for the period reviewed in 2008 (Statistics South Africa, 2006; Statistics South Africa, 2008). The formal sector made up about 65 percent of total employment for March 2006, yet this was up to about 69.12 percent for the period reviewed in 2008 (Statistics South Africa, 2006, 2008).

This indicated a drop in informal sector employment over this time, and a rise in employment by the formal sector over this time. In March 2006 the informal sector made up 27 percent of the size of the formal sector and over the period July to September 2008 made up about 23.04 percent of the formal sector (Statistics South Africa, 2006, 2008).

During the period July to September 2008 approximately 9.439 million people were employed in the formal sector (non-agricultural), with 2.175 million employed in the informal sector (non-agricultural); informal sector employment made up 23.04 percent of the size of the formal sector (Statistics South Africa, 2008). These changes included the reduction in the informal sector by 7.05 percent from the second quarter to the third quarter of the year, with 165 000 informal sector participants leaving the sector, and the formal sector growing by 0.2549 percent over the same period (Statistics South Africa, 2008).

An increase in informal sector activity, including street traders has occurred over the last two decades, a growth which is associated with the influx of migrants: both South African and from other countries to the cities (Morris and Pitt, 1995), and that has influenced the nature and composition of Johannesburg's informal sector. However, of late the informal sector has been found to be decreasing in size, within a context of economic improvement as reflected in the reduction in unemployment and a larger growth in the formal sector relative to the informal sector (Statistics South Africa, 2008).

In terms of the argument that informal sector upliftment is possible according to factors within the control of the individual, and the effects of entrepreneurial orientation, the following section reviews certain informal sector street trading contextual factors in terms of their potential association with entrepreneurial orientation and entrepreneurial performance.

3.5. INFORMAL SECTOR STREET TRADING CONTEXTUAL FACTORS

According to the importance of testing entrepreneurial orientation relationships with regard to specific contingencies (Lumpkin and Dess, 1996), contextual factors are accorded a level of importance in this work. The effects of two categories of contextual factors on shaping entrepreneurial orientation dimensions and upon the dimensions of entrepreneurial performance were investigated: learning related contextual factors and non-learning related contextual factors. If an entrepreneurial orientation is able to be learned, this the conception offered by Stevenson and Jarillo (1990) and a core argument of this work, then certain investments in education are expected to be associated with the shaping of an entrepreneurial orientation and with increased levels of earnings or/and continuance satisfaction.

This conception, in so far as it relates educational contextual factors to an entrepreneurial orientation and to entrepreneurial performance, is tested in this work. Within these contexts: the context of the informal sector and the context of the developing entrepreneur, contextual factors are explored with reference to the literature. Hypotheses are then derived in the following chapter for testing with regard to entrepreneurial orientation theory and the research questions.

The following relationships tested in terms of certain contextual factors draw from Dasgupta (2003) whereby earnings are tested as a dependant variable and initial investment, educational background, hours of work, experience in current work and age are tested as independent variables. Educational and learning related contextual factors, as derived from the literature are tested as to how they shape an entrepreneurial orientation and how they contribute to earnings and continuance satisfaction.

Derived from the literature review, the following contextual factors are investigated as to how they shape an entrepreneurial orientation and as to how they contribute to earnings and continuance satisfaction, according to the research questions. In terms of potential discrimination and societal disadvantages, gender is included as a factor over which an individual has no control. It is expected that this factor would pick up

differences associated with entrepreneurial orientation and entrepreneurial performance according to gender.

Age, years in Johannesburg, hours worked per day and days worked per week are included as factors that represent the interaction of the individual with the entrepreneurial context. Initial investment is included to measure the return on investment in financial terms within the informal sector context and to investigate financial associations relating to entrepreneurial orientation and entrepreneurial performance.

The level of tertiary education, total schooling, experience and number of training courses attended are factors investigated as to their associations with entrepreneurial orientation and entrepreneurial performance. These factors are considered to be factors associated with human capital or learning.

Earnings and continuance satisfaction are also investigated in this work as contextual factors. Order of capture as a variable is included in order to capture variability that might have entered the process of the testing, or to reflect some underlying structure reflected in changes in respondents captured earlier or later in the survey process. Rental stand as a variable is included in order to measure the differences associated with having a legitimate stand in the city centre as opposed to trading on pavement space.

It is expected that country origin would be an important factor in the Johannesburg street trading context with regard to associations with entrepreneurial orientation and entrepreneurial performance. RSA nationality is therefore included as a factor after a literature review of immigrant entrepreneurship relevant to this research. Johannesburg origin is also included in order to capture effects associated with migration to the city. The contribution of these contextual factors to entrepreneurial orientation and to entrepreneurial performance is considered below in terms of related theory, according to this sequence. Relevant literature is reviewed below as follows.

3.5.1. GENDER

In terms of informal sector trading, differences between male and female traders might be relevant in terms of a differentiated contribution to entrepreneurial orientation and entrepreneurial performance. This difference might reflect societal or other relevant factors unique to the differences between the genders. This testing of gender as a factor might also allow for an investigation of the extent to which this context could be potentially discriminatory. Theory relating to gender and entrepreneurial orientation and entrepreneurial performance is considered as follows.

Researching three dimensions of entrepreneurial orientation: proactiveness, innovativeness and risk taking propensity, Chow (2006), in a study of enterprises in the Chinese context, found gender to have only a marginal effect on entrepreneurial orientation. In the Mexican context, in a study of small and medium enterprises, De Clerq and Ruis (2007: 483) found males to display higher levels of work commitment. However, it is expected that certain discriminatory effects might have an effect that is captured along certain dimensions of enterprise research.

Entrepreneurial persistence can be researched through the use of attributional measures whereby cognitive factors are explored (Gatewood, Shaver, and Gartner, 1995). Gatewood et al. (1995) found that counts of internal/stable and external/stable reasons for entrepreneurial choice successfully predicted entrepreneurial persistence for female and male entrepreneurs respectively. According to Gatewood et al. (1995), an example of an internal and stable reason for an entrepreneurial choice is wanting autonomy and independence in an entrepreneurial venture. An example of an external and stable reason for an entrepreneurial choice is the identification of a market need (*ibid*.).

An opportunity is taken to be an external and stable characteristic according to the locus of causality (external to the individual/internal to the individual) and to be a certain measure of stability (stable in the immediate short term/variable in the immediate short term), according to the testing performed by Gatewood et al. (1995).

Female potential entrepreneurs were found by Gatewood et al. (1995), in their longitudinal study, to actually tend to follow up and to have started businesses after offering internal and stable attributions. Male potential entrepreneurs were found to be more likely to have followed up and have become entrepreneurs after offering external and stable attributions.

According to this, differences between male and female street traders in terms of entrepreneurial orientation are expected to be possible, to the extent that attribution might occur in a similar manner to the effect found by Gatewood et al. (1995). It is thus expected that some effect of gender on entrepreneurial orientation and entrepreneurial performance is not to be ruled out.

According to Mueller (2008: 4) self-efficacy is "a psychological state generally defined as possessing self-confidence in performing a specific task", and self-efficacy is a key factor "in explaining why some individuals are motivated to become entrepreneurs and others are not". Mueller (2008) therefore argues that self-efficacy is important in terms of motivating entrepreneurial action.

Mueller (2008: 15) found no significant difference in entrepreneurial self-efficacy between male and female postgraduate students and argues that this "is important evidence in support of the argument that times are changing". According to this, the equality between males and females in an entrepreneurial context as relating to entrepreneurial self-efficacy might have been a result of the progressiveness of societal change.

However, Mueller (2008: 15) states that "gender stereotypes and socially-conditioned perceptions of what it means to be "masculine" or "feminine" persist", whereby in terms of gender-role orientations, "men are most likely to have a stereotypical masculine orientation and women are most likely to have a stereotypical feminine orientation", and differences in gender-role orientation were found to be differentially associated with differences in entrepreneurial self-efficacy.

According to Mueller (2008: 17):

> not all tasks are instrumental or "masculine" in nature. Some require expressive or "feminine" qualities. Moreover, demands on the entrepreneur change over time. Early in the venture creation process, the searching and planning tasks demand creativity and innovation where a strong mix of masculine and feminine traits (androgyny) improves performance. Later in the same venture creation process, an individual (male or female) with a strong masculine orientation seems better suited for undertaking entrepreneurial tasks associated with persuading and leading others.

According to this, entrepreneurial orientation might be expected to be associated with some effect relating to gender orientation. However, according to Mueller (2008) at best the results of the study may have little relevance with respect to other cultures different to the "progressive, egalitarian, Anglo-American society" from which respondents were drawn. Mueller (2008) suggests that future research on gender-role orientation and entrepreneurial self-efficacy should be undertaken with regard to other countries and cultures.

Using longitudinal data from Great Britain, in an analysis of responses of respondents in 1981 against results manifested in 1991, Burke, Fitzroy and Nolan (2002) researched the role of non-pecuniary motivation as a determinant of performance for entrepreneurs. Non-pecuniary motivation is taken to include factors such as a desire for independence or desiring to be one's own boss; having non-profit objectives for the enterprise; and enjoying the work associated with operating an entrepreneurial enterprise (*ibid*.). Burke et al. (2002) found differential effects to be associated with male and female entrepreneurs: differences between male and female entrepreneurs in terms of the effects of non-pecuniary motivation on performance.

The desire to be one's own boss was found to be a positive and significant determinant of choosing entrepreneurship for both males and females (*ibid*.). However, Burke et al. (2002) found a differential effect in terms of this on performance, and non-pecuniary motivation was found to have had a positive effect on the value of the enterprise for male entrepreneurs, yet this effect was not present in terms of female entrepreneurs (*ibid*.).

Robb (2002) found that, after controlling for enterprise related factors such as industry, employment, legal form, organisational structure, location and the age of the enterprise, women-owned businesses have higher failure rates than men-owned enterprises.

In terms of gender distribution, a relatively equal distribution of male and female street traders in and around Johannesburg was found, this according to a study by the City Council (O'Reilly, 2004). Entrepreneurial orientation contributes to performance differently depending upon the specific contingency or context (Lumpkin and Dess, 1996).

In terms of the differences found by certain of the above theorists in terms of gender, it is predicted that some differences will be found in terms of gender and the way entrepreneurial orientation is shaped by gender. Gender might therefore be associated with differences in entrepreneurial performance to the extent that predicted differences in entrepreneurial orientation might transmit an effect to entrepreneurial performance. If such differences were found, this would indicate a possible discriminatory context along the dimension of gender. Further, if this were associated with any potential advantage in terms of the effects of entrepreneurial orientation in this context for a gender group, then this would imply some potential disadvantage for the other gender group. Inequality and upliftment in this context are particularly relevant due to the fact that an individual has no power to change his or her gender.

Another informal sector contextual factor that might provide insight into the relationships around entrepreneurial orientation and entrepreneurial performance that is also not within the power of the individual to change is the age of an entrepreneur. Theory relating to age as an entrepreneurial contextual variable is reviewed as follows.

3.5.2. AGE

Earnings typically increase with age, but at a decreasing rate (Becker, 1993: 30), and age earnings profiles "tend to be steeper among more skilled and educated persons"

(Becker, 1993: 95). Opportunity is a necessary, yet not a sufficient condition for entrepreneurship: the individual is important in that the opportunity needs to be taken up and this is fundamentally related to factors unique to the individual (Shane and Venkataraman, 2000).

De Clerq and Ruis (2007: 483) found a positive relationship between an individual's age and their commitment and effort in the Mexican context of small and medium sized enterprises. If commitment and effort were universally positively associated with increased earnings then this would predict that age would be associated with increased earnings, to the extent that other age related factors did not together create a net effect that worked against this positive effect.

Certain triggering factors that contribute to entrepreneurial decision making are not related to the socio-economic environment, but are associated with certain intrinsic characteristics of the individual, which tend to be path dependent (Levesque and Minniti, 2006). Age would be an example of a characteristic intrinsic to the individual. Various studies have shown a positive relationship between an entrepreneur's level of human capital as measured along the dimensions of age, education, work experience and other variables, and new firm performance (Lynskey, 2004).

In an entrepreneurial context, however, as individuals age, relatively more time is allocated to "waged labour and relatively less time to new firm creation" (Levesque and Minniti, 2006: 188). Levesque and Minniti (2006: 178) argue that "the effect of age on entrepreneurial decisions is analogous to that of an inherent factor", that "age influences an individual's decisions with respect to entrepreneurship in ways that are related to perceptions of self-efficacy and that do not depend on socio-economic incentives."

According to Levesque and Minniti (2006: 189), as individuals get older, they allocate relatively more time to waged labour and relatively less time to new firm creation "because the discount attached to each dollar of future income increases as the individual gets older and, as a result, activities requiring a time commitment before becoming income producing, such as a new firm, are penalised with respect to

activities with immediate payoffs such as waged labour". According to this, older individuals would be predicted to be less entrepreneurial. According to Levesque and Minniti's (2006) conception, age would be expected to shape entrepreneurial orientation. Age would therefore be expected to be associated with lower levels of entrepreneurial orientation.

Age is found to be associated with a lower continuance threshold as older entrepreneurs are found to accept lower returns (Gimento et al., 1997) from entrepreneurship to stay in entrepreneurial ventures. Gimento et al. (1997) found the effect of age on performance to be significant ($p<0.10$) in a one-tailed test, although the authors consider this to possibly be due to the factor taking up other human capital effects. Levesque and Minniti (2006: 178) found support for a model showing that after a certain threshold age is reached, "individual willingness to invest time in starting new firms declines."

The age of the enterprise was found by Gimento et al. (1997: 776) to have no significant relationship to threshold levels, this suggesting "that the processes underlying the 'liability of newness' phenomenon tend to influence exit mainly through the performance component".

In terms of the above conceptions, according to certain theorists, age as a component of human capital is expected to be associated with higher earnings. However, if other of the above predicted associations are taken into account and a net effect is derived from the literature, this effect is expected with less certainty.

3.5.3. YEARS IN JOHANNESBURG

Becker (1975: 106) argues that there "is some evidence that in the United States, persons with urban employment" tend to invest more in formal education than those with rural employment due to the higher rates of return available to those that are engaged in urban employment. According to this, if individuals from rural areas moved into the urban context, then the investment in education might change from the pattern associated with rural areas, to that associated with urban areas. This might

have a longitudinal effect if certain entrepreneurial behaviour norms are associated with context. This longitudinal effect and other effects relating to a change in entrepreneurial orientation and entrepreneurial performance might be captured, to some extent, through the use of years in Johannesburg as a tested variable.

According to Hagan (1962) a link exists between economic growth and political and social change. According to this the economic growth that Johannesburg has experienced over time might have had an effect in terms of social change. The testing of this factor might be expected to reveal significant associations, these revealing the effect of exposure to the Johannesburg context over time.

Certain cultural values of groups can be conducive to entrepreneurship (Light, 1984). Thus it is possible that the effect of social change (Hagan, 1962) might be associated with a change in economic growth. If individuals do change their cultural values to some extent due to their exposure to the urban city culture over time, then there might be some captured effect in terms of changes in entrepreneurial orientation and entrepreneurial performance that might result from this exposure to the Johannesburg context. Hours worked per day and days worked per week are discussed next, these being variables that capture some aspect of the working conditions faced by informal sector street traders.

3.5.4. HOURS WORKED PER DAY AND DAYS WORKED PER WEEK

Long hours, poor working conditions and low income are generally experienced by participants in the informal sector (Morris and Pitt, 1995). In terms of this, hours worked per day and days worked per week were included as contextual measures of the potentially poor working conditions faced by informal sector street traders.

Entrepreneurs are associated with long hours during the start-up phase of the enterprise, growth periods and times of crises (Bird and Jelinek, 1988). In a survey of Johannesburg street traders carried out by the Johannesburg City Council, it was found that traders worked between eight and eleven hours per day, this varying according to seasonal influences (O'Reilly, 2004). This might represent a negative

aspect of street trading, in that hours and minimum conditions of employment in the formal workplace are regulated by law, for example being covered by the Basic Conditions of Employment Act: Act 75 of 1997 (Bendix, 2001), and yet street traders are without this protection in terms of hours worked and in terms of earnings.

Asset endowments could cause one to prefer to be an entrepreneur rather than a worker with stipulated daily working hours (Harada and Kijima, 2005). In terms of asset endowments, informal sector street traders might be exposed to a discriminatory context due to their lack of resources. They are exposed to an environment and context in which long hours and low earnings are the norm (Morris and Pitt, 1995) due to a lack of alternative opportunities. This might be different from a context in which an entrepreneur might be empowered through increased earnings to the extent that leisure is preferred to work due to higher earnings effects (Douglas and Morris, 2006).

If an individual earns at an increasing rate, and an even higher wage rate is offered, the individual may choose greater leisure at a higher wage rate and may choose to reduce the number of hours worked despite this higher wage rate according to Douglas and Morris (2006). In other words, at this higher level of earnings the individual may prefer to substitute leisure time in favour of work time "despite the opportunity to earn even higher income", in which case a reversed labour supply curve effect occurs (Douglas and Morris, 2006: 405).

Should street traders that earn more make the choice to "spend" more of their time on leisure as a result of higher earnings, it is predicted that an increased number of hours worked per day or days worked per week might not necessarily be associated with increased earnings for those street traders that earn over the threshold that enables this effect. However, for street traders that earn under this threshold, it is predicted that increased earnings might be associated with increased hours worked per day and days worked per week.

An entrepreneurial orientation can have a positive effect on the internal practices of an enterprise, as employees in more entrepreneurial firms "may experiment more freely and thereby by more willing to devote substantial energy" to their enterprises

(De Clerq and Ruis, 2007: 483). As a result, it is predicted that a higher level of entrepreneurial orientation might be associated with longer hours worked or days worked per week.

De Clerq and Ruis (2007: 483) found a negative effect in terms of increased size of an enterprise as related to commitment and effort in small and medium enterprises in Mexico. In consequence, it is expected that the smaller enterprise such as a street trading venture might be associated with higher levels of commitment and effort than larger enterprises, and this might be reflected in terms of hours worked per day or days worked per week. In a context that is inherently discriminatory along the dimension of unequal access to resources, initial investment represents a measure of the unequal endowment of financial resources faced by individuals entering the sector. Initial investment is considered as follows.

3.5.5. INITIAL INVESTMENT

Van Praag, de Wit and Bosma (2005) found that initial capital constraints significantly reduced performance for entrepreneurs. Van Praag et al. (2005) found that, in terms of their research within a specific context of Dutch enterprises, entrepreneurs that had experienced a shortage of capital in terms of their initial business investments experienced up to 63 percent lower profits.

Choices relating to entrepreneurship are constrained by access to capital and liquidity (Evans and Jovanovic, 1989), this also potentially having an exclusionary effect. This constraint represents an unfair and discriminatory context if certain street traders are less able to control factors related to their upliftment than are other traders. In terms of this, certain literature is reviewed and considered below in terms of predicted associations and in terms of understandings developed that relate to the potential of initial investment to shape an entrepreneurial orientation and to contribute to entrepreneurial performance.

It is an argument of this work that a return on capital and a return on human capital does exist in the informal sector and that a knowledge of entrepreneurial orientation

can provide understandings that might enable upliftment, or identify discriminatory factors or constraints to informal sector street trading upliftment. Another argument for the inclusion of the initial investment variable is that the exclusion of the capital variable in a study of street vendors in Mexico was found to overstate the return found on education (Smith and Metzger, 1998).

Financial constraints can be overcome through saving, over the long run (Parker, 2000), and other factors may also affect potential earnings. It is argued that an entrepreneurial orientation has the potential to increase earnings and satisfaction according to the specific context that an individual faces. It is also argued that learning occurs in a context, over time.

Displacement can act as a push factor and can contribute to the initial entry into self-employment yet resources are needed to form companies and company formation rates might not be seen to rise in recessions (Shapero, 1975), this perhaps being an indicator of the importance of these resources in the form of initial investment. However, it might be argued that displaced or impoverished individuals without access to the resources to start a formal company might still have access to the informal sector in that entry barriers in terms of initial investment levels are relatively low.

In this regard initial investment is not regarded as a fundamental obstacle to entry into the informal sector, yet this variable is tested in terms of the importance of the argument that there are returns on investment in the informal sector: on the investment in education related factors (human capital) in the informal sector (Smith and Metzger, 1998), and that there are entrepreneurial returns on initial investment (Van Praag et al., 2005). It is therefore predicted that both of these would be found to be related to entrepreneurial performance: to be positively associated with earnings.

Initial capital and size of the enterprise are found to influence continuance through their effect on the threshold: the total reward of extrinsic and intrinsic factors needed for the individual to continue in an entrepreneurial venture, according to Gimento et al. (1997). Higher initial investment is found to be associated with lower threshold levels and higher levels of size with higher thresholds by Gimento et al. (1997: 776).

In addition, Robb (2002) found smaller enterprises more likely to fail than larger enterprises.

Stearns et al. (1995) suggest that factors such as access to capital and relationships with buyers and suppliers might mitigate the influence of locational, strategic or industry factors in terms of their impact on enterprise. Bird (1988: 446) argues that "entrepreneurs with greater personal, financial and psychological investment in the new venture experience greater temporal tension". The intentions of the founding entrepreneur "determine the form and direction of an organisation at its inception" according to Bird (1988: 444). "Subsequent organisational success, development (including written plans), growth, and change are based on these intentions, which are either modified, elaborated, embodied, or transformed" and this has an effect on entrepreneurial success through survival and growth (ibid.: 444).

In terms of entrepreneurship theory, Churchill and Lewis (1983) offer a framework in which businesses face similar changing sets of challenges as they move through stages of development. According to Churchill and Lewis' (1983) conception, the first stage of enterprise development is associated with the total involvement of the entrepreneur, a lack of formal systems, and critical challenges crucial to the firm's survival exist in the form of customer acceptance, product capability, decreasing levels of start up capital, and the pressures on the entrepreneur in terms of time and effort.

This stage of development, the lowest of this framework, according to Churchill and Lewis (1983) represents challenges that need to be surmounted if the enterprise is to move to the next stage. The second stage of enterprise development (Churchill and Lewis, 1983), is associated with the challenge of generating cash flow to maintain capital or other operational assets and to sustain enough of a return to compensate the entrepreneur for his/her commitment. Churchill and Lewis (1983) argue that at this point the firm could move in one of two directions: crossing into the next stage of success or staying at the same level, sometimes permanently.

If initial investment is found to be associated with higher earnings, then constrained levels of initial investment might also constrain the potential development of an

enterprise. If this is the case, this informal sector street trading context might represent a discriminatory context because inequality in terms of unequal access to initial investment might constrain the development and upliftment of an enterprise. The potential development of the enterprise might therefore be restrained from further stages of development suggested by Churchill and Lewis (1983).

Churchill and Lewis (1983) outline a third stage in the development of an entrepreneurial firm: the successful scenario of a consolidated operation as it is leveraged for growth. Critical challenges faced at this third stage are leverage related cash obligations, the need for management development and the need for intense strategic planning (ibid.).

Functional managers and operational budgeting at this third stage could enable a certain possible disengagement on the part of the entrepreneur as contrasted with the intense levels of commitment associated with the earlier stages of the development of the entrepreneurial firm (Churchill and Lewis, 1983). Localised service firms and certain franchises can often be found in this stage of development (ibid.). If initial investment is related to increased cash flow in terms of increased earnings, then low levels of initial investment would represent an inherent barrier to advancement into these higher levels of entrepreneurial development.

However, O'Farrell and Hitchins (1988), in their review of theories of entrepreneurship, criticise those theories falling into the stages of growth category in that they may lack a conceptualisation of the actual processes underlying the growth. According to O'Farrell and Hitchins (1988) stages of growth theories primarily concentrate on classification and assume that firms will grow through these phases or fail in the process.

O'Farrell and Hitchins (1988) argue that these theories fail to account for entrepreneur differences that could explain why some strive for growth and others are content with stalled, marginal performance. Accordingly, the investigation of individual differences such as those associated with different individual endowments of entrepreneurial orientation might allow for such an accounting of entrepreneur differences as to their contribution to performance.

In terms of isolating the individual from other factors within the context of entrepreneurship, the context of franchising represents a situation where process has been standardised. The individual can be considered to have been removed from this process to some degree. Churchill and Lewis (1983) regard franchises as firms that start up in the existence phase, yet have advantages in terms of standardised systems, operating procedures, promotion and marketing. According to Churchill and Lewis (1983), however, many franchises suffer from territorial stipulations, franchisor dependence and a lack of experience, experience that might otherwise have been gained had the early stages of the firm's development not been bypassed. The individual street trader might be considered to operate a venture where the individual is central to the enterprise, unlike the franchised operation.

Teltscher (1994), in a study of informal traders in Ecuador, found higher returns to be associated with informal traders who stocked technologically oriented goods, although access to capital and relationships with suppliers were significant constraints in this regard. This might indicate that the constraints associated with initial investment might also extend to street traders at the higher range of income associated with more capital intensive product offerings.

Morris and Pitt (1995), in terms of their informal sector research study, found that about 75 percent of tested traders who produced and sold products or services had started their enterprises with R500 or less, and 54 percent had started with R100 or less: this money was sourced personally in 80 percent of the cases and from family in 13 percent of the cases.

In terms of the supply of capital utilised by informal traders in the Ecuador context, Telscher (1994) found 28 percent of the capital supply to have been accessed from personal savings and 27 percent from friends and family: most in small amounts as few (9 percent of the sample) were found to access banks which regard informal traders as high risk regarding bank lending. According to Telscher (1994), suppliers and personal relationships are also used to gain access to capital, with 55 percent of vendors found to be using credit, a form of finance preferable to another option: the

loan sharks, or chulqueros, who were used by 21 percent of the sample, a heavy burden for the poorest of the sample.

In terms of the following conceptions: that entrepreneurs might have a different perception of risk than distanced others (Shapero, 1975); that a cognitive orientation that minimises conceptions of regret and reflection may be displayed by entrepreneurs (Baron, 1999); and that a higher level of risk propensity was associated with riskier decisions (Forlani and Mullins, 2000: 317), it is predicted that individuals with higher endowments of risk taking propensity would invest more in initial investment, despite this representing a riskier decision than a lower level of initial investment. A positive and significant association between risk taking propensity and initial investment is therefore expected, if an individual with a higher level of risk taking propensity does have the opportunity of investing a larger amount.

In terms of the above conceptions reviewed, it is predicted that a positive return on initial investment would exist in the informal sector street trading context. It is therefore predicted that a positive and significant association between initial investment and increased earnings would be found in terms of testing these factors within this context. It is argued that a positive return on financial capital does exist in the informal sector context. The potential return on human capital is considered as follows.

3.5.6. HUMAN CAPITAL, NETWORK THEORY AND TOTAL EDUCATION

It is an argument of this work that there is a return on human capital and financial capital in the informal context, and that insight into these returns can be developed through an investigation of the influence of entrepreneurial orientation in this context. It is also argued that entrepreneurial orientation is shaped by context, that educational and learning factors shape entrepreneurial orientation, which is associated with entrepreneurial performance, and that entrepreneurial orientation can be learned.

Also of importance in terms of this exercise is the consideration of the unfair or unequal access of individual entrepreneurs to contextual resources that might enable

their upliftment. Related to human capital is another "capital", this related to network theory, termed social capital. In terms of this, the potential returns on human capital and social capital are explored in this section. Certain theory relating to human capital, network theory as represented by social capital, and total education is reviewed as follows in terms of predicted associations with entrepreneurial orientation and entrepreneurial performance.

3.5.5.1. Human Capital

One perspective associated with the consideration of returns on investment in education is human capital theory (Becker, 1975). In this work, human capital and education are defined as synonymous terms in relation to each other. In some cases the term chosen is dependent only upon its source in the literature.

Human capital theory stresses the potential of the individual, through the investment in education, to solve the problem of low wages and unemployment through behavioural factors such as the acquisition of skills (Becker, 1975), yet dual labour market theorists are an example of theorists that contest this and stress the structural factors that exist whereby individuals are not able to improve wages, skills and status (Cassim, 1982) within certain contexts. Implied here from the latter perspective is that in certain contexts there is no return on learning factors: that choices made to increase productivity through education and training, for example, would have no impact on their earnings.

However, in the same manner as the initial effect of initial investment can become insignificant over time due to the potential to save, even on a low level over time (Parker, 2000), levels of educational endowments may also be increased after entry into the informal sector. For Becker (1975: 9), investments in human capital include:

> schooling, on-the-job training, medical care, migration, and searching for information about prices and outcomes. They differ in their effects on earnings and consumption, in the amounts typically invested, in the size of returns, and in the extent to which the connection between investment and return is

perceived. But all these investments improve skills, knowledge, or health, and thereby raise money or psychic incomes.

According to this, migration, training and education might contribute to earnings and satisfaction levels: the components of entrepreneurial performance. Measures were included for testing in this work such as schooling, training and migrant status in order to test the contribution of these contextual factors to an entrepreneurial orientation and to entrepreneurial performance. In terms of the above conception of Becker (1975), schooling, work related training courses, health, migration and better access to information would be factors expected to be related to increased earnings and continuance satisfaction.

Bates (1990: 553) stressed the importance of small business exposure within a person's family as a human capital factor contributing to entrepreneurial capabilities. According to Bates (1990: 553) the development of entrepreneurial values in the individual and familiarisation with the "small business milieu" contribute to entrepreneurial capabilities.

Lynskey (2004) states that endowed abilities, experience, trained skills, attitudes and behaviour are some recurring elements in many definitions of what is understood to be human capital. Various studies have shown a positive relationship between an entrepreneur's level of human capital as measured along the dimensions of age, education, work experience and other variables, and new firm performance (Lynskey, 2004). Human capital can be differentiated into general human capital and specific human capital according to Becker (1975). General and specific human capital are considered as follows.

According to Becker (1975) general human capital refers to the human capital that is transferable to other contexts. The human capital investment in training, for example, that can be transferred across from one field of work to another would be general human capital. Training that was specific to one field of work and that would entail no benefit in another field would be an example of specific human capital (Becker, 1975), whereby no return on this capital would be found in a different context.

Gimento et al. (1997: 774) tested the conception that higher endowments of general human capital in entrepreneurs might be associated with higher requirements, or a higher threshold of continuance that they might have for their enterprise, which if not met might lead to entrepreneurial non continuance. Gimento et al. (1997) found this to be "only partially supported" by their results.

Gimento et al. (1997: 774) found that general management experience (related to managing managers) was related to an increased entrepreneurial survival threshold. Gimento et al. (1997) argue that this suggests at the least a degree of comparability between the value of certain forms of general human capital in entrepreneurship and employment. Gimento et al. (1997) also argue that the higher entrepreneurial threshold associated with entrepreneurs with higher levels of general human capital possibly reflects a situation where general human capital is more valued in more complex organisations such as those associated with employment.

Gimento et al. (1997: 775) conclude that "[a]pparently, specific human capital influences survival by increasing the gap between performance and threshold (i.e. increasing performance without raising the threshold". If specific human capital increased performance but did not increase the threshold, then entrepreneurs with increasing levels of specific human capital might not be more inclined to leave an entrepreneurial venture due to this increase in specific human capital.

In terms of the informal sector street trading context this would indicate that specific human capital increases would not be expected to specifically enable the informal sector street trader to exit the sector for formal employment. Increases in general human capital, however, might be expected to enable an informal sector street trader to leave the sector for formal employment, because general human capital might offer skills that are general, or transferable to the formal working context.

Increased levels of specific human capital, however, would be expected to be associated with increased levels of earnings, because this increase in specific human capital might be associated with increased productivity specific to the enterprise. Increased levels of general human capital would also be expected to contribute to higher levels of earnings should these enterprises remain within the specific context.

In the street trading context, respondents surveyed might have been exposed to general and specific human capital increases, but the type of human capital would not be expected to necessarily have a different effect on the measured level of earnings.

A founding firm's levels of financial resources, human or personnel resources, systems resources and business resources can have a significant impact on the firm's survival (Churchill and Lewis, 1983). In terms of human resources in the informal street trading context this would apply to the education or human capital of the entrepreneur. The informal sector trader can be considered to have entered the sector with a certain endowment of financial and human capital.

Gimento et al. (1997:775) found that education and supervisory experience were not related to the threshold, or the minimum total extrinsic and intrinsic rewards needed to continue in entrepreneurship, and therefore concluded that "returns to education and supervisory experience may be somewhat better in self-employment" for their researched sample of entrepreneurs.

A significant factor in terms of earnings is the transmission mechanism whereby increases in human capital in the form of education and training might be associated with increased productivity (Becker, 1975), which might then be associated with higher levels of earnings. According to Michaud and Vencatachellum (2003), human capital increases productivity through different effects.

For Becker (1975: 39), real income can be raised by schooling and by on-the-job training, yet also "primarily by increasing the knowledge at a person's command"; for example, information "about the prices charged by different sellers would enable a person to buy from the cheapest, thereby raising his command over resources". According to Becker (1975) real income can be increased through knowledge of the labour market whereby individuals might be enabled to sell their labour to the highest paying enterprise. Becker (1975: 39) states that information "about the political or social system─the effect of different parties or social arrangements─could also significantly raise real incomes".

Access to information may be enabled though through the diversity of media available to populations, facilitating entrepreneurial activity through the knowledge of opportunities (Aldrich, 1990). O'Farrell and Hitchins (1998) suggest that policy makers take into account the ignorance of firm owners with regard to external resources potentially made available to them, as aids, incentives and advisory services may not reach certain entrepreneurs, particularly in peripheral areas.

However, certain positive conceptualisations related to education and human capital have been contested. It is argued that a review of education and human capital relationships with regard to entrepreneurship would not be balanced unless an attempt is made to consider diverse voices with regard to the effect of human capital as it relates to human agency. In this regard the contribution of Bowles and Gintis (1975) is reviewed, in order not to exclude the theoretical context from which human capital theory has faced criticism over time. Bowles and Gintis' (1975) arguments are reviewed as an example of the type of theory that contests fundamental assumptions associated with human capital theory.

Bowles and Gintis (1975: 78) criticise the idea of choice and upliftment potential being ascribed to individuals by human capital theorists, and argue that "the process of individual choice aggregation, even if it is relevant to educational change, works within economic constraints determined almost entirely outside both the consumer's and citizen's arena of choice". Cassim (1982: 364) uses the above quote from Bowles and Gintis in support of the argument that economic inequality is a "structural aspect of existing society", and that individuals have no choice regarding race, social class, sex and age. According to Cassim (1982: 364), race, social class, sex and age are the determinants of economic choice due to the perpetuation of inequality by reproduction of the status quo: the contribution of the education system.

Human capital theory, by not recognising "that the education structure reproduces the status quo by maintaining existing privileges", cannot claim to hold the solution to poverty and inequality or offer choices to the economically disadvantaged that are in fact structurally constrained (Cassim, 1982:364). From this perspective agency is absent, and the individual is trapped within structural constraints; the informal street

trader is considered, then, to be subject to structural constraints, and to be trapped within a condition of impoverishment.

It is an argument of this work, however, that knowledge of the specific effects of entrepreneurial orientation, educational and other contextual factors in the informal sector might hold the key to overcoming structural constraints. Therefore, the conception of education as maintaining a status quo is fundamentally incorrect, if education is related to higher potential productivity for street traders. It is argued that education and learning related factors are associated with entrepreneurial orientation and increased earnings even if the informal street trading context is an example of one of the most impoverished contexts in which entrepreneurs might exist.

Notwithstanding this, it is recognised that the effect of structural constraint does exist. Structural constraint might exist through unequal and discriminatory contextual factors. These unequal and discriminatory contextual factors may have a more powerful effect for certain street traders than do the individual's inherent factors that might otherwise facilitate upliftment. It is argued that conceiving of the informal sector as homogenous and structurally impaired is not helpful in terms of accessing information that can enable the upliftment of these individuals. The true nature of the informal sector is not clear if homogenous conceptions are accepted.

Research into this is regarded as critically important, it is argued, because the positive effects of education related factors do have an effect in this context, and the potential for upliftment therefore does exist. This upliftment is considered to be dependent upon the reduction in the problem space around the knowledge of entrepreneurial informal sector street trading and enterprise as a learned vehicle for informal upliftment. The contributions of theorists such as Bowles and Gintis (1975) are considered to enrich the theoretical context around the legitimacy of entrepreneurship and the legitimacy of assumptions made about the value of human capital as a productivity enhancing conception.

Bowles and Gintis (1975: 74) state that

> [h]uman capital theory is the most recent and perhaps ultimate, step in the elimination of class as a central economic concept. Beginning with the decline

> of Ricardian economics in England in the 1830's, non-Marxian economic theory has moved steadily away from attributing control of factors of production to identifiable groups and toward a theory of factor payments which self-consciously abstracts from the specific nature of the productive factors involved. In modern general equilibrium theory one can hardly tell the inputs from the outputs, much less distinguish among any specific inputs. Human capital theory is an expression of this tendency: every worker, the human capital theorists are fond of observing, is now a capitalist.

According to Bowles and Gintis (1975: 75), by restricting analysis "to the interaction of exogenously given individual preferences, raw materials (individual abilities) and alternative production technologies, human capital theory formally excludes the relevance of class and class conflict to the explication of labour market phenomena." Bowles and Gintis (1975: 76) state that "worker attributes, which are valued by employers and which therefore constitute "human capital", are not limited to technical skills and "abstract productive capacities" and include race, sex, age, ethnicity and credentials that are used as criteria by capitalists to "fragment the work force and reduce the potential formation of coalitions" within enterprises.

Bowles and Gintis (1975: 77) state that "we have elsewhere sought to document the proposition that schools produce "better" workers primarily through the structural correspondence of the social relations of education with those of capitalist production, rather than through the content of the academic curriculum". For Bowles and Gintis (1975: 77), the "allocation of workers to job slots, the structure of jobs available, and the definition of 'productive' worker attributes simply cannot be derived, as the human capital theorists would have it, from a market-mediated matching of technically defined skills with technically defined production requirements".

"Issues of power, and ultimately of class, enter on a rather fundamental level", which human capital theorists fail to take into account, argue Bowles and Gintis (1975: 77). According to Bowles and Gintis (1975: 80), "because of the essential role of education in reproducing the capitalist order as a whole, the capitalist class has an interest in schooling which transcends any narrow calculation of marginal revenue products at the enterprise level", and no equality "in rates of return, either among

different types of schooling or between schooling and other forms of investment" should be expected.

According to Bowles and Gintis (1975: 81), the "relationship between schooling and the distribution of income cannot be understood with a model which lacks a theory of reproduction, for a central aspect of this relationship is the role played by the school system in legitimising economic inequality". It is "illogical to suppose that the reduction in inequalities in the distribution of schooling might lead to changes in income inequality in any particular direction", although this might occur by undermining the legitimacy of the capitalist class control of the education system, according to Bowles and Gintis (1975: 81).

The "education system is a prime example of an institution geared toward the alteration of preferences themselves" and so using individual preferences is a shortcoming of cost benefit analysis, argue Bowles and Gintis (1975: 81). It is the stance of this study, however, that increases in human capital and education related contextual factors do contribute to increases in productivity even at this most elemental level of enterprise. It is also argued that entrepreneurs do exist within the population of informal sector street traders, but within an unfair, unequal and potentially discriminatory context.

The exact investigation of relationships offered by Bowles and Gintis (1975) was, however, beyond the scope of this investigation. This theory was, however, included due to its fundamental criticism of human capital theory at a higher level of abstraction. This inclusion provides a more comprehensive insight into the theoretical criticism that human capital theory has faced.

In this context it is argued that human capital, as tested and measured in terms of education related contextual factors, represents the potential for human agency to influence earnings and satisfaction. It is also argued that human capital shapes entrepreneurial orientation.

An entrepreneur's education and financial capital may be positively related to the survival of firms (Bates, 1990), and the education level of the entrepreneur may

contribute to the ability to access financial capital in the form of financing. Chow (2006) investigated associations between entrepreneurial orientation, as composed of proactiveness, innovativeness and risk taking propensity, and levels of education in the Chinese enterprise context. Chow (2006) found a positive and highly significant correlation between higher levels of education and entrepreneurial orientation. The relationship between human capital and entrepreneurship is dynamic, with each affecting the other over time according to Zahra and Dess (2001).

Van Praag et al. (2005) found, in terms of their research within a specific context of Dutch enterprises, that the effect of capital constraints on profit drop up to 59 percent when controlling for human capital effects. Van Praag et al. (2005) found the effect of this capital constraint to remain significant after controlling for human capital effects, which indicates that human capital is positively associated with performance, whilst simultaneously reducing the capital constraint on the enterprise.

Higher levels of human capital may be associated with higher levels of innovation (Aldrich, 1990), and educational linkages may contribute to the creation of social networks and social capital: the potential achievement of outcomes and resources derived from social networks (Coleman, 1988). It is argued that the benefits of social networks are potentially available to informal sector participants. A brief review of networks and social capital is considered below in terms of predicted relationships.

3.5.5.2. Networks and Human Capital

Certain factors related to the development of human capital might be associated with certain network factors that might be expected to contribute to increased potential earnings (Coleman, 1988). Coulthard (2007:33) found, in terms of a review of four studies that had utilised the entrepreneurial orientation construct, that a "consistent competitive strategy identified in the surveys related to developing strategic alliances or networks". Coulthard (2007) therefore argued that entrepreneurial orientation research related to performance might be enhanced through the inclusion of a construct covering relationships. Literature relating to relationships, in particular networks and social capital, was reviewed as follows.

The conceptual separation and allocation of entrepreneurial variables into the three categories of entrepreneur, firm and environment can be misleading if viewed from a network perspective, because a network approach entails the penetration of organisations and environments by boundary spanners and other organisation members through their personal networks according to Dubini and Aldrich (1991).

These networks either hinder or open up opportunities, which are taken up through a process: the networking process, which is not static, according to Dubini and Aldrich (1991). For Dubini and Aldrich (1991) the networking process comprises two different types of networks: the individual personal networks of a focal individual; and collective, extended networks. These social networks are enacted by participants, and some aspects of the enactment of social networks by the individual may be learned according to Dubini and Aldrich (1991). Network theory is further reviewed as social capital theory, which considers social networks and the potential of informal traders to apply learned insights related to social networks.

According to Coleman (ibid.), social capital is fundamentally the "relations among persons", that enables the facilitation of productive activity and the access to resources. Becker's concept of human capital was used by Coleman (1988: S100), whereby human capital "is created by changes in persons that bring about skills and capabilities that make them able to act in new ways", to contrast and illustrate the concept of social capital. Coleman (ibid.) argues that social capital "comes about through changes in the relations among persons that facilitate action".

According to Dubini and Aldrich (1991) two ties can arise between people: weak, market mediated ties such as a once off street sale, or strong ties such as with a long-term supplier. Dubini and Aldrich (1991) argue that weak ties are associated with potential pitfalls in the form of opportunism, uncertainty and exit, and argue that strong ties are associated with trust, predictability and complaints rather than immediate exits.

Weak ties can be developed into strong ties (low density ties into high density ties) whereby the critical factor becomes trust, and risk is reduced for both parties, according to Dubini and Aldrich (1991). Developing weak ties into strong ties can

develop the positive relationship between the diversity of an entrepreneur's networks and the opportunities that open up (weak ties also providing information linkages), and both of these ties can expand an entrepreneur's span of action and low cost access to resources (Dubini and Aldrich, ibid.).

Social capital is found in permeable networks of relationships and can be created inadvertently or purposefully, with high levels of permeability being associated with, for example, a well functioning social society (Robison and Flora, 2003). Direct ties also create further indirect ties by some kind of multiplier effect, increasing the potential access of information and resources to the entrepreneur (Dubini and Aldrich, 1991).

The density of a network can be measured by the number of ties to the potential number of ties, these ties also being dependant for their creation on reachability: a path between them, according to Dubini and Aldrich (1991). These ties are often facilitated by brokers who link units or individuals, or a brokerage environment such as organisations, or public meeting places (ibid.).

Social capital is potentially available to economic participants to a greater extent than financial capital (Lin, 2001), and these potential applications might be regarded as available even to a minimal extent to individuals simply by virtue of their being members of a society. It is expected that social capital linkages would have an effect on entrepreneurial orientation and on entrepreneurial performance through the effect of groupings of people, this being most strongly reflected in culture. Social capital linkages are expected to underlie the effects of variables such as years in Johannesburg, Johannesburg origin, and South African origin.

It is expected that education related factors would also pick up social capital effects in the testing process. Social capital is therefore considered as an asset and a return on social capital is expected. However, only the net associations with regard to each tested factor are specifically investigated. The underlying relationships had to be derived from the literature review in order to provide a deeper understanding and insight into predicted associations. These specific underlying relationships are not directly tested in this research.

Burt (2001: 32) argues that social capital is the asset that arises out of linkages with other people, a "contextual complement to human capital", an asset related to "a concept of location effects in differentiated markets" akin to Bourdieu's conception of social capital as resources that are obtained from social structure. This conception is in line with the consensus of social capital theorists such as Putnam and Coleman (as cited in Burt, 2001: 31), whereby the social capital metaphor is embraced, social structure being envisioned as capital that can generate competitive advantages for individuals and groups.

At the highest level of application, the identification of present networks, production ties, symbolic ties, key brokers and people can be undertaken: a political plan for a venture (Dubini and Aldrich, 1991). Dubini and Aldrich (1991) argue that this exercise could contribute to effective entrepreneurship and that these networks need to be maintained and stabilised with a view to effectiveness and efficiency. According to Dubini and Aldrich (1991) these networks are a serious asset for the enterprise, as the entrepreneur is inextricably embedded in the social context.

If these networks are serious assets for the enterprise, then a more extensive use of networks or social capital linkages would be predicted to be positively associated with higher earnings. Although not directly tested as a factor, it is expected that these social network effects might be captured because they are embodied to some extent through their contributions to the tested associations between measured contextual factors and entrepreneurial orientation and between these contextual factors and entrepreneurial performance.

School linkages and training courses might facilitate networking opportunities. An increase in human capital might contribute to the awareness of these potentialities. In the above section, literature relating to social capital and network theory was briefly considered in order to inform an understanding of the informal sector context within which an informal trader operates, whereby economic activity is embedded in the social context (Dubini and Aldrich, 1991). The specific consideration of total education and its potential to shape an entrepreneurial orientation and its contribution to entrepreneurial performance is undertaken as follows.

3.5.5.3. Total Education

For Becker (1975: 37), schools are defined as institutions specialising "in the production of training", ranging from more specialised training to "a large and diverse set" of skills such as that offered by universities. According to Becker (1975) schools are differentiated from firms that provide training and produce at the same time, yet schools and firms were often found to be alternate sources of particular skills. Total education as a tested factor was comprised of the total formal education of an individual. This also included tertiary education. In this section, literature is broadly reviewed related to total education and predicted associations.

Different types of skills are learned more easily, and these are more suited to on-the-job learning, but other skills are more suited to learning over extended periods of prolonged specialisation in a university environment, according to Becker (1975). The development of yet other skills requires both specialisation and experience (Becker, 1975).

Having role models or a parent that has been an entrepreneur may increase the chances of entrepreneurship being manifested by an individual (Brockhaus and Horwitz, 1986). According to Brockhaus and Horwitz (1986) entrepreneurial orientation can therefore be shaped by factors relating to context, to the extent that having entrepreneurial role models or entrepreneurial parents might represent some form of contextual relationship for the individual.

In terms of inequalities in earnings, Becker (1975: 93) argues that "greater rates of return and inequality in the distribution of schooling would go hand in hand not only with a greater absolute but also with a greater relative contribution of schooling to the inequality in earnings". Becker (1975: 94), in research conducted in the United States of America (USA) found a "very sizable positive correlation across states between inequality" in adult male incomes and inequality in schooling, inequality being negatively related to "the average level of schooling and income".

In terms of this, it is predicted that the informal sector, to some extent, might be a reflection of unequal access to quality education and potential inequality of schooling

with regard to the schooling system. Within this context impoverished educational provision in society might therefore be expected to be associated with lower incomes in the informal sector.

Growth willingness for an entrepreneur may be influenced by education directly and indirectly: directly because individuals "with higher education are likely to have higher aspirations in general, and indirectly through more self-confidence in managing growth and a better ability to spot growth opportunities" (Davidsson, 1989: 224). To the extent that growth willingness is associated with proactive attempts to gain market share, higher levels of educational contextual factors might be considered to be associated with higher levels of proactiveness for the entrepreneur, and higher levels of earnings by means of this theorised effect.

Higher aspirations might be associated with higher or lower continuance satisfaction depending upon whether these higher aspirations are being met or not. Human capital was found by Gimento et al. (1997) to be positively related to enterprise performance but not necessarily related to entrepreneurial continuance. This might indicate that human capital may be related to earnings yet not necessarily with satisfaction relating to continuance. It is predicted therefore that if informal street traders with higher levels of education have higher aspirations, as argued by Davidsson (1989), then these individuals would not be expected to be satisfied with continuance if these aspirations were not being met. Higher education might even therefore be expected to be negatively associated with continuance satisfaction for these individuals.

Gimento et al. (1997: 775) state that their "findings suggest that some dimensions of human capital have important effects on persistence, even when they do not influence performance", such as age, family experience of entrepreneurship, and intrinsic motivations. This might suggest that these aspects of human capital might influence tested effects of contextual factors and continuance satisfaction.

A significant and positive relationship between operational sophistication and level of formal education ($p<0.05$) was found by Morris and Pitt (1995) with regard to their study of informal traders that produced and sold products and provided services. However, education was not found to be a statistically significant determinant of

informal earnings by Dasgupta (2003), yet was by Smith and Metzger (1998). An assessment of the specific quality of education that had been received by these informal sector respondents researched by Dasgupta (2003) and Smith and Metzger (1998) was not undertaken by these authors however. It is therefore difficult to make generalised comparisons between countries with regard to the exact influence of specific schooling systems. Nevertheless, it is argued that total education would be associated with higher levels of earnings in the tested informal sector street trading context. The contribution of literature relating to tertiary education in terms of predicted associations is considered as follows.

3.5.7. LEVEL OF TERTIARY EDUCATION

Becker (1975:7) found an "average money rate of return on a college education" to males in the USA context to be "between 11 and 13 percent, with higher rates on a high-school education, and still higher rates on an elementary school education": a range borne out by subsequent studies. This rate of return is also found to decrease "with successive stages of schooling" (Becker, 1975: 5). Accordingly, it is predicted that tertiary education would be associated with increased levels of earnings. Less of a return on tertiary education is therefore also predicted than on that associated with schooling.

With regard to college, the term taken to be equivalent to the term university or technicon used for the purposes of this work, Becker (1975: 5) states that the "higher earnings of, say, college graduates compared to high-school graduates" are also partly due to the "college graduate's greater ability, ambition, health, and better educated and more successful parents." In terms of this, the contextual factors relating to the individual trader are considered to be important, and a tertiary education might have been expected to be associated with other factors to a greater extent than that expected of schooling. However, according to Becker (1975: 115) evidence also exists that individuals with the same amount of years of schooling demonstrate "considerable variability" in earnings.

Entrepreneurs with tertiary qualifications in a study by Gimento et al. (1997) were found to be associated with significantly higher economic performance than the next

lower level researched: high school and partially completed tertiary qualifications. According to Gimento et al. (1997), however, those found to have not completed their qualifications at whatever level are associated with a higher continuance threshold and found to be less likely to persist in their ventures.

Tertiary education is thus predicted to be associated with increased earnings. According to the conception offered by Gimento et al. (1997), completed tertiary qualifications might be associated with some measure of entrepreneurial persistence. In terms of entrepreneurial persistence, this is expected to be reflected in experience. Literature relating to experience and predicted associations is reviewed as follows.

3.5.8. EXPERIENCE

Firm age "is the most commonly used screening criteria in entrepreneurship research" according to Murphy and Hill (2008: 27) with most authors explicitly or implicitly suggesting that "young firms are more entrepreneurial than older firms". Within the informal street trader context, the age of the enterprise is considered to be equivalent to the time spent operating an informal street trading enterprise, or experience. In the following review, literature relating to experience in the entrepreneurial context is briefly reviewed according to predicted associations, and to provide an insight into the effect of experience in an entrepreneurial context.

For Lynskey (2004) endowed abilities, experience, trained skills, attitudes and behaviour are some recurring elements in many definitions of what is understood to be human capital. The productive process itself affects worker productivity (Becker, 1993: 31) as "learning new skills and perfecting old ones" occurs. Human capital in this context includes the contribution of general human capital and specific human capital (Becker, 1993). In terms of this, experience is considered to be a component of human capital.

Gimento et al. (1997) found that a higher entrepreneurial threshold is associated with entrepreneurs with higher levels of general human capital. According to this, if more experience were associated with the development of general human capital then

entrepreneurs might over time be more enabled to earn more and also to leave the sector.

If experience were associated with specific human capital, then earnings would be expected to rise. However, less opportunity to leave the sector would then be expected in that specific human capital represents skills that are not transferable to other contexts. Other contexts would therefore include the formal sector. If experience is associated with learning, and increases in human capital do occur, then it is expected that those remaining over time in the informal sector might be associated with higher earnings.

However, if those with general human capital do leave the sector more frequently than those with specific human capital, then experience would be expected to be associated with an increasing concentration of specific human capital. Therefore experience is expected to shape entrepreneurial orientation according to this learned effect. The testing of experience as a factor is thus expected to reveal what aspect of entrepreneurial orientation has been most influenced through the learning effect.

If experience is associated with higher levels of learned competencies, representing specific and general human capital, then experience would also be expected to be associated with increased earnings. However, if those entering the sector are associated with a constant endowment of competencies, and those more endowed with certain competencies are more inclined to leave the sector sooner, and if this effect is large enough to be captured in the testing process, then those left in the sector (with higher measured experience) might not necessarily be associated with higher levels of earnings.

Experience may have contributed to "reduced switching costs into alternative employment", or other entrepreneurial activity perhaps due to networks or familiarity with the process of enterprise creation (Gimento et al., 1997: 775).

Gimento et al. (1997: 775) argue that "experienced entrepreneurs may also gain a certain "thrill" from the start-up process and thus experience a negative psychic income once the venture becomes stable". According to this, experience might be

associated with non-continuance for a certain segment of street traders; these particular traders, however, would not be surveyed if they were no longer part of the street trading population. Hence, the survivors would be overrepresented to a degree in terms of any testing performed.

Gimento et al. (1997: 775) found that previous job experience might reflect general human capital, and a low number of previous jobs "may be associated with a lack of outside opportunities, while a high number of jobs may suggest an inability to perform jobs satisfactorily". Gimento et al. (1997) found both extremes indicative of "low degrees of human capital and poor performance in the venture".

Having had a large number of jobs was found to be associated with a higher threshold, or a higher level of required rewards, both intrinsic and extrinsic needed for the individual to continue in an entrepreneurial venture, according to Gimento et al. (1997). This might have indicated that these individuals are less likely to continue, this "likely due to low economic or psychic switching costs" (Gimento et al. (ibid.).

According to Bates (1990), entrepreneurs experience a condition of uncertainty when starting ventures regarding their entrepreneurial capabilities. For Bates (1990), entrepreneurs only recognise their abilities through a process of doing and observing both their own performance and the changes in their firm's behaviour over time. It is expected that experience would shape an entrepreneurial orientation as a consequence of the interaction of the enterprise-process experience and the individual.

Push factors may contribute to an entrepreneurial choice of activity (Brockhaus and Horwitz, 1986). The experience of negative displacement such as job loss is a stronger motivator than positive forces for the starting of entrepreneurial enterprise, according to Shapero (1975). If a street trader does enter the sector through push factors, it might be reasonable to expect that the individual would adjust to the street trading process, and experience as a tested variable is expected to capture this adjustment.

Entrepreneurial experience may be slightly more important than formal education in terms of contributing to the ability to grow an enterprise according to Davidsson

(1991). The informal sector could be used as a "stepping stone" to formal or larger entrepreneurial ventures through the effect of experience (De Soto, 1989).

The age of an enterprise is considered to represent the experience of the specific enterprise. Stearns et al. (1995), in their study of over 1900 new enterprises in Pennsylvania (USA), found a significant relationship between the age of new enterprises and their survival: older firms had a higher chance of surviving (Wald = 14.940; β = - 0.112 ; $p<0.001$). This might represent the effect of experience having increased the chance of survival for enterprises within this population of enterprises.

Smaller and younger enterprises were found to be associated with higher levels of entrepreneurial orientation in a study of 3562 enterprises in China (Chow, 2006), using three dimensions of entrepreneurial orientation: proactiveness, innovativeness and risk taking propensity. If the younger nature of these enterprises were taken to represent experience, then experience in this population would have been associated with lower entrepreneurial orientation. However, experience might be expected to also be associated with changes in a sector. The changes in the Chinese context were also therefore expected to be reflected in a measure of experience.

Years of experience in street trading was not found to be associated with increased earnings by Teilhet-Waldorf and Waldorf (1983). In contrast, years of experience in street trading was found to be associated with increased earnings by Dasgupta (2003). In terms of a core argument of this work, that learning is associated with entrepreneurship and entrepreneurial orientation, it is argued that experience would be associated with entrepreneurial orientation and would be associated with increased earnings in the street trading context. Experience is expected to be associated with increased earnings in this context. It is argued that entrepreneurial learning does occur in the informal street trading context, and it is expected that experience would capture certain components of this learning effect.

3.5.9. TRAINING COURSES ATTENDED

According to human capital theory, a return on investment in training should be expected (Becker, 1975) if human capital investment results in increased productivity. A stance taken in this study is that the initial human capital endowment should have a positive effect on the earnings and potential upliftment of the individual trader. Yet in the same manner as the initial effect of initial investment can become insignificant over time due to the potential to save, even on a low level over time (Parker, 2000), levels of human capital might also increase, after entry into the informal sector, through the attendance of training courses.

The context of central Johannesburg might offer opportunities that are legitimately denied to informal sector participants in other areas: the close proximity of the Department of Labour and training offered by state, Non Governmental Organisations and University initiatives. Training courses as a variable is tested as to its effect in shaping an entrepreneurial orientation and its contribution to entrepreneurial performance.

Marketing strategy and feasibility analysis are important components of business planning according to Hills and LaForge (1992). In a study of almost a hundred small and medium sized enterprises, it was found that responsiveness to customers and product/service quality are considered by enterprise managers to be two of the most important factors influencing new firm survival (ibid.). These are examples of enterprise knowledge, and relevance may exist here with regard to the informal economy if these factors could be taught or learned. These are perhaps examples of certain knowledge sets that might be accessible to street traders that have access to training courses covering aspects of learning specific to enterprise development.

A significant and positive relationship between operational sophistication and formal occupational training ($p<0.10$) was found by Morris and Pitt (1995), with regard to their study of informal traders making and selling products and services. In this study, a positive and significant association between entrepreneurial orientation and training courses should exist, to the extent that entrepreneurial learning could be facilitated by training courses. Training courses should be associated with increased earnings;

entrepreneurial orientation should be shaped by learning related factors and increased levels of educational factors representing human capital should be associated with increased earnings.

3.5.10. JOHANNESBURG ORIGIN

Johannesburg as a city has been at the nexus of political, social and economic change as the economic hub of South Africa (Peberdy and Rogerson, 2003:79). According to Hagan (1962) a link exists between economic growth and political and social change; the economic growth, political and social changes experienced by Johannesburg as a city might differ from those experienced in other regional areas of South Africa. This difference might have had an effect on street traders with regard to being born and growing up in Johannesburg. This factor might also include exposure to the culture of Johannesburg, its schooling system and other criteria that might differentiate individuals from other regional or national areas.

The measure of regional origin is included in order to test the effect of these contextual factors, in order to ascertain what differences might be associated with being of Johannesburg origin. This tested variable is expected to pick up a range of contextual influences that might have shaped entrepreneurial orientation in earlier life and that differ between having grown up in Johannesburg versus other areas.

3.5.11. COUNTRY ORIGIN

Country origin is regarded as an important variable due to the overrepresentation of foreign-born economic participants in small business as found in North America by Light (1984). If, similarly, a majority of all Johannesburg inner city street traders are found to be of foreign origin, this would be an important aspect of analysis in terms of entrepreneurial orientation and entrepreneurial performance.

According to Becker (1975: 9), investments in human capital include migration and learning related factors, which are associated with a potential return on these investments. This return differs in its effect on “earnings and consumption, in the

amounts typically invested, in the size of returns, and in the extent to which the connection between investment and return is perceived" (ibid.). As with other human capital investments, this investment improves "skills, knowledge, or health" and thereby raises money or psychic incomes (ibid.). Following Becker's (1975) conception of human capital, migration is considered to represent an investment, and a return on this investment is expected.

However, the return on this investment of migration for the individual street trader that has migrated from another area or country cannot be specifically tested in this research. The original level of earnings or continuance satisfaction experienced by these individuals in their original areas is not considered in this work. What is tested, however, is the extent to which migration shapes entrepreneurial orientation and contributes to entrepreneurial performance.

The review of literature related to entrepreneurship associated with individuals of foreign origin, also termed immigrant entrepreneurship, and related cross country cultural differences is undertaken as follows. Initially, literature relating to immigrant status and differential human capital endowments is briefly reviewed.

Migrant or immigrant status might be relevant in terms of educational dimensions due to differences in schooling, educational and other opportunities to build human capital endowments for the individual. This variable is included and tested as to its contribution to or association with entrepreneurial orientation and entrepreneurial performance. Due to effective discrimination that might possibly be associated with the formal sector, such as possible restrictions on employment and certification recognition problems (Light, 1984), these individuals might be forced to become survivalist in orientation and to operate in the unregulated sectors of the economy. It is expected that insight might be gained into contextual factors that might represent a discriminatory context for certain of these individuals.

According to ethnic enclave theory (Wilson and Martin, 1982), ethnic immigrant groups may develop horizontal and vertical integrated structural relations among ethnic firms, with access to capital and relationships between buyers and suppliers providing some measure of advantage over other firms without these strong

relationships. Higher earnings might be predicted for street traders that successfully apply processes according to the prescriptions of ethnic enclave theory to the extent that structured interconnections will provide a competitive advantage in the informal sector.

Immigrant ethnic communities can utilise social networks in the form of an unregistered enclave economy until they grow enough to serve the general populace in a registered form, this whole process encouraging the genesis of small enterprises and their survival (Reynolds, 1991). These ethnic enclaves that may be created by ethnic minorities may use vertical and horizontal integration to mimic the characteristics of the formal or first economy, and thus avoid the trap of the second economy (Wilson and Martin, 1982).

Social networks and casual information networks can help firms to survive crises as multiple reference groups can be used for various purposes including accessing funding, clients and other factors needed, according to Reynolds (1991). The entrepreneurial venture is often founded in a familiar environment, from home or geographically close to home (ibid.). In terms of this, social networks cannot be the exclusive domain of immigrants, but in fact these individuals might be at a disadvantage in terms of the networks that locals may have had access to for longer, to the extent that local networks are expected to reach further, including into the formal sector. There might be some factor linked to the intensity of the networks of immigrant entrepreneurs, however, that might enable performance and shape an entrepreneurial orientation in a different way.

Reynolds (1991) states that a lack of opportunities in a cultural setting from which immigrants are excluded can be a major factor explaining entrepreneurial activity associated with minority groups in countries. Bonacich (1973) questions the idea that culturally or ethnically distinct groups in a society generally close ranks and build group solidarity in response to broader societal hostility directed at them; he believes this is not always the case.

Bonacich (1973) also suggests that these minority groups do not necessarily subsequently take up a middleman position between the elites and the masses in a

society, since the effect of host society hostility can be negative. Societal hostility can also impact negatively on group solidarity and pride and these groups are not only found in societies with large gaps between the elite and the masses, but also in post-colonial and industrial societies (ibid.). If some element of societal hostility has resulted in negative effects in terms of entrepreneurial orientation and entrepreneurial performance, then this would be expected to be reflected in the testing process.

Bonacich (1973) makes a distinction between immigrant groups and groups that have severed their ties with their original homelands. Bonacich (1973) introduces the concept of sojourning, where economic participants temporarily in a host country intend to return home. Sojourners focus on capital accumulation through thrift, and take to occupations that are able to be quickly liquidated; these are also characteristics of middleman positions: as traders or brokers there is no necessity for long term property acquisition, or for long term commitment in terms of long business cycles or non-transportable occupations such as those found in manufacturing or other industrial production (ibid.).

Internal solidarity is often strengthened within these groups, in preference to social links with the host country inhabitants with whom there is no real assimilation (ibid.). However, the approach of these groups that do not assimilate is contrary to the approach of immigrant groups that arrive and intend to integrate, this resulting in the dissipation of their ethnic enclaves over time (ibid.). No attempt has been made to differentiate the large portion of immigrant entrepreneur street trader respondents into those that intend to assimilate permanently into the South African context and those that do not.

Relevant here to expected entrepreneurial success factors are certain behaviours and related attitudinal orientations among ethnic minority groups. Multi-purpose informal and formal associations distribute resources within the group and control competition, all to the betterment of the group, reasons Bonacich (1973). Capital is also distributed within groups of immigrant entrepreneurs through lines of credit and labour; also used are family and other ethnic labour resources, these people working long hours for no or little in the way of wages. Bonacich (1973) argues that these ventures thereby become significant competition for local businesses. A factor that compounds the

advantage that these immigrant enterprises often have over local enterprises is that local enterprises often have to deal with union pressures (ibid.).

These factors may contribute to the concentration of certain immigrant groups in certain areas and a certain competitive advantage in the marketplace based on liquidity, thrift and solidarity. The informal street trading context might represent a context in which high concentrations of immigrant entrepreneurs are expected. Bonacich (1973) draws a parallel between the control over economic activities by these ethnic middleman minorities and the guilds that controlled trade in pre-industrial capitalism.

Bonacich (1973) identifies certain causes of host country hostility to middlemen minorities, including conflict with clientele and conflict with competing business groups. Certain post colonial countries have enacted discriminatory regulations to empower the indigenous population at the expense of middlemen minorities; areas most affected by such discriminatory regulations targeted at the disempowerment of ethnic minorities include East Africa and Southeast Asia (ibid.). Conflict with labour is also a problem faced by middleman minorities, particularly when host country labour is under pressure to accept lower wages due to competition with these middleman firms (ibid.). In the informal street trading sector it is expected that manifestation of some form of hostility toward immigrants would be a factor influencing the opportunities available for these individuals.

Common complaints made by indigenous host country inhabitants toward immigrant entrepreneurs included that of aloofness, unassimilability, disloyalty toward the host country, and a claimed drainage of resources from the host country back to the home country as these immigrant groups became an increasingly powerful lobby in the host country (ibid.). This xenophobia, if present in whatever form, is exhibited by discrimination. However, the net result of discrimination in the specific context of the informal sector might not be associated with relatively lower earnings for certain traders if certification problems have presented themselves as constraints to accessing the formal sector, and have therefore forced more skilled individuals into the informal sector.

According to Bonacich (1973), host country measures that attempt to limit a group's economic influence may only serve to increase their concentration in certain areas of the economy, as relatively less amenable political and socioeconomic conditions and lower incomes in the home countries bind them to the host country through their own economic success. Shapero and Sokol (1982), in reference to Weber's examination of the Protestant ethic, make the point that Weber's conception of the Protestant ethic and its explanation of entrepreneurial events in one specific culture does not in itself explain entrepreneurial events in other cultures.

Wilson and Martin (1982) stress the cultural, historical and situational factors associated with the few minority groups that seem to succeed. Wilson and Martin (1982) argue that certain successful minority groups develop dual economies comprising a central economy, associated with oligopolies and monopolies, and a peripheral economy, associated with free competition. The enclave economy in this manner resembles the main economy, with the enclave economy consisting of its own central economy and its own peripheral economy, utilising vertical and horizontal integration (ibid.). In this way, these groups are able to survive and prosper (ibid.).

Wilson and Martin (1982) suggest that these enclave economies might be a third type of economy, as the return on human capital can be as high in the enclave economy as it is in the first economy. This is not the case in the secondary economy and therefore structural similarities may exist in these two economies: the primary economy and the enclave economy (ibid.).

Wilson and Martin (1982) argue that Bonacich's examples of middleman minorities are strongly associated with successful attempts to achieve vertical integration. No attempt is specifically made in this study to measure the extent to which vertical integration or horizontal integration is present in the informal street trading sector. However, reviewed insights have reduced the problem space around understanding the underlying relationships that underpin tested effects, which are expected to be multi-determined. In this instance, if there are any vertical or horizontal integration effects that have an effect on entrepreneurial performance, this would be captured by the testing process to the extent that this influences the net effect of an association between foreign origin and entrepreneurial performance.

In an input-output analysis in Miami (USA), Wilson and Martin (1982) show that vertical integration can create over 50 percent more spending within the community from an initial demand. According to Wilson and Martin (1982) this is the case for the ethnic enclave Cuban economy in Florida, whereas in the case of the African-American economy there do not seem to be elements of vertical integration, with peripheral or informal economy characteristics prevailing. Wilson and Martin (1982) point to the latter group's lack of access: to capital, to technical assistance, to the bidding process for public contracts due to capital constraints, to political representation and other factors.

Certain groups of people have been associated with a stronger orientation toward entrepreneurship than other groups (Shapero and Sokol, 1982), which may be a result of historic, regional and ethnic factors in addition to economic factors. Historically, refugee groups have demonstrated a trend towards the establishment of entrepreneurial ventures at a higher level than in their own countries (ibid.).

Many examples exist historically of cultural and social environments that were hostile to entrepreneurship, where a person's position in society was not mobile and strict social conventions restrained social and economic activities (ibid.). Such an example, was the case in medieval Europe where the constraint of trade and trading activities extended to all except "outsiders" that undertook these activities; in medieval Europe business practices such as innovation, lending money, advertising, the tactic of competitively reducing prices, and credit were not socially acceptable, and these activities were undertaken by groups who were considered societal "outsiders" (ibid.). If informal sector enterprise is regarded as socially unacceptable, for cultural or other reasons, then this would be expected to shape an entrepreneurial orientation and contribute to some effect with regard to entrepreneurial performance for an individual street trader.

In terms of entrepreneurial action taken, perceptions of desirability and feasibility are relevant, as social systems can significantly influence desirability especially in relation to family, peers, work experience, ethnicity, colleagues and mentors, according to Shapero and Sokol (1982). Shapero and Sokol (1982) argue that the

feasibility of entrepreneurial action is related to the availability of resources, usually obtained from personal sources, and certain community linkages and assistance are significant in the success of these entrepreneurial events.

Hagan (1962) stresses the link between economic growth and political and social change. He (*ibid*.) argues that societies that are economically underdeveloped do not advance through the mere adoption of technical methods or processes from more developed nations, but by developing creativity and creatively developing technologies of production, not technologies of art, war, politics or other outlets. The traditional, hierarchically stable society, which is associated with little change in technology; an unquestioning attitude toward authority and an unchallenging and hence uncreative attitude toward the processes and problems of society, is not conducive to economic development (ibid.).

Hagan (1962) argues that a certain attitude to problems is conducive to economic development and entrepreneurship. Entrepreneurship can be developed through an attitude whereby disorder and conceptual disobedience are tolerated. Such an attitude would allow for a bigger conceptual order to manifest later, as a degree of inherent logic and integration is seen in the world. According to this attitude, occurrences are not perceived as fundamentally arbitrary and what others do is not necessarily perceived as the best way of doing things (ibid.).

In his analysis, Hagan (1962) disregards factors such as intelligence, which is found in all cultures, and instead focuses on the interaction of group cultural values that are seen to underpin a group. Hagan (1962) analyses examples of groups in a national context that are subjected to some kind of loss of social position within the larger society; those groups subjected to a loss of social position often reacted to this through some degree of rejection of the other's values.

These groups may become more critical of the values of the larger society, and hence may become successful through developing higher levels of creativity and entrepreneurship (ibid.). Hagan (1962) extends this concept to colonialism, and argues that the loss of status experienced by people subjected to colonisation by other cultures may have resulted in a rejection of the values of the colonisers. This could

result in, for example, the rejection of individualistic values and non collective authority relations, and a commensurate negative attitude toward entrepreneurship (ibid.).

According to this conception offered by Hagan (1962), if the unjust oppression associated with previous regimes in South Africa were associated with certain values in regard to individualism and enterprise, then those groups subjected to oppression might have been expected to reject the values of such oppressors. This would in turn extend to a rejection of the values of enterprise and entrepreneurship associated with "western" values.

If entrepreneurship and enterprise, however, represent necessary conditions for higher earnings for individuals or for societies, then it would be expected that lower earnings would be associated with groups or individuals that reject values associated with entrepreneurship and enterprise. It might be possible that such a rejection of the values of another group perceived as oppressors might crystallise into a strong culture or even into an ideology.

Further research might reveal the extent to which this dynamic suggested by Hagan (1962) might exist in South Africa with regard to strong cultures or ideologies that might have constrained the upliftment of individuals or groups through their rejection of enterprise or entrepreneurial values. Further research might establish the extent to which the perpetuation of poverty might be associated with ideologies or cultures that strongly reject entrepreneurial values or enterprise, or if this effect as suggested by Hagan (1963) does indeed exist in the South African context. If past oppression was found to be associated with the rejection of entrepreneurial and enterprise values on the part of the oppressed, then this would represent a further oppression of the oppressed, by reinforcing poverty if lower earnings and lower development are associated with the rejection of entrepreneurial and enterprise values.

If an informal street trader is found to have rejected values associated with entrepreneurship according to the theory offered by Hagan (1962) then this would be expected to be associated with a different shaping of an entrepreneurial orientation. A lower level of entrepreneurial orientation would therefore be expected. Lower

earnings would also be expected to be associated with this lower level of entrepreneurial orientation to the extent that this lower entrepreneurial orientation was not uniquely suited to the specific context.

The implication here is that entrepreneurial activity for such a trader might be undertaken fundamentally for the purposed of subsistence but not as an opportunistic or creatively unique exercise in profit making. In terms of acceptance of the values of enterprise and entrepreneurship, further research might contribute in some measure toward understanding why so many of these informal enterprises do not make the transition to micro enterprises.

Although most foreign born informal sector street traders might have been exposed to the oppression of colonialism, a difference between South African born traders and traders of foreign origin might be expected to reflect certain of the effects of different experiences of oppression and the rejection of certain values, according to Hagan's (1962) theoretical conception. In terms of this, the shaping of an entrepreneurial orientation is expected to be different for foreign born street traders to the extent that different cultures shaped entrepreneurial orientation, and to the extent that culture was taken to represent the sum total of assumptions and values of groups of people.

Light (1984) offers two categories of explanations for the overrepresentation of foreign born economic participants in entrepreneurship in the context of small business: first are practical limiting factors, such as poor language skills, the lack of recognition and verification of educational certification and discrimination; second are other factors linked specifically to the ethnic group itself. According to Light (1984) certain groups of foreign born individuals face the same disadvantages, and some ethnic minority groups display higher rates of entrepreneurship than do other groups.

A relative satisfaction is experienced by immigrant entrepreneurs operating in a higher wage economy as adverse conditions in the host country nevertheless compare favourably with the conditions of the country left behind according to Light (1984). According to this conception offered by Light (1984) informal street traders from a country where more unfavourable conditions have been experienced might be more

content to continue in the South African informal sector than other immigrants that have not had such adverse experiences.

A certain social solidarity can emerge between immigrant communities that did not exist in the home country, with the creation of common resources to be accessed by members of the group: a form of reactive solidarity according to Light (1984). Basu and Altinay (2002), in a study of six ethnic immigrant communities in London found differing interactions between ethnicity and entrepreneurship.

Ethnic immigrant business is a significant contributor to entrepreneurship in the London context, with an ownership of 19 percent of all businesses in London (Basu and Altinay, 2002). Ethnic immigrant business is associated with significantly higher self employment rates than that of indigenous Londoners (ibid.).

With regard to immigrant entrepreneurship, a range of factors are associated with motivation for entrepreneurship, including the expectation of profit; a risk orientation; access to information regarding opportunities; the desire to innovate and having no other option (ibid.). According to Basu and Altinay (2002) those motivated to undertake entrepreneurial activity due to having no other option are found to be associated with discrimination and limited career prospects in labour markets. Basu and Altinay (2002) also identify a cultural leaning toward entrepreneurship to be a motivator of ethnic immigrant entrepreneurship.

According to Basu and Altinay (2002), ethnic entrepreneurs are not a homogenous group, and differences between groups do have an impact on entrepreneurial performance and success. Further influences on entrepreneurial performance are factors such as the religious prohibition of interest bearing loans and differing attitudes to integration into the host culture (ibid.).

In their study of small and medium sized firms, using factor analysis, Basu and Altinay (2002) identified four groups based on motivations for entrepreneurship. Members of the first group are motivated by positive factors such as economic and non economic factors: for example status and independence. Firms in the second group are motivated by negative factors such as perceived discrimination,

unemployment and other negative factors; those in third group are motivated by previous entrepreneurial experience, and the fourth and final group is found to be motivated by family tradition in business (ibid.).

A desire for independence in terms of motivating entrepreneurship was common to and significant across all the ethnic groups surveyed in Basu and Altinay's (2002) research on different ethnic groups and entrepreneurship motivation. Differences were found between the groups in terms of entry motives, finance patterns, female activity in business, the use of ethnic staff in enterprises and differences in terms of the behaviour of ethnic customers (ibid.). A desire for independence might predict some effect in terms of an association between autonomy and immigrant entrepreneurship. Any differences in terms of finance patterns reflected in initial investment are expected to be captured in terms of testing initial investment as to its association with the South African origin variable.

In the above section, theory relating to immigrant entrepreneurship and predicted associations with entrepreneurial orientation and entrepreneurial performance was reviewed. Theory was also considered for the purposes of informing a more detailed understanding of the tested associations. The tested associations were taken to represent the net effect of a range of subordinate effects. The net tested associations were therefore accepted to have been multi-determined. Therefore, an insight into theory relating to these potential multiple effects was attempted through the review of related literature.

According to this considered theory, certain differences in terms of national origin are expected to be found in terms of the testing of associations between entrepreneurial orientation, contextual factors and entrepreneurial performance in the Johannesburg inner city street trading context.

3.6. CONCLUSION

In this chapter the literature review of entrepreneurial orientation and entrepreneurship theory within the entrepreneurial context as undertaken in the

previous chapter was extended into a review of literature relating to the informal sector street trading context. The South African informal sector context was considered initially in terms of urban change and context. The review of literature relating to informal activity as economic activity was undertaken. Theory relating to entrepreneurship and the influence of context in terms of social and socioeconomic conditions was reviewed. The chapter was concluded by a review of literature relating to the tested informal sector street trading contextual factors.

Over the previous chapters a theoretical foundation around entrepreneurial orientation and entrepreneurial performance within an entrepreneurial context had been developed. In this chapter this theoretical foundation was extended to include the informal street trading context. Relationships predicted by theory were identified and expected results in terms of the testing process were derived. The following chapter outlines the process and procedures undertaken in the study as these relate to the methodology of the research and the development of the hypotheses for testing.

CHAPTER 4

RESEARCH METHODOLOGY

4.1. INTRODUCTION

The first three chapters explored entrepreneurial literature that placed entrepreneurial orientation within the entrepreneurial context and within the informal sector street trading context. According to the literature review a number of contextual and entrepreneurial orientation dimensions are expected to influence entrepreneurial performance.

The aim of this research is to investigate which contextual factors shape entrepreneurial orientation and which contextual factors and entrepreneurial orientation dimensions contribute to entrepreneurial performance in the informal sector street trading context. This aim is represented in terms of the research question, this split into two questions, "What informal sector contextual factors and entrepreneurial orientation dimensions shape an entrepreneurial orientation?" and "To what extent do informal sector contextual factors contribute to entrepreneurial performance?"

The remaining aim of the research is to assess the potential for individual entrepreneurial upliftment in terms of earnings and continuance satisfaction as associated with entrepreneurial orientation. This chapter initially places this research into existing theory with regard to research paradigms.

The chapter thereafter extends the overview of the objectives of the research as outlined in chapter one into a consideration of the methodology of the research. In terms of the process of answering these questions, the research questions are broken down into three basic hypotheses. These hypotheses are tested in order to provide answers to these research questions in terms of establishing the existence or non-existence of significant tested associations between these variables. In the following section, the research hypotheses' derivations from the research questions and the literature review are discussed. After a consideration of the scope of the study, limitations of the research are discussed. Next to be discussed are the data collection processes and the testing processes of the research. The consideration of multiple

linear regression analysis as the core technique used to test the hypotheses, and the assumptions of this technique conclude the chapter.

In terms of this research and the research methodology utilised in this work, the process of research methodology places this study within theoretical research paradigms as follows.

4.2. PLACEMENT OF THE RESEARCH WITHIN RESEARCH PARADIGMS

According to Burrell and Morgan (1979: 1), all "social scientists approach their subject via explicit or implicit assumptions about the nature of the social world and the way in which it may be investigated". Burrell and Morgan (ibid.) relate these assumptions to ontology, or the very essence of the phenomena under investigation; to epistemology, or assumptions about the grounds of knowledge; to assumptions concerning human nature and the relationship between human beings and their environment; and to assumptions relating to methodology, or assumptions relating to attempts to investigate and obtain knowledge.

In terms of theory-building strategems, four dimensions developed by Lewis and Grimes (1999: 680) extend Burrell and Morgan's (1979) conception of research paradigms. These are arranged on continuum modes from regulation to radical change on one axis, and from subjective to objective on the other axis (Lewis and Grimes, 1999). The following are taken to represent each of these four possible quadrants with which research might be associated according to Lewis and Grimes (1999: 680):

- The interpretivist perspective, of "ongoing construction of inter-subjective experiences" associated with social construction and symbolic interactionist theories representing a space of subjective regulation.
- The radical humanist perspective associated with theories of critical and antiorganisation theories at the nexus of radical change and radical humanist dimensions.

- The radical structuralist perspective associated with Marxian orthodox labour process and radical Weberian theories at the nexus of radical change and objective dimensions.
- The functionalist perspective associated with theories, such as contingency theory, and systems theory, at the nexus of the objective and regulation dimensions.

From another perspective, Bak (2004: 132) posits that although there is no "neat classification" of the most used theoretical positions, these generally include the following:

- A group of theoretical positions consisting of positivism, realism, empiricism and modernism. The kind of knowledge associated with this group of theoretical positions is neutral, generalisable and universal. The purpose of knowledge for these theoretical positions is to describe, to analyse into components, to predict, to control and to improve.
- A group of theoretical positions including marxism, critical theory, structuralism, and hermeneutics. For this group, the purpose of knowledge is to change power relations and to broaden access to knowledge. The kind of knowledge associated with these theoretical positions is objective, generalisable, and universal.
- A group of theoretical positions including critical theory, interpretivism, phenomenology, constructivism and realism, collectively associated with intersubjective and shared knowledge with some generalisability. The purpose of knowledge for this group is to describe, to analyse interrelations, to improve and guide practice, and to explain.
- A group of theoretical positions including post-modernism, relativism, social constructivism and empiricism, these associated with the following kind of knowledge: subjective, private, non-judgemental, relativist and non-traditional. The purpose of knowledge for this group of theoretical positions is to enrich experience, to broaden inclusion, and to highlight chaos, contradictions and the fluidity of the world.

It is not an objective of this work to explore, define, critique or challenge these conceptions, but merely to broadly place this research study within parameters of social science theory relating to research. The purpose of this section is to demarcate the "paradigm" most closely associated with the objectives of this research.

This research study would be most closely related to the "functionalist" perspective of Lewis and Grimes (1999), as opposed to the other three offered orientations, but would be most closely associated with the group of positivism, realism, empiricism and modernism of the groups of theoretical positions offered by Bak (2004).

At this point, the approaches and assumptions undertaken in this research are briefly related to the following categories proposed by Burrell and Morgan (1979) as follows:

- Ontology

Assumptions relating to ontology are assumptions about the "very essence of the phenomena under investigation", an example of an ontological assumption being whether reality is external to an individual, or rather a product of an individual's mind (Burrell and Morgan, 1979: 1). According to the approach taken in this work, this research can be interpreted as being associated with realism, and not nominalism. According to a nominalist perspective, no real structure to the world is recognised (Burrell and Morgan, 1979). However, realism postulates that the world external to the individual consists of tangible entities, with an existence outside of the individual (Burrell and Morgan, 1979). Reality is taken to be of an objective nature in terms of the assumptions underpinning this research.

- Epistemology

Assumptions relating to epistemology are assumptions about the grounds of knowledge, about "how one might begin to understand the world and communicate this as knowledge to fellow human beings", such as assumptions about the nature of knowledge itself (Burrell and Morgan, 1979: 1). Whether knowledge is assumed to be "hard, real and capable of being transmitted in tangible form" or whether knowledge is fundamentally "more subjective, spiritual or even transcendental" are examples of

epistemological assumptions. According to the conception of Burrell and Morgan (1979: 5) the term positivist is used to:

> Characterise epistemologies which seek to explain and predict what happens in the social world by searching for regularities and causal relationships between its constituent elements. Positivist epistemology is in essence based upon the traditional approaches which dominate the natural sciences… [Positivists] would accept that the growth of knowledge is essentially a cumulative process in which new insights are added to the existing stock of knowledge and false hypotheses eliminated.

This work is structured upon the positivist approach; it follows a process of reducing the problem space around knowledge relating to entrepreneurial orientation and entrepreneurial performance as this relates to the testing of theory in this entrepreneurial and informal context. The kind of problem tackled by this work is primarily empirical, according to the classification offered by Bak (2004: 11), as the problem of a lack of information relating to entrepreneurial performance and entrepreneurial orientation is addressed.

- Human Nature

Voluntarism and determinism represent extremes in terms of the model of mankind, in that a determinist view represents human kind and "his activities as being completely determined by the situation or environment" in which the individual is located; and a voluntarist view represents human kind as "completely autonomous and free-willed" (Burrell and Morgan, 1979: 6). For the purposes of this work, an intermediate standpoint was taken. In an intermediate standpoint, "the influence of both situational and voluntary factors" are represented in assumptions made about human society (ibid.).

- Methodology

A nomothetic approach to methodology entails "basing research upon systematic protocol and technique", focusing on the testing of hypotheses, and using quantitative techniques for analysing data (Burrell and Morgan, 1979: 6). This is the stance taken in this study: hypotheses are developed and theory is tested quantitatively, using a systematic protocol and technique. The nomothetic methodological approach of this research is associated with the ontological assumptions of realism and the

epistemological assumptions of positivism as conceived by Burrell and Morgan (1979).

The research is associated with a view of knowledge being neutral, generalisable, and universal, and the purpose of knowledge is accepted as being to describe, to analyse into components, to predict, and to control and improve, according to the first categorisation offered by Bak (2004). Therefore neutral data collection and survey research are taken to be appropriate for this study. A quantitative study is therefore judged to be the most appropriate methodological approach. According to this, the sections that follow will consider the methodological processes of the study.

In this section, the research study was briefly placed within certain theoretical parameters relating to social science, whereas the next section considers the derivation of the hypotheses from the research questions. The research hypotheses are considered as follows.

4.3. THE RESEARCH HYPOTHESES

The three derived hypotheses are outlined below, together with their associated sub-hypotheses. The testing of these hypotheses allows answers to the research questions to be postulated from the significant associations identified between the tested variables. The hypotheses tested are listed as follows.

- **Null Hypothesis 1 (H1):** There is no significant association between Entrepreneurial Orientation and informal sector contextual factors.
- **Alternative Hypothesis 1 (H1):** There is a significant association between Entrepreneurial Orientation and informal sector contextual factors.

    - *Null Sub-hypothesis 1.a:* There is no significant association between Total Entrepreneurial Orientation and informal sector contextual factors.
    - *Alternative Sub-hypothesis 1.a:* There is a significant association between Total Entrepreneurial Orientation and informal sector contextual factors.

- *Null Sub-hypothesis 1.b:* There is no significant association between Innovativeness and informal sector contextual factors.
- *Alternative Sub-hypothesis 1.b:* There is a significant association between Innovativeness and informal sector contextual factors.

- *Null Sub-hypothesis 1.c:* There is no significant association between Autonomy and informal sector contextual factors.
- *Alternative Sub-hypothesis 1.c:* There is a significant association between Autonomy and informal sector contextual factors.

- *Null Sub-hypothesis 1.d:* There is no significant association between Proactiveness and informal sector contextual factors.
- *Alternative Sub-hypothesis 1.d:* There is a significant association between Proactiveness and informal sector contextual factors.

- *Null Sub-hypothesis 1.e:* There is no significant association between Competitive Aggressiveness and informal sector contextual factors.
- *Alternative Sub-hypothesis 1.e:* There is a significant association between Competitive Aggressiveness and informal sector contextual factors.

- *Null Sub-hypothesis 1.f:* There is no significant association between Risk Taking Propensity and informal sector contextual factors.
- *Alternative Sub-hypothesis 1.f:* There is a significant association between Risk Taking Propensity and informal sector contextual factors.

- **Null Hypothesis 2:** There is no significant association between Total Entrepreneurial Orientation, Entrepreneurial Orientation dimensions, or informal sector contextual factors, and Gross Earnings.
- **Alternative Hypothesis 2:** There is a significant association between Total Entrepreneurial Orientation, Entrepreneurial Orientation dimensions or informal sector contextual factors and Gross Earnings.

- *Null Sub- Hypothesis 2.a:* There is no significant association between Total Entrepreneurial Orientation and Gross Earnings.
- *Alternative Sub- Hypothesis 2.a:* There is a significant association between Total Entrepreneurial Orientation and Gross Earnings.

- *Null Sub- Hypothesis 2b:* There is no significant association between Entrepreneurial Orientation dimensions, or informal sector contextual factors, and Gross Earnings.
- *Alternative Sub-Hypothesis 2b:* There is a significant association between Total Entrepreneurial Orientation, Entrepreneurial Orientation dimensions or informal sector contextual factors and Gross Earnings.

- **Null Hypothesis 3:** There is no significant association between Total Entrepreneurial Orientation, Entrepreneurial Orientation dimensions, or informal sector contextual factors, and Continuance Satisfaction.
- **Alternative Hypothesis 3:** There is a significant association between Total Entrepreneurial Orientation, Entrepreneurial Orientation dimensions or informal sector contextual factors and Continuance Satisfaction.

  - *Null Sub- Hypothesis 3.a:* There is no significant association between Total Entrepreneurial Orientation and Continuance Satisfaction.
  - *Alternative Sub- Hypothesis 3.a:* There is a significant association between Total Entrepreneurial Orientation and Continuance Satisfaction.

  - *Null Sub- Hypothesis 3b:* There is no significant association between Entrepreneurial Orientation dimensions or informal sector contextual factors and Continuance Satisfaction.
  - *Alternative Sub-Hypothesis 3b:* There is a significant association between the Entrepreneurial Orientation dimensions or informal sector contextual factors and Continuance Satisfaction.

The following section considers the scope of the study with regard to the sampled population, geographic demarcation, and an estimation of the population size.

4.4. SCOPE OF THE STUDY

The scope of the study was specifically chosen to reflect the design of an appropriate test of entrepreneurial orientation theory. Therefore, the following are briefly discussed: the Johannesburg central street trading population; the geographical demarcation of the city blocks; and an estimation of the population size from which sampling was undertaken.

- The Johannesburg Central Street Trading Population

A quantitative study was undertaken of informal street traders in the Johannesburg city centre: street traders who owned and operated their enterprises were the unit of analysis. Convenience sampling was used. All the informal sector street traders in the study population operated their own street trading ventures within the central business district of the Johannesburg city centre.

According to a review of data about the informal street trading sector of Johannesburg from different sources by Bremmer (2000), an estimated 15 000 people, mostly survivalist, were earning a living on the streets of Greater Johannesburg in 1993, four thousand of these within the inner city, with about 45 percent of traders being foreign nationals. According to Bremmer's (2000: 187) review, by 1999 there were an estimated 10000 traders in the inner city, and the Johannesburg City Council together with the Greater Johannesburg City Council "developed an evolving set of local economic development initiatives to reinvent, re-image and remarket the Johannesburg inner city". There were approximately eight thousand traders in and around Johannesburg, according to a survey conducted by the Johannesburg City Council (O'Reilly, 2004).

The geographic area of the study was limited to the central business district of the city. Due to this geographical demarcation, the size of the population from which respondents were sampled was limited.

- Geographical Demarcation

The central business district, or CBD, is an area of approximately two square kilometres, "comprising the commercial and financial districts of the former city of Johannesburg", which is surrounded by "an area of similar size made up of high density residential and manufacturing suburbs" (Bremmer, 2000:187). Together the CBD and the high density residential and manufacturing areas make up the inner city (ibid.).

An attempt was made to capture the street trading population of the CBD and not of the residential or manufacturing areas outside the CBD. The area of the study was therefore limited to the central Johannesburg business district, limited to an area bordered by Plein Street to the north, End Street to the east, Farraday Street to the south and Sauer Street to the west. This delimited area, within which convenience sampling was used, was taken to represent the population from which the sample was drawn.

This delimitation distinguished the central business district from the more residential areas, industrial areas, or transport nodes adjacent to the city centre. In this way an attempt was made to reduce variance introduced by different areas that did not have the city centre structure in common. The fundamental nature of the inner city street trading district was controlled for, to some degree, through this geographic delimitation.

The transport nodes consisted of an area to the north of Plein Street including the Bree Street taxi rank, the Noord Street taxi rank, and the train station. These transport nodes to the north of Plein Street were excluded through the geographical delimitation. The industrial area to the east of the city centre was excluded through non-inclusion of city blocks to the east of End Street. The industrial area to the south of the city centre was excluded through the limitation of the sampled population to street blocks north of Farraday Street. The area of the city to the west of Sauer Street was excluded. The study area therefore consisted of abour sixteen city blocks between Sauer Street on the west border and End street on the east border, and about fourteen blocks between and including Farraday and Plein streets. This represented a total area

of approximately 224 city blocks within which an estimate of the size of the population was undertaken.

- Estimating the Population Size

As a result of the delimitated geographic area of the study, the population of street traders could be identified as those operating on the street-sides of a central Johannesburg range of approximately 224 city blocks, which allowed for the estimation of the population size. Separate from the convenience sampling process, the size of the delimited population was estimated according to random sampling by the following process.

A grid of street blocks was developed, with each block assigned a number. Random number tables were used to randomly select twenty-three blocks, in which street traders operating on their street sides were counted. The total number of street traders operating on these identified city blocks amounted to 532, from which an estimation of the total amount of city street traders within the demarcated centre of the city was made: about 5181 street traders. The sample of 339 respondents in this study entailed an estimated 6.5 percent of this delimitated population.

4.5. LIMITATIONS OF THE RESEARCH

The first dimension of potential limitations associated with this work, namely that findings were not fully able to be generalised beyond the context of the study, was considered in chapter one. The second dimension, relating to methodological considerations, is considered in this section. In terms of potential limitations, the following limitations are considered.

- Contextual Factors

A potential limitation of this research might have been the limitation of the testing, due to time and resource constraints, to only a certain range of specific contextual factors identified for the testing of theory. The fifteen contextual factors identified for testing were drawn from theory, yet arguably a higher amount of tested variance might have been explained through the inclusion of more of these contextual

variables. For example, the inclusion of thirty or more of these factors might have indicated a more comprehensive network of relationships and provided additional marginal insights. However, an exhaustive review of an extended range of factors was not possible in terms of time and other resource constraints. The scope of the study needed to be planned, and the factors used were judged appropriate to the evidence sought in terms of the objectives of the exercise and the hypotheses derived from this.

- Cross-sectional versus longitudinal research

A limitation of this research is that this study represents a work that is embedded in context, a specific context that is in the midst of change in terms of the context itself and in terms of the individuals comprising this sampled population. The results obtained from a longitudinal study of the tested relationships of this work might be considered to have yielded a richer insight. Cross-sectional research designs are associated with a research limitation, in that causality is not established (Bryman, 2004). Inference must therefore be used, in relation to theory, according to Bryman (2004). However, existing time and resource constraints necessitated a research design such as the cross-sectional form utilised in this research study. The tested associations are used to examine theory. Causality limitations are considered below.

- Causality limitations

According to the multiple linear regression analysis methodology, an association can be shown between two variables, yet causality cannot be implied. This was taken to be a limitation fundamentally associated with quantitative testing of hypotheses. An example in this regard is the testing of theory relating a factor to an entrepreneurial orientation dimension. A significant association might not necessarily indicate which variable is causally responsible for the effect, or whether the cause was another untested factor that had affected the two variables.

It was accepted that the tested factors might reflect the multi-determined nature of factors tested in social science in terms of their associations with each other. For example, behaviour associated with entrepreneurial orientation (the “how”) of entrepreneurship was expected to be underpinned by the entire psychology of an individual, and by the resultant interaction between the psychology of an individual

and the sociological forces that might have influenced the individual cognitively. This underlying level of theory was expected to exert a multi-determined influence on the associations between tested factors. The level of analysis of this research was largely undertaken on the level of entrepreneurial relationships, the "tip of the iceberg" for the individual's specific make-up, so to speak. Relationships informed by the entrepreneurship literature were derived from the literature and tested with the acknowledged limitation of having these "tip of the iceberg" associations underpinned by sociological and psychological factors.

In order to understand Stevenson and Jarillo's (1990) "why" of entrepreneurship, a comprehensive investigation would have had to be made into sociological and psychological variables that fundamentally drive individual behaviour at the lower level: under the waterline, as it were, according to the iceberg analogy. A limited investigation into the psychological underpinnings of tested associations was undertaken, but only to an extent judged appropriate for this investigation.

The focus of this research was clearly indicated as being primarily the "how" of entrepreneurship. Although limitations were imposed upon the knowledge creation potential of this work through the focus on the "how" of entrepreneurship and not the "why", it was accepted that this limitation had to be associated with any attempt to capture the range of variables and the interaction of context to the extent undertaken in this research. With regard to the range of variables and the interaction of context, a quantitative investigation was judged as being more appropriately suited to this process.

- Limitations relating to Culture

According to Anastasi (1990:65), in measuring "culturally diverse persons, it is important to differentiate between cultural factors" that can affect the process. Cultural factors were expected to introduce an element of variance into the testing process. The testing process was simple in design in order to reduce variability that might have been introduced through a possible interaction between cultural differences and the process. With regard to effects associated with different origin, this was a tested variable. Johannesburg origin and South African origin were included in order to capture effects associated with the origin of the individual street

trader. The capturing of origin might have captured certain cultural effects associated with the geographical origin of the individual street trader.

- Obscurity

A potential limitation with regard to the testing of respondents from different countries might have been the context associated with these respondents, in that the fear of being identified as foreign might have introduced an element of variability into the responses of these individuals. False responses might capture data relating to individuals wishing to remain obscure (Macmillan and Katz, 1992). The consequences of this might be evident in terms of the reduction in terms of effects differentiated according to local or to non local origin.

- Self Selection

Gimento et al. (1997) caution researchers with regard to the limitation associated with self selection, in which data is only obtained from whatever enterprises have survived. Obtaining data only from those respondents that have survived might cause a bias for performance coefficients if those that have not survived due to low performance have had lower or higher values for performance. The surviving firms would then be expected to have values that fall into a narrower range, with less significant results. This was recognised as a potential effect. However, it was also recognised that many traders might have left the sector as a result of being enabled, or having used the sector as a stepping-stone (De Soto, 1989) to more rewarding enterprise or employment due to the results of higher levels of performance or/and experience. In this regard, the associations found between experience as a proxy for the effect of time spend trading and entrepreneurial orientation and entrepreneurial performance were tested as a the best possible measure of this effect.

In terms of the limitations inherent within the research processes undertaken, caution was exercised in order to minimise the associated effects considered above and their constraints on the research process. In the following section, the data collection process is considered in terms of the research process.

4.6. DATA COLLECTION PROCESSES

The consideration of methodology in terms of data collection is undertaken below, and related ethical considerations are discussed. The sampling process is outlined and the instrument is discussed in terms of its design, scale construction, reliability and validity.

4.6.1. ETHICAL CONSIDERATIONS

In terms of a sensitivity to the issue of the protection of privacy, two key concepts need to be considered: these being relevance and informed consent (Anastasi, 1990). Consent forms were used and signed by respondents, but no names of the respondents were captured. Due regard was paid to the wishes of the respondents regarding participation in the process. If any indication of reluctance was evident, the potential respondent's behaviour was respected as an indication of unwillingness to participate.

Confidentiality was ensured in that no name was required on the consent form and by mixing consent forms so that they were not stored in order of capture. A cover sheet or cover letter accompanied the questionnaire, explaining the purpose of the research and explaining that the study was for academic and academic publication purposes only. The letter explained that anonymity was to be ensured at all times, and that personal details relating to identification were not required at any stage beyond that required by law. It was stressed that participation in the study was purely voluntary, and contact numbers were included in the letter. The cover sheet or cover letter and consent form utilised are illustrated in Appendix A.

4.6.2. SAMPLING PROCESSES AND SAMPLE SIZE CALCULATION

The population from which the sample was drawn was delimited to the central business area of the city. The number of street traders operating within this delimited area was estimated at 5181, which was taken to represent the study population. The process used to estimate this population size is reiterated as follows. A grid of the centre of the city was created and each street side was allocated a number. Random number tables were then used to begin and progress from block to block to count the

street traders on a sample of blocks. This enabled the calculation of the estimated population of street traders researched in this study. From this population, a sample of 339 respondents was drawn for the study, using convenience sampling.

Convenience sampling was undertaken to survey the research respondents. Street traders within the demarcated city centre area were sampled. In keeping with the right to refusal, wishes of those unwilling to participate were respected. Sampling was undertaken with a view to achieving as representative a sample as possible, within the constraints of convenience sampling. Each questionnaire administrator team was allocated to different areas of the city centre, according to the grid developed of the city centre. Care was taken not to disrupt the activities of the traders or to inconvenience the respondents unduly. An item was purchased from each respondent where this was possible.

A sample size calculation was performed, in order to gain insight into the power of the testing. This was calculated according to the minimum difference that was needed to establish associations between variables. The sample size calculation process is illustrated below.

The sample size calculation was undertaken in order to establish the degree of difference that could be picked up using the testing process: the power of the testing process. To be able to pick up a difference (D) of R20 earned per day by a street trader, at the 10 percent level of significance, or 2 units of earnings utilised in terms of the testing, the following formula was used (Laiho, Penttila, Laine, 2004):

$$\mathbf{D = Z_{1-\alpha/2}\, \sigma / \sqrt{n}}$$

The critical value from a normal distribution is shown by $Z_{1-\alpha/2}$ with α representing the tested level of significance. The σ represents standard deviation. The estimated standard deviation of 12.0487408 was used. This was the standard deviation of the sample. This measure of standard deviation was used due to the impossibility of obtaining the value for the population because the population size had been estimated, not measured. This was acknowledged as a suboptimal solution, yet was judged the best measure available. To gain a perspective on the effect of the sample size needed

to obtain a difference of two earnings units, this was deemed reasonable in terms of the process undertaken. This equation gave the size of the sample (n) needed to be able to pick up a R20 difference in daily earnings: a sample of 98.808 respondents.

According to this, if a sample size of about 99 respondents was needed to pick up a R20 difference in daily earnings at the 10 percent significance level, the sample size of 339 respondents would be adequate. This was considered a minimum threshold of earnings needed in terms of a minimum necessary level of tested effect.

4.6.3. SAMPLING PROTOCOL AND METHOD OF INTERVIEWING

A sampling protocol, or set of rules was used, and entry into the sample was defined in terms of the process of convenience sampling. Potential respondents were approached by specific questionnaire administrators according to a process of convenience sampling. Any adjacent areas that might have introduced a fundamentally industrial, residential or transport node orientated character were excluded because they might have reduced the representative nature of the study in terms of its capture of the city centre context and its fundamental nature.

Potential members of the sample were approached by questionnaire administrators, with refusals immediately respected and the principles of convenience sampling followed. In terms of this street traders that might have wished to avoid scrutiny: the obscurity problem (Macmillan and Katz, 1992), were not sampled. Traders that were serving customers were not interrupted, and traders were sampled according to convenience of approach and circumstances.

Some measure of overrepresentation of more accessible or friendly street traders might have occurred along this dimension, with overtly hostile street traders possibly being underrepresented. Factors potentially associated with refusals were therefore not captured.

Xenophobia and other contextual factors not within the scope of this work might inform further research into this segment of street trader respondents that wished to

remain obscure. The time of day that was chosen for survey administration was based on the most likely trading hours, this being from about ten o'clock in the morning. Atypical sampling circumstances were avoided, for example, heavy rain, protest activity or other conditions that might have represented an influence that was not regular and might have resulted in under-representations of the usual trading population.

Personal face-to-face interviewing was used as a survey process, in order to guarantee the quality of the instrument survey process. An item was purchased from each trader, if possible, which might have diminished the amount of refusals to some degree, or have incentivised participation for street traders not exclusively selling large items.

Interviewers undertook to ask the questions in a certain fixed manner, in order not to introduce variance into the process, and the instrument comprised coded questions in order to reduce confusion and enhance clarity, with coded blocks designed to avoid complexity as much as possible, and designed for reliability and validity in a manner that matched the specific context in terms of simplicity.

Interviewers undertook that no feedback be elicited from interviewers, and that each question be delivered in a neutral manner, so as not to introduce unwanted variability into the process. In terms of the use of interviewers, as much as it was possible, the matching of language groups with street trader respondents was undertaken, although the actual questions were initially delivered in English, and clarified in other languages if necessary. Respect for the wishes and privacy of individual street traders was an important aspect of the process.

4.6.4. THE INSTRUMENT

In terms of the instrument, the following are considered below: the design of the instrument; scale construction; reliability; and validity.

4.6.4.1. The Design of the Instrument

According to Anastasi (1990: 35) the following implications of context with regard to testing conditions exist: firstly, that standardised procedures are to be followed "to the minutest detail"; secondly, that any unusual testing conditions, however minor, should be recorded, and thirdly, that testing conditions are taken into account when the interpretation of test results is undertaken. The process of designing the instrument also drew from theory relating to the design of psychological tests, to the extent that certain of these principles were appropriate to the design of a survey instrument.

Behaviour related testing falls within the realm of precedent set by psychological testing, whereby a test represents a standardised measure, this implicitly extending to uniformity of procedure in the administration and scoring of these tests (Anastasi, 1990). Uniform measurement conditions were established by attempting to ensure that the instrument was administered in a consistent manner. The standardised delivery of questions was enabled through maintaining control of the process as much as was reasonably possible.

According to Anastasi (1990), the proper interpretation of measurement requires a thorough understanding of the instrument, the respondent, and the conditions associated with the measurement process. In terms of relating the street trader respondent and the context to the design of the instrument, the level of language used and simplicity of design were important considerations with regard to the development of the scales and the instrument. The conditions relating to the testing were taken to be relatively stable, in that the street trading context was taken to be reasonably similar for all respondents. Variability introduced by temporary emotional or physical states that should be considered (Anastasi, 1990) were in this instance regarded as being within the normal limits of any attempt to approach street trading respondents and administer an instrument using a controlled and simplified process. The process attempted to introduce as little additional variability into the overall process of data collection as possible.

According to Anastasi (1990), external influences specific to measurement situations increase error variance, and decrease test validity. Background information attained

through the piloting process had provided insights into the simplification and strengthening of processes in this regard, and allowed for a greater understanding of the specific context and the respondents as individuals to the extent that process could be tailored to this specific context.

The first few questions were designed to be simple and factual to allow the respondent to be at ease with the process, and to reduce anxiety on the part of the respondent. These questions were used in section A of the questionnaire, through which demographic and other contextual factor data was collected, and section B collected data with regard to entrepreneurial orientation. No differentiation between sections was revealed on the actual instrument, however. The language was used in a manner that was designed to be as simple as possible. There may be a significant interaction between respondent and administrator characteristics (Anastasi, 1990). The communication of expectations to the respondents in terms of responses was avoided.

Absolute simplicity was attempted in the wording of the instrument, with each tested conception clearly expressed and ambiguity avoided as much as possible. Anonymity and confidentiality were stressed. The instrument was piloted in the same context, and the instrument improved and retested prior to the study itself. Issues relating to the piloting process are considered as follows. After this, scale construction is considered.

- **Piloting**

The process of piloting was initiated through the administration of largely open-ended questions derived from the theory. The sampling process was undertaken within the geographically delimited area. Convenience sampling was used. The data gained from this process allowed for the identification of areas that were problematic. From the administration of these open-ended questions, a process of simplification of the instrument items was undertaken. Closed questions were developed.

A complete pilot study was then undertaken and the statistical testing process was developed. The complete piloted sample consisted of 39 respondents. The complete process of diagnostic testing was conducted. This provided insight into the nature of the data, and provided a basis on which to improve the process.

The instrument was developed further, and the questions relating to entrepreneurial orientation were added. The instrument was administered again in order to increase its precision. The piloting process provided the input into the process of scale construction. Scale construction is considered as follows.

- **Scale Construction**

The instrument was shortened after piloting, to attain a balance between data required and the time needed to collect this data, and to reduce the chance of fatigue for street trader respondents. Not all questions were phrased in the same direction, as some were mixed in opposite directions. Closed questions were used, with open questions initially attempted in the piloting process.

The final instrument was fundamentally composed of closed questions that were designed to represent graduated responses and also designed to be a close match with the respondent sample, in that simplicity was of paramount importance, and ambiguity avoided. This simple form of closed questions was uniquely designed with a view to quantitative analysis, and specifically multiple linear regression analysis.

For the questions relating to entrepreneurial orientation, a symmetrical scale of five points was chosen, this allowing for a degree of discrimination, with each level constructed in an attempt to represent a theoretically equal degree of preference, with a view to the testing of these results as continuous variables. A midpoint was used, in that it was theoretically possible that certain street traders genuinely were ambivalent towards two contrasting responses, and the absence of a midpoint might have introduced complexity or an altered preference with regard to the chosen response that might have not reflected the reality of the street trader's intention.

The entrepreneurial orientation dimensions were tested for normality in terms of their underlying distribution. This was undertaken in terms of the following dependent variables: innovativeness, proactiveness, competitive aggressiveness, autonomy and risk taking propensity.

A Cronbach Coefficient Alpha was obtained for the scores of the dimensions constituting the overall entrepreneurial orientation construct, comprising

innovativeness, proactiveness, competitive aggressiveness, autonomy and risk taking propensity. In accordance with the theoretical prediction of Lumpkin and Dess (1996), these were found to vary independently from each other in this tested context, as a Cronbach's alpha of 0.354487 (standardised 0.353161) was obtained between all of these dimensions.

An ordinal scale is a scale that allows for the rank-ordering of data without knowledge of the amount of difference between these ranks, yet an equal unit interval scale is constructed to reflect an equal distance between ranks (Anastasi, 1990). In an interval scale, however, the allocation of values such as zero have no underlying meaning, and the unit of measurement is arbitrary (Murphy and Davidshofer, 2005: 77), yet "values on a ratio scale can always be interpreted in terms of their distance" from a fixed, real zero point.

The scales developed to measure the entrepreneurial orientation dimensions were constructed with the intent of creating a measure of relative distance between two opposite positions.

Rational scales refer to the process whereby "some underlying thought, belief, or rationale is used as the basis for selecting items and grouping them together into a scale" (Murphy and Davidshofer, 2005: 231), the usefulness of these scales being tied to the validity of the theory they are derived from.

Responses might introduce variance into the process due to the perceived social desirability of answers, or through the respondent attempting to come across overly characterised according to some measure, or response style (Murphy and Davidshofer, 2005: 233). Potential problems caused by introduced variance were minimised through the use of standardised procedures of questionnaire administration.The design of the instrument was based upon the cross-sectional survey design. The implications of this are briefly considered as follows.

- Cross-sectional survey design and survey research

Survey research "comprises a cross-sectional design in relation to which data are collected predominantly by questionnaire or by structured interview" and "at a single point in time" (Bryman, 2004: 43). Within the constraints of time and budgets, the cross sectional survey design was deemed appropriate for the instrument. Reliability is considered as follows.

4.6.4.2. Reliability

The objective evaluation of a test involves measuring the reliability and validity of the measure in specified conditions (Anastasi, 1990). To provide an adequate measure of a particular attribute, a measure must "at least assign scores in a consistent fashion" to represent reliability (Murphy and Davidshofer, 2005: 79). Reliability refers to the consistency of scores that the same person would obtain if they were to take the test at other times or under different conditions. Thus some estimate of error variance is possible in terms of variance captured that is not primarily related to the variable being tested (Anastasi, 1990). The entrepreneurial orientation items of the instrument were designed according to certain principles of psychological test design, to the extent that these were applicable to survey research.

According to Bryman (2004: 71), reliability refers to the consistency of a measure "of a concept". Stability, internal reliability and inter-observer consistency are prominent factors that should be displayed by a reliable measure, according to Bryman (2004). A measure would display stability if little variation over time was found when the measure was re-administered and would display internal reliability if the "indicators that make up the scale" are consistent: when "respondent's scores on any one indicator tend to be related to their scores on the other indicators" (ibid.). Inter-observer inconsistency can occur in content analysis or open ended questions where categorisation might introduce a lack of consistency (ibid.).

Reliability theory classifies the range of factors that might influence measurement scores into two categories, these being true scores and random errors of measurement (Murphy and Davidshofer, 2005: 129). Error variance was controlled in this study

through uniform procedures in terms of the testing process and how it was experienced by respondents, scripted instructions and closed questionnaire items.

The estimate of reliability that one uses must depend on "the sources of variance that one considers relevant" (Cortina, 1993: 98). According to Cortina (ibid.), if error factors associated with time are the focus, then test-retest or multiple administrations of "parallel tests" may be used. Since error factors introduced in the form of variance influencing reliability relating to time were not associated with the instrument, test-retest measures were not used. The coefficient alpha, however, is an appropriate measure of variance "attributable to subjects and variance attributable to the interaction between subjects and items" (ibid.). Accordingly the coefficient alpha, or Cronbach's alpha was used as a measure of internal reliability.

In terms of the specific testing of internal reliability, the following scores were obtained in terms of the testing of the Cronbach's alphas for the dimensions of entrepreneurial orientation: for innovativeness 0.829568; for competitive aggressiveness 0.767960; for autonomy 0.802745; for risk taking propensity 0.652820; and for proactiveness 0.613450 (Appendix B). This indicates that the internal reliability of the instrument for the entrepreneurial orientation items was reasonable. A Cronbach's alpha of 0.60 as a minimum level is acceptable (Azrilah, Azlinah, NoorHabibah, Sohaimi, Azami, Hamza and Mohd, 2008; Berthoud, 2000).

According to Murphy and Davidshofer (2005: 132) classical reliability theory segments test scores into two categories relating to true-score and random error. However, generalisability theory regards error as not always random; this often also arises from "specific, systematic sources of inconsistency in measurement" (ibid.), which extend the consideration of reliability to factors beyond the test itself, such as variance relating to situations.

Based on prescriptions relating to avoiding threats to reliability, the standardisation of all testing processes was attempted in order to remove as much unwanted variance as possible. Threats to reliability were identified and addressed in terms of this.

4.6.4.3. Validity

According to Anastasi (1990: 29), validity is "the degree to which the test actually measures what it purports to measure", a direct check on how well the measure fulfils its function. Anastasi (1990: 29) argues that a more accurate way to define validity is "the extent to which we know what the test measures". A test of validity is whether the measure of a concept really measures that concept, according to Bryman (2004). The validity of a test "cannot be reported in general terms", since "no test can be said to have 'high' or 'low' validity" other that with reference to the particular use for which the test was developed (Anastasi, 1990: 139).

The following conceptions of validity are considered below: content-related validation; internal consistency; convergent and discriminant validation; construct related validation; face validity; and criterion-related validation.

- Content-related validation

Content-related validation relates to the systematic examination of the test content to ensure that it covers a "representative sample of the behaviour domain" being measured (Anastasi, 1990: 140). According to Murphy and Davidshofer (2005: 160), the core procedure for assessing content validity consists of the following steps: describing the content domain, determining the areas of the content domain that are measured by each test item and comparing the "structure of the test with the structure of the content domain". However, "no single statistic can be used to measure content validity" (ibid.). Content validity was built into the scales through the derivation of these scales from theory relating to proactiveness, innovativeness, autonomy, risk taking propensity and competitive aggressiveness, these comprising the total entrepreneurial orientation construct, and this particular domain was sampled.

- Internal Consistency

According to Anastasi (1990: 156) the contribution of "internal consistency data to test validation is limited", and "in the absence of data external to the test itself, little can be learned about what a test measures". A test therefore can be reliable, but not valid. In terms of these requirements, internal reliability was measured and ensured to the extent that this supports internal consistency.

- Convergent and Discriminant Validation

Convergent validity refers to the correlation of variables that theoretically should correlate with each other, and discriminant validity refers to the lack of correlation between variables that theoretically should not correlate with each other (Anastasi, 1990: 156). Convergent validity of a measure can be established through the use of another method according to Bryman (2004).

- Construct-related Validation

Murphy and Davidshof (2005: 163) argue that constructs tested need to have certain essential properties, such as being abstract summaries of "regularity in nature" and need to be related or "connected with concrete, observable entities or events". Construct-related validity relates to the extent to which the measure "may be said to measure a theoretical construct or trait", deriving from "established relationships among behavioural measures" (Anastasi, 1990: 153). Construct validity was ensured through the derivation of scales tightly developed from theory that was to be directly tested.

The process of providing a description of the relationship between specific behaviours and abstract constructs, or construct explication, consists of a process of identifying the behaviours relating to the construct being measured, identifying other constructs, deciding if these other constructs are related to the measured construct, identifying behaviours related to these additional constructs and determining whether these are related to the measured construct (Murphy and Davidshof, 2005: 164). In terms of the constructs tested, these were derived from theory. Construct validity was maintained through the anchoring of these constructs to the theory from which they were derived.

- Face Validity

According to Anastasi (1990: 145) face validity refers to what the test "appears superficially to measure", and for face validity to exist for an instrument, it would need to appear valid to respondents, to "administrative personnel who decide on its use", and to "other technically untrained observers" (ibid.). According to Bryman (2004) the process of assessing face validity is an intuitive process. Attempts were

made to maintain face validity in terms of appearing to be what was claimed to be, and cover letters and consent forms were also used for this process.

- Criterion-related Validation

Criterion-related validation refers to the effectiveness of a measure in terms of being able to predict an individual's "performance in specified activities", whereby performance is checked against a criterion, a "direct and independent measure" of that which it is designed to predict or other information about the individual's behaviour (Anastasi, 1990: 145). Concurrent and predictive validation are typically used to test this, yet the difference between concurrent and predictive validation is essentially related to their position in time (Anastasi, 1990).

Predictive validity relates to the manifestation of tested behaviour further into the future (Anastasi, 1990: 146). Predicted validity can be established through the use of a future criterion measure, such as the use of future levels of absenteeism used to validate present levels of absenteeism (Bryman, 2004). Concurrent validity can be gauged through the use of a criterion on which respondents differ, such as the use of the variable absenteeism as a criterion to establish concurrent validity relating to job satisfaction (Bryman, 2004). However, in terms of concurrent and predictive validity, it was not possible to record behaviour beyond the survey, or behaviour subsequently exhibited by respondents in this informal street trading context, and it is acknowledged that no claims in this regard to concurrent or predicted validity are made in this work.

Avoiding criterion contamination relates to the process of ensuring that measurement scores do not in themselves influence any individual's "criterion status" as might happen with individuals in work contexts where ratings might be influenced (Anastasi, 1990: 146). This was not considered to be an issue with regard to the surveying of the street trader respondents. Attention was paid to the stipulations around issues of reliability and validity with regard to the data collection and testing processes. In terms of the survey participants, the characteristics of the survey respondents are considered as follows.

4.7. THE PROCESSES OF DATA TESTING

After the capturing of the data from completed instruments, the process of testing the data was initiated. Descriptive statistics were derived from the data, these including frequency data, and statistical testing was undertaken. In this section, the statistical testing processes are outlined, with a consideration of the following: the confidence levels applied; the use of Cronbach's alphas; and the multiple linear regression process used in terms of the testing of hypotheses. The section concludes with a consideration of multiple linear regression and an example of the process followed in terms of the testing.

4.7.1. STATISTICAL TESTING

In this section the statistical tests utilised in terms of the testing processes are considered, and confidence levels for testing are discussed. This is followed by a discussion of the Cronbach's alpha statistical tests. The section is concluded with a consideration of multiple linear regression analysis.

4.7.1.1. Confidence Levels for Testing

In terms of testing the null hypotheses for significance, the significance level of 10 percent, or $\alpha = 0.10$ was decided upon. According to this, the probability that a Type I error would not be made whereby a true null hypothesis is rejected would be equal to:

$$1 - \alpha = 0.90 \qquad \text{(Edwards, 1984: 67).}$$

Although a more stringent level of significance such as the 5 percent level could have been used, the 10 percent level was chosen due to the large range of variables tested and the potential for greater insight provided through the interpretation of marginal associations. The 10 percent level is the minimum threshold level appropriate for including variables for quantitative analysis (Johnell, Scheele, Reginster, Need, and Seeman (2002). The consideration of testing using Cronbach's alpha and multiple linear regression analysis statistical testing is considered as follows.

4.7.1.2. Cronbach's Alphas

As considered in the section relating to reliability, the Cronbach's alpha test was run on items in the questionnaire to ensure reliability. The items in the questionnaire that were found to have Cronbach's alpha scores of less than 0.60 were discarded.

4.7.1.3. Multiple Linear Regression Analysis

Regression analysis is utilised to investigate the relationship between a range of variables, these including an error term, whereby a dependent variable is expressed as a combination of independent or explanatory variables, and "the unknown parameters in the model are estimated, using observed values of the dependent and explanatory variables" (Stoodley, Lewis and Stainton, 1980: 35). Multiple linear regression analysis was the technique used to test the hypotheses. The following represents the regression equation, according to the general model used to represent the relationship between the dependent variable (Y) as a linear function of the independent variables (X's), with ε representing the error term (Stoodley, Lewis and Stainton, 1980: 36):

$$Yi = \beta o + \beta 1X1i + \beta 2X2i + \ldots + \beta kXki + \varepsilon i, \quad i = 1,2,\ldots,n.$$

The βs in the above equation represent the estimated parameters. Advantages associated with multiple regression analysis are that this process offers a more accurate explanation of the dependent variable in that more variables are included in the analysis, and that the "effect of a particular independent variable is made more certain, for the possibility of distorting influences from other independent variables is removed" (Lewis-Beck, 1986: 47). According to Lewis-Beck (1986: 47), the "technique of multiple regression has great range, and its mastery will enable the researcher to analyse virtually any set of quantitative data". This was taken to be an appropriate technique due to the relatively broad range of associations tested.

In cases where violations of the multiple linear regression process were found to be present and impossible to avoid, these instances were reported, together with the potential implications with regard to the research results. The methods associated with detecting and rectifying potential violations of these assumptions are considered

below. The following are assumptions of multiple linear regression analysis that need to be considered: that observations of the error term are not correlated, that errors have the same variance throughout, that no change in regime has occurred, that all variables are included in the equation and that multicollinearity is not a problem (Studenmund, 2001). These assumptions are briefly outlined as follows, together with the processes undertaken in the study to reduce the exposure of the process to these problems:

- That Errors are not Correlated

Observations of the error term need to be uncorrelated with other variables (Studenmund, 2001). Serial correlation is a violation of the classical linear regression model according to Kennedy (2008). The residual and time plots were checked for sinusoidal patterns and potential serial correlations through an inspection of the results of the Durban–Watson statistic. This assumption was checked for each variable tested, and the results are reported in the following results chapter.

- Errors having the same Variance throughout

The error term needs to have constant variance (Studenmund, 2001). The problem of pure heteroscedasticity occurs when the classical assumption that the error term has constant variance is violated (ibid.). Impure heteroscedasticity is caused by an error in specification, which might cause hereroscedasticity in the error terms (ibid.). Residual plots were checked for wedge, parabolic or other strange shapes. The plot against time, measured as order of capture, was also checked to ensure that error terms had the same variance throughout. If patterns were found in the residual plots, this might have indicated that a transformation was needed, and in regard to transformations, a transformation that corrected for unequal variance in the residuals was expected to generally simultaneously correct for non-normality in terms of the residual distributions.

According to Studenmund (2001) the error term needs to be normally distributed. The assumptions associated with the regression model in terms of the distribution of the error terms, such as having a normal distribution and being independent for the different observations, were examined with reference to the plots of the residuals. The

variability of the errors was checked in terms of being the same over the whole range of the regression. The error term was also checked in terms of the assumption that the error term was independent of the individual observations. The results of all tests are reported in chapter five, and specific plot results were illustrated in the results section.

- That no change of Regime has occurred

The regression model needs to be linear in the coefficients, correctly specified with an additive error term (ibid.). If a change in regime has occurred, then the model is no longer correctly specified. To detect whether a change of regime has occurred, residual plots were considered for clumps of residuals, and the time plot was considered, as a variable, with order of capture representing the order in which respondents were surveyed. In terms of this time plot, the testing of the variable order of capture was tested in relation to all tested variables. The residual plot of order of capture was examined and checked for a reasonable scatter in terms of the distribution of points. The results of the testing of order of capture are reported in the results section.

- That all variables are in the equation

The regression model needs to be correctly specified (ibid.). Impure heteroscedasticity might result from errors in specification, which might result in heteroscedasticity in the error terms (ibid.). Residual plots were checked for quadratic or other trends, and the time plots were also checked for linear, quadratic or other trends. Care was taken in terms of considering the risk that, if a necessary value was absent from the equation, it might have exhibited itself in the error term. The variables tested were examined with reference to this assumption, and the results of the investigation of each variable and residual plots are reported in chapter five.

- Multicollinearity

No explanatory variable must be a perfect linear function of any other explanatory variable (Studenmund, 2001). For multiple linear regression to produce optimal estimates, perfect multicollinearity needs to be absent; in the case of extreme multicollinearity this may be associated with unreliable parameter estimates (Lewis-

Beck, 1986). “One rather sure symptom of high multicollinearity is a substantial” R squared for the equation with statistically insignificant coefficients (ibid.: 60).

The extent to which predictor variables were correlated with each other, or the problem of multicollinearity, was investigated. Another problem addressed was the potential of multicollinearity to cause changes in the sizes and significances of the variables, or even sign changes, as variables leave the equation as it is formulated (Lewis-Beck, 1986). The identification and elimination of correcting variables was planned for, in order to improve the potential for interpretation of the coefficients, yet the variables tested in this work were found to be specifically robust in terms of their resistance to multicollinearity.

Measures of the degree of multicollinearity were taken, through examining the degree to which pairs of predictor variables were correlated. Variables were considered for removal from the equation according to the criterion of having a value around 90 percent. The specific testing processes are illustrated in chapter five, and the results of this testing are reported.

Also checked were the condition indices, the ratio of each eigenvalue to the largest eigenvalue of the correlation matrix of the predictor variables. Problems were planned for in terms of the investigation of condition indices greater than a hundred.

In addition to measures undertaken in the testing process to reduce problems associated with violations of the above assumptions of the multiple linear regression model, certain processes were chosen in order to reduce exposure to other problems associated with regression analysis. The following processes were used to mitigate against the problem of outliers and influential points (Holland and Redfern, 1997) whereby the regression equation is sensitive to outliers that might “pull” the resultant least squares equation away from the equation representing most of the rest of the data.

To investigate the presence of outliers, the plot of the original data was examined, and the values of the response variables were plotted against each predictor variable in turn. According to Holland and Redfern (1997) a simple examination of calculated

residuals is insufficient to pick up influential points or outlying points that might influence the regression equation. To check for outliers, the following tests were undertaken: an examination of the residuals, of the standardised residuals, of the studentised residuals, and of the DFits statistics. The specific testing of each hypothesis is reported in the results section together with a report on the diagnostic testing process. The process generally followed was to test according to standardised residual criteria, to delete the points that were greater than an absolute value of two, and to retest the model. The model without points removed was then compared to the model with points removed. However, the initially tested model was the model interpreted; the secondary analysis was only provided for further insight into the underlying effects without the influence of outliers and influential points.

To avoid the problem of suppressor variables, the method of backward stepwise elimination was used, whereby variables were removed from the equation on the basis of having the least significant coefficient, until only significant variables remained in the equation.

The adjusted R squared measure was considered as an indicator of the fit of the model, and the increase associated with dropping variables that did not contribute significantly to the equation was the criterion used to decide which variables were to be dropped from the equation. In terms of the decision regarding variables to include or drop from the regression equation, an analysis of multicollinearity was also undertaken. In this section, a brief consideration was given to the processes and certain of the problems associated with multiple linear regression analysis. Measures taken in this study to address these problems were also briefly outlined.

4.8. CONCLUSION

In this chapter, the placement of the research within theory relating to research paradigms was discussed, this leading into an outline of the hypotheses derived from the research questions. The scope of the study was discussed with regard to the Johannesburg central street trading population, the geographical demarcation undertaken, and the estimation process whereby the population size was estimated.

Limitations of the research were discussed, and the data collection processes were considered in terms of ethical considerations, sampling processes, sampling protocol, and the instrument. The instrument was discussed with regard to the design of the questionnaire and scale construction. Reliability and validity were considered, and measures relating to the way threats to reliability and validity were addressed in this study were outlined.

The chapter was concluded with a discussion of the process of data testing with regard to statistical testing, confidence levels for testing, Cronbach's alphas, multiple linear regression, and the underlying processes undertaken in terms of meeting the requirements associated with the assumptions of multiple linear regression analysis.
The following chapter reports the results of the statistical testing processes with regard to the testing of the hypotheses outlined in this chapter. In the following chapter, the process of analysis is comprehensively demonstrated.

CHAPTER 5

RESULTS OF HYPOTHESES TESTING

5.1. INTRODUCTION

The results of the analysis process are outlined and reported in this chapter, according to the process of tests undertaken. An attendant explanation of the process undertaken, albeit without discussion, is included. The testing processes relating to the direct testing of the hypotheses derived from the research questions is reported. The testing that relates to diagnostics, in terms of statistical tests, is also reported. The chapter structure follows that of the hypotheses tested. Within each section relating to each tested hypothesis, the diagnostics are considered. The discussion of these results is not included in this chapter but is undertaken in the following chapter, the analysis of research findings chapter.

5.2. THE TREATMENT OF TABLES, TESTING, REPORTING AND DIAGNOSTICS

In the following section, the characteristics of the unit of analysis: the individual street trader respondents, are reported in terms of the summary statistics. Following the reporting of the summary statistics, the results associated with the testing of the hypotheses are reported. In each section, according to each hypothesis tested, the process followed is outlined, this including the statistical procedures followed in terms of the testing and reporting on diagnostic statistics and diagnostic procedures.
The summary statistics of the respondents are reported as follows.

5.3. THE SUMMARY STATISTICS

The summary and descriptive statistics for each tested variable are reported below. The mean, standard deviation (Std Dev), variance, minimum value, maximum value, range, lower quartile, median and upper quartile are reported for certain tested variable. A pie chart illustrates the frequency distributions for each tested variable. The analysis of certain of the reported results is undertaken in the following chapter.

5.3.1. GENDER

In terms of gender, approximately 43 percent of the tested street traders were found to be female, and approximately 57 percent were found to be male. Figure 2 shows the pie graph of the data relating to gender. Table 1 illustrates the frequency distribution for gender.

Table 1. The frequency distribution of Gender

gender 1=Male	frequency value	percentage value
0	142	41.89
0.5	7	2.06
1	190	56.05

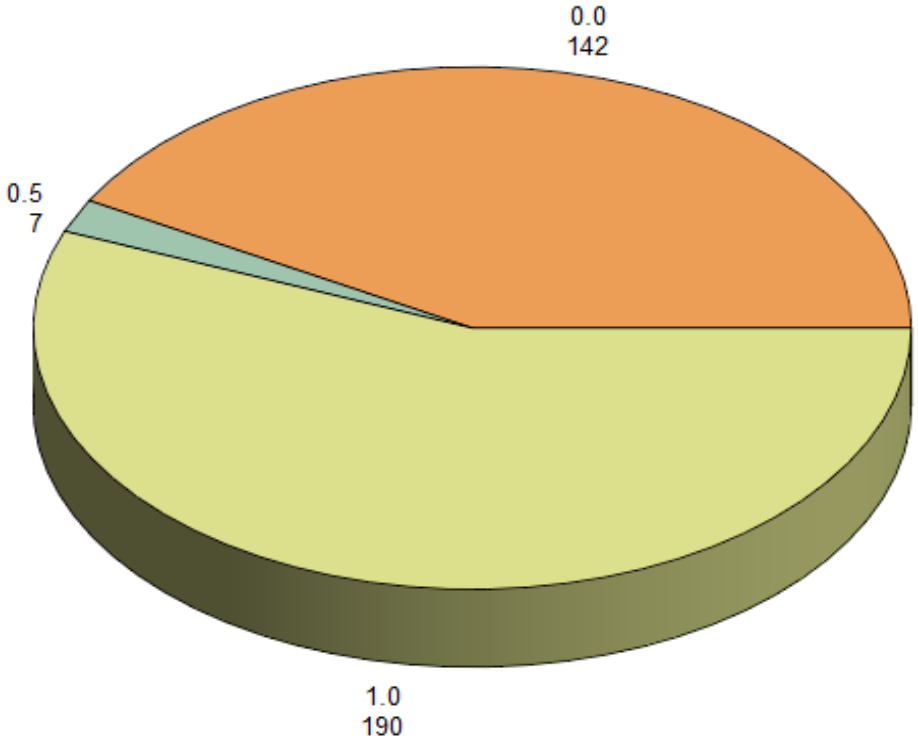

Figure 2. The pie chart of Gender

5.3.2. AGE

The average age of the sampled respondents was found to be about 33 years. Table 2 illustrates the summary statistics for age. Figure 3 illustrates the pie chart of age. The frequency distribution of age is shown in table 3.

Table 2. The summary statistics for Age

Analysis Variable : Age									
Mean	Std Dev	Variance	Minimum	Maximum	Range	N	Lower Quartile	Median	Upper Quartile
32.6780131	9.5934947	92.0351407	17.0000000	73.0000000	56.0000000	339	26.0000000	30.0000000	39.0000000

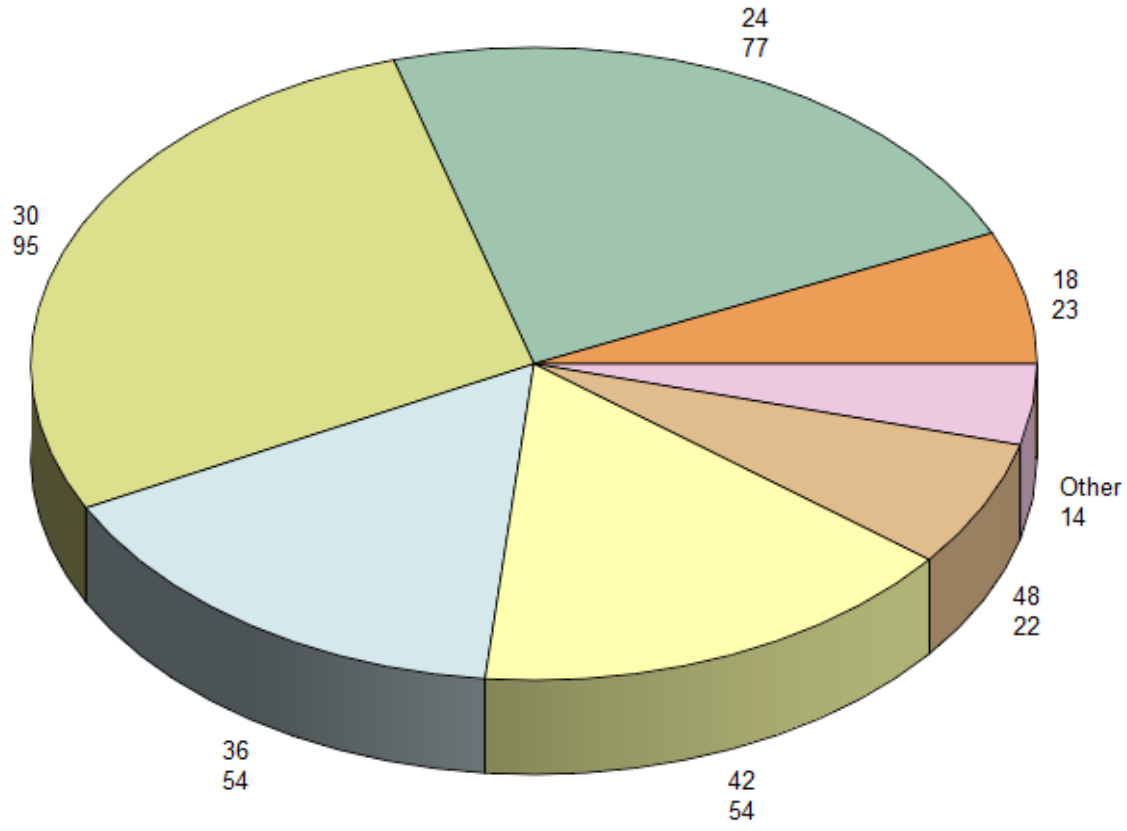

Figure 3. The pie chart of Age

Table 3. The frequency distribution of Age

age	frequency value	percentage value
≤18	23	6.78
19–24	77	22.71
25–30	95	28.02
31–36	54	15.93
37–42	54	15.93
43–48	22	6.49
49–54	6	1.77
55–60	5	1.47
61–66	2	0.59
>66	1	0.29

5.3.3. YEARS IN JOHANNESBURG

The average amount of time spent in Johannesburg for the sample of informal street trader respondents was just under ten years. The summary statistics of years in Johannesburg are shown in table 4. The pie chart of the data relating to years in Johannesburg is illustrated in figure 4. The frequency distribution of years in Johannesburg is shown in table 5.

Table 4. The summary statistics of Years in Johannesburg

Analysis Variable : Years in Johannesburg									
Mean	Std Dev	Variance	Minimum	Maximum	Range	N	Lower Quartile	Median	Upper Quartile
9.6570321	10.1447007	102.9149519	0.080000	59.0000	58.92000	339	3.0000	6.0000	14.0000

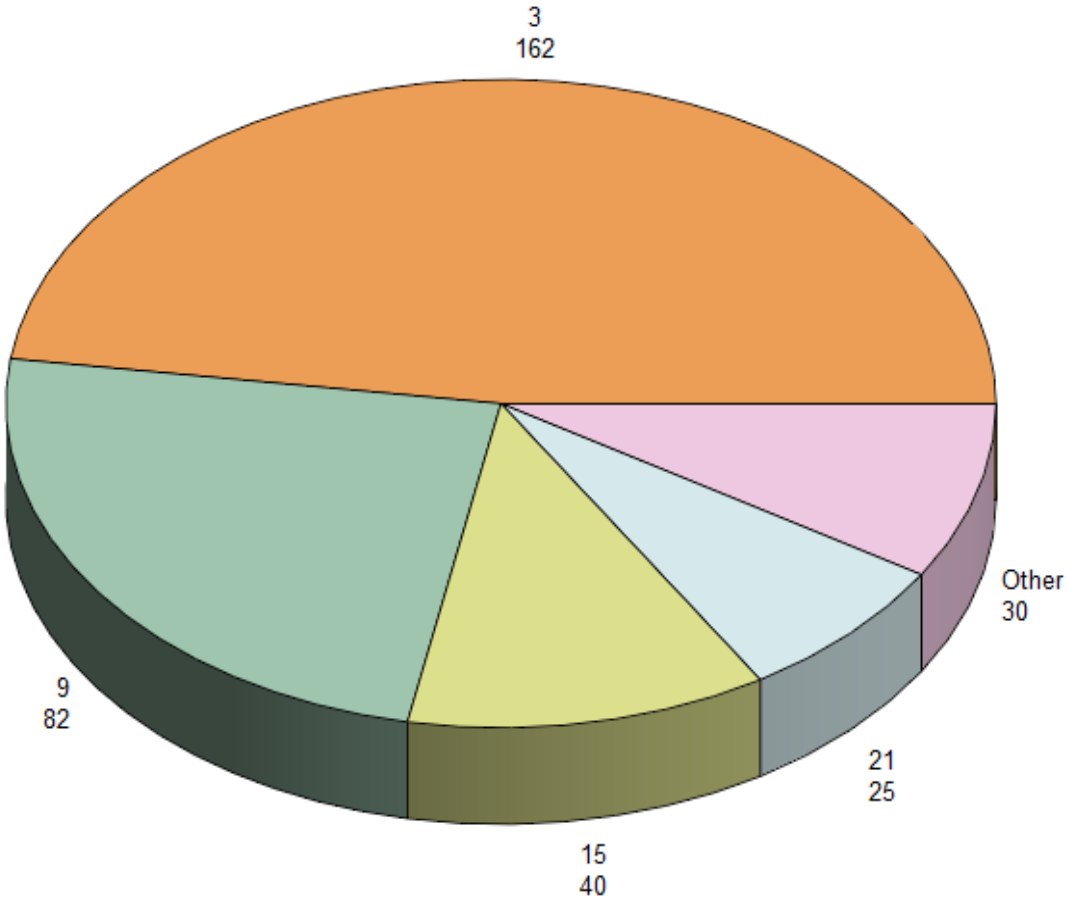

Figure 4. The pie chart of Years in Johannesburg

Table 5. The frequency distribution of Years in Johannesburg

yrsinJhb	frequency value	percentage value
0–3	162	47.79
4–9	82	24.19
10–15	40	11.80
16–21	25	7.37
22–27	7	2.06
28–33	10	2.95
34–39	5	1.47
40–45	5	1.47
46–51	2	0.59
>51	1	0.29

5.3.4. HOURS WORKED PER DAY

The average hours worked per day was found to be just over ten. The summary statistics for hours worked per day are shown in table 6. The pie chart for this data is shown in figure 5. The frequency distribution is illustrated in table 7.

Table 6. The summary statistics of Hours Worked per Day

Analysis Variable : Hours Worked per Day									
Mean	Std Dev	Variance	Minimum	Maximum	Range	N	Lower Quartile	Median	Upper Quartile
10.1518682	1.8407086	3.3882082	3.0000000	15.0000000	12.0000000	339	9.0000000	10.0000000	11.5000000

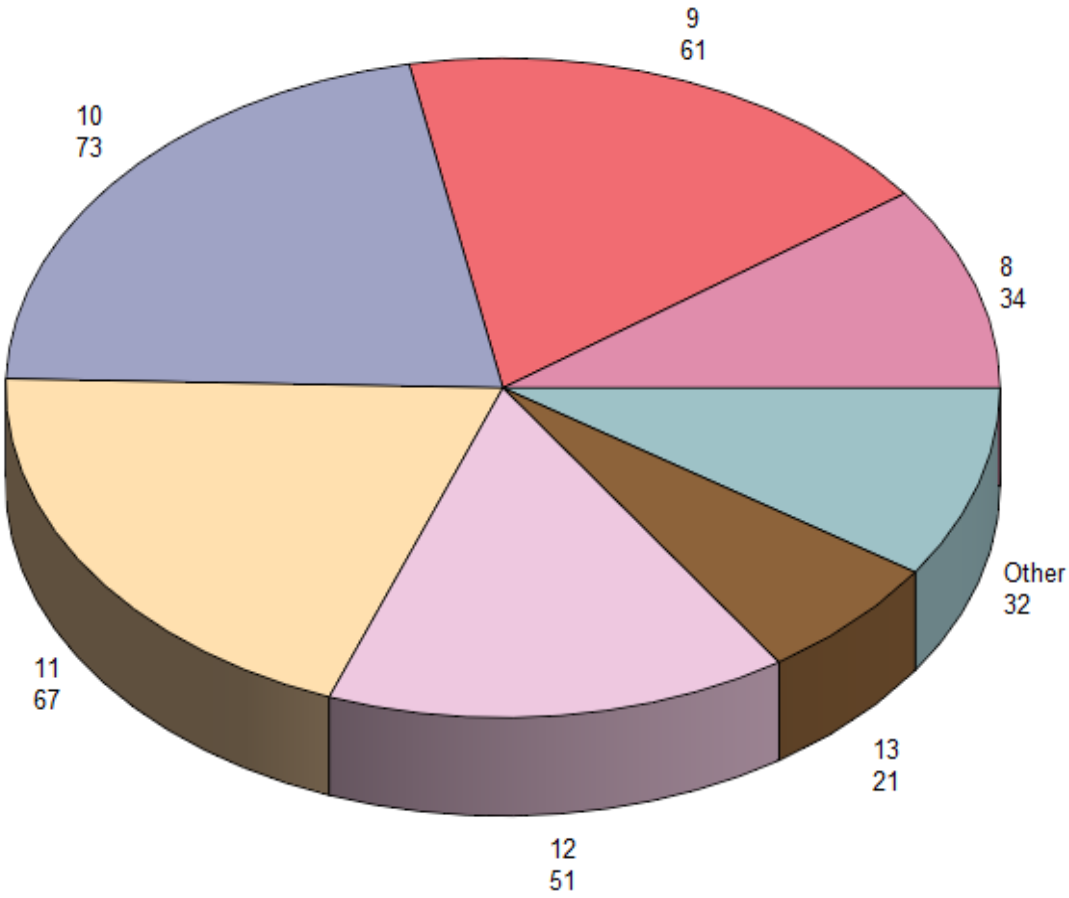

Figure 5. The pie chart for Hours Worked per Day

Table 7. The frequency distribution of Hours worked per Day

Hours Worked Per Day	frequency value	percentage value
0–3	1	0.29
4	1	0.29
5	2	0.59
6	3	0.88
7	11	3.24
8	34	10.03
9	61	17.99
10	73	21.53
11	67	19.76
12	51	15.04
13	21	6.19
14	11	3.24
≥15	3	0.88

5.3.5. DAYS WORKED PER WEEK

The average number of days worked was found to be about 6.2 days per week. In table 8 the summary statistics are illustrated. Figure 6 illustrates the pie chart of days worked per week. The frequency distribution of days worked per week is shown in table 9.

Table 8. The summary statistics of Days Worked per Week

Analysis Variable : Days Worked per Week									
Mean	Std Dev	Variance	Minimum	Maximum	Range	N	Lower Quartile	Median	Upper Quartile
6.1946903	0.6097105	0.3717469	1.0000000	7.0000000	6.0000000	339	6.0000000	6.0000000	7.0000000

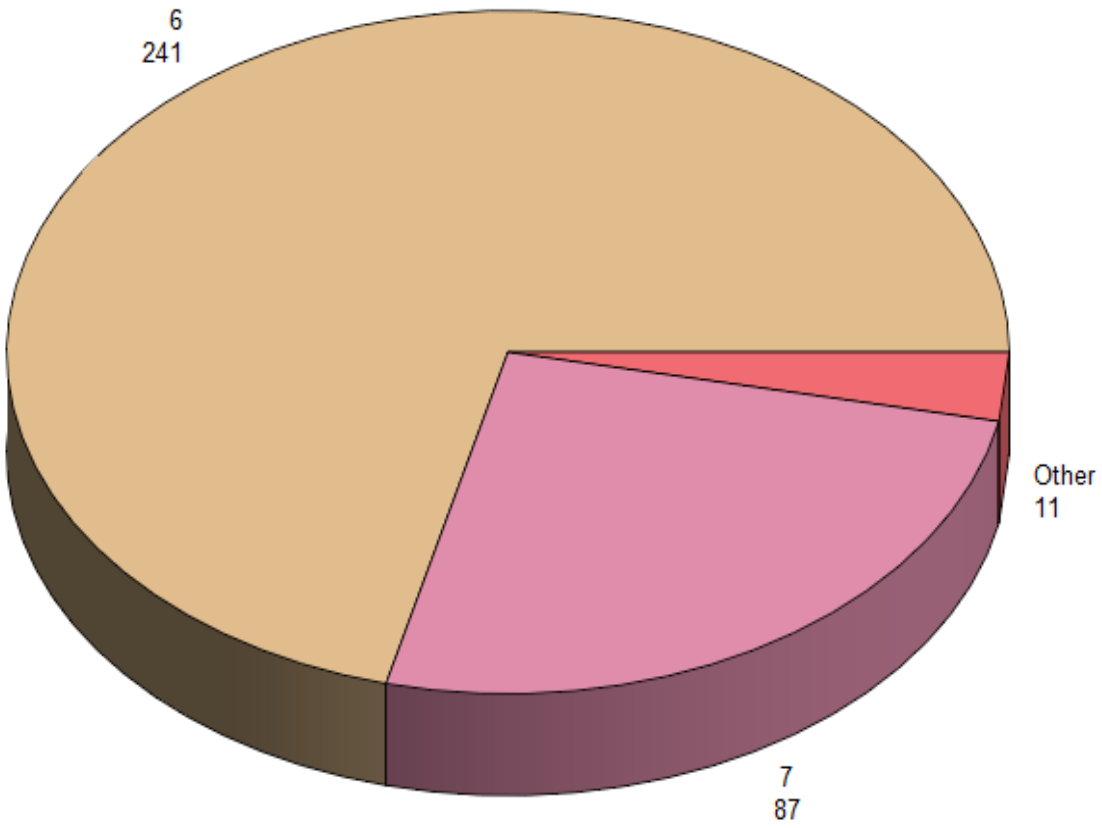

Figure 6. The pie chart for Days Worked per Week

Table 9. The frequency distribution of Days Worked per Week

Days Worked per Week	frequency value	percentage value
1	1	0.29
2–3	1	0.29
4	3	0.88
5	6	1.77
6	241	71.09
7	87	25.66

5.3.6. INITIAL INVESTMENT

The average initial investment in a street trading venture was found to be between 651 and 750 rand. In table 10 summary statistics relating to initial investment are illustrated. The pie chart is illustrated using tested units. The rand values that correspond to the units of the pie chart are shown in the first column of table 11 which illustrates the frequency distribution of initial investment. The unit value is shown in the second column. Figure 7 illustrates the pie chart of initial investment.

Table 10. The summary statistics for Initial Investment

Mean	Minimum	Maximum	Range	N	Lower Quartile	Median	Upper Quartile
Unit 9 (R651-R750)	0	20 units (>R1751)	20 units (R1751)	339	Unit 4 (R151-R250)	Unit 7 (R451-R550)	Unit 12 (R951-R1050)

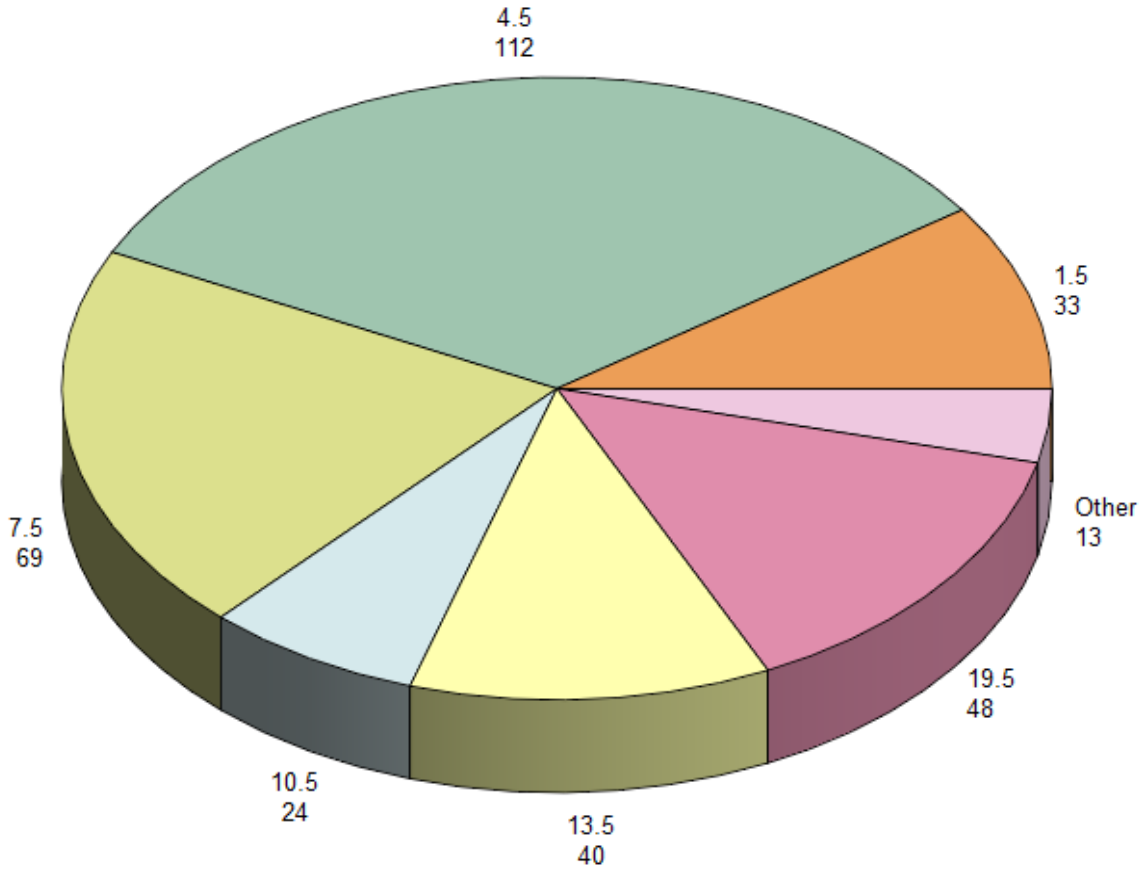

Figure 7. The pie chart distribution for Initial Investment

Table 11. The frequency distribution for Initial Investment

Initial Investment (rand)	Units	frequency value	percentage value
0≤i≤ 25	1.5	33	9.73
25<i≤ 300	4.5	112	33.04
300<i≤ 600	7.5	69	20.35
600<i≤ 900	10.5	24	7.08
900<i≤ 1200	13.5	40	11.80
1200<i≤ 1400	16.5	12	3.54
1400<i≤ 1700	19.5	48	14.16
i>1700	-	1	0.29

5.3.7. LEVEL OF TERTIARY EDUCATION

About 88 percent of street traders surveyed were found to have no tertiary education. Table 12 illustrates the summary statistics for the level of tertiary education. Figure 8 shows the pie chart distribution for the level of tertiary education variable. In table 13 the frequency distribution of tertiary education is shown.

Table 12. The summary statistics of Level of Tertiary Education

Analysis Variable : Level of Tertiary Education									
Mean	Std Dev	Variance	Minimum	Maximum	Range	N	Lower Quartile	Median	Upper Quartile
0.1651917	0.5124176	0.2625718	0	4.0000000	4.0000000	339	0	0	0

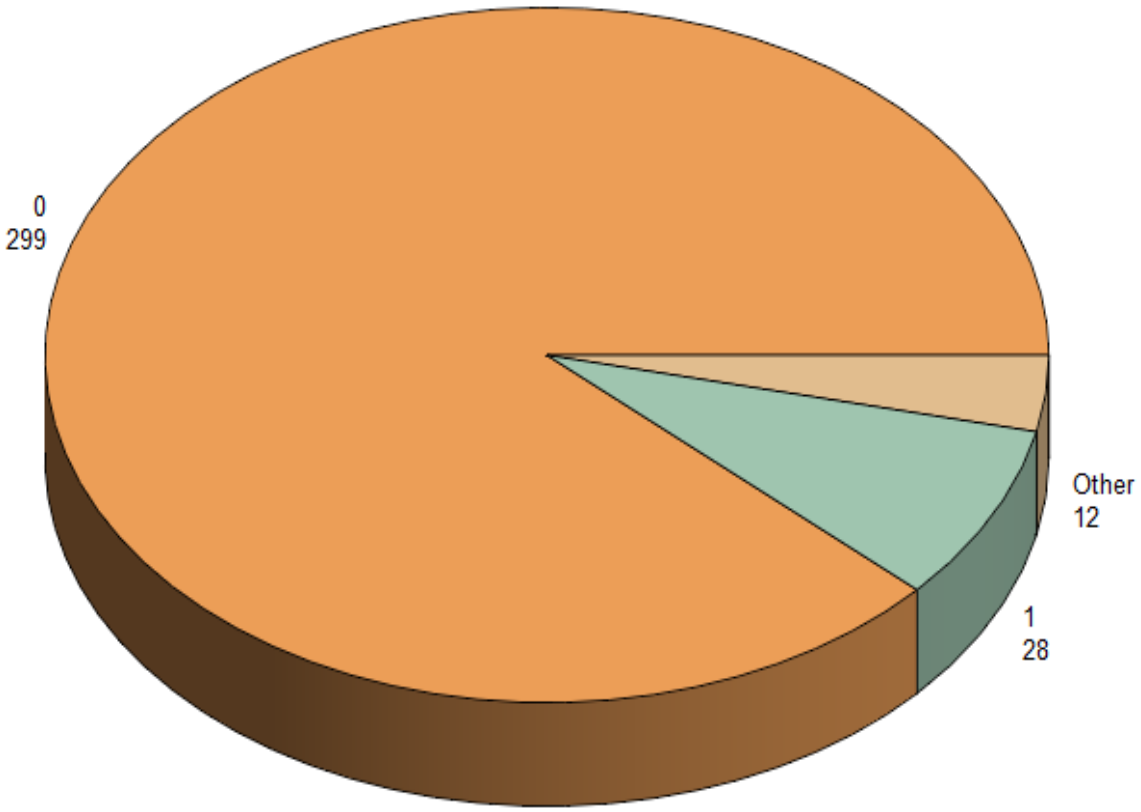

Figure 8. The pie chart distribution of Level of Tertiary Education

Table 13. The frequency distribution for Level of Tertiary Education

Level of Tertiary Education	frequency value	percentage value
0	299	88.20
1	28	8.26
2	9	2.65
3	2	0.59
4	1	0.29

5.3.8. TOTAL EDUCATION

Table 14 illustrates the summary statistics for the level of total education variable. Figure 9 shows the pie chart distribution for the level of total education variable. In table 15 the frequency distribution of total education is shown.

Table 14. The summary statistics for Total Education

Analysis Variable : Total Education									
Mean	Std Dev	Variance	Minimum	Maximum	Range	N	Lower Quartile	Median	Upper Quartile
3.2389381	1.2635608	1.5965859	0	8.0000000	8.0000000	339	3.0000000	3.0000000	4.0000000

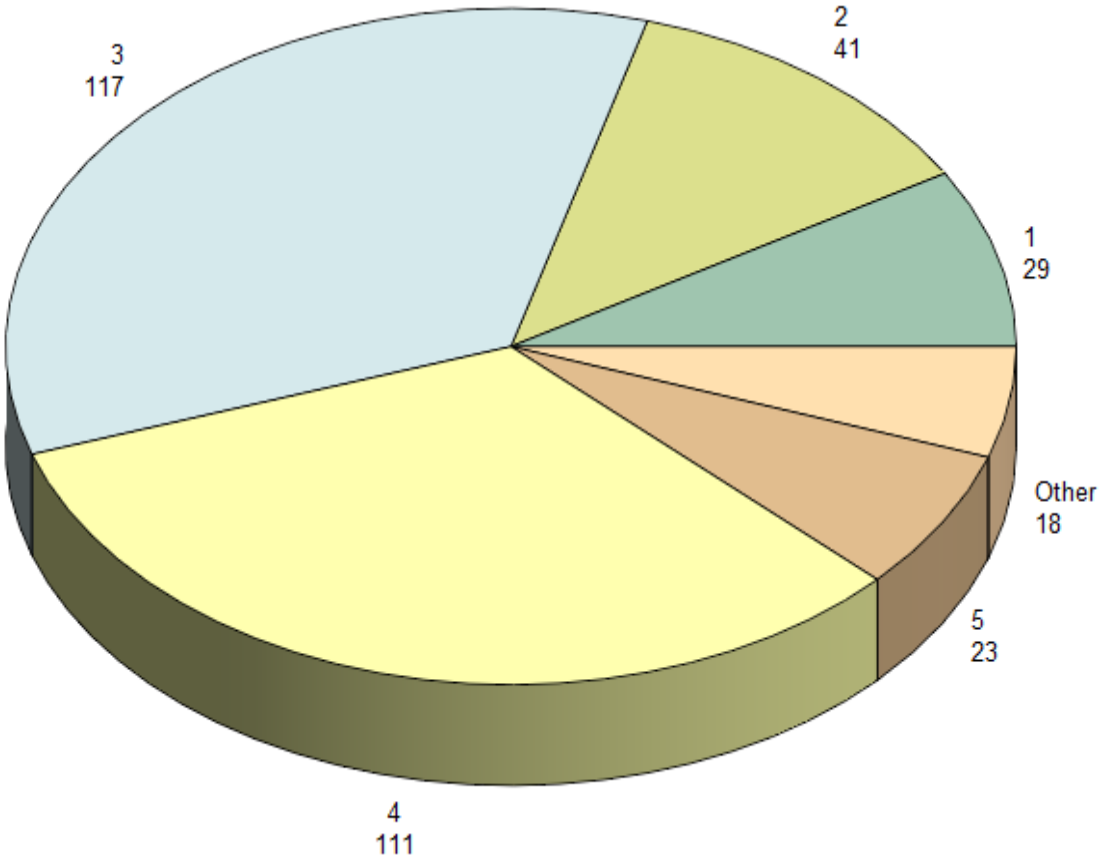

Figure 9. The pie chart distribution of Total Education

Table 15. The frequency distribution of Total Education

Total Education	frequency value	percentage value
0	6	1.77
1	29	8.55
2	41	12.09
3	117	34.51
4	111	32.74
5	23	6.78
6	8	2.36
7	3	0.88
8	1	0.29

5.3.9. EXPERIENCE

The average experience for the street traders surveyed was found to be about 4.24 years. The lower quartile of respondents were found to have had two years of experience and the upper quartile had six years of experience. The summary statistics for experience are shown in table 16. The pie chart distribution for experience is illustrated in figure 10. The frequency distribution of the experience variable is illustrated in table 17.

Table 16. The summary statistics of Experience

Analysis Variable : Experience (years)									
Mean	Std Dev	Variance	Minimum	Maximum	Range	N	Lower Quartile	Median	Upper Quartile
4.2389381	3.0815571	9.4959941	0	10.000000	10.000000	339	2.0000000	3.000000	6.000000

Table 17. The frequency distribution of Experience

Experience	frequency value	Percentage value
0	1	0.29
1	52	15.34
2	72	21.24
3	76	22.42
4	32	9.44
5	12	3.54
6	12	3.54
7	15	4.42
8	8	2.36
9	6	1.77
10	53	15.63

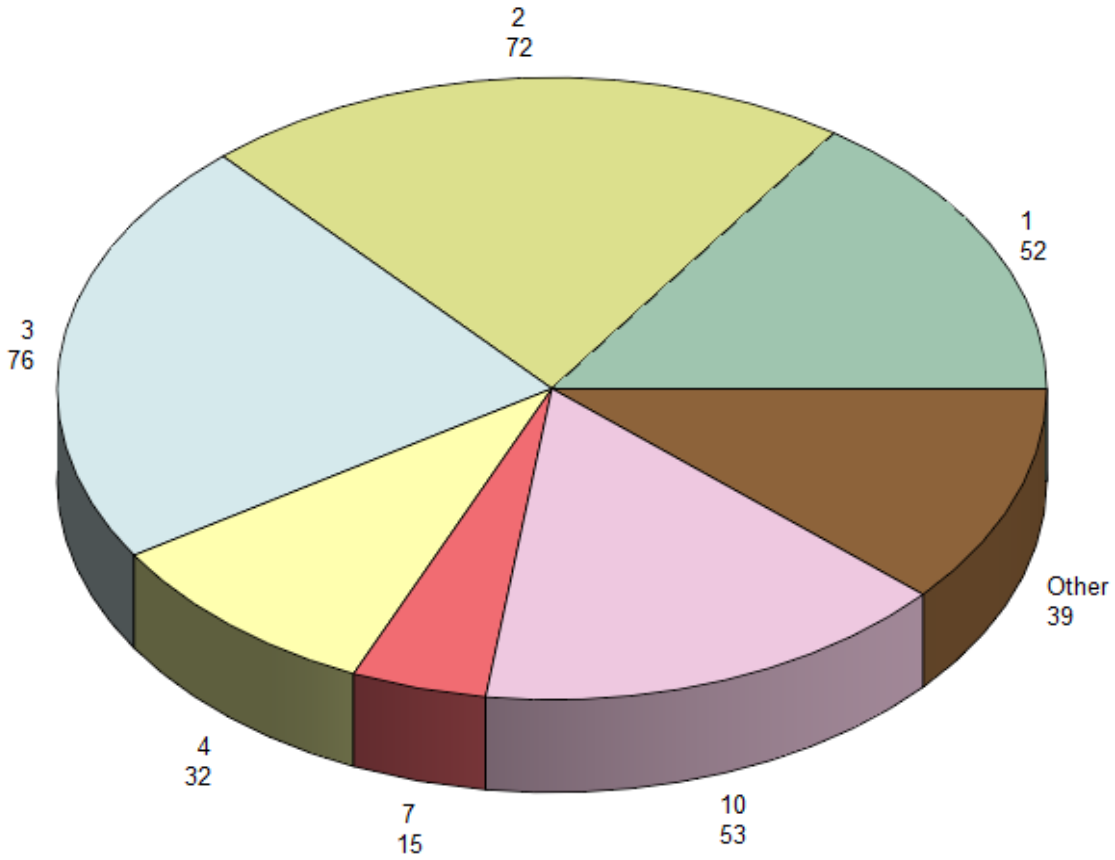

Figure 10. The pie chart distribution of Experience

5.3.10. TRAINING COURSES

About 13 percent of surveyed street traders were found to have been exposed to training after entering the informal street trading sector. The summary statistics for the number of training courses variable are shown in table 18. The pie chart distribution for training courses is illustrated in figure 11. The frequency distribution of the number of training courses is shown in table 19.

Table 18. The summary statistics for Training Courses

Analysis Variable : Training Courses									
Mean	Std Dev	Variance	Minimum	Maximum	Range	N	Lower Quartile	Median	Upper Quartile
0.1681416	0.5027025	0.2527098	0	4.0000000	4.0000000	339	0	0	0

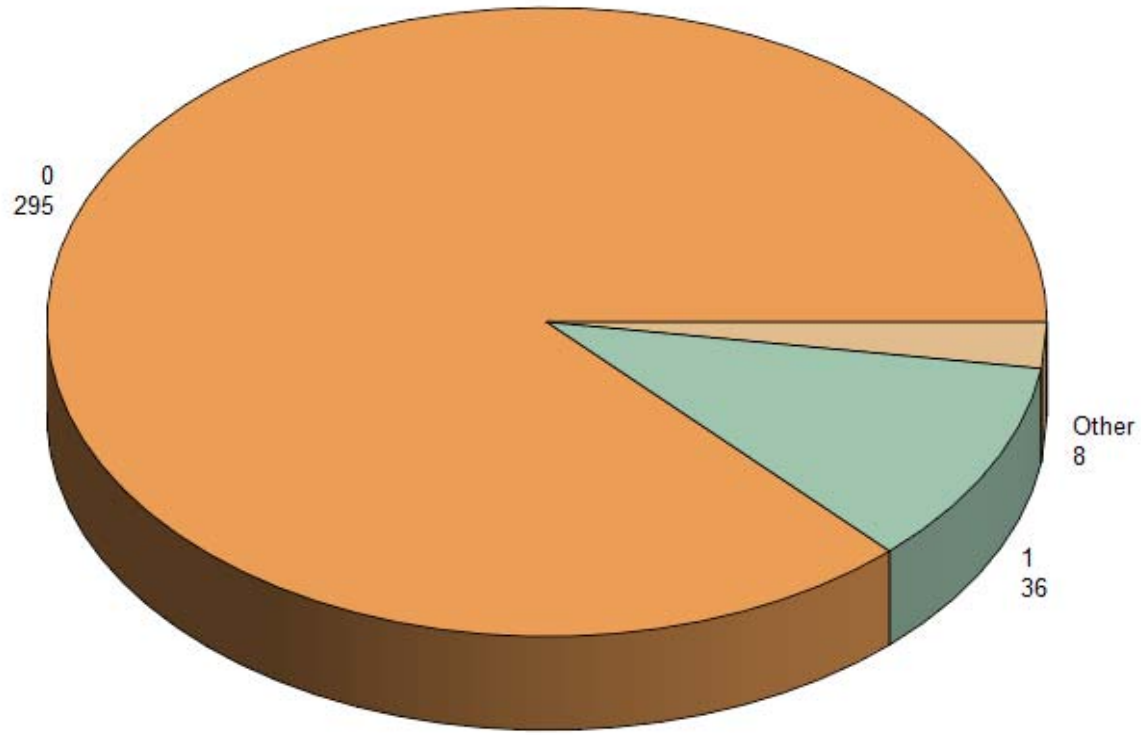

Figure 11. The pie chart distribution for Training Courses

Table 19. The frequency distribution for Training Courses

Training Courses	frequency value	percentage value
0	295	87.02
1	36	10.62
2	4	1.18
3	3	0.88
4	1	0.29

5.3.11. EARNINGS

The average gross earnings for the surveyed street traders were found to be just over a hundred and sixty rand a day. The lower quartile of street traders were found to earn between about seventy to eighty rand a day. The upper quartile of surveyed street traders were found to have earnings of between about two hundred and two hundred and ten rand per day. With an average of about 6.2 days worked per week, the average street trader was found to therefore earn about a thousand rand a week in gross earnings. If four weeks were taken to represent a month, this would indicate that the average street trader might earn about four thousand rand a month in gross earnings. However, in this research no attempt was made to ascertain the net earnings or profit made by the surveyed street traders.

The lowest earnings found in this sector were about ten rand a day, or about two hundred and fifty rand a month. Certain traders were found to have monthly earnings above eleven thousand rand a month. The summary statistics of the earnings variable are shown in table 20. The pie chart distribution is illustrated in figure 12. The pie chart values are shown in units that represent tenths of the rand value (1 unit = R10). The frequency distribution is shown in table 21.

Table 20. The summary statistics for Earnings (units and rand)

Mean	Minimum	Maximum	Range	N	Lower Quartile	Median	Upper Quartile
Unit 17 (R161-R170)	Unit 1 (Less than R10)	Unit 50 (More than R490)	49 Units	339	Unit 8 (R71-R80)	Unit 13(R121-R130)	Unit 21 (R201-R210)

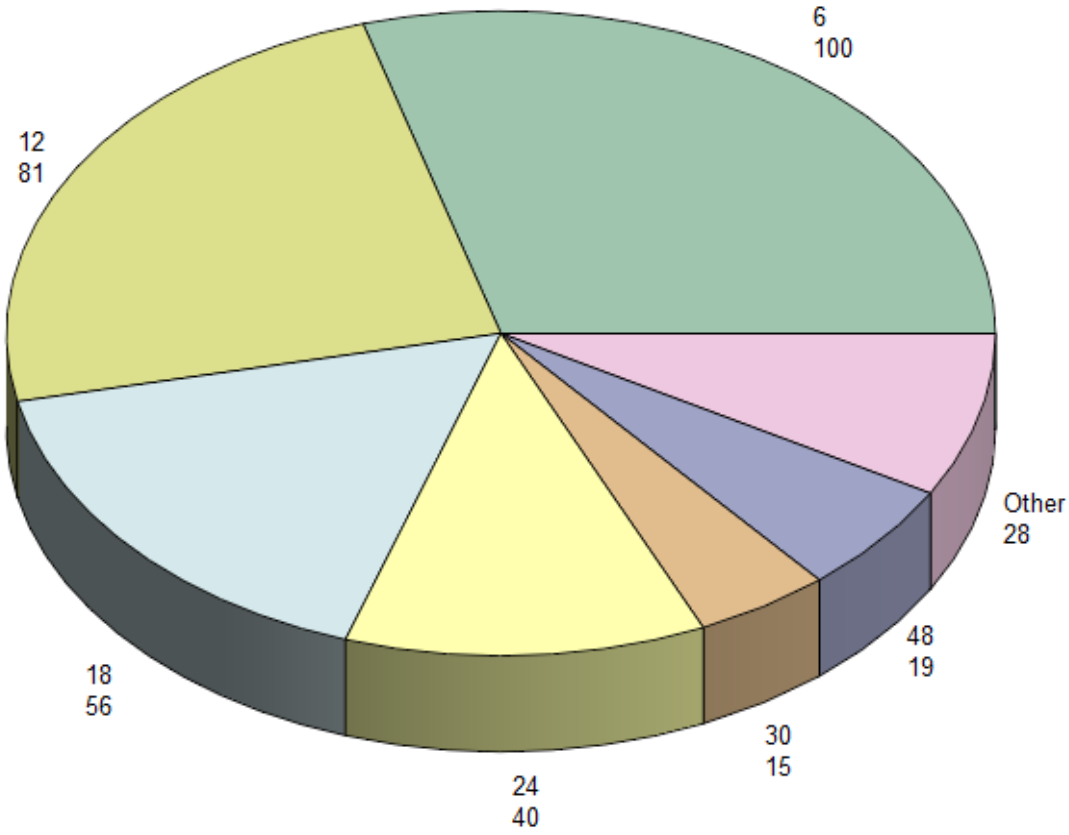

Figure 12. The pie chart distribution of Earnings

Table 21. The frequency distribution of Earnings (e)

Earnings (Rand/day)	frequency value	percentage value
0≤ e≤ 60	9	2.65
60<e≤ 120	100	29.50
120<e≤ 180	81	23.89
180<e≤ 240	56	16.52
240<e≤ 300	40	11.80
300<e≤ 360	15	4.42
360<e≤ 420	13	3.83
420<e≤ 480	6	1.77
e>480	19	5.60

5.2.12. SATISFACTION

The summary statistics for the satisfaction variable are illustrated in table 22. The pie chart distribution for satisfaction is shown in figure 13. The frequency distribution is shown in table 23.

Table 22. The summary statistics for Satisfaction

Analysis Variable : Satisfaction									
Mean	Std Dev	Variance	Minimum	Maximum	Range	N	Lower Quartile	Median	Upper Quartile
1.9852507	1.6194329	2.6225629	0	4.0000000	4.0000000	339	0	2.0000000	4.0000000

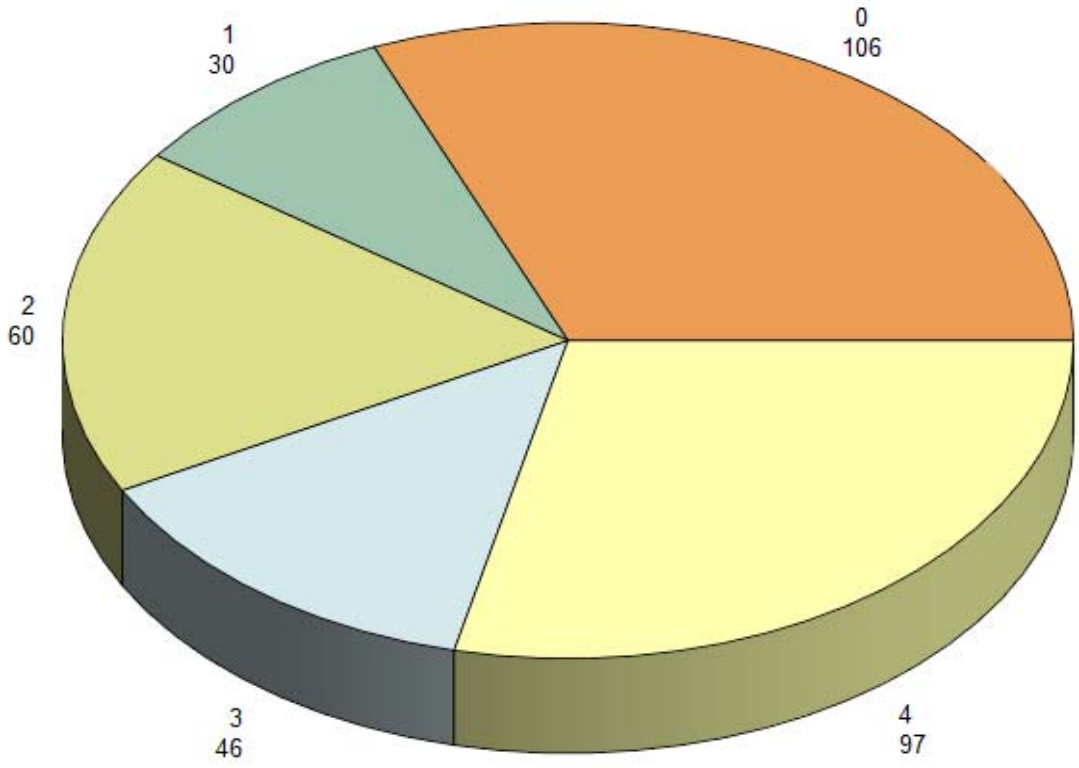

Figure 13. The pie chart distribution of Satisfaction

Table 23. The frequency distribution for Satisfaction

Satisfaction	frequency value	percentage value
0	106	31.27
1	30	8.85
2	60	17.70
3	46	13.57
4	97	28.61

5.3.13. RENTAL STAND

Almost 40 percent of street traders surveyed were found to operate rental stands. The pie chart distribution of the rental stand variable is shown in figure 14. The frequency distribution of the rental stand variable is illustrated in table 24.

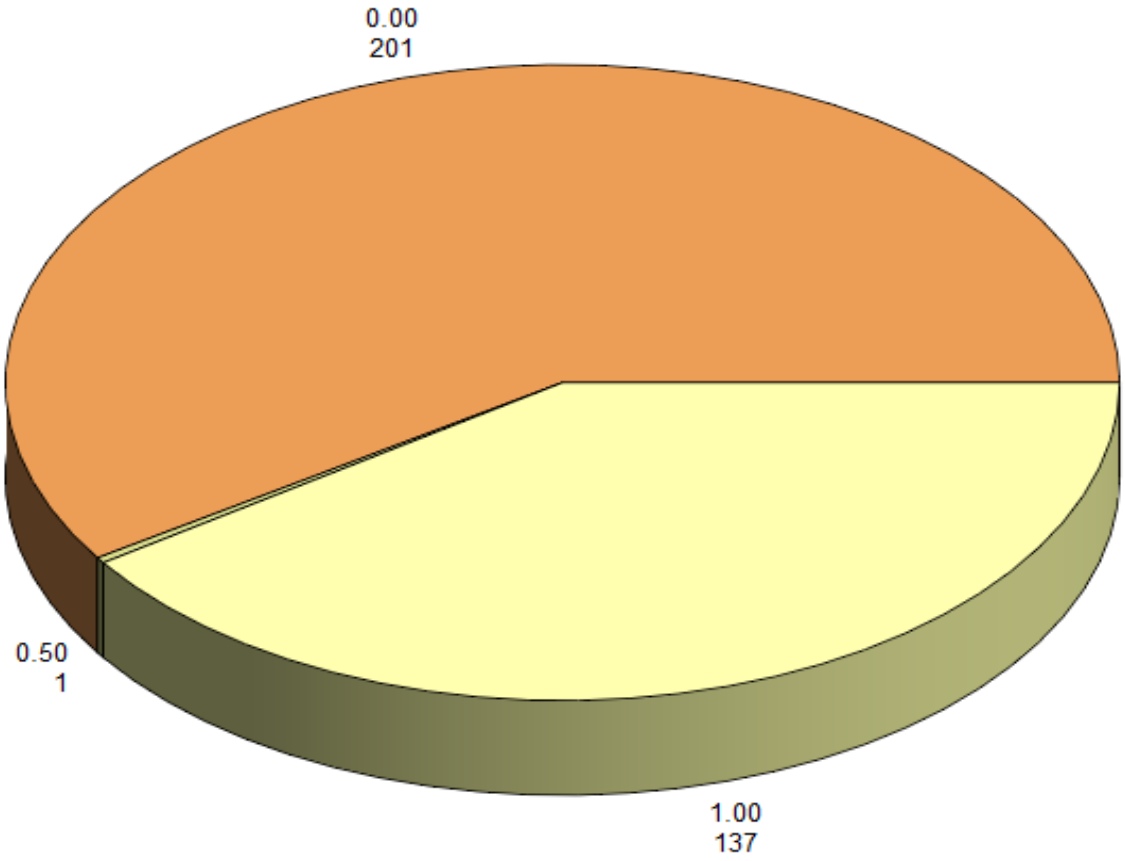

Figure 14. The pie chart distribution of Rental Stand

Table 24. The frequency distribution for Rental Stand

Rental Stand	frequency value	percentage value
0	201	59.29
0.5	1	0.29
1	137	40.41

5.3.14. INNOVATIVENESS

The summary statistics for innovativeness are shown in table 25. The pie chart distribution for the innovativeness variable is illustrated in figure 15. The frequency distribution for innovativeness is shown in table 26.

Table 25. The summary statistics of Innovativeness

Analysis Variable : Innovativeness									
Mean	Std Dev	Variance	Minimum	Maximum	Range	N	Lower Quartile	Median	Upper Quartile
4.0442478	4.2830118	18.3441902	0	15.0000000	15.0000000	339	0	3.0000000	8.0000000

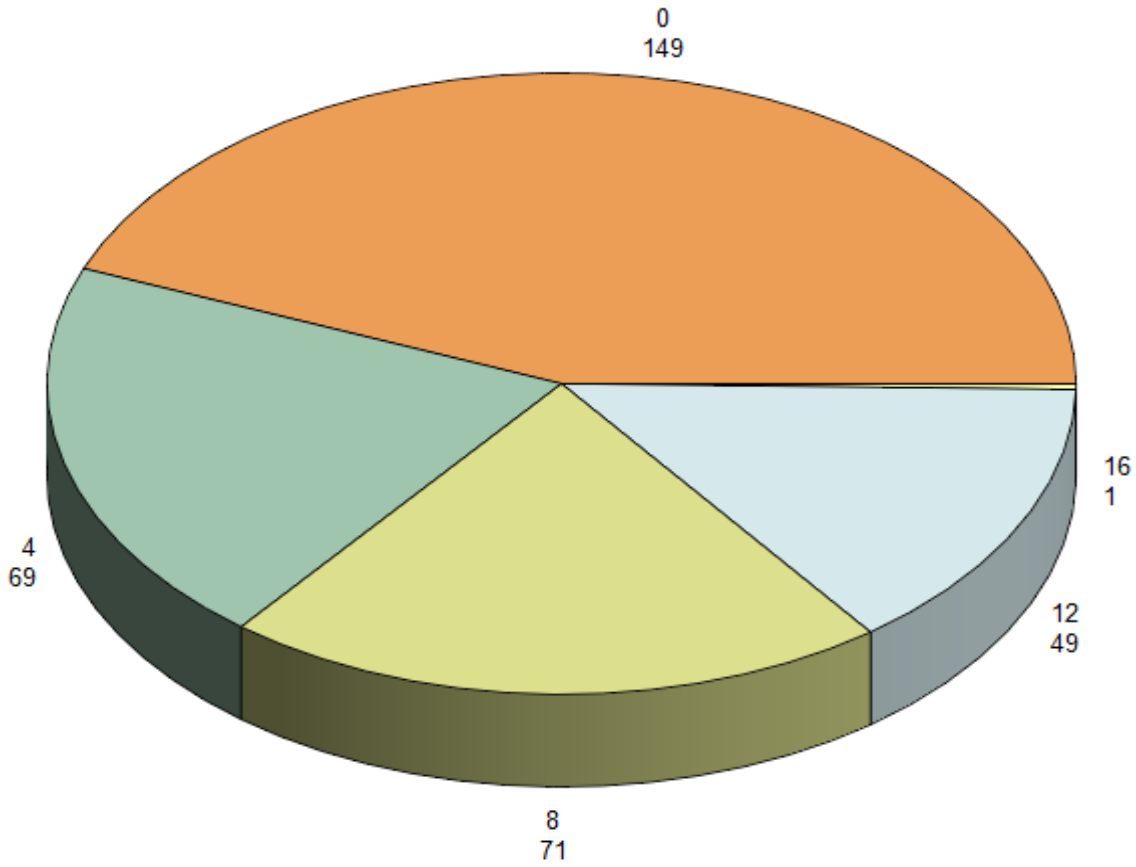

Figure 15. The pie chart distribution of Innovativeness

Table 26. The frequency distribution of Innovativeness

Innovativeness	frequency value	percentage value
0	149	43.95
1-4	69	20.35
5-8	71	20.94
9-12	49	14.45
13-16	1	0.29

5.3.15. PROACTIVENESS

The summary statistics for proactiveness are shown in table 27. The pie chart distribution for the proactiveness variable is illustrated in figure 16. The frequency distribution for proactiveness is shown in table 28.

Table 27. The summary statistics of Proactiveness

Analysis Variable : Proactiveness									
Mean	Std Dev	Variance	Minimum	Maximum	Range	N	Lower Quartile	Median	Upper Quartile
7.3362832	1.5968589	2.5499584	0	10.0000000	10.0000000	339	8.0000000	8.0000000	8.0000000

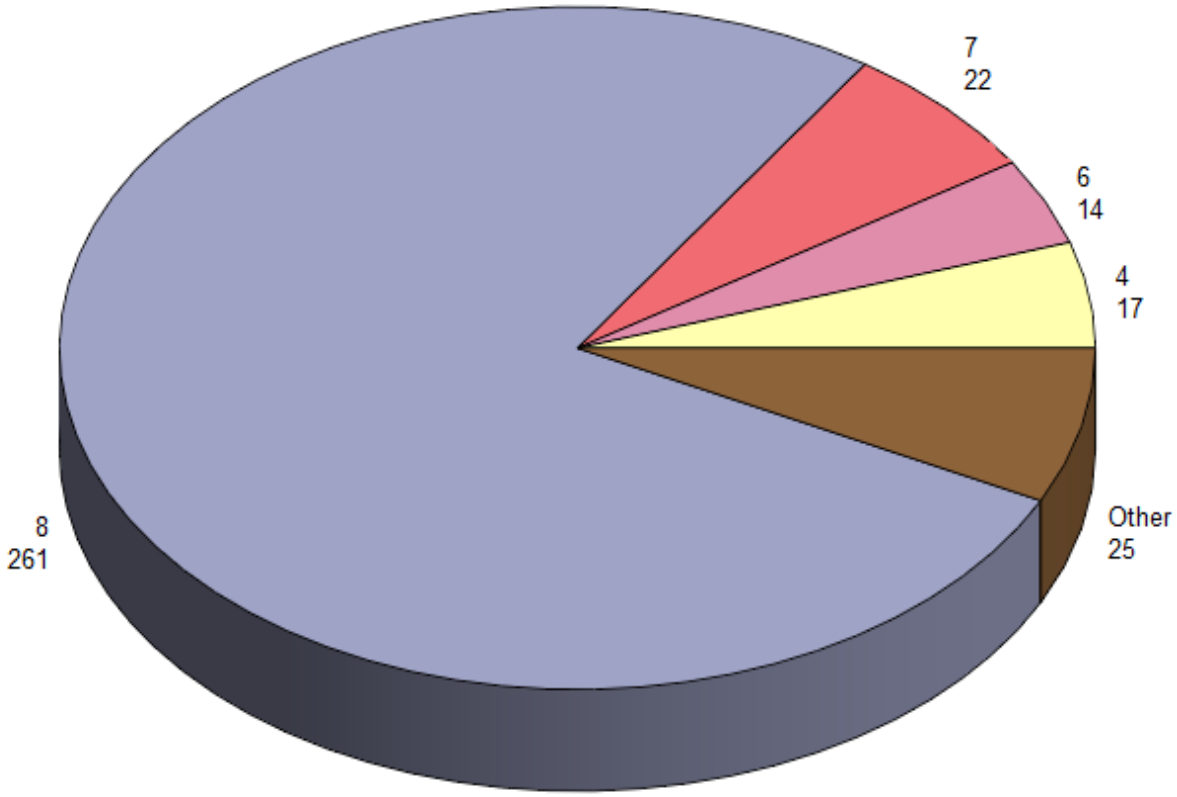

Figure 16. The pie chart distribution of Proactiveness

Table 28. The frequency distribution for Proactiveness

Proactiveness	frequency value	percentage value
0	6	1.77
1–2	1	0.29
3	5	1.47
4	17	5.01
5	11	3.24
6	14	4.13
7	22	6.49
8	261	76.99
9-10	2	0.59

5.3.16. COMPETITIVE AGGRESSIVENESS

The summary statistics for competitive aggressiveness are shown in table 29. The pie chart distribution for the competitive aggressiveness variable is illustrated in figure 17. The frequency distribution for competitive aggressiveness is shown in table 30.

Table 29. The summary statistics for Competitive Aggressiveness

Analysis Variable : Competitive Aggressiveness									
Mean	Std Dev	Variance	Minimum	Maximum	Range	N	Lower Quartile	Median	Upper Quartile
4.3053095	3.1293008	9.7925233	0	8.0000000	8.0000000	339	1.0000000	4.0000000	8.0000000

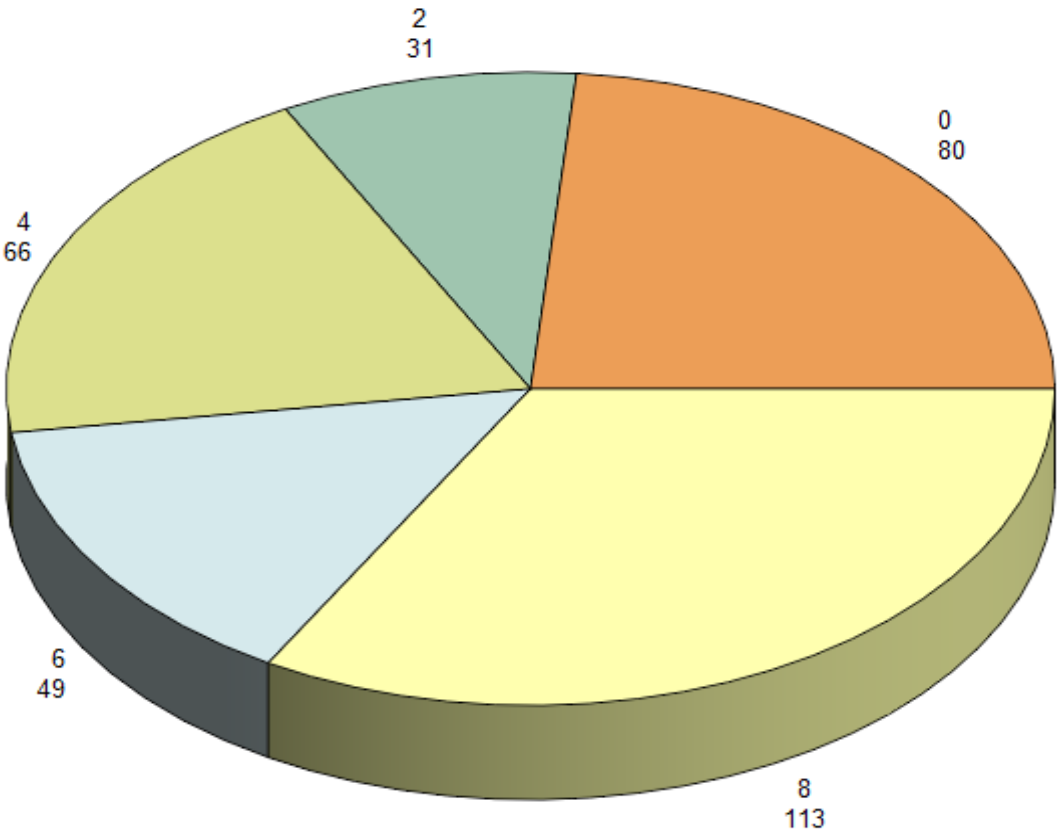

Figure 17. The pie chart distribution of Competitive Aggressiveness

Table 30. The frequency distribution of Competitive Aggressiveness

Competitive Aggressiveness	frequency value	Percentage value
0	80	23.60
1-2	31	9.14
3-4	66	19.47
5-6	49	14.45
7-8	113	33.33

5.3.17. AUTONOMY

The summary statistics for autonomy are shown in table 31. The pie chart distribution for the autonomy variable is illustrated in figure 18. The frequency distribution for autonomy is shown in table 32.

Table 31. The summary statistics of Autonomy

Analysis Variable : Autonomy									
Mean	Std Dev	Variance	Minimum	Maximum	Range	N	Lower Quartile	Median	Upper Quartile
8.9085546	3.8091160	14.5093645	0	12.5000000	12.500000	339	8.000000	11.000000	12.000000

Table 32. The frequency distribution for Autonomy

Autonomy	frequency value	percentage value
0	30	8.85
0.1-2.5	4	1.18
2.6-5	44	12.98
5.1-7.5	49	14.45
7.6-10	70	20.65
10.1-12.5	142	41.89

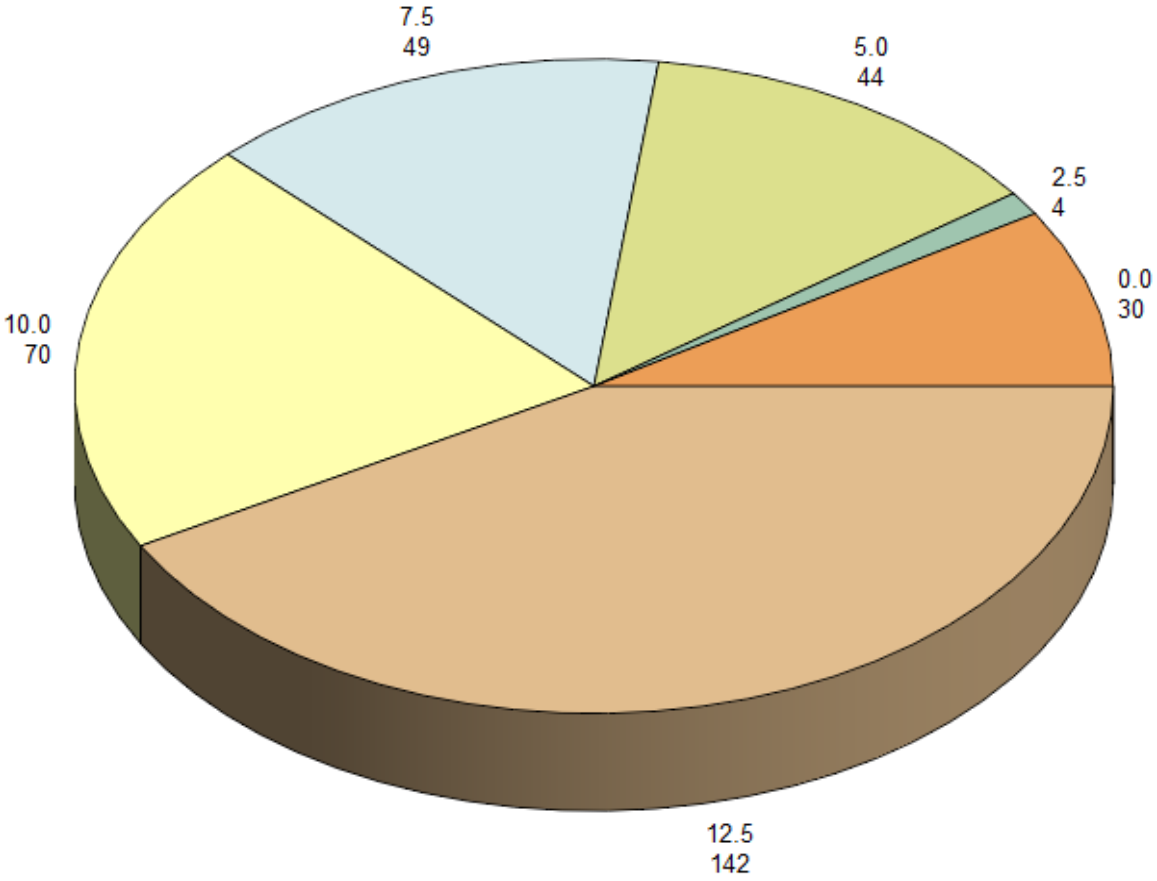

Figure 18. The pie chart distribution of Autonomy

5.3.18. RISK TAKING PROPENSITY

The summary statistics for the risk taking propensity variable are shown in table 33. In figure 19 the pie chart distribution for risk taking propensity is illustrated. The frequency distribution of risk taking propensity is shown in table 34.

Table 33. The summary statistics for Risk Taking Propensity

Analysis Variable : Risk Taking Propensity									
Mean	Std Dev	Variance	Minimum	Maximum	Range	N	Lower Quartile	Median	Upper Quartile
4.2389381	3.6704667	13.4723255	0	12.0000000	12.0000000	339	0	4.0000000	7.0000000

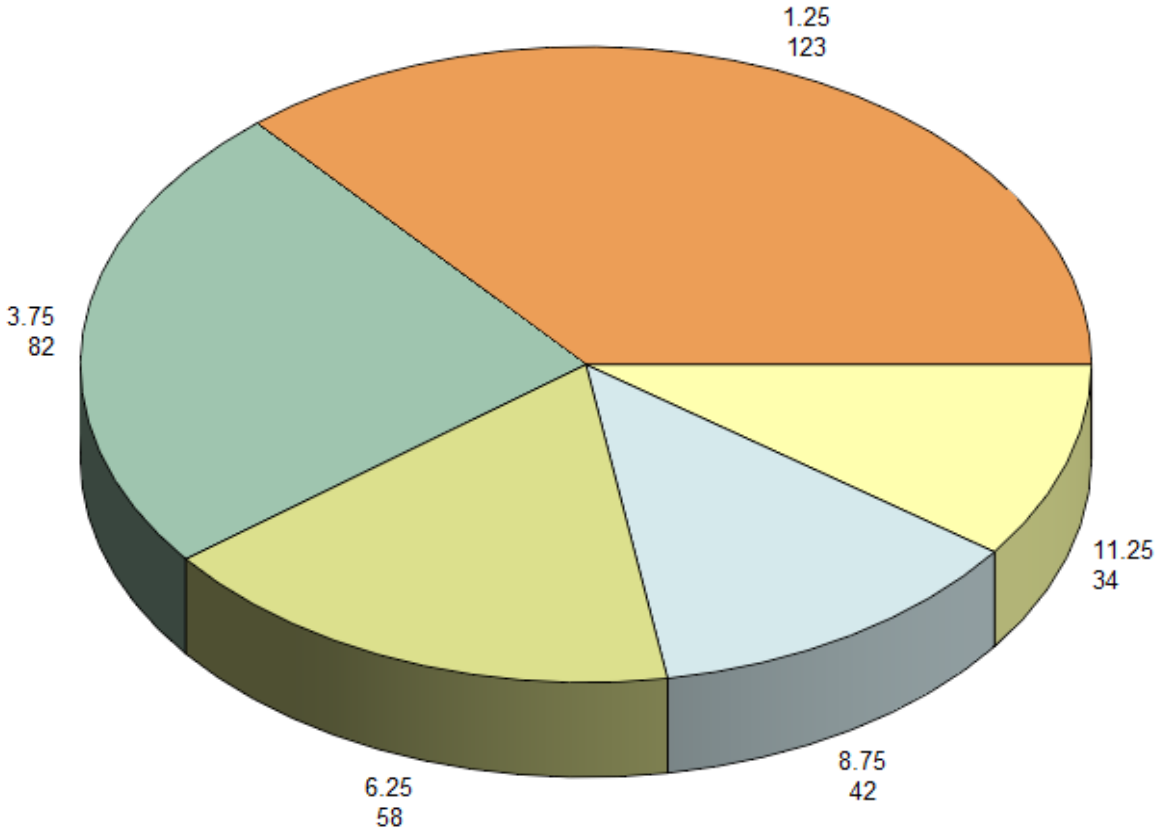

Figure 19. The pie chart distribution for Risk Taking Propensity

Table 34. The frequency distribution of Risk Taking Propensity

Risk Taking Propensity	frequency value	percentage value
0–1.25	123	36.28
1.26–3.75	82	24.19
3.76–6.25	58	17.11
6.26–8.75	42	12.39
8.76–11.25	34	10.03

5.3.19. TOTAL ENTREPRENEURIAL ORIENTATION

The summary statistics for total entrepreneurial orientation are shown in table 35. The pie chart distribution is illustrated in figure 20. The frequency distribution for the total entrepreneurial orientation variable is shown in table 36.

Table 35. The summary statistics of Total Entrepreneurial Orientation

Analysis Variable : Total Entrepreneurial Orientation									
Mean	Std Dev	Variance	Minimum	Maximum	Range	N	Lower Quartile	Median	Upper Quartile
33.8311206	10.1606756	103.2393288	0	60.0000000	60.0000000	339	27.0000000	34.0000000	40.0000000

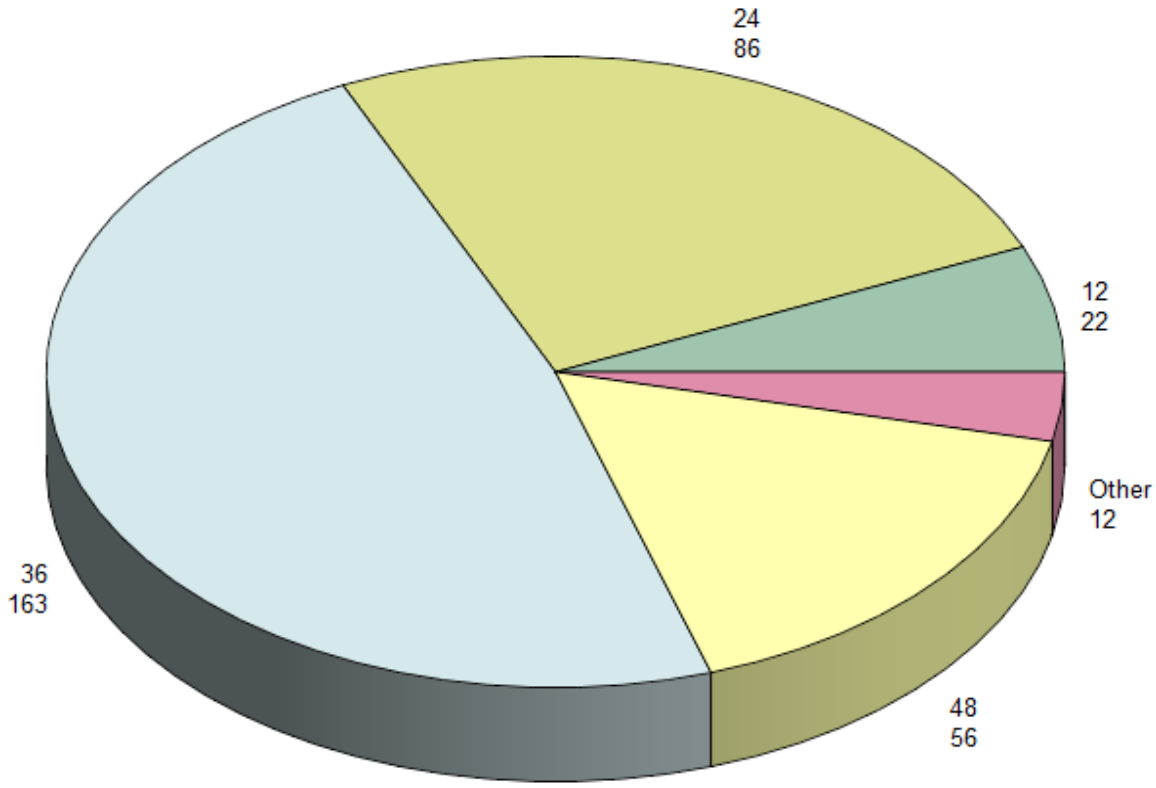

Figure 20. The pie chart distribution of Total Entrepreneurial Orientation

Table 36. The frequency distribution for Total Entrepreneurial Orientation

Total Entrepreneurial Orientation	frequency value	percentage value
0	1	0.29
1-12	22	6.49
13-24	86	25.37
25-36	163	48.08
37-48	56	16.52
49-60	11	3.24

5.3.20. JOHANNESBURG ORIGIN

The pie chart distribution of the Johannesburg origin variable is shown in figure 21 and the frequency distribution in table 37.

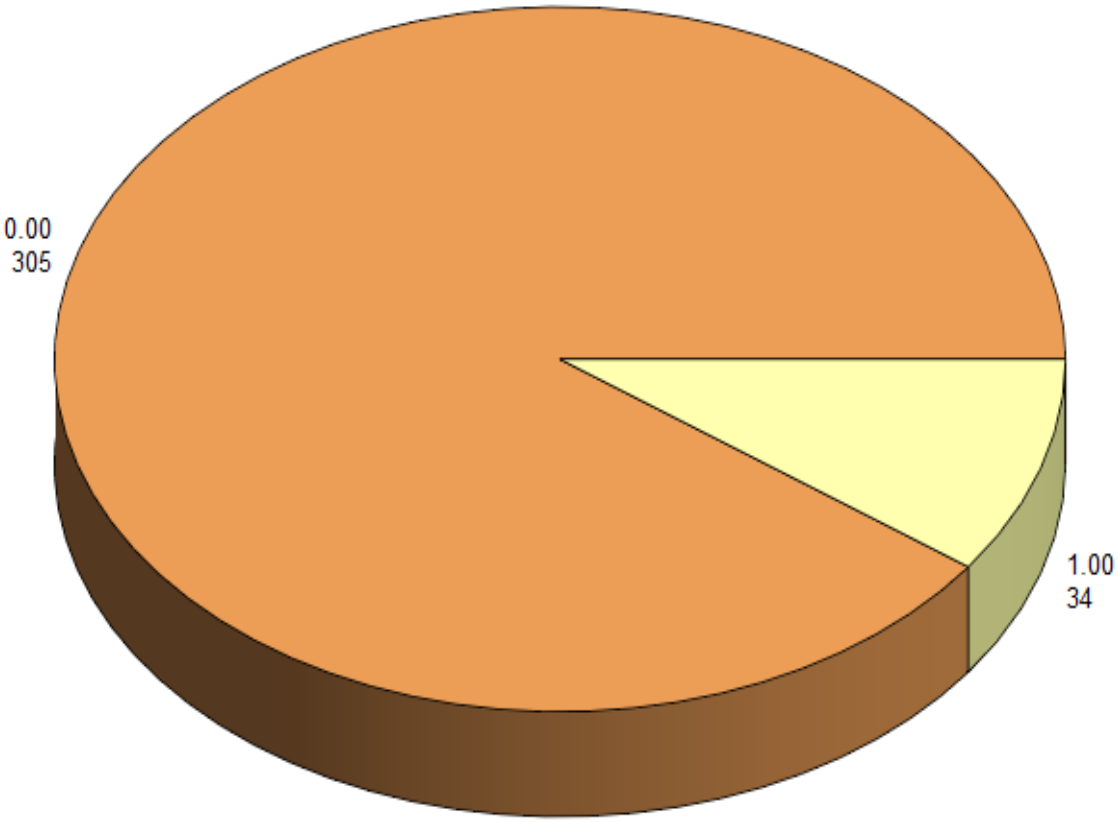

Figure 21. The pie chart distribution of Johannesburg Origin (1 = Johannesburg Origin)

Table 37. The frequency distribution for Johannesburg origin (1 = Johannesburg origin)

JHB Local	frequency value	percentage value
0	305	89.97
1	34	10.03

5.3.21. SOUTH AFRICAN ORIGIN

The pie chart distribution of the South African origin variable is illustrated in figure 22. The frequency distribution of South African origin is shown in table 38.

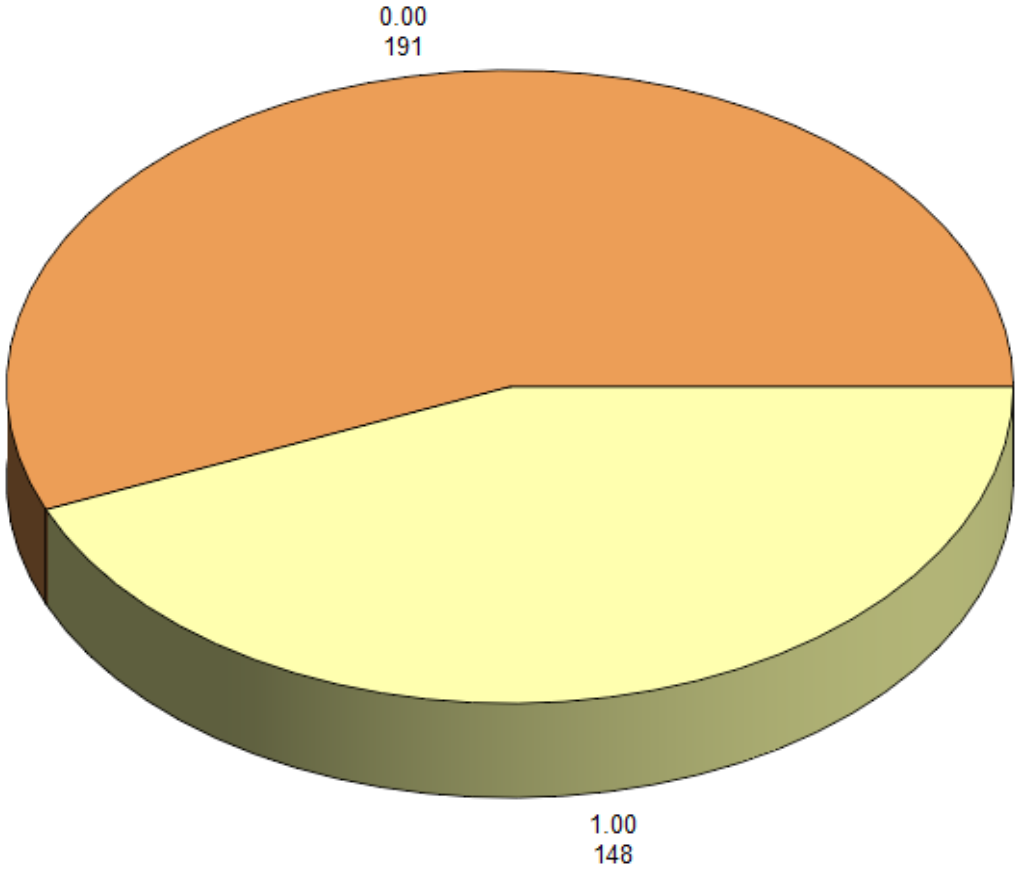

Figure 22. The pie chart distribution of South African Origin (1 = South African Origin)

Table 38. The frequency distribution for South African nationality (RSA = 1)

RSA=1	frequency value	percentage value
0	191	56.34
1	148	43.66

In this section, summary statistics, pie charts and frequency distributions were reported for the tested variables. The discussion of relationships relating to these illustrated summary statistics is not undertaken in this, the results chapter, but in the analysis of research findings chapter. In the following section, the results of the hypothesis testing process are reported.

5. 4. THE RESULTS ASSOCIATED WITH THE TESTING OF THE HYPOTHESES

The hypotheses proposed in section 4.3 are reiterated here; they are broken down into null sub-hypotheses in the sections below in order to facilitate the specific testing of these hypotheses. The results of the testing of the null sub-hypotheses are reported in the following sections.

- **Null Hypothesis 1 (H1):** There is no significant association between Entrepreneurial Orientation and informal sector contextual factors.
- **Alternative Hypothesis 1 (H1):** There is a significant association between Entrepreneurial Orientation and informal sector contextual factors.

    - *Null Sub-hypothesis 1.a:* There is no significant association between Total Entrepreneurial Orientation and informal sector contextual factors.
    - *Alternative Sub-hypothesis 1.a:* There is a significant association between Total Entrepreneurial Orientation and informal sector contextual factors.

    - *Null Sub-hypothesis 1.b:* There is no significant association between Innovativeness and informal sector contextual factors.
    - *Alternative Sub-Hypothesis 1.b:* There is a significant association between Innovativeness and informal sector contextual factors.

    - *Null Sub-hypothesis 1.c:* There is no significant association between Autonomy and informal sector contextual factors.
    - *Alternative Sub-hypothesis 1.c:* There is a significant association between Autonomy and informal sector contextual factors.

    - *Null Sub-hypothesis 1.d:* There is no significant association between Proactiveness and informal sector contextual factors.
    - *Alternative Sub-hypothesis 1.d:* There is a significant association between Proactiveness and informal sector contextual factors.

- *Null Sub-hypothesis 1.e:* There is no significant association between Competitive Aggressiveness and informal sector contextual factors.
- *Alternative Sub-hypothesis 1.e:* There is a significant association between Competitive Aggressiveness and informal sector contextual factors.

- *Null Sub-hypothesis 1.f:* There is no significant association between Risk Taking Propensity and informal sector contextual factors.
- *Alternative Sub-hypothesis 1.f:* There is a significant association between Risk Taking Propensity and informal sector contextual factors.

- **Null Hypothesis 2:** There is no significant association between Total Entrepreneurial Orientation, Entrepreneurial Orientation dimensions, or informal sector contextual factors, and Gross Earnings.
- **Alternative Hypothesis 2:** There is a significant association between Total Entrepreneurial Orientation, Entrepreneurial Orientation dimensions or informal sector contextual factors and Gross Earnings.

  - *Null Sub- Hypothesis 2.a:* There is no significant association between Total Entrepreneurial Orientation and Gross Earnings.
  - *Alternative Sub- Hypothesis 2.a:* There is a significant association between Total Entrepreneurial Orientation and Gross Earnings.

  - *Null Sub- Hypothesis 2b:* There is no significant association between Entrepreneurial Orientation dimensions, or informal sector contextual factors, and Gross Earnings.
  - *Alternative Sub-Hypothesis 2b:* There is a significant association between Total Entrepreneurial Orientation, Entrepreneurial Orientation dimensions or informal sector contextual factors and Gross Earnings.

- **Null Hypothesis 3:** There is no significant association between Total Entrepreneurial Orientation, Entrepreneurial Orientation dimensions, or informal sector contextual factors, and Continuance Satisfaction.

- **Alternative Hypothesis 3:** There is a significant association between Total Entrepreneurial Orientation, Entrepreneurial Orientation dimensions or informal sector contextual factors and Continuance Satisfaction.

    - *Null Sub- Hypothesis 3.a:* There is no significant association between Total Entrepreneurial Orientation and Continuance Satisfaction.
    - *Alternative Sub- Hypothesis 3.a:* There is a significant association between Total Entrepreneurial Orientation and Continuance Satisfaction.

    - *Null Sub- Hypothesis 3b:* There is no significant association between Entrepreneurial Orientation dimensions or informal sector contextual factors and Continuance Satisfaction.
    - *Alternative Sub-Hypothesis 3b:* There is a significant association between the Entrepreneurial Orientation dimensions or informal sector contextual factors and Continuance Satisfaction.

5. 4.1. NULL HYPOTHESIS 1.A: THERE IS NO SIGNIFICANT ASSOCIATION BETWEEN TOTAL ENTREPRENEURIAL ORIENTATION AND INFORMAL SECTOR CONTEXTUAL FACTORS.

The testing of this hypothesis relates to the research question: "What informal sector contextual factors shape a Total Entrepreneurial Orientation?" The multiple linear regression analysis was run with total entrepreneurial orientation as the dependent variable, and with informal sector contextual factors as tested predictor variables. In terms of variables, there were more than four times the data points as there were variables run. Sixteen informal sector contextual variables were tested as predictor variables in the following multiple linear regression analysis.

Data from three hundred and thirty-nine respondents were analysed. The table of results of the multiple linear regression analysis is illustrated in table 39, below. The model was found to be significant ($p<0.0001$), with an R squared of 0.1680 and an adjusted R squared of 0.1479. Fourteen point seven-nine percent of the variance was taken to be explained by the regression line. Being male, days worked per week, total education, training courses, order of capture, continuance satisfaction and being of

Johannesburg origin were found to be positively and significantly associated with total entrepreneurial orientation. South African nationality was found to be negatively and significantly associated with total entrepreneurial orientation.

In terms of model checking, the diagnostics were considered, with an examination of the plots of the observed variables. In terms of the interpretation of the plots of the observed variables, the plots appeared reasonable in terms of expectations, with no clear interpreted indication of hyperbolic shapes or other representations. Such shapes might have suggested that the inclusion of factors such as positive or negative squared functions might have been necessary, as would have been indicated if a missing quadratic term had not been included.

The residual points revealed a reasonable scatter around the centre line, horizontally. No clear curved trend was obvious.

Patterns were investigated that might have indicated a violation of the assumptions of the model, such as the assumption that the error term is constant over all observations or an increase in variability associated with predicted values. A failure of these assumptions would have been expected to be found as a fan shaped pattern or a parabolic pattern. In this particular tested model, the lack of patterns was interpreted as an indication that no transformations were required.

In terms of the diagnostics, points were also considered in terms of whether they fit in with other outlying points on the horizontal or vertical axes. Outliers and influential points were examined.

In terms of time dependency, or autocorrelation, errors were checked for first-order correlation, using the Durbin–Watson testing process. The Durbin–Watson statistic for this model was 1.784, as illustrated in table 40 below. This value was interpreted as close enough to the value of two; this indicating that autocorrelation was not a serious problem in this model. The interpretation and discussion of these results is undertaken in the discussion chapter.

Table 39. The table of significant associations between informal sector contextual factors and Total Entrepreneurial Orientation

Number of Observations Read	339
Number of Observations Used	339

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	8	5863.11451	732.88931	8.33	<.0001
Error	330	29032	87.97509		
Corrected Total	338	34895			

Root MSE	9.37950	**R-Square**	0.1680
Dependent Mean	33.83112	**Adj R-Sq**	0.1479
Coeff Var	27.72448		

Variable	DF	Parameter Estimate	Std Error	t Value	Pr >|t|	Type I SS	Type II SS	Stdized Estimate	Tol-erance	Variance Inflation
Intercept	**1**	3.44077	5.75028	0.60	0.5500	388001	31.49861	0	.	0
gender 1=Male	**1**	2.98789	1.11902	2.67	0.0080	974.18066	627.20600	0.14422	0.86414	1.15721
DaysWPW	**1**	3.30968	0.85458	3.87	0.0001	997.73953	1319.56382	0.19860	0.95873	1.04305
TotalEducation	**1**	1.03202	0.41931	2.46	0.0144	512.52732	532.92421	0.12834	0.92722	1.07850
TrainingCourses	**1**	2.13255	1.02652	2.08	0.0385	406.13523	379.68135	0.10551	0.97743	1.02310
Orderofcapture	**1**	0.01845	0.00559	3.30	0.0011	1357.62804	959.14902	0.17667	0.88061	1.13558
Satisfaction	**1**	1.06182	0.32954	3.22	0.0014	924.85523	913.37675	0.16924	0.91392	1.09419
RSA=1	**1**	-2.66910	1.16740	-2.29	0.0229	232.67478	459.88369	-0.13048	0.77414	1.29175
JHBLocal	**1**	4.16396	1.82621	2.28	0.0232	457.37372	457.37372	0.12329	0.86234	1.15963

The following multiple linear regression equation was obtained utilising SAS statistical software for the analysis of total entrepreneurial orientation as the dependent variable, the results of which are illustrated in table 39:

y = 3.44077 + 2.98789 Gender + 3.30968 Days Worked per Week + 1.03202 Total Education + 2.13255 Training Courses + 0.01845 Order of Capture + 1.06182 Satisfaction - 2.66910 RSA Origin + 4.16396 Johannesburg Origin

Table 40. The Durbin–Watson test for Autocorrelation (Total Entrepreneurial Orientation)

Durbin–Watson D	1.784
Number of Observations	339
1st Order Autocorrelation	0.107

Table 41. The table of the results of the collinearity diagnostics testing for multicollinearity Total Entrepreneurial Orientation

Collinearity Diagnostics											
No	**Eigen value**	**Condition Index**	**Proportion of Variation**								
			Intercept	**gender 1=Male**	**DaysWPW**	**TotalEducation**	**Training Courses**	**Orderof capture**	**Satisfaction**	**RSA=1**	**JHBLocal**
1	5.63095	1.00000	0.00023795	0.00695	0.00027652	0.00331	0.00400	0.00539	0.00777	0.00692	0.00365
2	1.02978	2.33840	0.00002233	0.02131	0.00002400	0.00141	0.05781	0.00250	0.00051991	0.08060	0.49072
3	0.87763	2.53301	0.00005461	0.00019803	0.00004309	0.00026488	0.87913	0.00517	0.01071	0.00001111	0.05558
4	0.56519	3.15642	0.00000845	0.26303	0.00001635	0.00477	0.03882	0.02237	0.03929	0.20544	0.22049

Collinearity Diagnostics

No	Eigenvalue	Condition Index	Proportion of Variation								
			Intercept	gender 1=Male	DaysWPW	TotalEducation	Training Courses	Orderofcapture	Satisfaction	RSA=1	JHBLocal
5	0.37955	3.85171	0.00015645	0.04362	0.00029419	0.00596	0.00666	0.01720	0.49563	0.33763	0.15109
6	0.27291	4.54236	0.00061505	0.34036	0.00068967	0.05407	0.00173	0.15889	0.30708	0.21549	0.05684
7	0.17303	5.70460	0.00098744	0.23900	0.00132	0.20420	0.00125	0.63513	0.08391	0.00821	0.02160
8	0.06658	9.19633	0.02673	0.08501	0.04253	0.70152	0.00021908	0.12693	0.03139	0.14557	0.00003117
9	0.00438	35.85043	0.97119	0.00051476	0.95481	0.02450	0.01039	0.02644	0.02370	0.00013189	0.00000940

Collinearity Diagnostics (intercept adjusted)

Number	Eigenvalue	Condition Index	Proportion of Variation							
			gender 1=Male	DaysWPW	TotalEducation	Training Courses	Orderofcapture	Satisfaction	RSA=1	JHBLocal
1	1.65840	1.00000	0.13020	0.00961	0.09377	0.01566	0.04619	0.05850	0.12756	0.03785
2	1.42034	1.08056	0.00001176	0.10179	0.00057688	0.01179	0.15371	0.08934	0.08864	0.17108
3	1.04631	1.25897	0.00072573	0.17974	0.00022950	0.58603	0.09726	0.04450	0.00180	0.00529
4	0.93629	1.33088	0.02176	0.32234	0.43209	0.08423	0.00245	0.00584	0.00256	0.12244
5	0.92148	1.34153	0.36012	0.02501	0.07091	0.00676	0.04329	0.33743	0.00261	0.11836
6	0.80462	1.43565	0.00278	0.33640	0.30193	0.28794	0.05917	0.14422	0.00040097	0.03708

Collinearity Diagnostics (intercept adjusted)										
Number	Eigenvalue	Condition Index	Proportion of Variation							
			gender 1=Male	Days WPW	TotalEducation	Training Courses	Orderofcapture	Satisfaction	RSA=1	JHBLocal
7	0.65918	1.58614	0.23565	0.00690	0.02077	0.00529	0.59778	0.31964	0.00040614	0.15541
8	0.55336	1.73117	0.24875	0.01821	0.07973	0.00229	0.00015893	0.00052146	0.77602	0.35249

The results of the testing of multicollinearity are illustrated in table 41. The test is calculated from the correlation matrix, this being confirmed by the addition of the eigenvalues, which summed to the number of variables, in this case seven for the collinearity diagnostics without the intercept adjusted, and six for the collinearity diagnostics with intercept adjusted. According to the condition indices, none of these values are found to be above a hundred, which indicates that there is little danger of severe multicollinearity being present.

Problems of outliers and influential points were considered, and a range of tests were conducted. Multivariate outliers were also considered in terms of testing diagnostics. These tests are reported as follows.

In terms of the diagnostics, an analysis was undertaken of the standardised residuals. The unit standard deviation of standardised residuals allowed for a relative interpretation of residuals in terms of their size in relation to each other. Because these all had the same variance, values larger than three or less than minus three were considered relatively large, and those larger than plus two or less than minus two were also identified for investigation. Figure 23 illustrates the plot of the standardised residuals of total entrepreneurial orientation by predicted total entrepreneurial orientation.

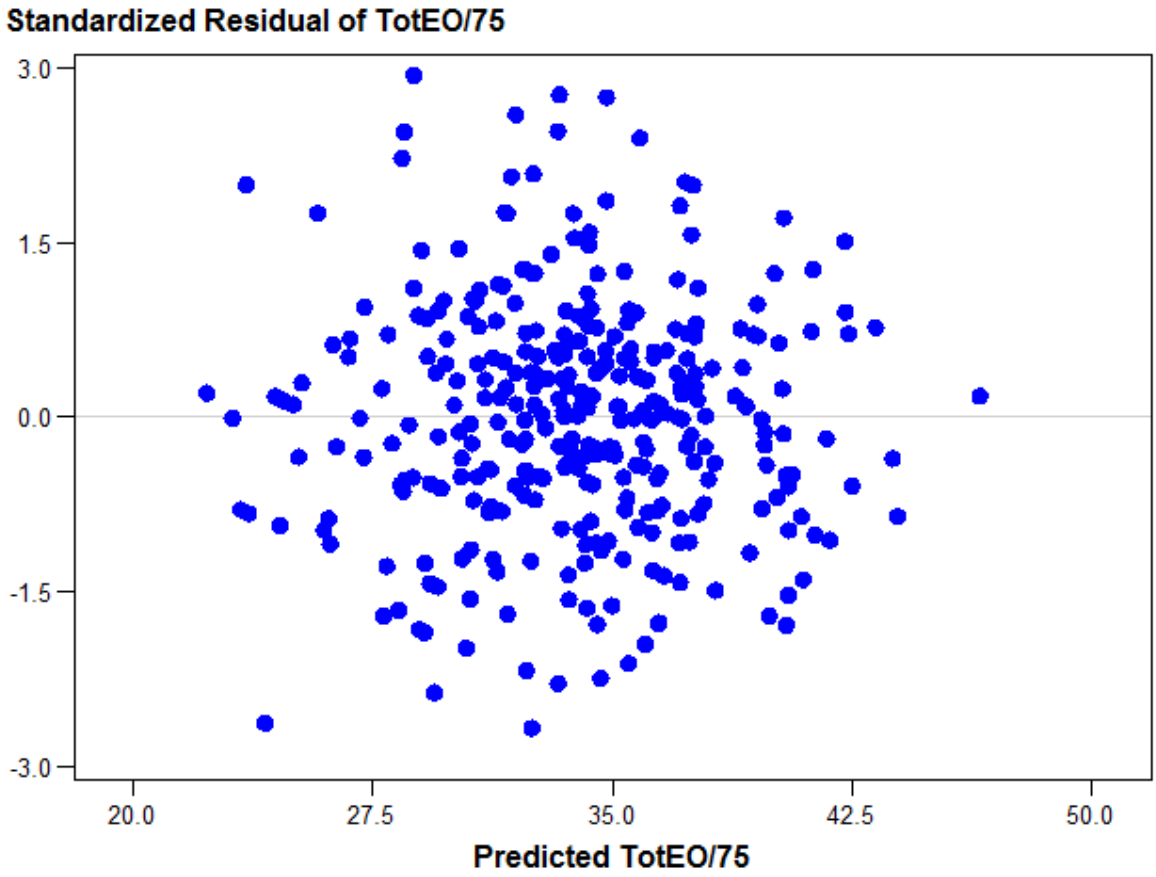

Figure 23. The standardised residuals of Total Entrepreneurial Orientation by predicted total entrepreneurial orientation

According to this result, a problem was identified with regard to certain of the points, as they are clearly above two in absolute value. The standardised residuals of the predictor plots were found to have one or more points over the size limits on the positive vertical axis, and were also found to have values over these limits on the negative vertical axis. This was also found to be the case when the studentised residuals were tested.

According to the testing of the standardised residuals, certain points were identified as being potentially problematic outliers or influential points, and were removed. The model was retested without these potential outliers and influential points. The results of this re-testing were reported to aid the interpretation of the initially tested model.

The following points, according to order of capture, were found to be outside the stipulated cutoff values of plus or minus two ($|x| = 2$) according to the plots of the standardised residuals: 9, 12, 17, 34, 44, 53, 55, 67, 91, 100, 102, 141, 144, 150, 156, 157, 256 and 309. An examination of the results of the studentised residual plots indicated the following points for removal: 9, 12, 17, 34, 44, 53, 55, 67, 77, 91, 100, 102, 141, 144, 145, 153, 156, 157, 256 and 309. In figure 24 below, the plot of the studentised residuals of total entrepreneurial orientation by predicted total entrepreneurial orientation is illustrated.

The DFITS were tested, measuring the change in the predicted values of the dependent variable whilst a data point was deleted. The SAS analysis produced a result of the DFITS testing scaled to unit variance. Points investigated were those greater in absolute value than two. Since individual points would play a smaller role as more data points were entered into the model, and as the number of variables decreases, a size adjusted cutoff was used. In this case the formula used for the size adjusted cutoff was $2\sqrt{[p/n]}$, with p representing the number of variables including intercept variable, and n the data points in the regression. This formula represented the absolute value of a cut off. In terms of the specific regression tested, the following result was obtained:

$$2\sqrt{[p/n]} = 2\sqrt{[17/339]} = 0.4478722$$

The cut off was found to be 0.4478722. Figure 25 illustrates the plot of the DFITS points against the predicted total entrepreneurial orientation. In terms of the cutoff of 0.4478722 the following points were identified as exceeding this, according to order of capture: 9, 12 and 17.

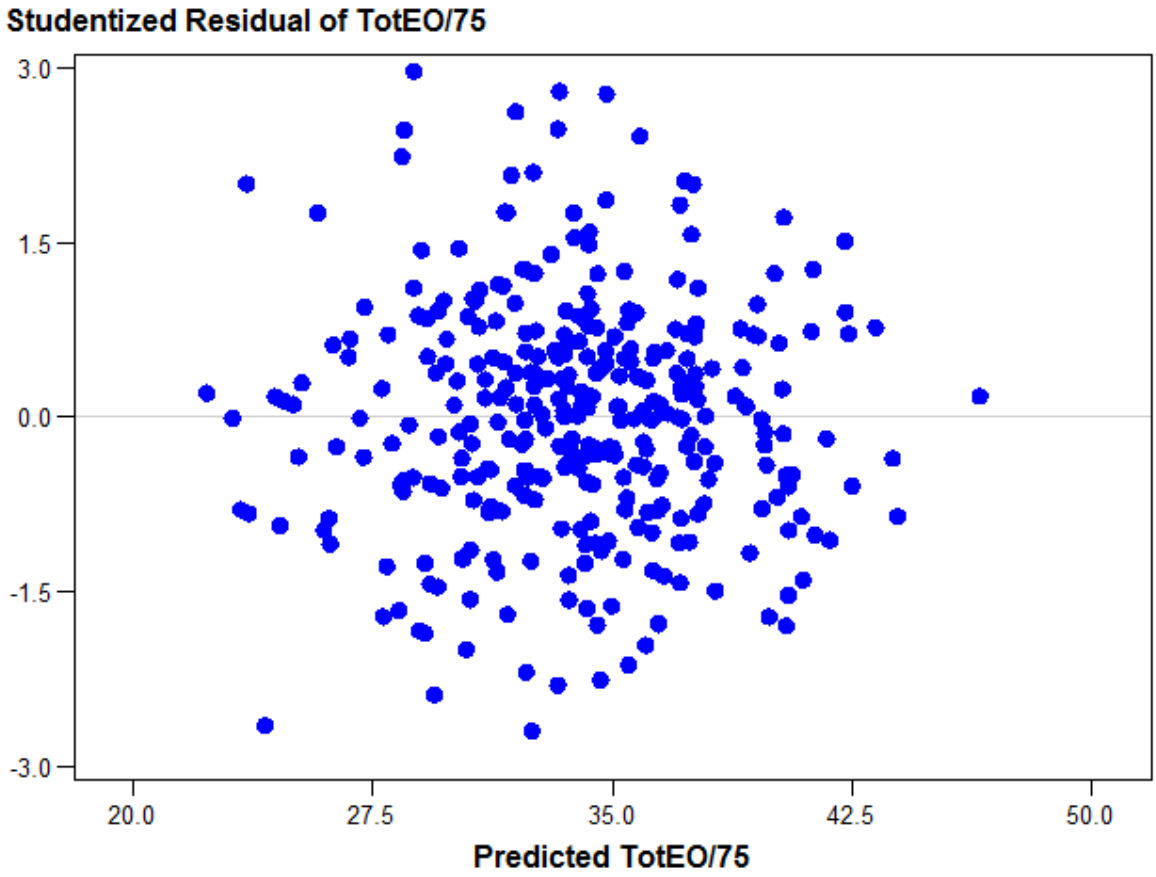

Figure 24. The plot of the studentised residuals of Total Entrepreneurial Orientation by predicted Total Entrepreneurial Orientation

In terms of further testing of influence, the leverage test was performed on SAS. Values were considered acceptable if they fell between 1/n and 1 for models including an intercept, with values greater than 2p/n being considered large. Points that were large might have been pulling the regression line away from the line fitting the majority of the points. Figure 26 below illustrates the plot of the leverage points for total entrepreneurial orientation by predicted entrepreneurial orientation. According to this criterion, values should fall between 1/339 and 1, or 0.0029498 and 1, and values considered large would be (2 x 17)/339 = 0.1002949. The following points, by order of capture, were identified as falling outside this cutoff value: 23, 58, 227, 280 and 294.

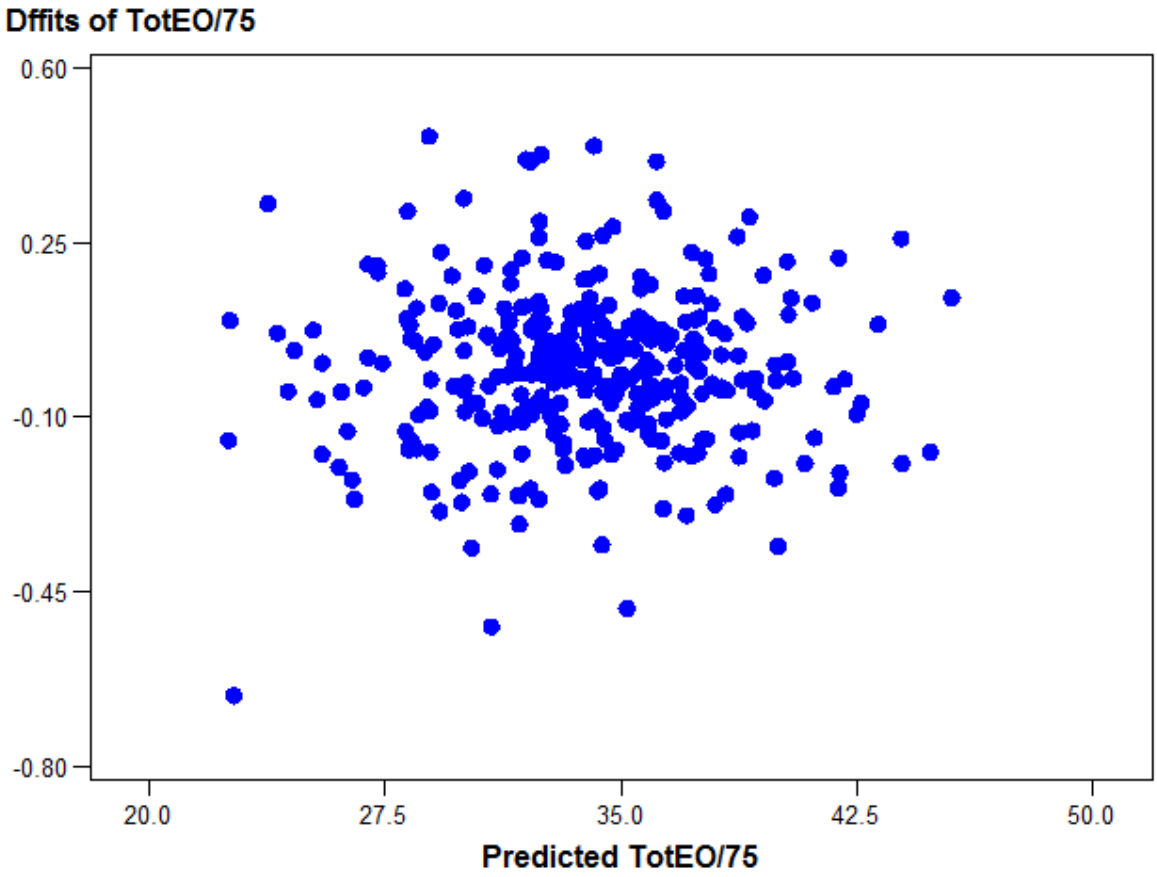

Figure 25. The results of the DFITS test of influence of Total Entrepreneurial Orientation by Total Entrepreneurial Orientation

Another test was conducted on influence: a test of the covariance ratio. The criterion for acceptable points was taken to be the closeness of the data points to the value of one. The plot of the covariance ratio tested points by total entrepreneurial orientation is illustrated in figure 27. Points identified as potentially problematic according to this test were, according to order of capture: 23, 58, 146, 227, 270, 280 and 294. Figure 28 illustrates the plot of the covariance ratio points of total entrepreneurial orientation by order of capture.

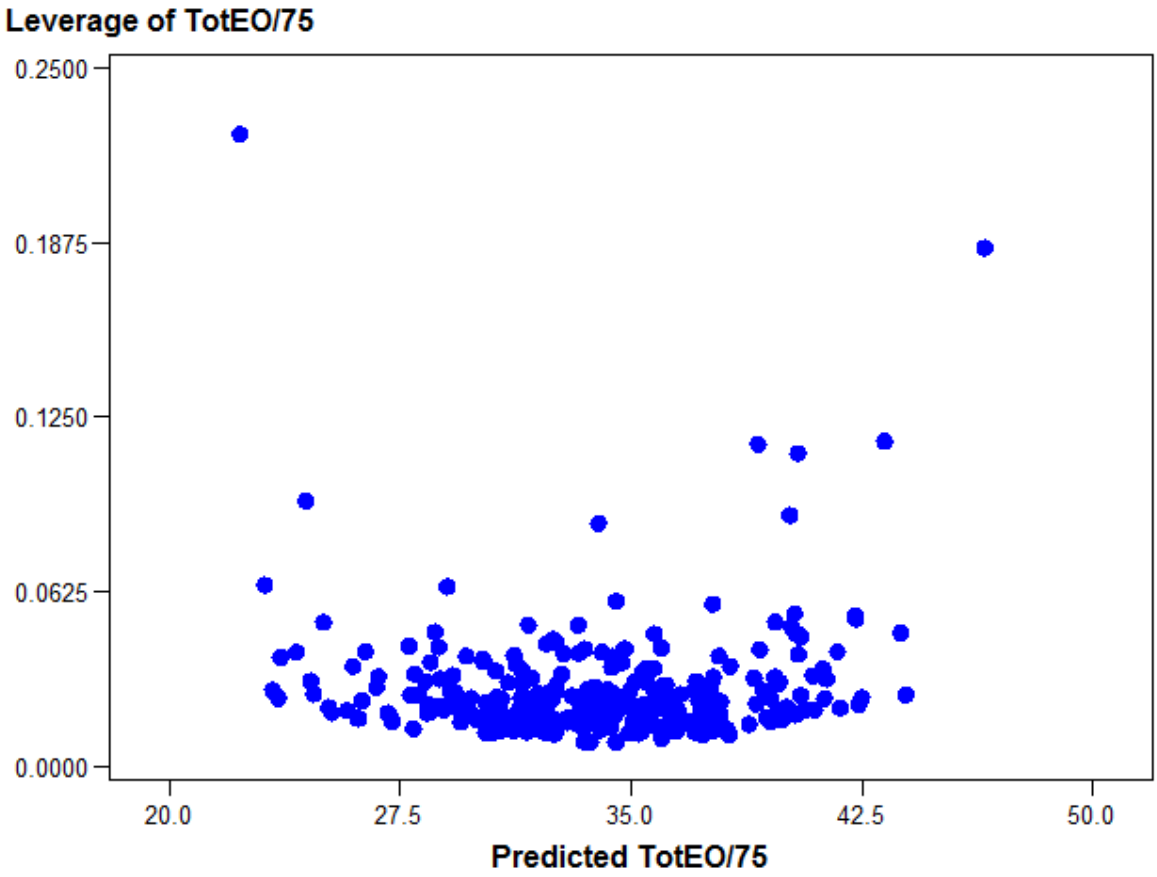

Figure 26. The plot of Leverage for Total Entrepreneurial Orientation by predicted Total Entrepreneurial Orientation

The points identified by all these tests as potential outliers and influential points were removed and the model without these points was run. This model was found to have an R squared of 0.2216, this up from the 0.1680 of the model without these points removed, and an adjusted R squared of 0.2009, this also up from an adjusted R squared of 0.1479. The table of significant associations for this model is illustrated in table 42. There was no change in terms of variables found to be significant within the 10 percent level between these two models.

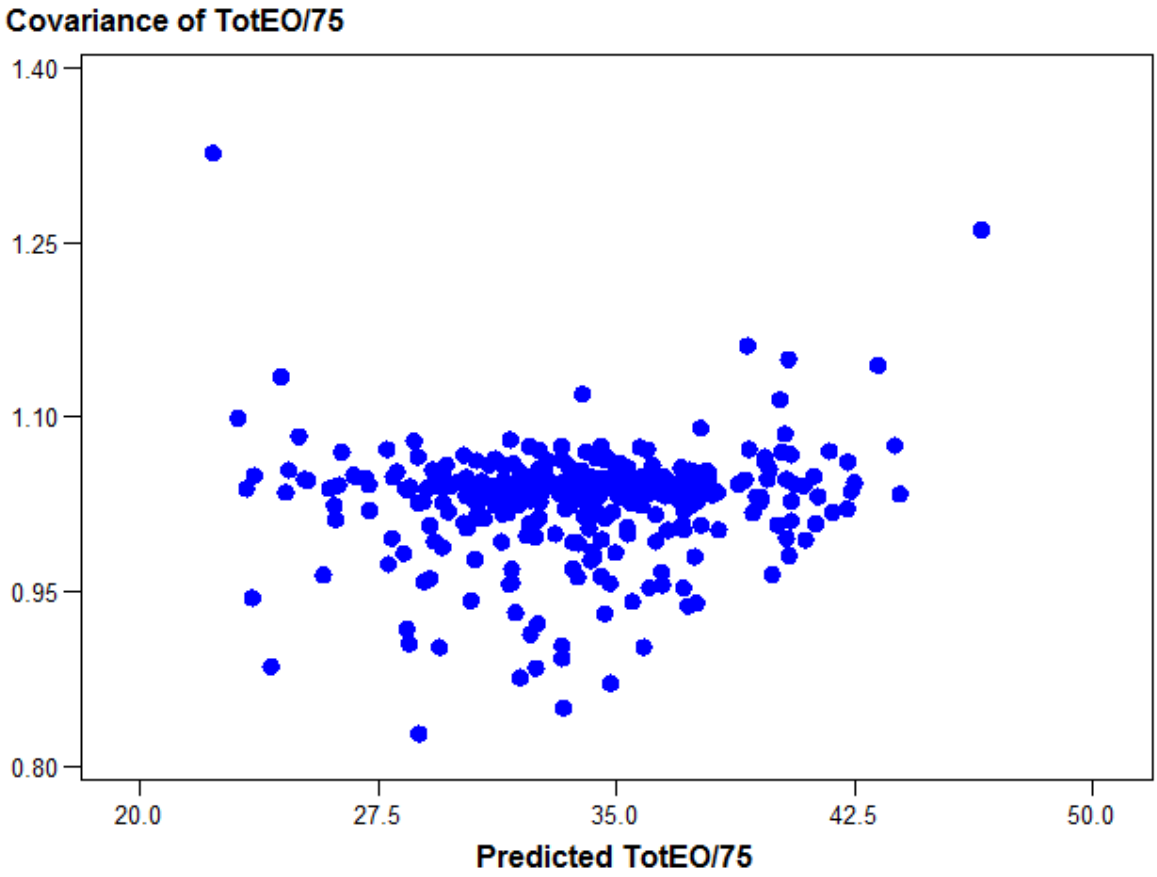

Figure 27. The plot of the Covariance points for Total Entrepreneurial Orientation by predicted Total Entrepreneurial Orientation

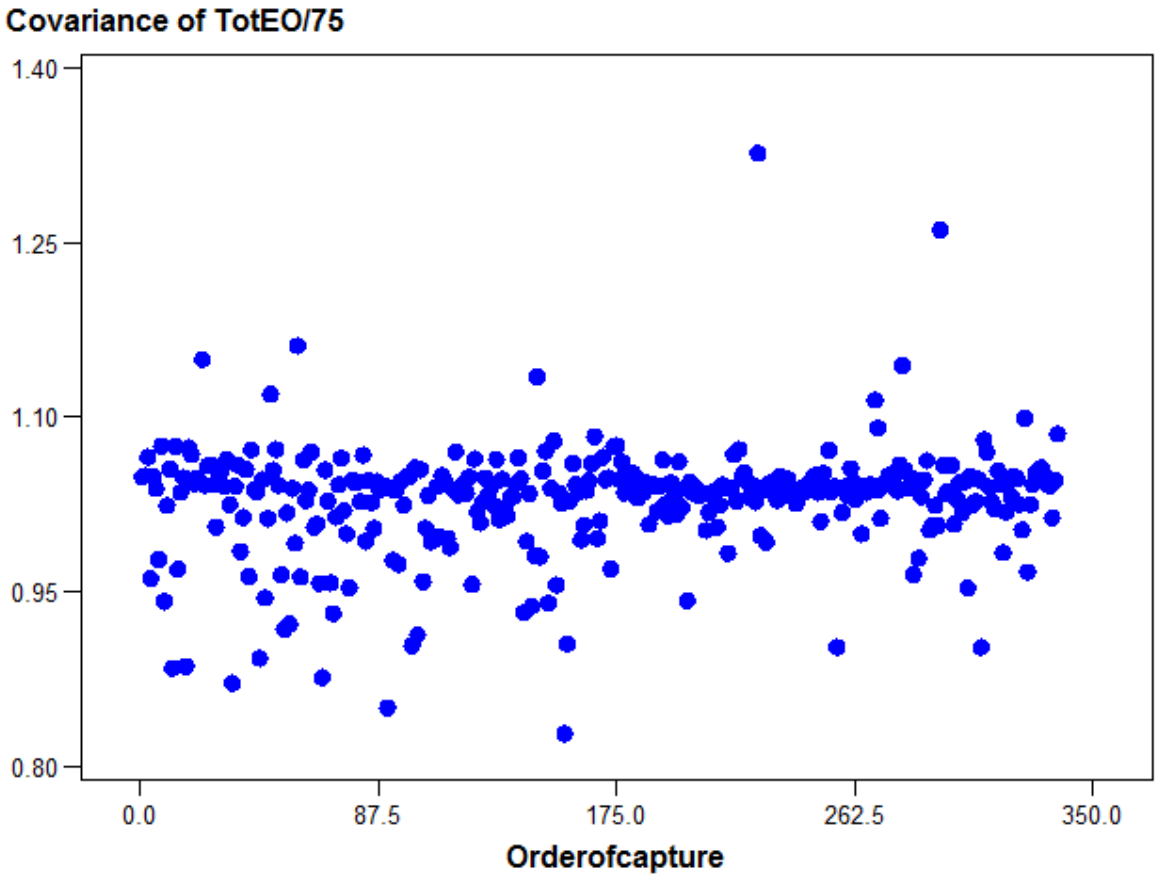

Figure 28. The plot of the covariance points of Total Entrepreneurial Orientation by Order of Capture

According to the findings of the reported significant associations between total entrepreneurial orientation and certain informal sector contextual factors, the null hypothesis 1.a., that there is no significant association between total entrepreneurial orientation and informal sector contextual factors, was rejected. The alternative hypothesis was therefore accepted and the null hypothesis rejected. The discussion of the reported results in this chapter is undertaken in chapter six.

Table 42. The results of the multiple linear regression analysis of Total Entrepreneurial Orientation with points removed

Number of Observations Read	310
Number of Observations Used	310

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	8	5318.02150	664.75269	10.71	<.0001
Error	301	18681	62.06397		
Corrected Total	309	23999			

Root MSE	7.87807	**R-Square**	0.2216
Dependent Mean	33.61048	**Adj R-Sq**	0.2009
Coeff Var	23.43932		

Variable	DF	Parameter Estimate	Std Error	t Value	Pr > |t|	Type I SS	Type II SS	Stdized Estimate	Tol erance	Variance Inflation
Intercept	**1**	0.10559	5.86258	0.02	0.9856	350196	0.02013	0	.	0
gender 1=Male	**1**	3.07084	0.97653	3.14	0.0018	933.24412	613.73714	0.17112	0.87332	1.14505
DaysWPW	**1**	3.80875	0.90369	4.21	<.0001	1063.75873	1102.45724	0.21933	0.95493	1.04720
TotalEducation	**1**	0.93320	0.39453	2.37	0.0186	230.90466	347.24252	0.12535	0.92088	1.08592
TrainingCourses	**1**	2.24222	1.22010	1.84	0.0671	177.83054	209.60616	0.09555	0.95672	1.04524
Orderofcapture	**1**	0.01829	0.00493	3.71	0.0002	1260.51665	853.58172	0.20148	0.87616	1.14135
Satisfaction	**1**	1.15488	0.28848	4.00	<.0001	1039.58176	994.67632	0.21181	0.92387	1.08240
RSA=1	**1**	-2.42633	1.00981	-2.40	0.0169	171.53793	358.31283	-0.13714	0.79380	1.25976
JHBLocal	**1**	4.26834	1.60189	2.66	0.0081	440.64711	440.64711	0.14553	0.86690	1.15353

5.4.2. NULL SUB-HYPOTHESIS 1.B: THERE IS NO SIGNIFICANT ASSOCIATION BETWEEN INNOVATIVENESS AND INFORMAL SECTOR CONTEXTUAL FACTORS.

Innovativeness was tested as the dependent variable in the multiple linear regression analysis model according to the above hypothesis derived from the research question, specifically, "What informal sector contextual factors shape an entrepreneurial orientation along the dimension of innovativeness?" The results of the testing of this model and the significant associations are illustrated in table 43. The model was found to be significant ($p<0.0001$), with an R squared of 0.0660 and an adjusted R squared of 0.0605, this indicating that the model explained about 6 percent of the variation with regard to the tested model. Order of capture ($\beta = -0.00924$; $p<0.0001$; $\beta s = -0.21002$) was found to be negatively and significantly associated with innovativeness, and hours worked per day ($\beta = 0.34796$; $p<0.0048$; $\beta s = 0.14954$) was found to be positively and significantly associated with innovativeness. The results are interpreted and discussed in the discussion chapter.

Before undertaking the diagnostic process and its testing, the plots of the observed variables were considered, and the residual plots were also considered. In this specific model, there were no other variables that were significant at the 10 percent level.

Testing for autocorrelation was undertaken. A Durbin–Watson statistic of 1.861 was found, which was taken to represent a value sufficiently close to two. This indicates that autocorrelation was not a serious consideration. The Durbin–Watson statistic is illustrated in table 44. The model was tested for multicollinearity, and the collinearity diagnostics are illustrated in table 45 (intercept not adjusted). Table 46 illustrates the collinearity diagnostics with the intercept adjusted. The condition indices were found to be below a hundred, these calculated from the correlation matrix. Multicollinearity was not taken to be a problem for this model.

Table 43. The results of the overall model tested with Innovativeness as dependent variable and informal sector contextual factors as predictor variables

Number of Observations Read	339
Number of Observations Used	339

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	409.38559	204.69280	11.88	<.0001
Error	336	5790.95069	17.23497		
Corrected Total	338	6200.33628			

Root MSE	4.15150	**R-Square**	0.0660
Dependent Mean	4.04425	**Adj R-Sq**	0.0605
Coeff Var	102.65203		

Variable	DF	Parameter Estimate	Std Error	t Value	Pr > |t|	Type I SS	Type II SS	Stdized Estimate	Tolerance	Variance Inflation
Intercept	**1**	2.07559	1.32256	1.57	0.1175	5544.66372	42.44903	0	.	0
hrsWkPD	**1**	0.34796	0.12268	2.84	0.0048	135.92279	138.65375	0.14954	0.99995	1.00005
Orderofcapture	**1**	-0.00924	0.00232	-3.98	<.0001	273.46280	273.46280	-0.21002	0.99995	1.00005

The multiple linear regression analysis results shown in table 43 were associated with the following equation for the tested model:

y = 2.07559 + 0.34796 Hours Worked per Day - 0.00924 Order of Capture

An examination of the plots of the observed variables against each other led to the confirmation that the low level of fit as explained by the adjusted R squared of 0.0605 was correct. In an attempt to increase the fit of the model, the natural log of innovativeness was used as the dependent variable and a new model was run. There was no improvement, however, with the R squared dropping to 0.0454 and the

adjusted R squared dropping to 0.0397, with no major changes interpreted with regard to the significant variables.

Table 44. The results of the testing for autocorrelation: the Durbin–Watson statistic (Innovativeness)

Durbin–Watson D	1.861
Number of Observations	339
1st Order Autocorrelation	0.068

Table 45. The collinearity diagnostics table of results of testing for multicollinearity not intercept adjusted (Innovativeness)

Collinearity Diagnostics					
Number	**Eigenvalue**	**Condition Index**	**Proportion of Variation**		
			Intercept	**hrsWkPD**	**Orderofcapture**
1	2.80268	1.00000	0.00360	0.00389	0.02793
2	0.18162	3.92831	0.02106	0.03215	0.94668
3	0.01570	13.36075	0.97534	0.96396	0.02539

Table 46. The collinearity diagnostics with intercept adjusted (Innovativeness)

Collinearity Diagnostics (intercept adjusted)				
Number	**Eigenvalue**	**Condition Index**	**Proportion of Variation**	
			hrsWkPD	**Orderofcapture**
1	1.00759	1.00000	0.49621	0.49621
2	0.99241	1.00762	0.50379	0.50379

According to the analysis of standardised residuals with regard to order of capture, the following points were found to be outside the range of minus two to plus two ($|x| = 2$): 125, 168, 185, 251 and 286. These points were removed from the primary model and the model was tested again. The results of the model run without these points is illustrated in table 47. The same variables were significant at the 10 percent cutoff level.

According to the testing of null sub-hypothesis 1.b, that there is no significant association between innovativeness and informal sector contextual factors, this was refuted: such an association was found to exist. The alternative hypothesis is accepted, that there is a significant association between innovativeness and informal sector contextual factors.

Table 47. The results for the model run with Innovativeness as dependent variable with points removed

Number of Observations Read	334
Number of Observations Used	334

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	477.14998	238.57499	14.78	<.0001
Error	331	5344.50271	16.14653		
Corrected Total	333	5821.65269			

Root MSE	4.01827	**R-Square**	0.0820
Dependent Mean	3.91617	**Adj R-Sq**	0.0764
Coeff Var	102.60733		

Variable	DF	Parameter Estimate	Std Error	t Value	Pr > |t|	Type I SS	Type II SS	Stdized Estimate	Tolerance	Variance Inflation
Intercept	**1**	1.62778	1.28592	1.27	0.2065	5122.34731	25.87290	0	.	0
hrsWkPD	**1**	0.38861	0.11915	3.26	0.0012	168.29171	171.75957	0.17177	0.99994	1.00006
Orderofcapture	**1**	-0.00986	0.00225	-4.37	<.0001	308.85827	308.85827	-0.23034	0.99994	1.00006

5.4.3. NULL SUB-HYPOTHESIS 1.C: THERE IS NO SIGNIFICANT ASSOCIATION BETWEEN AUTONOMY AND INFORMAL SECTOR CONTEXTUAL FACTORS

In terms of this hypothesis and the corresponding research question, "To what extent do informal sector contextual factors shape an entrepreneurial orientation along the dimension of autonomy?" a multiple linear regression analysis was run, with autonomy as the dependent variable. The model was found to be significant ($p<0001$), with an R squared of 0.1616 and an adjusted R squared of 0.1541. A cutoff of 10 percent was utilised in terms of significance for variables to remain in the model. A backwards elimination multiple linear regression process was used. Gender, days worked per week and continuance satisfaction were found to be positively and significantly associated with autonomy. The significant associations for this model are shown in table 48.

The multiple linear regression analysis equation found for the model was the following:

y = 3.38126 + 0.75008 Gender + 0.52362 Days Worked per Week + 0.93465 Satisfaction

In terms of testing for autocorrelation, the Durbin–Watson statistic of 1.744 was interpreted to indicate that autocorrelation was not a serious problem for this model. The Durbin–Watson statistic is illustrated in table 49.

No problems were found in terms of the collinearity diagnostics, with condition indices well below a hundred (table 50). The collinearity diagnostics with intercept adjusted are illustrated in table 51.

An examination of the observed and residual plots was undertaken. In terms of outlier and influential points, tests of standardised residuals were undertaken. The plot of the standardised residuals by predicted autonomy is shown in figure 29. Nineteen potential outliers or influential points were identified for removal, according to order of capture: 7, 14, 17, 58, 60, 83, 93, 100, 102, 104, 116, 136, 142, 201, 216, 223, 250 and 326. These were removed from the equation.

Table 48. The overall model statistics for the multiple linear regression run with Autonomy as dependent variable

Number of Observations Read	339
Number of Observations Used	339

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	792.69823	264.23274	21.53	<.0001
Error	335	4111.46696	12.27304		
Corrected Total	338	4904.16519			

Root MSE	3.50329	**R-Square**	0.1616
Dependent Mean	8.90855	**Adj R-Sq**	0.1541
Coeff Var	39.32500		

Variable	DF	Parameter Estimate	Std Error	t Value	Pr > |t|	Type I SS	Type II SS	Stdized Estimate	Tolerance	Variance Inflation
Intercept	**1**	3.38126	2.00559	1.69	0.0927	26904	34.88388	0	.	0
gender 1=Male	**1**	0.75008	0.39026	1.92	0.0555	26.24755	45.33638	0.09658	0.99115	1.00893
DaysWPW	**1**	0.52362	0.31542	1.66	0.0978	6.79643	33.82274	0.08381	0.98179	1.01854
Satisfaction	**1**	0.93465	0.11880	7.87	<.0001	759.65425	759.65425	0.39736	0.98101	1.01936

Table 49. The Durbin–Watson statistic test for autocorrelation (Autonomy)

Durbin–Watson D	1.744
Number of Observations	339
1st Order Autocorrelation	0.128

The statistics of the overall model tested without these points is illustrated in table 52. The model was found to be significant ($p<0.0001$), with an R squared of 0.1604 and an adjusted R squared of 0.1524. After the removal of these points, the variable days

worked per week was no longer found to be significant at the 10 percent level, but years in Johannesburg was found to be significant within this level.

Table 50. The collinearity diagnostics and condition indices for the model tested with Autonomy as dependent variable

Collinearity Diagnostics						
Number	Eigenvalue	Condition Index	Proportion of Variation			
			Intercept	gender 1=Male	DaysWPW	Satisfaction
1	3.32134	1.00000	0.00077543	0.02693	0.00080470	0.02550
2	0.44193	2.74146	0.00001069	0.50018	3.666256E-7	0.41920
3	0.23209	3.78291	0.00785	0.47288	0.00917	0.52209
4	0.00464	26.76207	0.99136	0.00000564	0.99003	0.03322

Table 51. The collinearity diagnostics and condition indices for the tested model with intercept adjusted (Autonomy)

Collinearity Diagnostics (intercept adjusted)					
Number	Eigenvalue	Condition Index	Proportion of Variation		
			gender 1=Male	DaysWPW	Satisfaction
1	1.17730	1.00000	0.20176	0.31230	0.32153
2	0.94433	1.11656	0.79551	0.15265	0.09894
3	0.87837	1.15772	0.00273	0.53505	0.57953

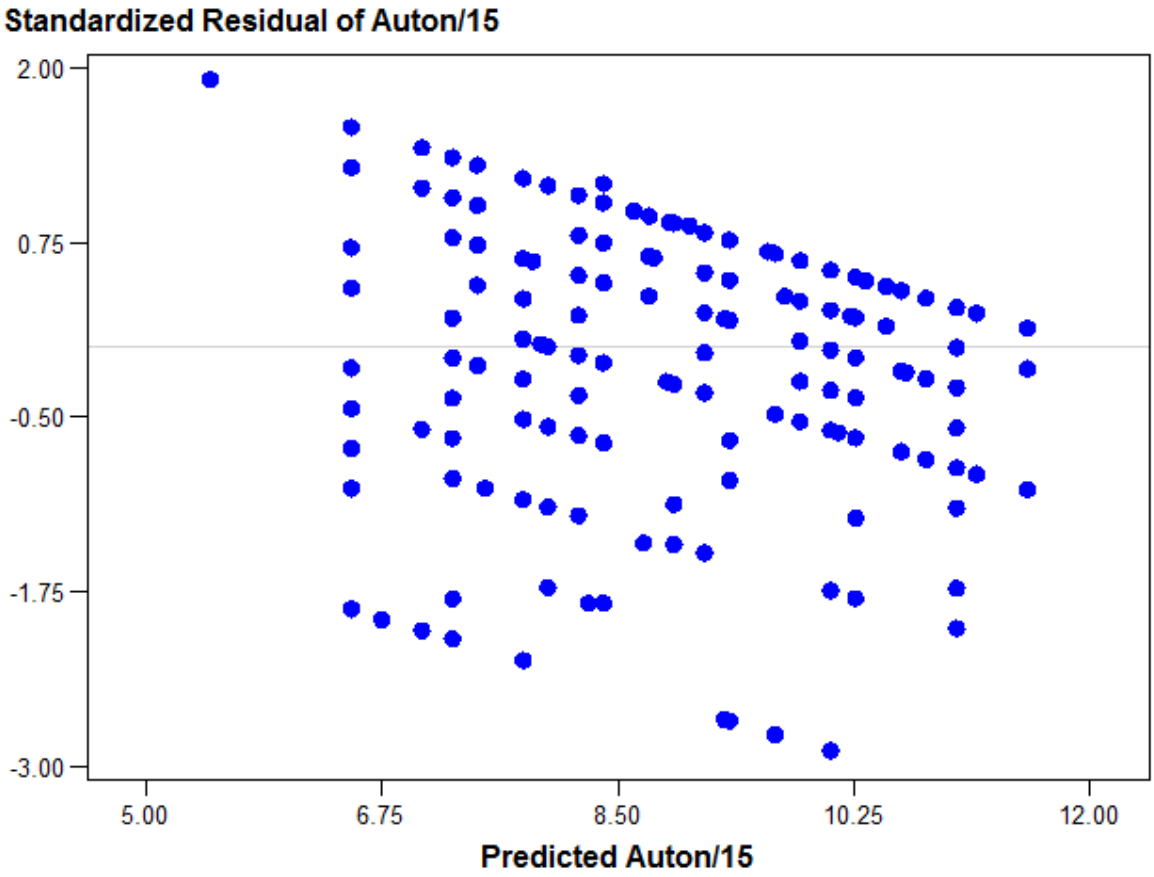

Figure 29. The standardised residuals of Autonomy by predicted Autonomy

Table 52. The statistics of the multiple linear regression analysis with Autonomy as dependent variable with data points removed

Number of Observations Read	321
Number of Observations Used	321

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	554.06032	184.68677	20.18	<.0001
Error	317	2900.69357	9.15045		
Corrected Total	320	3454.75389			

Root MSE	3.02497	**R-Square**	0.1604
Dependent Mean	9.39564	**Adj R-Sq**	0.1524
Coeff Var	32.19549		

Variable	DF	Parameter Estimate	Std Error	t Value	Pr > |t|	Type I SS	Type II SS	Stdized Estimate	Tolerance	Variance Inflation
Intercept	**1**	6.92539	0.37837	18.30	<.0001	28337	3065.52156	0	.	0
gender 1=Male	**1**	1.30687	0.34768	3.76	0.0002	91.22092	129.28736	0.19597	0.97446	1.02621
yrsinJhb	**1**	0.03347	0.01714	1.95	0.0517	77.42939	34.89405	0.10282	0.95538	1.04671
Satisfaction	**1**	0.69038	0.10638	6.49	<.0001	385.41001	385.41001	0.33790	0.97706	1.02348

The condition indices for the model were checked. Multicollinearity was not judged to be a serious problem for the model. The interpretation of these relationships is undertaken in the discussion chapter.

Due to the significant relationships found in terms of the testing process, null sub-hypothesis 1.c, that there is no significant association between autonomy and informal sector contextual factors was rejected, and the alternative sub-hypothesis 1.c, that there is a significant association between autonomy and informal sector contextual factors, was accepted.

5.4.4. NULL SUB-HYPOTHESIS 1.D: THERE IS NO SIGNIFICANT ASSOCIATION BETWEEN PROACTIVENESS AND INFORMAL SECTOR CONTEXTUAL FACTORS.

In terms of the research question tested according to this hypothesis: "What informal sector contextual factors shape an entrepreneurial orientation along the dimension of proactiveness?" the results of the testing processes are reported in this section. Proactiveness was tested as the dependent variable, with informal sector contextual factors tested as predictor variables.

In terms of the observed variable plots, clear evidence of specific patterns was judged to not be evident. The overall multiple linear regression model results with innovativeness as the dependent variable are illustrated below in table 53. A best fit was achieved with an R squared of 0.1200, and an adjusted R squared of 0.1095. The model was found to be significant ($p<0.0001$), and the following were found to be positively and significantly associated with proactiveness: days worked per week, total education and order of capture. The RSA variable was found to be negatively and significantly associated with proactiveness. The multiple linear regression analysis equation found for the model was the following:

y = 3.99516 + 0.35760 Days Worked per Week + 0.18979 Total Education + 0.00422 Order of Capture - 0.46283 RSA Origin

Table 53. Results for the multiple linear regression model with Proactiveness as the dependent variable and informal sector contextual factors as predictor variables

Number of Observations Read	339
Number of Observations Used	339

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	4	103.43815	25.85954	11.39	<.0001
Error	334	758.44779	2.27080		
Corrected Total	338	861.88594			

Root MSE	1.50692	**R-Square**	0.1200
Dependent Mean	7.33628	**Adj R-Sq**	0.1095
Coeff Var	20.54062		

Variable	DF	Parameter Estimate	Std Error	t Value	Pr > |t|	Type I SS	Type II SS	Stdized Estimate	Tolerance	Variance Inflation
Intercept	**1**	3.99516	0.89854	4.45	<.0001	18245	44.89274	0	.	0
DaysWPW	**1**	0.35760	0.13551	2.64	0.0087	9.00561	15.81373	0.13654	0.98421	1.01605
TotalEducation	**1**	0.18979	0.06661	2.85	0.0047	21.52361	18.43653	0.15018	0.94847	1.05433
Orderofcapture	**1**	0.00422	0.00085048	4.96	<.0001	55.89962	55.79640	0.25692	0.98074	1.01964
RSA=1	**1**	-0.46283	0.16911	-2.74	0.0065	17.00932	17.00932	-0.14396	0.95224	1.05016

Table 54. The collinearity diagnostics for the model tested with Proactiveness as the dependent variable

Collinearity Diagnostics							
Number	Eigenvalue	Condition Index	Proportion of Variation				
			Intercept	DaysWPW	Total Education	Orderofcapture	RSA=1
1	4.16791	1.00000	0.00046298	0.00052251	0.00627	0.01143	0.01690
2	0.53013	2.80394	0.00026822	0.00026979	0.01944	0.01526	0.86222
3	0.22424	4.31124	0.00080332	0.00130	0.12221	0.78941	0.00111
4	0.07318	7.54669	0.02208	0.03318	0.83416	0.14124	0.11968
5	0.00454	30.31306	0.97638	0.96473	0.01793	0.04266	0.00009911

Collinearity Diagnostics (intercept adjusted)						
Number	Eigenvalue	Condition Index	Proportion of Variation			
			DaysWPW	TotalEducation	Orderofcapture	RSA=1
1	1.23096	1.00000	0.00026409	0.37896	0.07450	0.32052
2	1.11971	1.04850	0.45383	0.00000273	0.33767	0.08348
3	0.87615	1.18531	0.52092	0.01759	0.54808	0.03303
4	0.77318	1.26177	0.02498	0.60345	0.03974	0.56297

Table 55. The Durbin–Watson statistic measure of autocorrelation (Proactiveness)

Durbin–Watson D	1.864
Number of Observations	339
1st Order Autocorrelation	0.064

The plots of the observed predicted variables against the dependent variables were checked for outliers, influential points and patterns that might have indicated which terms or transformations might be needed. The diagnostics were investigated for violations of the assumptions of the multiple linear regression model. Testing the multiple linear regression model with the natural log of proactiveness as dependent variable was tried, yet no visible improvement in residual plots seemed evident, and no improvement was noted in the R squared scores. In light of this, the decision was made to use the model without a transformation, as no specific patterns suggested that this was necessary. The collinearity diagnostics were not found to indicate serious multicollinearity. The collinearity diagnostics are illustrated in table 54. The testing for autocorrelation indicated that autocorrelation was not a serious problem for the model. The Durbin–Watson statistic is illustrated in table 55.

Testing of standardised residuals was undertaken, and the following points, by order of capture were removed: 6, 9, 12, 13, 17, 40, 54, 60, 71, 94, 102, 104, 135, 171, 192, 225, 227 and 325. Figure 30 illustrates the plot of the standardised residuals by predicted proactiveness.

With these eighteen potential outlying and influential points removed, the variables days worked per week and total education were found to no longer be significant at the 10 percent level, and initial investment was found to have become significant. The overall model statistics for the model run with points removed are illustrated in table 56. The R squared was found to have dropped from 0.1200 to 0.0936, and the adjusted R squared was found to have decreased from 0.1095 to 0.0850 with these points removed.

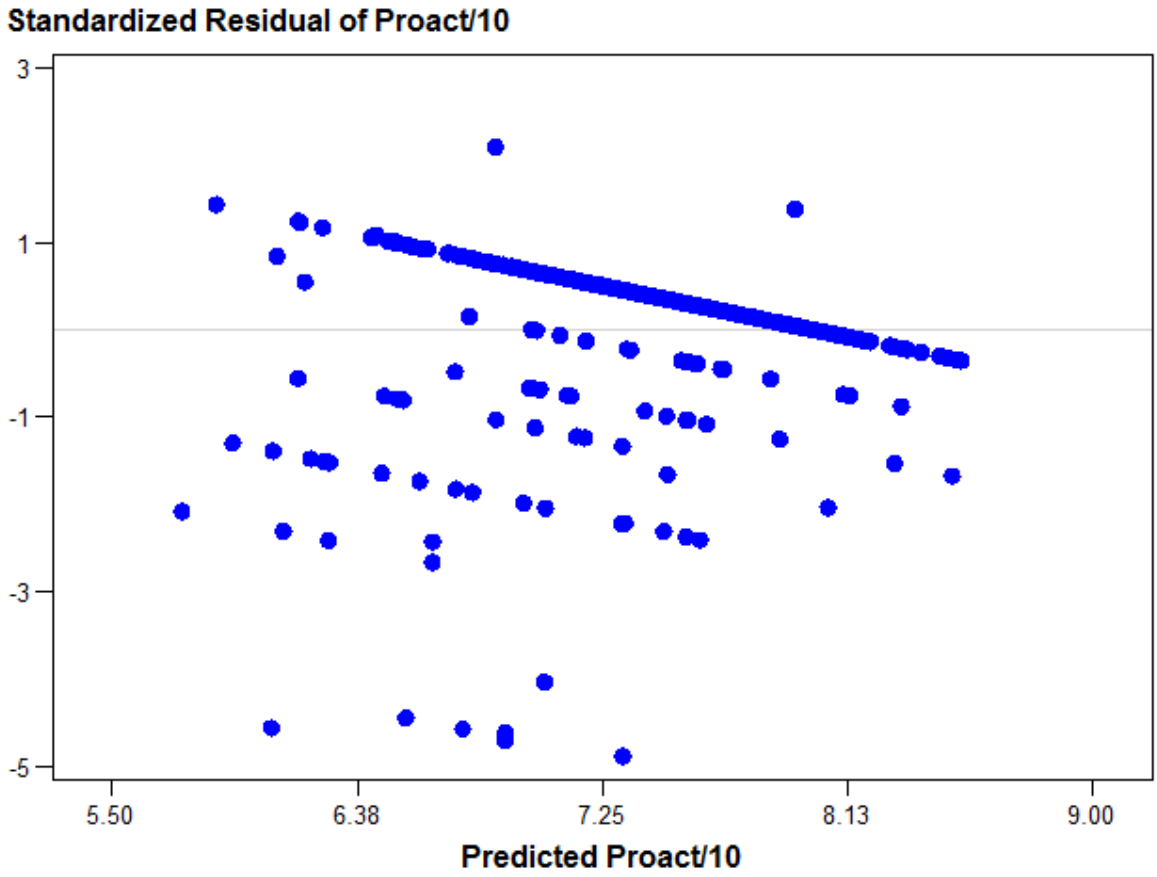

Figure 30. The plot of the standardised residuals by predicted Proactiveness

Table 56. The overall model results for the multiple linear regression analysis with Proactiveness as the dependent variable, with potential outliers and influential points removed

Number of Observations Read	321
Number of Observations Used	321

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	34.03626	11.34542	10.91	<.0001
Error	317	329.74844	1.04022		
Corrected Total	320	363.78470			

Root MSE	1.01991	**R-Square**	0.0936
Dependent Mean	7.58359	**Adj R-Sq**	0.0850
Coeff Var	13.44890		

Variable	DF	Parameter Estimate	Std Error	t Value	Pr > |t|	Type I SS	Type II SS	Stdized Estimate	Tol erance	Variance Inflation
Intercept	**1**	7.21786	0.16411	43.98	<.0001	18461	2012.18652	0	.	0
InitialInv	**1**	0.02244	0.00989	2.27	0.0240	8.37476	5.35230	0.12507	0.94051	1.06325
Orderofcapture	**1**	0.00206	0.00059408	3.48	0.0006	12.53927	12.56510	0.18668	0.99110	1.00898
RSA=1	**1**	-0.41899	0.11797	-3.55	0.0004	13.12224	13.12224	-0.19501	0.94848	1.05432

Due to the significant associations found in terms of this testing of the null sub-hypothesis 1.d, that there is no significant association between proactiveness and informal sector contextual factors, this null hypothesis was found not to be supported. In terms of this, the alternative sub-hypothesis 1.d, that there is a significant association between proactiveness and informal sector contextual factors was accepted.

5.4.5. NULL SUB-HYPOTHESIS 1.E: THERE IS NO SIGNIFICANT ASSOCIATION BETWEEN COMPETITIVE AGGRESSIVENESS AND INFORMAL SECTOR CONTEXTUAL FACTORS.

This hypothesis was derived from the research question, "To what extent do contextual factors shape an entrepreneurial orientation along the dimension of competitive aggressiveness?" In terms of this, a multiple regression analysis was run with competitive aggressiveness as the dependent variable. The model was found to be significant ($p<0.0001$), with an R squared of 0.1177 and an adjusted R squared of 0.0991. The overall model statistics are illustrated in table 57. Years in Johannesburg, days worked per week, training courses, earnings and rental stand were found to be positively and significantly associated with competitive aggressiveness. South African origin and experience were found to be negatively and significantly associated with competitive aggressiveness.

The multiple linear regression analysis equation found for the model was the following:

y = -1.25055 + 0.03910 Years in Johannesburg + 0.91840 Days Worked per Week - 0.21513 Experience + 0.54418 Training Courses + 0.02815 Earnings + 0.63011 Rental Stand - 0.91839 RSA Origin

The plots of the observed variables and the residuals were considered. In terms of the collinearity diagnostics, without the intercept being adjusted, the highest condition indices reading was 33.09282, and with the intercept adjusted, the highest value was 2.05747. The collinearity diagnostics are illustrated in table 58. In terms of the correlations between variables, the variables in the analysis were found to have relatively low correlations with each other.

In terms of the testing for autocorrelation, the Durbin–Watson statistic was found to be 1.914. Autocorrelation was therefore not a serious problem for the model. The results of this test are illustrated in table 59. In figure 31 the plot of the standardised residuals of competitive aggressiveness by competitive aggressiveness is shown. The plot of the studentised residuals of competitive aggressiveness by competitive

aggressiveness is illustrated in figure 32. The plot of the covariance by competitive aggressiveness is illustrated in figure 33.

Table 57. The overall statistics of the multiple linear regression model run with Competitive Aggressiveness as dependent variable

Number of Observations Read	339
Number of Observations Used	339

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	7	389.66783	55.66683	6.31	<.0001
Error	331	2920.20505	8.82237		
Corrected Total	338	3309.87288			

Root MSE	2.97025	**R-Square**	0.1177
Dependent Mean	4.30531	**Adj R-Sq**	0.0991
Coeff Var	68.99034		

Variable	DF	Parameter Estimate	Std Error	t Value	Pr > |t|	Type I SS	Type II SS	Stdized Estimate	Tol erance	Variance Inflation
Intercept	**1**	-1.25055	1.67533	-0.75	0.4559	6283.59897	4.91570	0	.	0
yrsinJhb	**1**	0.03910	0.01994	1.96	0.0508	6.73120	33.91111	0.12674	0.63781	1.56786
DaysWPW	**1**	0.91840	0.26892	3.42	0.0007	97.94657	102.89892	0.17894	0.97093	1.02995
Experience	**1**	-0.21513	0.06145	-3.50	0.0005	107.95932	108.12731	-0.21184	0.72793	1.37375
TrainingCourses	**1**	0.54418	0.32506	1.67	0.0951	32.97838	24.72546	0.08742	0.97751	1.02300
Earnings	**1**	0.02815	0.01367	2.06	0.0403	54.95574	37.40358	0.10838	0.96205	1.03945
RentalStand	**1**	0.63011	0.33391	1.89	0.0600	36.07416	31.41630	0.09886	0.97113	1.02973
RSA=1	**1**	-0.91839	0.37462	-2.45	0.0147	53.02246	53.02246	-0.14577	0.75390	1.32644

Table 58. The results for the testing for multicollinearity for the Competitive Aggressiveness model

Collinearity Diagnostics										
Number	Eigenvalue	Condition Index	Proportion of Variation							
			Intercept	yrsinJhb	DaysWPW	Experience	TrainingCourses	Earnings	RentalStand	RSA=1
1	5.14725	1.00000	0.00031803	0.00825	0.00031886	0.00755	0.00484	0.00891	0.00994	0.00941
2	0.90191	2.38894	7.66477E-9	0.01701	4.549376E-7	0.00320	0.83309	0.00453	0.00111	0.03485
3	0.79146	2.55020	0.00020407	0.07192	0.00016944	0.00694	0.10117	0.03310	0.30901	0.09889
4	0.43206	3.45157	0.00088613	0.02237	0.00095389	0.00075149	0.05078	0.24301	0.62141	0.08592
5	0.30759	4.09072	0.00023271	0.30696	0.00022634	0.14287	0.00157	0.01993	0.00333	0.70021
6	0.22800	4.75141	0.00686	0.19666	0.00698	0.07196	0.00015643	0.64969	0.04232	0.02191
7	0.18703	5.24604	0.00436	0.37683	0.00427	0.76603	0.00023645	0.04082	0.00301	0.04881
8	0.00470	33.09282	0.98714	2.344762E-7	0.98707	0.00068849	0.00816	4.711368E-7	0.00987	3.825554E-7

Collinearity Diagnostics (intercept adjusted)									
Number	Eigenvalue	Condition Index	Proportion of Variation						
			yrsinJhb	DaysWPW	Experience	TrainingCourses	Earnings	RentalStand	RSA=1
1	1.90920	1.00000	0.12331	0.01268	0.11295	0.00129	0.00047610	0.00859	0.11427
2	1.20042	1.26113	0.00101	0.14451	0.01287	0.23514	0.33136	0.05329	0.01891
3	1.08109	1.32891	0.00536	0.18421	0.02804	0.12742	0.07887	0.46054	0.00134
4	0.88234	1.47099	0.00441	0.53557	0.00031618	0.54662	0.01210	0.00233	0.00017167
5	0.83495	1.51216	0.00019950	0.11947	0.00059818	0.08009	0.50565	0.45076	0.00136
6	0.64100	1.72583	0.00467	0.00096331	0.44500	0.00844	0.06829	0.01793	0.63507
7	0.45101	2.05747	0.86105	0.00259	0.40023	0.00099887	0.00326	0.00655	0.22889

Table 59. The results for the testing for autocorrelation: the Durbin–Watson statistic (Competitive Aggressiveness)

Durbin–Watson D	1.914
Number of Observations	339
1st Order Autocorrelation	0.041

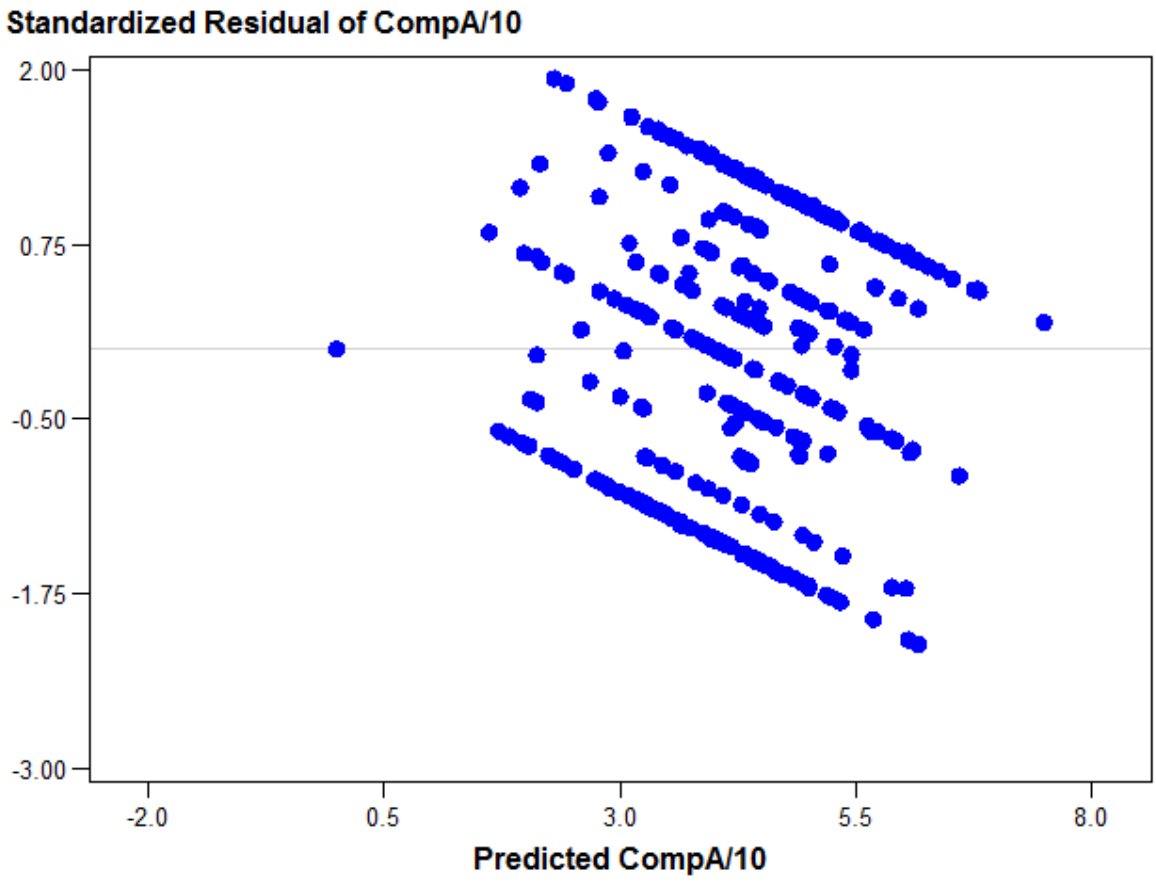

Figure 31. The plot of the standardised residuals of Competitive Aggressiveness by Competitive Aggressiveness

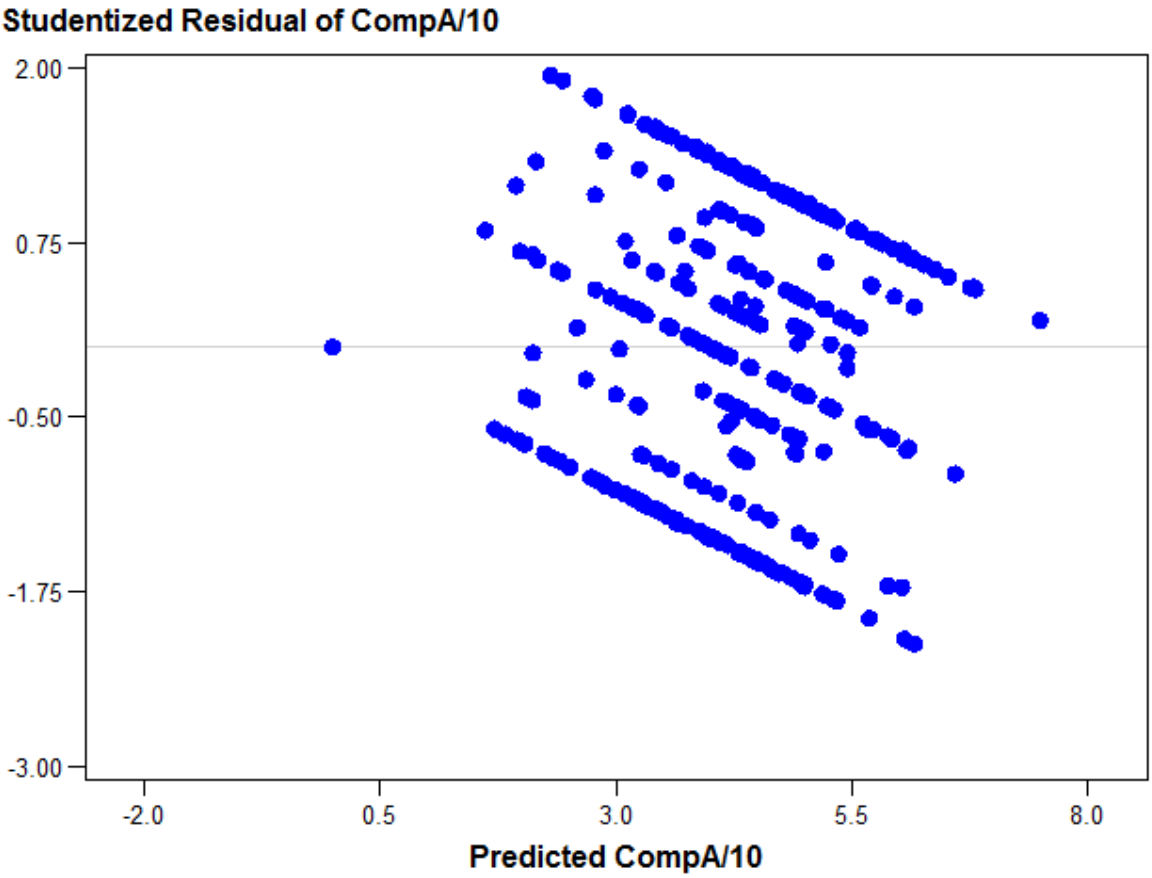

Figure 32. The plot of the studentised residuals of Competitive Aggressiveness by Competitive Aggressiveness

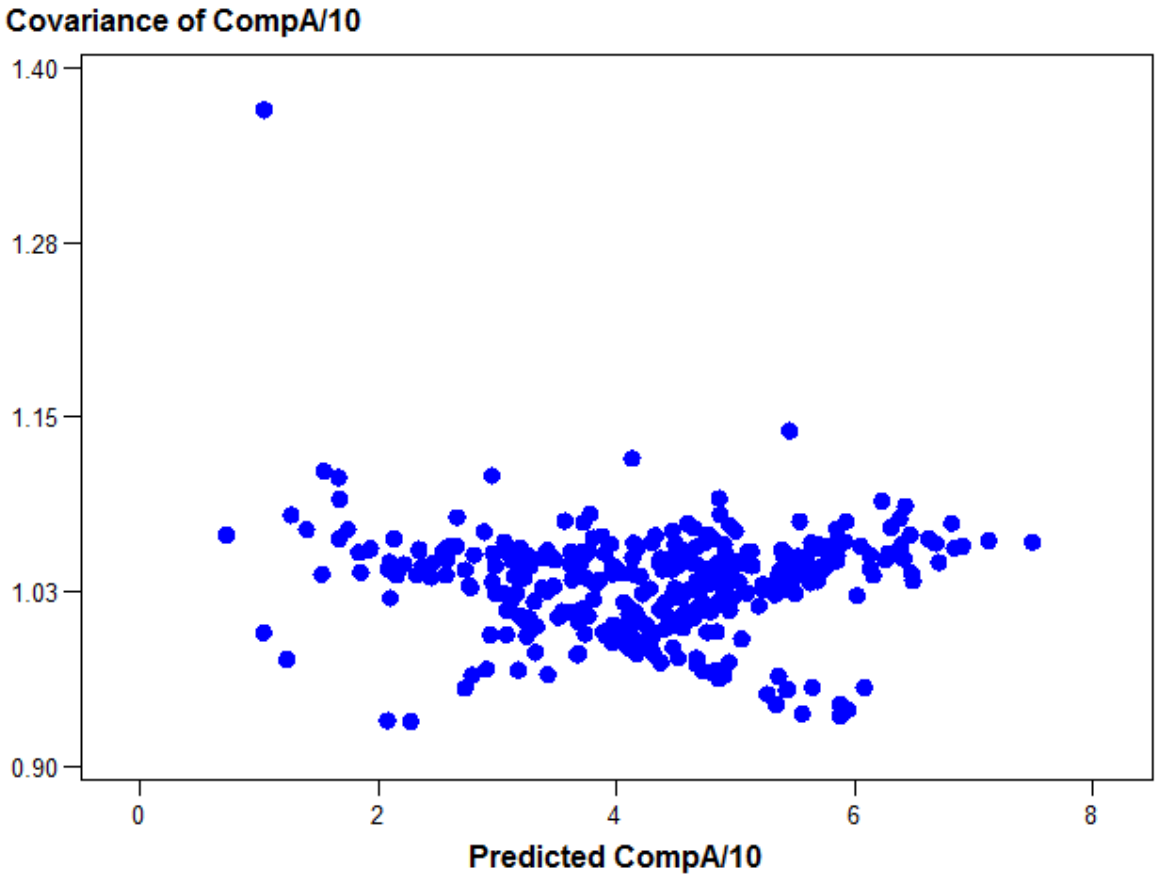

Figure 33. The plot of the covariance of Competitive Aggressiveness by Competitive Aggressiveness

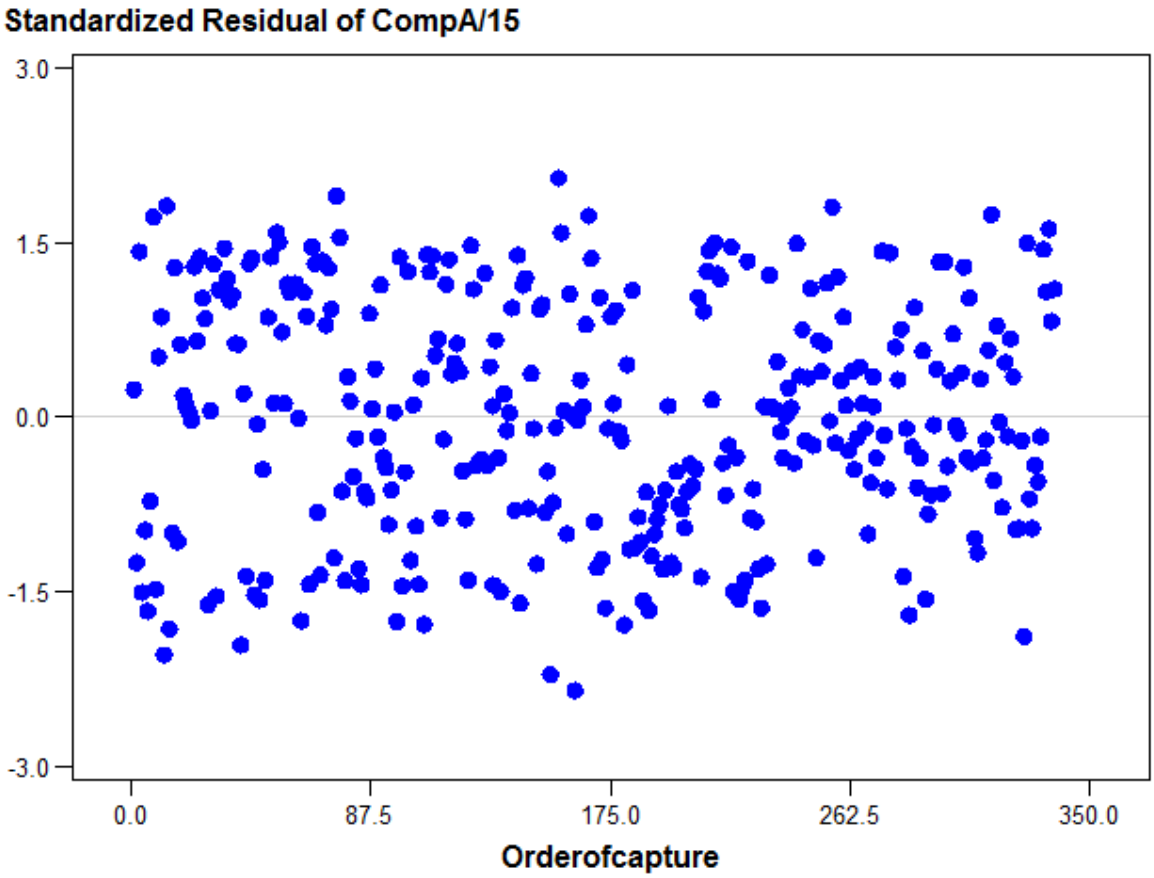

Figure 34. The plot of the standardised residuals of Competitive Aggressiveness by Order of Capture

In figure 34 the plot of the standardised residuals by order of capture are illustrated. Five points were identified for removal from the data from a test of the studentised and standardised residuals: 50, 62, 159, 162 and 227 according to order of capture. The overall model statistics of this model run again without these points are illustrated in table 60. According to these results, the R squared was found to have increased to 0.1199 and the adjusted R squared was found to have increased to 0.1034. The model was found to be significant ($p<0.0001$). The same variables with the exception of training courses were all found to be significantly, within the 10 percent level, associated with competitive aggressiveness. No problems were identified for the model tested without these removed points according to the collinearity diagnostics or the testing for autocorrelation.

Table 60. The overall model statistics for the multiple linear regression run with competitive aggressiveness as dependent variable with points removed

Number of Observations Read	328
Number of Observations Used	328

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	6	384.42571	64.07095	7.29	<.0001
Error	321	2822.86304	8.79397		
Corrected Total	327	3207.28875			

Root MSE	2.96546	**R-Square**	0.1199
Dependent Mean	4.30335	**Adj R-Sq**	0.1034
Coeff Var	68.91049		

Variable	DF	Parameter Estimate	Std Error	t Value	Pr > |t|	Type I SS	Type II SS	Stdized Estimate	Tolerance	Variance Inflation
Intercept	**1**	-2.10714	2.01523	-1.05	0.2965	6074.18311	9.61442	0	.	0
yrsinJhb	**1**	0.04038	0.02167	1.86	0.0634	11.80958	30.52592	0.12362	0.62280	1.60565
DaysWPW	**1**	1.05306	0.32174	3.27	0.0012	88.88564	94.20595	0.17257	0.98631	1.01388
Experience	**1**	-0.22616	0.06308	-3.59	0.0004	109.02062	113.04364	-0.22169	0.71713	1.39445
Earnings	**1**	0.03873	0.01419	2.73	0.0067	90.38016	65.50208	0.14539	0.96622	1.03496
RentalStand	**1**	0.59798	0.34028	1.76	0.0798	30.50590	27.15694	0.09369	0.96472	1.03657
RSA=1	**1**	-0.93398	0.37752	-2.47	0.0139	53.82381	53.82381	-0.14833	0.76270	1.31113

According to the significant associations found between competitive aggressiveness and informal sector contextual factors, the null sub-hypothesis 1.e, that there is no significant association between competitive aggressiveness and informal sector contextual factors was rejected, and the alternative sub-hypothesis 1.e, that there is a

significant association between competitive aggressiveness and informal sector contextual factors, was accepted.

5.4.6. NULL SUB-HYPOTHESIS 1.F: THERE IS NO SIGNIFICANT ASSOCIATION BETWEEN RISK TAKING PROPENSITY AND INFORMAL SECTOR CONTEXTUAL FACTORS.

This hypothesis was derived from the corresponding research question, "What informal sector contextual factors shape an entrepreneurial orientation along the dimension of risk taking propensity?" The multiple linear regression model run with risk taking propensity as the dependent variable and informal sector contextual factors as predictor variables was found to be significant ($p<0.0013$).

The model had an R squared of 0.0686, with an adjusted R squared of 0.0489. Being male ($\beta = 0.70116$; $p<0.0947$; $\beta s = 0.09369$), initial investment ($\beta = 0.07501$; $p<0.0357$; $\beta s = 0.12205$), total education ($\beta = 0.41685$; $p<0.0113$; $\beta s = 0.14350$), experience ($\beta = 0.14903$; $p<0.0473$; $\beta s = 0.12512$) and order of capture ($\beta = 0.00411$; $p<0.0455$; $\beta s = 0.10894$) were positively and significantly associated with risk taking propensity. Age ($\beta = -0.03931$; $p<0.0990$; $\beta s = -0.10275$) and rental stand ($\beta = -0.68621$; $p<0.0960$; $\beta s = -0.09179$) were negatively and significantly associated with risk taking propensity. The overall model statistics are illustrated in table 61 below. The equation found for the model was the following:

y = 2.08318 + 0.70116 Gender - 0.03931 Age + 0.07501 Initial Investment + 0.41685 Total Education + 0.14903 Experience + 0.00411 Order of Capture - 0.68621 Rental Stand

Table 61. The overall model statistics of the multiple linear regression analysis with risk taking propensity as dependent variable

Number of Observations Read	339
Number of Observations Used	339

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	7	312.41426	44.63061	3.48	0.0013
Error	331	4241.23176	12.81339		
Corrected Total	338	4553.64602			

Root MSE	3.57958	**R-Square**	0.0686
Dependent Mean	4.23894	**Adj R-Sq**	0.0489
Coeff Var	84.44519		

Variable	DF	Parameter Estimate	Std Error	t Value	Pr > |t|	Stdized Estimate	Tolerance	Variance Inflation
Intercept	**1**	2.08318	1.03256	2.02	0.0445	0	.	0
Gender 1=Male	**1**	0.70116	0.41840	1.68	0.0947	0.09369	0.90030	1.11074
Age	**1**	-0.03931	0.02376	-1.65	0.0990	-0.10275	0.72946	1.37087
InitialInv	**1**	0.07501	0.03556	2.11	0.0357	0.12205	0.84053	1.18973
TotalEducation	**1**	0.41685	0.16372	2.55	0.0113	0.14350	0.88588	1.12882
Experience	**1**	0.14903	0.07486	1.99	0.0473	0.12512	0.71240	1.40371
Orderofcapture	**1**	0.00411	0.00205	2.01	0.0455	0.10894	0.95543	1.04665
RentalStand	**1**	-0.68621	0.41104	-1.67	0.0960	-0.09179	0.93077	1.07438

According to the results reported in table 62, the highest of the collinearity indices was 15.48331 for the testing without the intercept being adjusted, and 1.93981 for the test with intercept adjusted. A serious case of multicollinearity was therefore not expected to exist with regard to this specific model.

Table 62. The Collinearity Diagnostics for the Risk Taking Propensity model

Collinearity Diagnostics										
No	**Eigenvalue**	**Condition Index**	**Proportion of Variation**							
			Intercept	**gender 1=Male**	**age**	**InitialInv**	**Total Education**	**Experience**	**Order ofcapture**	**Rental Stand**
1	6.11914	1.00000	0.00090389	0.00655	0.00141	0.00561	0.00273	0.00458	0.00474	0.00761
2	0.58035	3.24713	0.00109	0.03380	0.00483	0.02382	0.00002199	0.06828	0.03233	0.56311
3	0.46114	3.64276	0.00002785	0.42996	0.00109	0.02404	0.00417	0.05649	0.01593	0.33283
4	0.32229	4.35736	0.00107	0.13130	0.00123	0.02409	0.02188	0.33996	0.24238	0.01471
5	0.26194	4.83333	0.00024446	0.26631	0.00072763	0.59962	0.00544	0.00751	0.16579	0.07911
6	0.15805	6.22234	0.01081	0.06172	0.01391	0.32140	0.33917	0.04570	0.32168	0.00098024
7	0.07157	9.24649	0.04333	0.00230	0.39189	0.00136	0.43384	0.46026	0.08538	0.00026741
8	0.02552	15.48331	0.94253	0.06805	0.58491	0.00005934	0.19274	0.01722	0.13176	0.00137

Collinearity Diagnostics (intercept adjusted)									
No	**Eigenvalue**	**Condition Index**	**Proportion of Variation**						
			gender 1=Male	**age**	**InitialInv**	**Total Education**	**Experience**	**Order ofcapture**	**Rental Stand**
1	1.76494	1.00000	0.08168	0.06697	0.07667	0.09583	0.08959	0.02103	0.03435
2	1.42311	1.11364	0.02319	0.15804	0.11159	0.01091	0.12122	0.05083	0.08547
3	1.03585	1.30532	0.14564	0.00089130	0.03960	0.02787	0.00321	0.48088	0.20106
4	0.87279	1.42204	0.14648	0.04440	0.00597	0.51959	0.00106	0.00808	0.29655
5	0.78284	1.50151	0.42026	0.01230	0.05660	0.00014654	0.00981	0.41659	0.25730
6	0.65143	1.64601	0.16295	0.00303	0.67467	0.31047	0.03439	0.02244	0.11639
7	0.46904	1.93981	0.01980	0.71436	0.03491	0.03519	0.74072	0.00016092	0.00887

Table 63. The results of the testing for autocorrelation (Risk Taking Propensity)

Durbin–Watson D	1.637
Number of Observations	339
1st Order Autocorrelation	0.179

The Durbin–Watson statistic was 1.637 for this tested model. This statistic is shown in table 63. No serious autocorrelation was expected for this model.

From an interpretation of the observed and residual plots, there were no clear indications that squared terms or other terms in the equation were needed. Standardised and studentised residuals were calculated using SAS. The plot of the standardised residuals by predicted risk taking propensity is shown in figure 35. The plot of the studentised residuals by predicted risk taking propensity is shown in figure 36. The plot of the standardised residuals by of order of capture is shown in figure 37.

The identified points were removed and the multiple regression analysis was run again without these points. Ten points were identified, in terms of order of capture: 29, 34, 56, 67, 91, 179, 223, 226, 228 and 229. With these points removed, the significance of the new model increased to $p<0.0001$ from 0.0013. The R squared increased from 0.0686 to 0.1083 and the adjusted R squared increased from 0.0489 to 0.0917. The overall model statistics for the model with these points removed are illustrated in table 64. Age and experience were no longer found to be significant at the 10 percent level of significance. Continuance satisfaction was found to have become positively and significantly associated with risk taking propensity. The remaining variables in the equation all were found to have increased in significance, and the standardised coefficients were found to have increased.

In testing for multicollinearity, lower condition indices were found for both tests, with the intercept adjusted and without the intercept adjusted. A higher Durbin–Watson test statistic was also evident. The models tested without these points are included in this chapter to provide a more comprehensive insight; they represent a majority of the sample tested, without outliers and influential points. However, the model tested with all the points is the model that represents the entire sample.

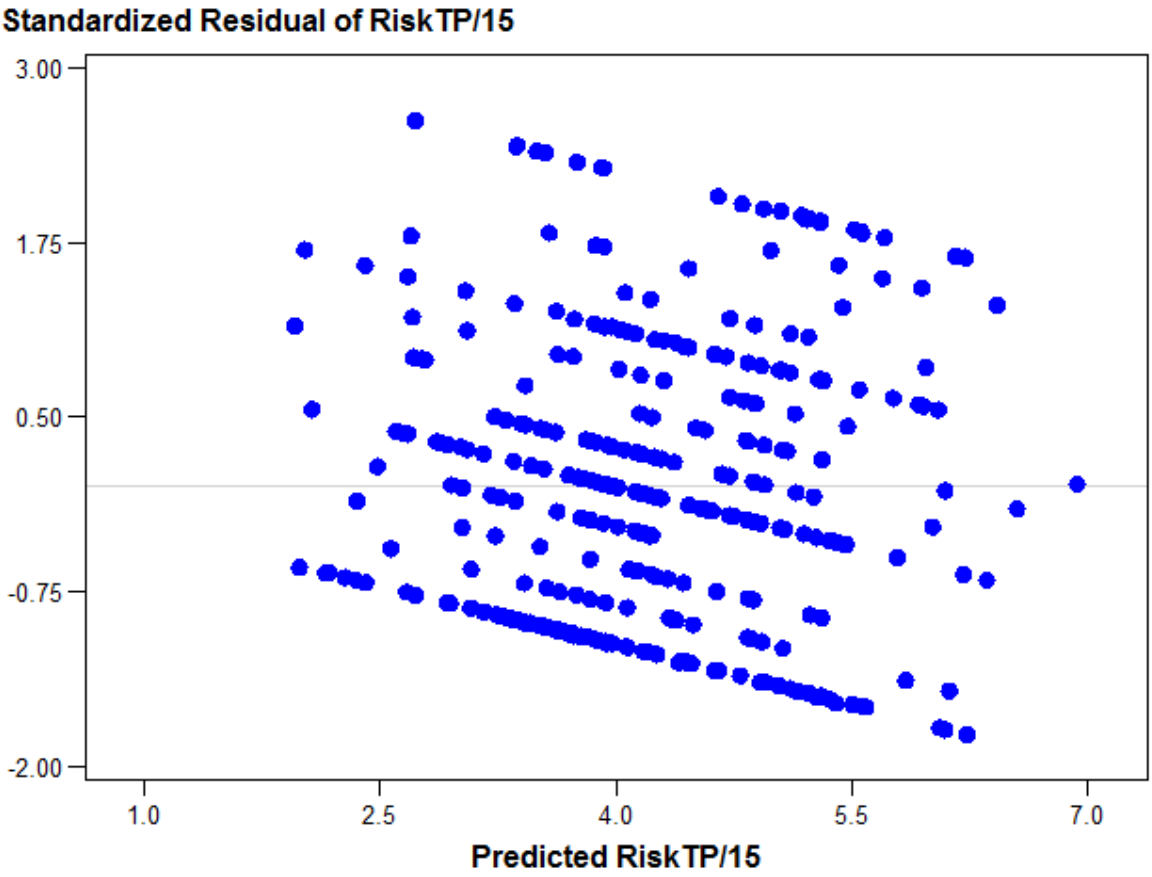

Figure 35. The plot of the standardised residuals of Risk Taking Propensity by predicted Risk Taking Propensity

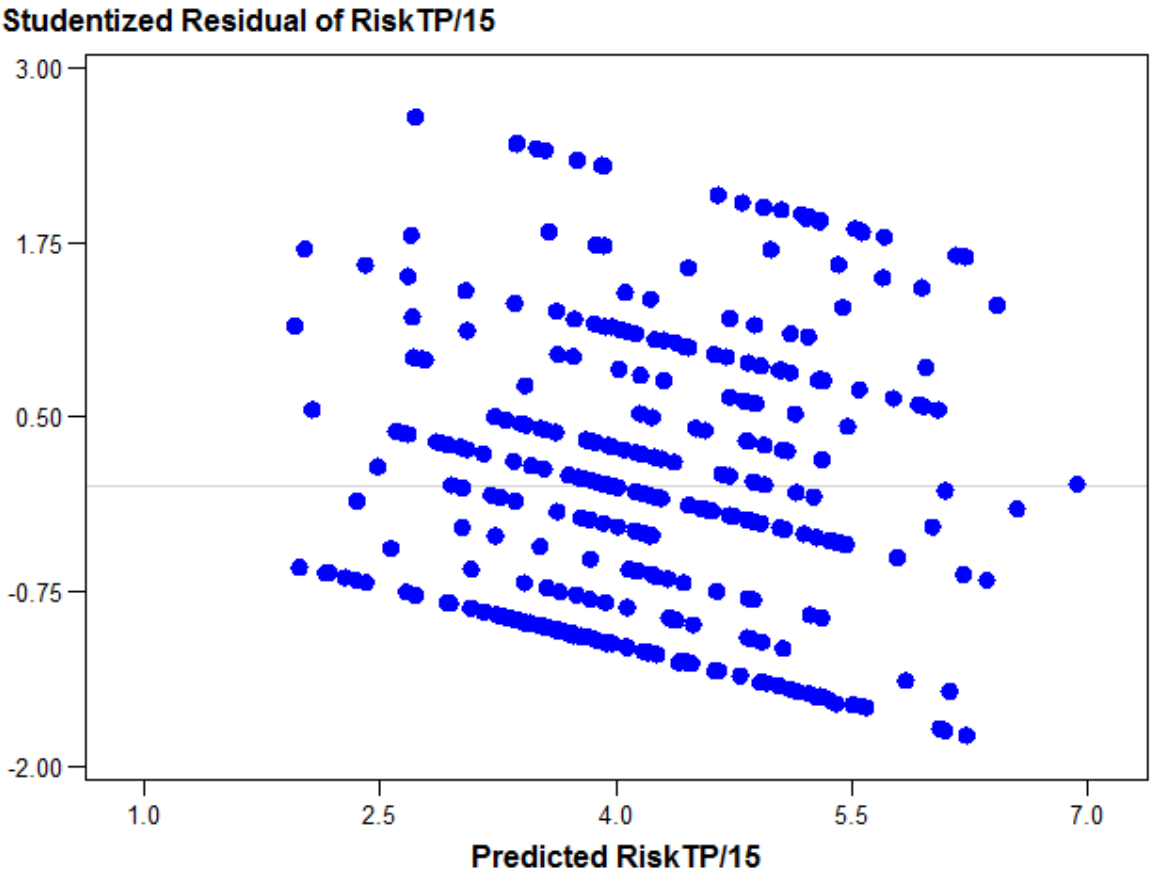

Figure 36. The plot of the studentised residuals of Risk Taking Propensity by predicted Risk Taking Propensity

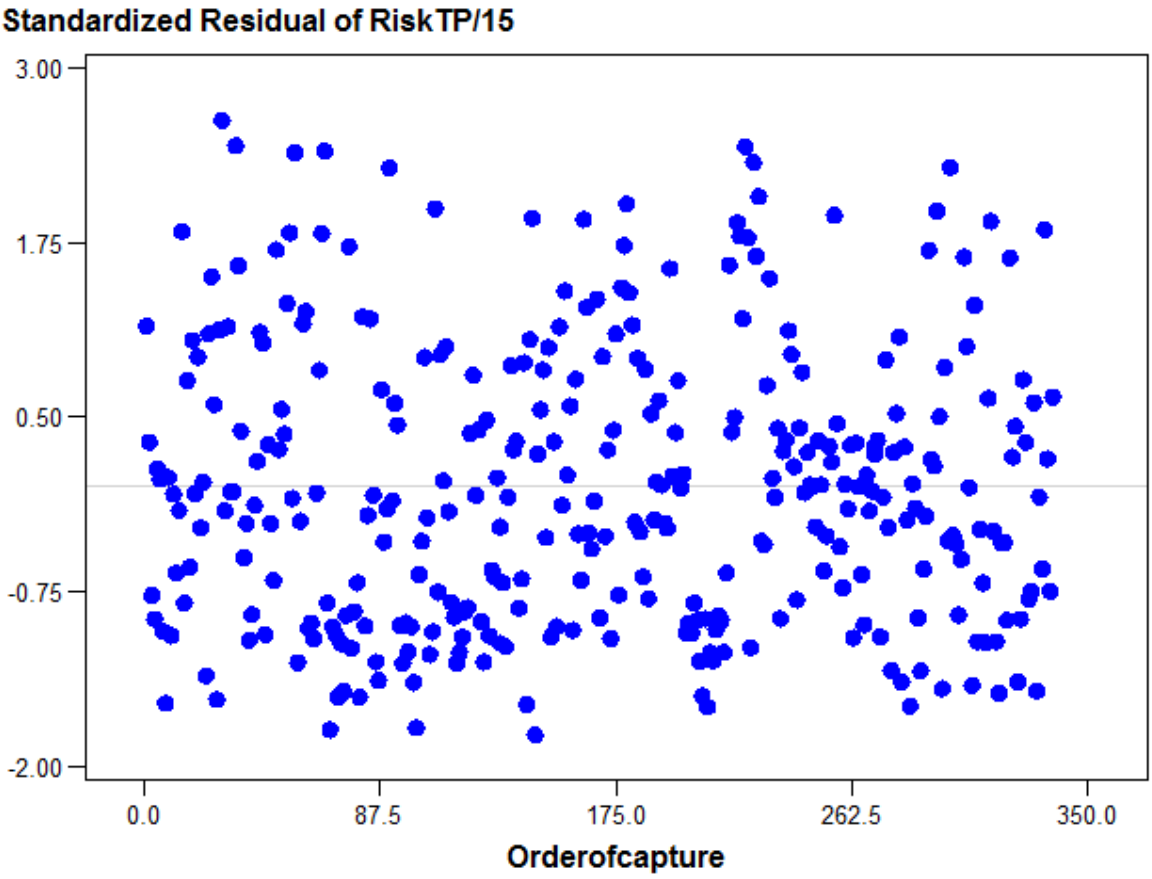

Figure 37. The plot of the standardised residuals of Order of Capture by Order of Capture

Table 64. The overall model statistics for the multiple linear regression model run with risk taking propensity as dependent variable with points removed

Analysis of Variance: Number of observations used 329					
Source	**DF**	**Sum of Squares**	**Mean Square**	**F Value**	**Pr > F**
Model	6	426.08755	71.01459	6.52	<.0001
Error	322	3506.90941	10.89102		
Corrected Total	328	3932.99696			

Root MSE	3.30015	**R-Square**	0.1083
Dependent Mean	4.00304	**Adj R-Sq**	0.0917
Coeff Var	82.44123		

Variable	**DF**	**Parameter Estimate**	**Std Error**	**t Value**	**Pr > |t|**	**Type I SS**	**Type II SS**	**Stdized Estimate**	**Tolerance**	**Variance Inflation**
Intercept	**1**	0.17808	0.73459	0.24	0.8086	5272.00304	0.64002	0	.	0
gender 1=Male	**1**	0.80991	0.38818	2.09	0.0377	66.19215	47.41107	0.11497	0.91204	1.09644
InitialInv	**1**	0.09827	0.03326	2.95	0.0034	124.02827	95.08413	0.17018	0.83475	1.19796
TotalEducation	**1**	0.44414	0.15091	2.94	0.0035	62.87266	94.33103	0.16359	0.89627	1.11574
Orderofcapture	**1**	0.00501	0.00192	2.61	0.0095	79.55717	74.06171	0.14080	0.94993	1.05271
RentalStand	**1**	-0.77581	0.38468	-2.02	0.0446	44.76752	44.29605	-0.11001	0.93067	1.07449
Satisfaction	**1**	0.12264	0.05801	2.11	0.0353	48.66977	48.66977	0.11339	0.96249	1.03897

association between risk taking propensity and informal sector contextual factors, is rejected, and the alternative hypothesis, that there is a significant association between risk taking propensity and informal sector contextual factors is accepted.

5.4.7. EARNINGS

In terms of the analysis of the contribution of entrepreneurial orientation and informal sector contextual factors to earnings as a dimension of entrepreneurial performance,

all testing relating to earnings as a dependent variable is considered in this section. All related results are reported in this section. Each section below is considered according to the specific hypothesis tested. The following hypothesis was broken up into sub-hypotheses in the sections below in order to facilitate the specific testing of this hypothesis.

- **Null Hypothesis 2:** There is no significant association between Total Entrepreneurial Orientation, Entrepreneurial Orientation dimensions, or informal sector contextual factors, and Gross Earnings.
- **Alternative Hypothesis 2:** There is a significant association between Total Entrepreneurial Orientation, Entrepreneurial Orientation dimensions, or informal sector contextual factors, and Gross Earnings

5.4.7.1. Null Sub-hypothesis 2.a: There is no significant association between Total Entrepreneurial Orientation and Gross Earnings.

This hypothesis was tested, as a sub-hypothesis of null hypothesis 2: that there is no significant association between total entrepreneurial orientation, entrepreneurial orientation dimensions, or informal sector contextual factors, and gross earnings.

This hypothesis was derived from the research question of: "To what extent do informal sector contextual factors and entrepreneurial orientation contribute to entrepreneurial performance?" A multiple linear regression was run with gross earnings (earnings) as the dependent variable and total entrepreneurial orientation as the independent or predictor variable, together with order of capture as a second independent variable. The model was found to be significant ($p<0.0003$), with an R squared of 0.0470 and an adjusted R squared of 0.0413. Total entrepreneurial orientation ($\beta= 0.00896$; $p<0.0285$; $\beta s = 0.11827$) was found to be positively and significantly associated with earnings. These overall model statistics are shown in table 65.

Table 65. The overall model statistics of the multiple linear regression run with Total Entrepreneurial Orientation as independent variable and earnings as the dependent variable with Order of Capture included as an independent variable

Number of Observations Read	339
Number of Observations Used	339

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	9.42188	4.71094	8.29	0.0003
Error	336	190.95388	0.56832		
Corrected Total	338	200.37576			

Root MSE	0.75387	**R-Square**	0.0470
Dependent Mean	2.51152	**Adj R-Sq**	0.0413
Coeff Var	30.01635		

Variable	DF	Parameter Estimate	Std Error	t Value	Pr > |t|	Type I SS	Type II SS	Stdized Estimate	Tolerance	Variance Inflation
Intercept	**1**	2.47460	0.15202	16.28	<.0001	2138.32237	150.59704	0	.	0
TotEO/75	**1**	0.00896	0.00408	2.20	0.0285	1.64622	2.74855	0.11827	0.98071	1.01967
Orderofcapture	**1**	-0.00157	0.00042547	-3.70	0.0003	7.77566	7.77566	-0.19892	0.98071	1.01967

The equation found for the regression was the following:
y = 2.47460 + 0.00896 Total Orientation - 0.00157 Order of Capture

The plot of the standardised residuals of earnings by predicted earnings is shown in figure 38. The plot of the studentised residuals of earnings by total entrepreneurial orientation is shown in figure 39. From these plots, it is evident that certain of these residual points were outside the range limit of plus or minus two ($|x| = 2$).

In order to establish the extent to which these findings could be reasonably interpreted, the diagnostics were investigated. There were judged to be no visible patterns in the residuals or in the observed plots, other than the clearly identified influential points and outlier points. Tests of standardised residuals were undertaken, and potential outliers and influential points were removed.

Nineteen points with absolute values greater than the limit of two ($|x| = 2$) were identified, these by their order of capture: 68, 80, 90, 92, 106, 113, 116, 125, 126, 130, 248, 275, 279, 288, 298, 311, 320, 321 and 330. These points were removed and the linear regression analysis was run again. With these points removed the variables total entrepreneurial orientation and earnings were no longer found to be significantly associated with each other. The overall model statistics are shown in table 66.

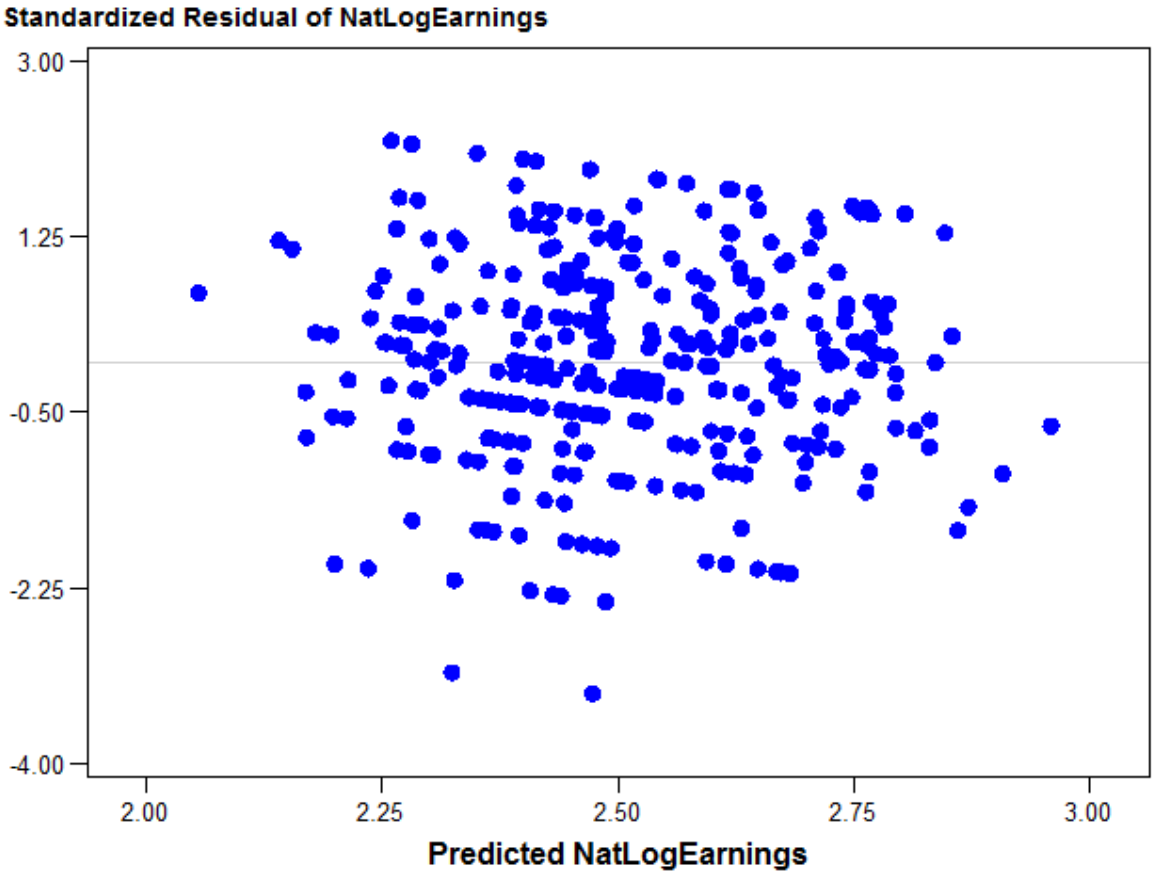

Figure 38. The standardised residual of Earnings by predicted Earnings

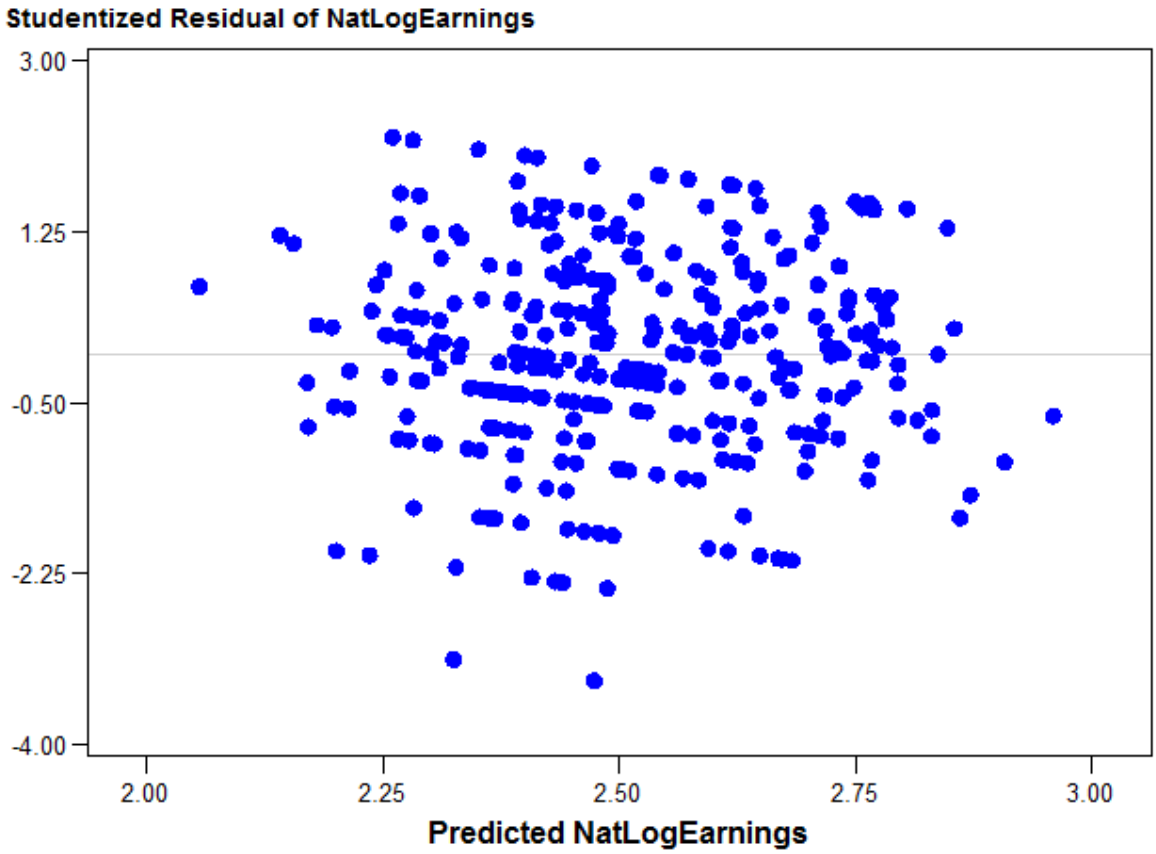

Figure 39. The studentised residuals of Earnings plotted against Total Entrepreneurial Orientation

Table 66. The overall model statistics for the multiple linear regression of Total Entrepreneurial Orientation as predictor variable and Earnings as dependent variable with data points removed

Number of Observations Read	320
Number of Observations Used	320

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	9.30931	9.30931	22.07	<.0001
Error	318	134.15250	0.42186		
Corrected Total	319	143.46181			

Root MSE	0.64951	**R-Square**	0.0649
Dependent Mean	2.57598	**Adj R-Sq**	0.0619
Coeff Var	25.21409		

Variable	DF	Parameter Estimate	Std Error	t Value	Pr > |t|	Type I SS	Type II SS	Stdized Estimate	Tolerance	Variance Inflation
Intercept	**1**	2.87113	0.07257	39.57	<.0001	2123.41576	660.38229	0	.	0
Orderofcapture	**1**	-0.00176	0.00037483	-4.70	<.0001	9.30931	9.30931	-0.25474	1.00000	1.00000

In terms of the significant associations found between total entrepreneurial orientation and gross earnings with regard to the entire tested sample, null sub- hypothesis 2.a, that there is no significant association between total entrepreneurial orientation and gross earnings is rejected, and the alternative sub-hypothesis 2.a, that there is a significant association between total entrepreneurial orientation and gross earnings is accepted.

5.4.7.2. Null Sub-Hypothesis 2b: There is no significant association between Entrepreneurial Orientation dimensions, or informal sector contextual factors, and Gross Earnings.

This hypothesis was derived from the research question, "To what extent do informal sector contextual factors and entrepreneurial orientation dimensions contribute to entrepreneurial performance?" A multiple linear regression analysis was run with gross earnings as the dependent variable and informal sector contextual factors and entrepreneurial orientation dimensions as independent variables. The results are reported as follows, and are discussed in the discussion chapter.

The observed and the residual plots were examined for trends and diagnostic features. A pattern was clearly evident with regard to the plot of the residuals of earnings by predicted earnings. A pattern was evident. This pattern is illustrated in figure 40. According to this pattern, it was judged necessary to undertake a transformation of the dependent variable: earnings. The overall model statistics before the transformation process are shown in table 67.

Table 67. The overall model statistics of the untransformed model with Earnings as dependent variable

Number of Observations Read	339
Number of Observations Used	339

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	5	8268.72497	1653.74499	13.50	<.0001
Error	333	40799	122.52091		
Corrected Total	338	49068			

Root MSE	11.06892	**R-Square**	0.1685
Dependent Mean	16.16079	**Adj R-Sq**	0.1560
Coeff Var	68.49244		

Variable	DF	Parameter Estimate	Std Error	t Value	Pr > |t|	Type I SS	Type II SS	Stdized Estimate	Tolerance	Variance Inflation
Intercept	**1**	3.73870	3.65634	1.02	0.3073	88537	128.10329	0	.	0
hrsWkPD	**1**	0.68901	0.33049	2.08	0.0378	1064.46587	532.52610	0.10526	0.97951	1.02092
InitialInv	**1**	0.49886	0.10227	4.88	<.0001	4030.43602	2915.37662	0.24725	0.97188	1.02893
Orderofcapture	**1**	-0.02158	0.00644	-3.35	0.0009	727.83819	1377.53906	-0.17431	0.92400	1.08225
Satisfaction	**1**	1.57066	0.38789	4.05	<.0001	1941.34691	2008.91347	0.21111	0.91866	1.08854
CompA/10	**1**	0.39357	0.19393	2.03	0.0432	504.63799	504.63799	0.10222	0.98429	1.01596

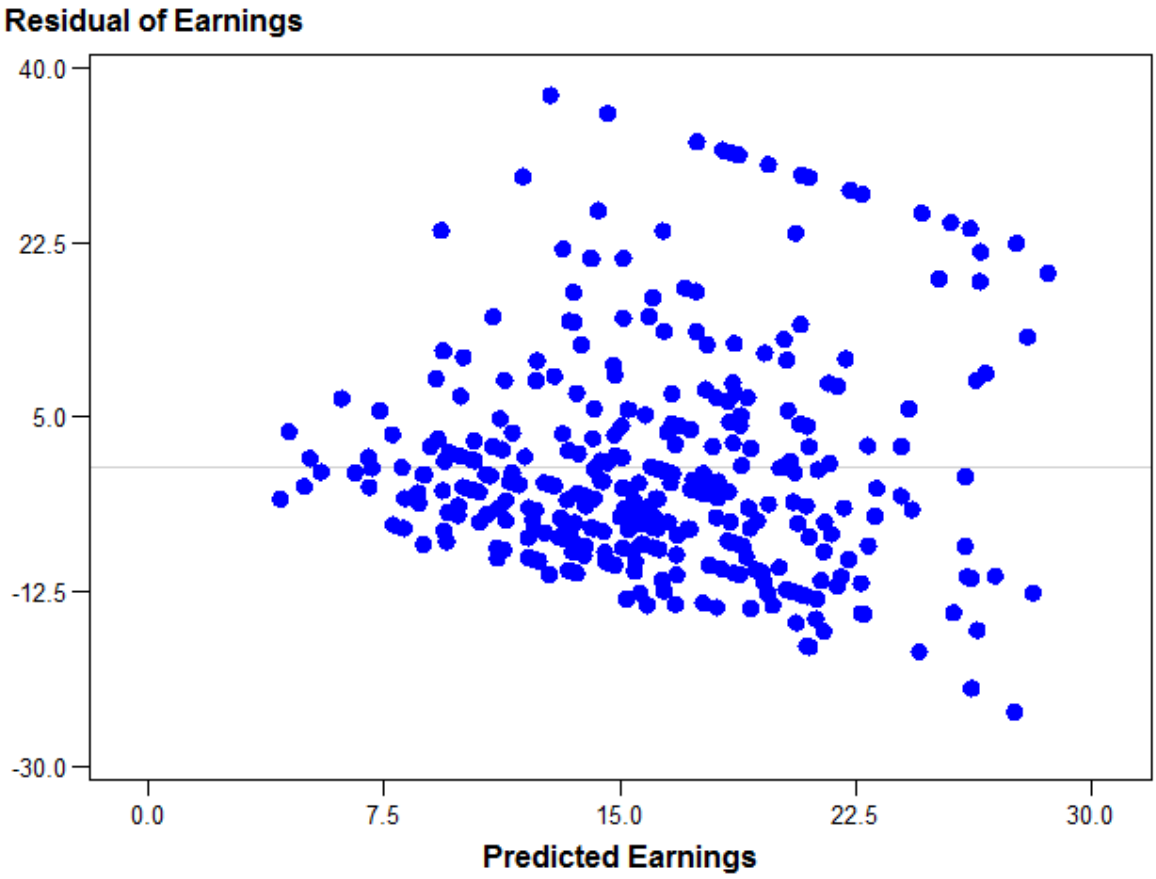

Figure 40. The residual plot of the residuals of Earnings by predicted Earnings for the untransformed model

According to the pattern evident in figure 40, an initial possibility was investigated, this being that a Poisson distribution was present, with the standard deviations appearing proportional to the square root of the mean of the data points. A transformation of the dependent variable was undertaken and the square root of gross earnings was initially used. The new plot of the residuals of the square root of earnings by predicted earnings is shown in figure 41.

The statistics of the overall model tested with the square root of earnings as the dependent variable are illustrated in table 68. The plot of the residuals was interpreted as having improved slightly. The R squared for this model was found to be 0.1807 with an adjusted R squared of 0.1684.

Table 68. The overall statistics for the multiple linear regression model with the square root of Earnings as the dependent variable

Number of Observations Read	339
Number of Observations Used	339

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	5	120.16363	24.03273	14.69	<.0001
Error	333	544.90390	1.63635		
Corrected Total	338	665.06753			

Root MSE	1.27920	**R-Square**	0.1807
Dependent Mean	3.76815	**Adj R-Sq**	0.1684
Coeff Var	33.94767		

Variable	DF	Parameter Estimate	Std Error	t Value	Pr > |t|	Type I SS	Type II SS	Stdized Estimate	Tolerance	Variance Inflation
Intercept	**1**	1.94505	0.46869	4.15	<.0001	4813.43914	28.18133	0	.	0
hrsWkPD	**1**	0.10799	0.03822	2.83	0.0050	18.36372	13.06005	0.14170	0.97798	1.02251
InitialInv	**1**	0.05321	0.01225	4.34	<.0001	54.99008	30.85565	0.22653	0.90411	1.10606
TotalEducation	**1**	0.11205	0.05814	1.93	0.0548	3.69403	6.07769	0.10093	0.89702	1.11480
Orderofcapture	**1**	-0.00282	0.00074396	-3.79	0.0002	12.88675	23.53775	-0.19576	0.92357	1.08275
Satisfaction	**1**	0.19458	0.04527	4.30	<.0001	30.22906	30.22906	0.22464	0.90074	1.11019

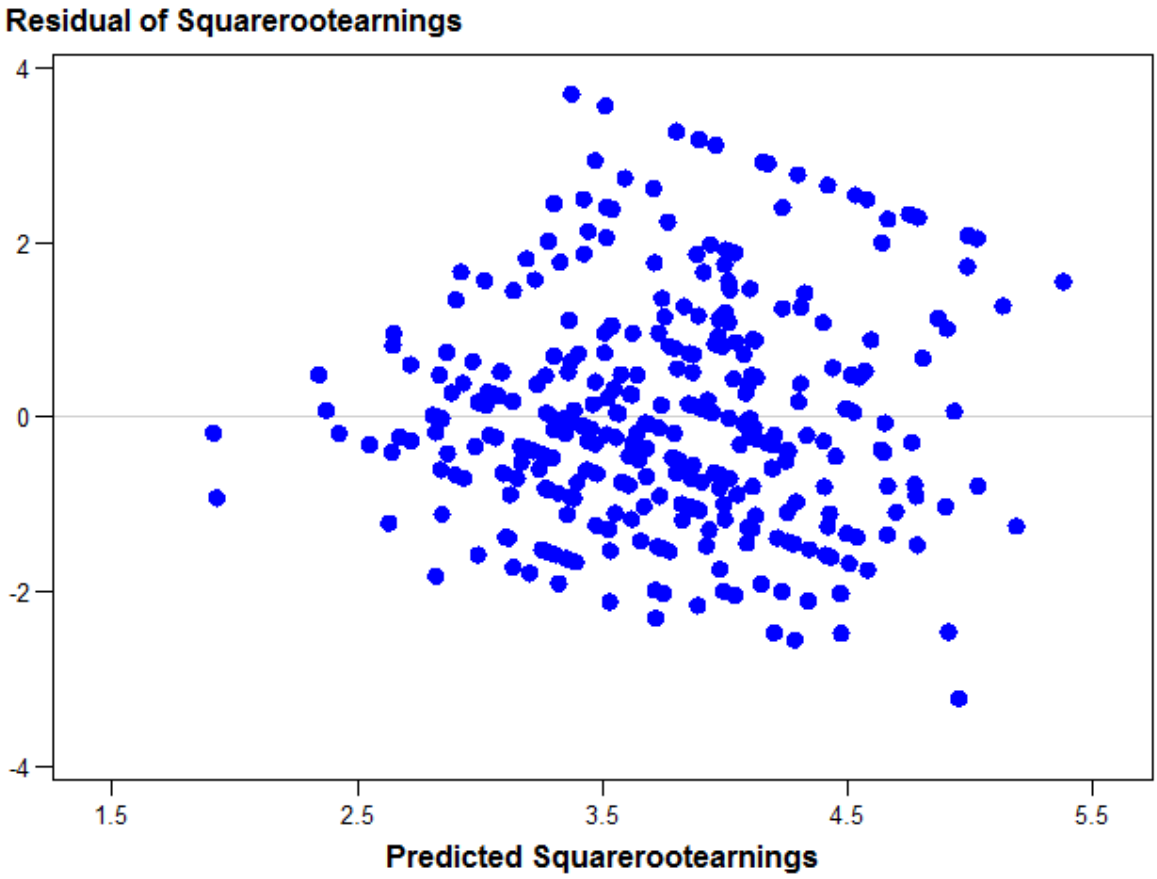

Figure 41. The plot of the residuals of the square root of Earnings by the predicted square root of Earnings

However, since a transformation had been effective in improving the residual plot appearance, the other potential transformation of such a "wedge shape" apparent in the residuals was also considered: a natural log transformation. Earnings had been captured as a count of rand values, with increments treated as a continuous variable. The distribution of the errors underlying the model might therefore have been violating the assumption of normality of these errors.

The distribution of this data, therefore, might have been skewed, and comparing values against their ratios rather than their differences was not considered a problem in terms of testing the contribution of predictor variables to the dependent variable. This transformation might have been considered appropriate if the standard deviation

had been found to be increasing in direct proportion to the mean. A natural log transformation was undertaken in order to test if the fit of this model would improve.

After the natural log transformation, the plot of the residual of earnings by predicted earnings appeared to be an improvement on the square root transformation model. The "wedge" shape appeared to be broken up to a greater extent than the square root transformation. The plot of the residuals of the natural log of earnings by predicted natural log of earnings is shown in figure 42.

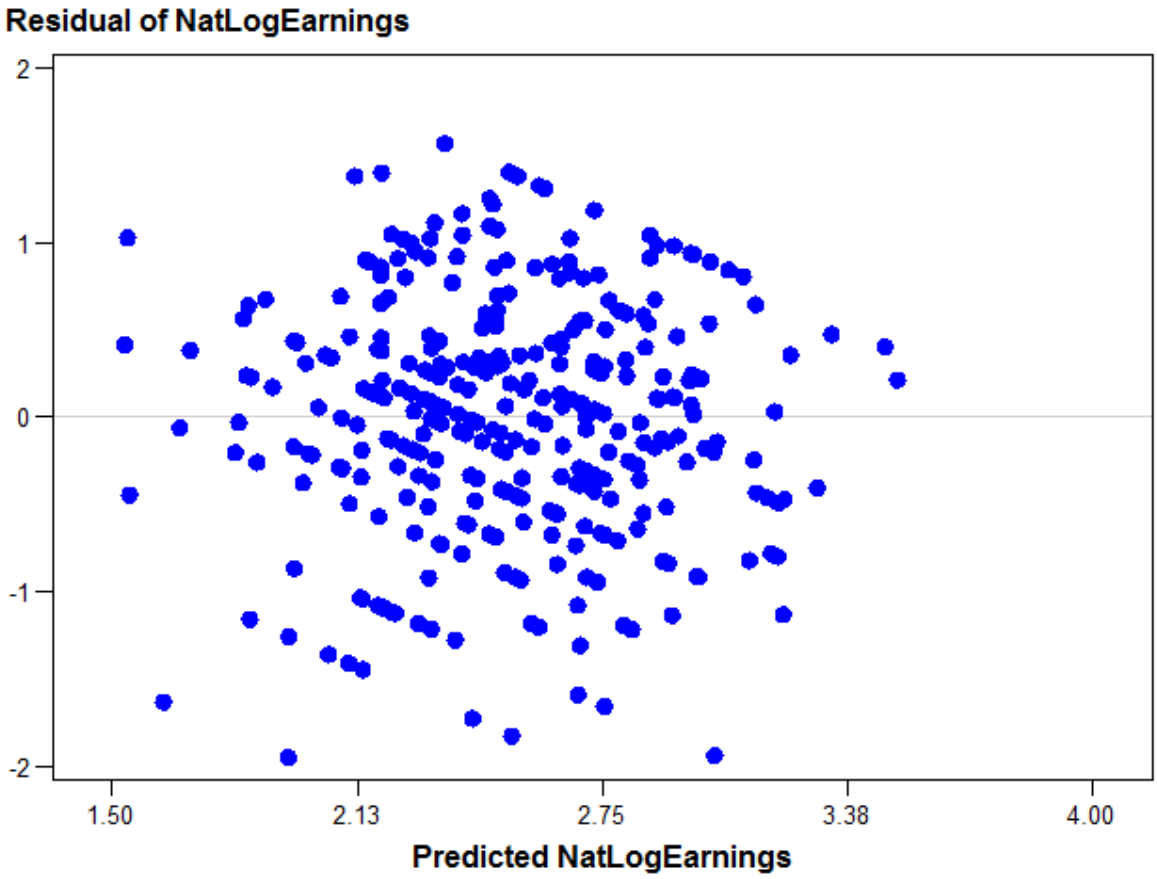

Figure 42. The plot of the residuals of the natural log of Earnings by the predicted natural log of Earnings

The overall statistics of the multiple linear regression model after the dependent variable underwent a natural log transformation are shown in table 69. The R squared was found to have improved to 0.2136 and the adjusted R squared to have improved to 0.1921. This was the best fit obtained, and the natural log transformation model

was the model chosen for interpretation. Hours worked per day, initial investment, total education, experience, training courses, continuance satisfaction and risk taking propensity were found to be positively and significantly associated with earnings. Years in Johannesburg and order of capture were found to be negatively and significantly associated with earnings.

From an investigation of the collinearity diagnostics it was determined that multicollinearity was not found to be a serious problem for this model. The highest of the collinearity indices for the test without the intercept being adjusted was 22.79393 and 1.93276 for the test with intercept adjusted. The multicollinearity diagnostics are illustrated in table 70.

In terms of testing for autocorrelation, the Durbin–Watson statistic is shown in table 71, which was found to be 1.787. This was interpreted to be close enough to the value of two to accept that no serious problem of autocorrelation existed for the model.

Standardised and studentised residuals were calculated, and the following points were identified as lying outside the plus or minus two range ($|x| = 2$), these were identified in their order of capture: 20, 22, 64, 122, 138, 139, 143, 153, 155, 174, 189, 192, 288 and 330 according to standardised residuals and; 60, 80, 90, 92, 113, 126, 139, 146, 330, 248, 274, 275, 279 and 320 according to the test of the studentised residuals. According to the calculation of the covariance ratio, the following points were identified as potential outliers: 23, 58, 63, 80, 90, 92, 113, 253, 270, 279, 280, 294, 320, 330 and 331. The plot of the standardised residuals by predicted points is shown in figure 43. The plot of the studentised residuals of the natural log of earnings by predicted natural log of earnings points is shown in figure 44. The plot of the covariance of the natural log of earnings by the predicted natural log of earnings is illustrated in figure 45. Due to the sensitivity of the model to outliers, influential points and multivariate outliers, these points were deleted and the equation was run again in order to provide further insight.

The multiple linear regression equation run without these points was found to have an improved R squared, of 0.2557. This was up from 0.2136 for the model without these points removed. Without these points, an adjusted R squared of 0.2330 was found.

This was found to be up from 0.1921 for the model without these points removed. The following variables were found to no longer be significant within the 10 percent level: years in Johannesburg, total education and experience, and the following were found to have become significant in the model with these points removed: innovativeness and autonomy, both negatively associated with earnings; and competitive aggressiveness, positively associated with earnings. The significant associations for the model run without these points are illustrated in table 72. The collinearity diagnostics for this model are shown in table 73, and the autocorrelation diagnostics in table 74.

Table 69. The overall statistics of the multiple linear regression model run with the natural log of Earnings as the dependent variable

Number of Observations Read	339
Number of Observations Used	339

Analysis of Variance

Source	DF	Sum of	Mean	F Value	Pr > F
Model	9	42.80305	4.75589	9.93	<.0001
Error	329	157.57271	0.47894		
Corrected Total	338	200.37576			

Root MSE	0.69206	**R-Square**	0.2136
Dependent Mean	2.51152	**Adj R-Sq**	0.1921
Coeff Var	27.55534		

Variable	DF	Parameter Estimate	Std Error	t Value	Pr > |t|	Type I SS	Type II SS	Stdized Estimate	Toler ance	Variance Inflation
Intercept	1	1.33036	0.26067	5.10	<.0001	2138.32237	12.47476	0	.	0
yrsinJhb	1	-0.00736	0.00431	-1.71	0.0887	0.25690	1.39633	-0.09702	0.74029	1.35083
hrsWkPD	1	0.06618	0.02075	3.19	0.0016	7.09048	4.87372	0.15822	0.97163	1.02919
InitialInv	1	0.02451	0.00670	3.66	0.0003	14.77534	6.41467	0.19006	0.88619	1.12842
TotalEducation	1	0.06889	0.03229	2.13	0.0336	1.67496	2.18023	0.11305	0.85137	1.17458
Experience	1	0.02884	0.01444	2.00	0.0467	3.56705	1.90945	0.11543	0.71524	1.39812
TrainingCourses	1	0.12612	0.07580	1.66	0.0971	1.27388	1.32578	0.08234	0.97588	1.02471
Orderofcapture	1	-0.00164	0.00040490	-4.05	<.0001	4.14942	7.84260	-0.20709	0.91260	1.09577
Satisfaction	1	0.10326	0.02492	4.14	<.0001	8.61051	8.22159	0.21718	0.86994	1.14950
RiskTP/15	1	0.01805	0.01054	1.71	0.0878	1.40451	1.40451	0.08603	0.94716	1.05578

The equation found for the multiple linear regression results shown in table 69 was the following:

y = 1.33036 - 0.00736 Years in Johannesburg + 0.06618 Hours Worked per Day + 0.02451 Initial Investment + 0.06889 Total Education + 0.02884 Experience +

0.12612 Training Courses - 0.00164 Order of Capture + 0.10326 Satisfaction + 0.01805 Risk Taking Propensity

Table 70. The collinearity diagnostics for the tested model for Earnings: the natural log transformed dependent variable model

Collinearity Diagnostics												
No	**Eigen value**	**Condition Index**	**Proportion of Variation**									
			Intercept	**yrs inJhb**	**hrs WkPD**	**Initial Inv**	**Total Educatn**	**Experience**	**Training Courses**	**Orderof capture**	**Satisfaction**	**Risk TP/15**
1	7.01577	1.00000	0.00040060	0.00453	0.00058437	0.00423	0.00193	0.00367	0.00253	0.00358	0.00486	0.00536
2	0.88877	2.80959	0.00005326	0.00609	0.00008404	0.00040006	0.00001011	0.00188	0.93235	0.00181	0.00756	0.00109
3	0.62938	3.33873	0.00031692	0.30836	0.00035171	0.05435	0.01154	0.07326	0.02877	0.00258	0.00187	0.05280
4	0.38090	4.29175	0.00001353	0.06816	0.00011216	0.00642	0.00368	0.01258	0.03164	0.06842	0.40665	0.33594
5	0.34841	4.48735	0.00109	0.00277	0.00183	0.20851	0.01995	0.00435	0.00159	0.02458	0.11906	0.56040
6	0.27933	5.01159	0.00306	0.00639	0.00378	0.28738	0.01530	0.00090615	0.00033034	0.26465	0.31697	0.03224
7	0.21319	5.73662	0.00048848	0.59501	0.00163	0.03581	0.00252	0.67316	0.00022988	0.04671	0.00000391	0.0000151 5
8	0.15568	6.71303	0.00589	0.00547	0.00957	0.40271	0.19096	0.07920	0.00019667	0.46579	0.11592	0.00446
9	0.07506	9.66790	0.03450	0.00155	0.15607	0.00009490	0.62145	0.14402	0.00154	0.08633	0.02704	0.00530
10	0.01350	22.79393	0.95419	0.00167	0.82598	0.00010140	0.13266	0.00697	0.00082557	0.03554	0.00007792	0.00240

Collinearity Diagnostics (intercept adjusted)											
Number	**Eigen value**	**Condition Index**	**Proportion of Variation**								
			yrsinJhb	**hrsWkPD**	**Initial Inv**	**TotalEducation**	**Experience**	**Training Courses**	**Orderof capture**	**Satisfaction**	**RiskTP/15**
1	1.80640	1.00000	0.11072	0.01718	0.02838	0.08494	0.11459	0.00103	0.02064	0.05965	0.00199

Collinearity Diagnostics (intercept adjusted)											
Number	Eigen value	Condition Index	Proportion of Variation								
			yrsinJhb	hrsWkPD	Initial Inv	TotalEducation	Experience	Training Courses	Orderof capture	Satisfaction	RiskTP/15
2	1.35910	1.15287	0.01881	0.01213	0.18260	0.08299	0.01992	0.10462	0.00188	0.04725	0.19220
3	1.19038	1.23187	0.06058	0.0007900 7	0.0007294 2	0.00511	0.07656	0.03297	0.36623	0.16344	0.01951
4	1.03507	1.32106	0.02710	0.59505	0.09610	0.00926	0.00325	0.02477	0.05071	0.01973	0.08489
5	0.93870	1.38721	0.02406	0.08250	0.08423	0.03564	0.00928	0.70823	0.03334	0.02803	0.00335
6	0.83112	1.47427	0.00415	0.16828	0.13461	0.00639	0.000 49401	0.09766	0.00778	0.11242	0.59339
7	0.73912	1.56332	0.09186	0.11572	0.03764	0.48996	0.000 83088	0.01867	0.23471	0.09901	0.09520
8	0.61655	1.71168	0.00127	0.00288	0.42837	0.22864	0.01611	0.01004	0.26622	0.47045	0.0000024 4
9	0.48357	1.93276	0.66147	0.00547	0.00735	0.05706	0.75897	0.00201	0.01850	0.000 01906	0.00948

Table 71. The Durbin–Watson statistic for the natural log of Earnings as dependent variable model

Durbin–Watson D	1.785
Number of Observations	339
1st Order Autocorrelation	0.106

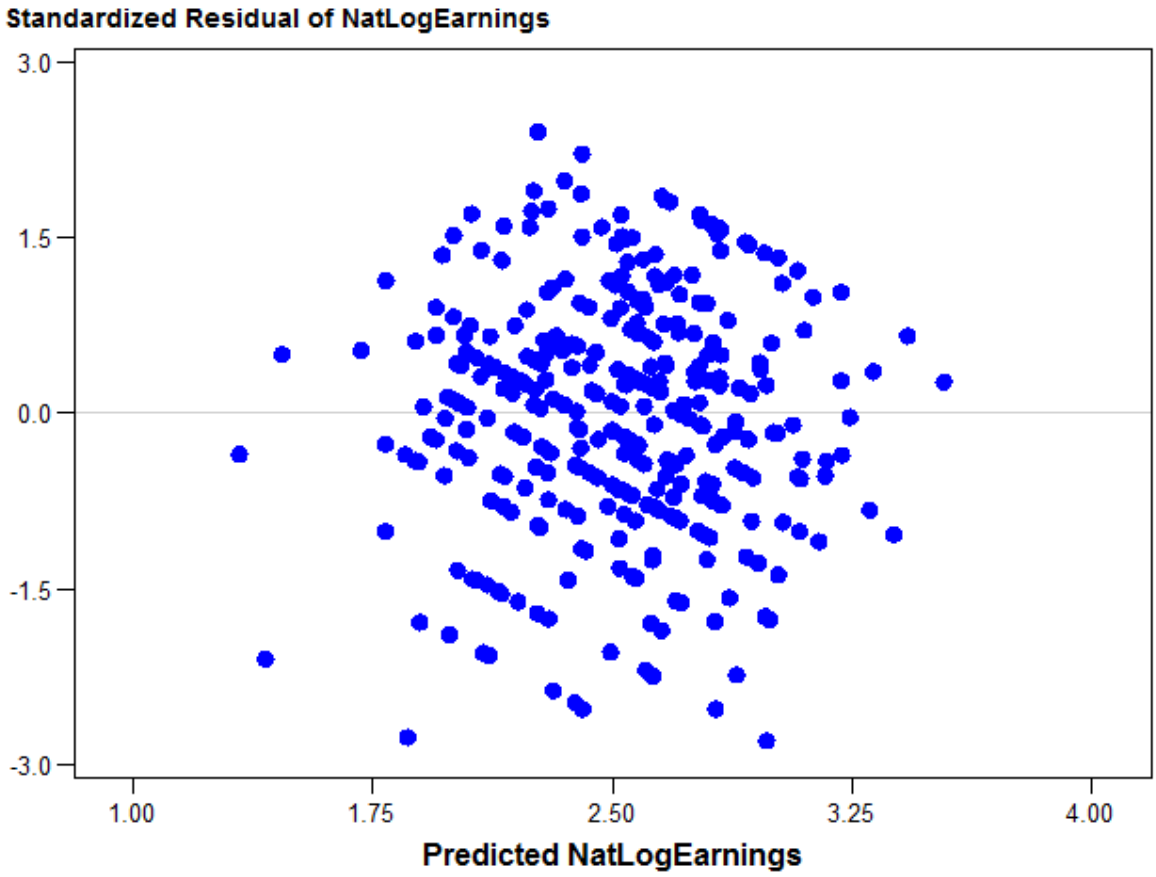

Figure 43. The plot of the standardised residuals of the natural log of Earnings by predicted log Earnings

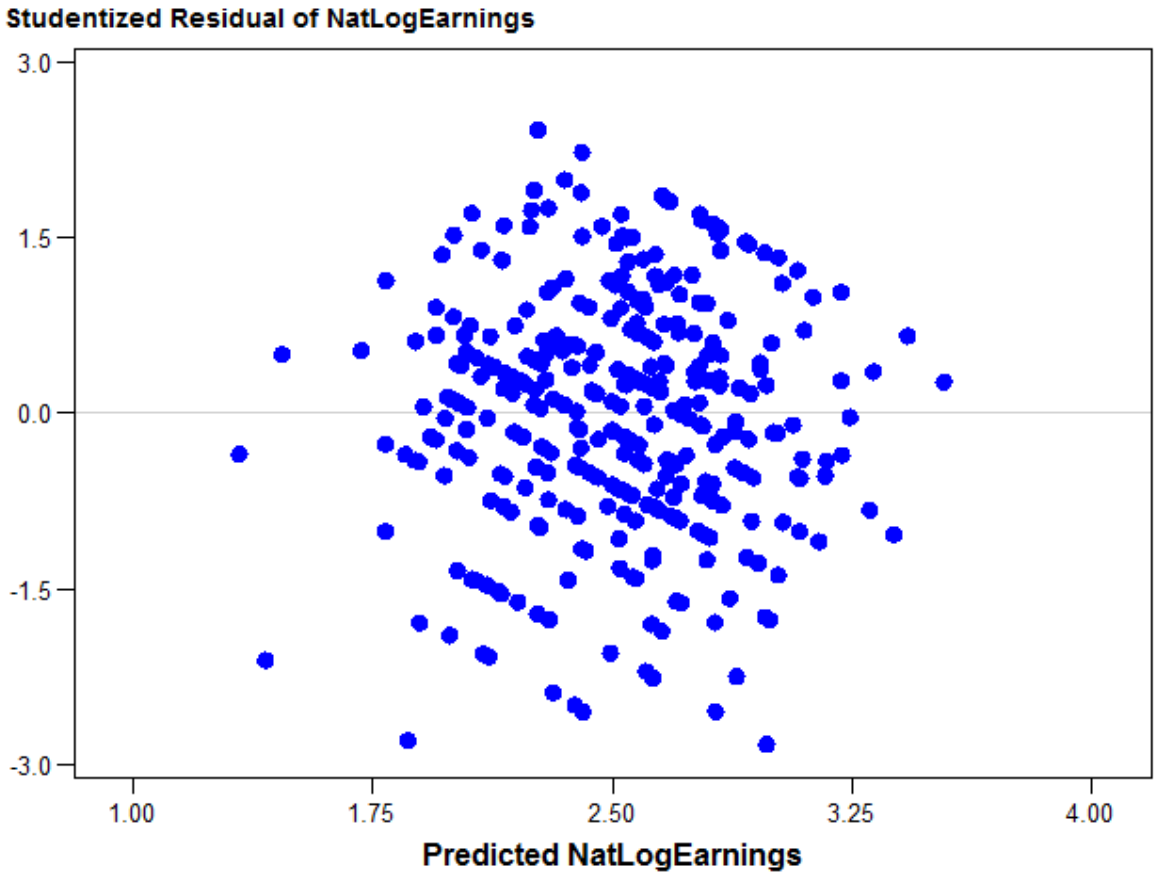

Figure 44. The plot of the studentised residuals of the natural log of Earnings by predicted log Earnings

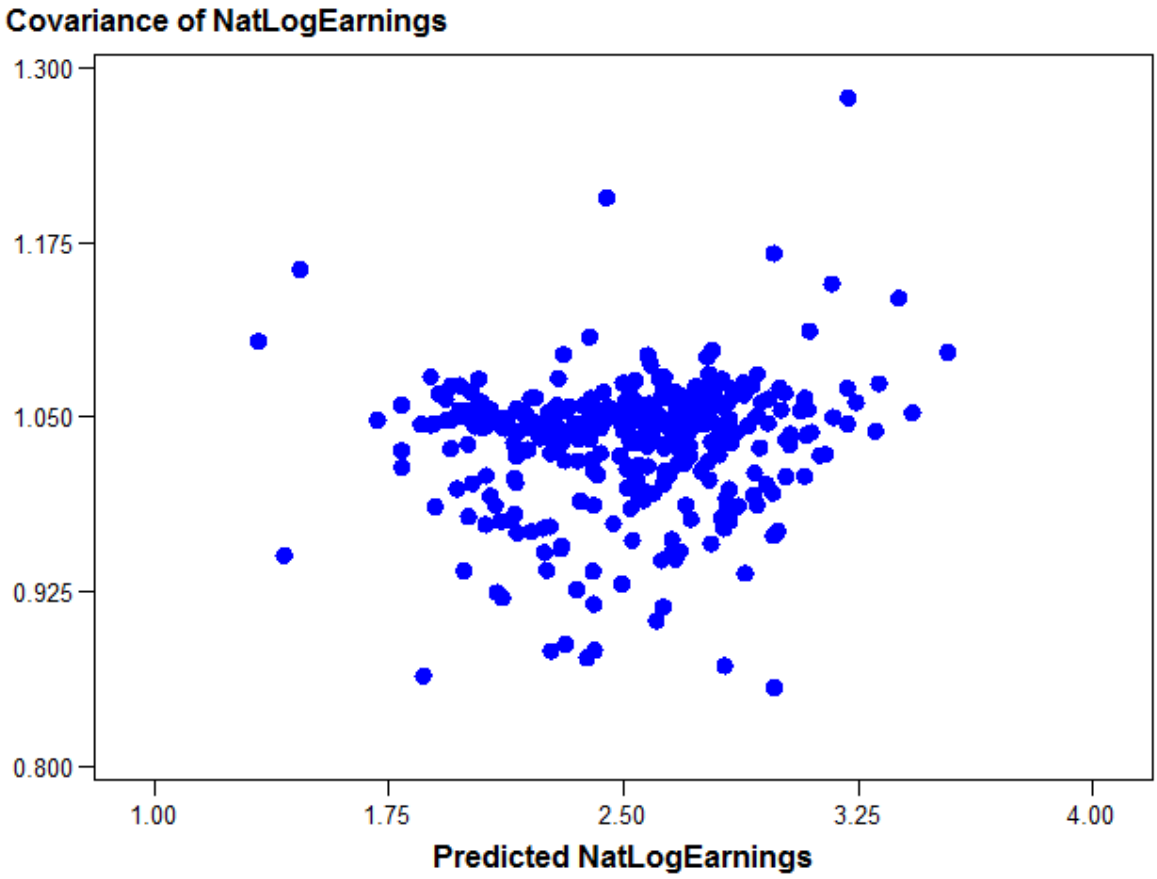

Figure 45. The plot of the covariance of the natural log of Earnings by predicted log Earnings

Table 72. The overall model statistics for the multiple linear regression with the natural log of Earnings as the dependent variable, with points removed

Analysis of Variance: Number of Observations 305					
Source	**DF**	**Sum of Squares**	**Mean Square**	**F Value**	**Pr > F**
Model	9	34.43856	3.82651	11.26	<.0001
Error	295	100.23364	0.33978		
Corrected Total	304	134.67220			

Root MSE	0.58290	**R-Square**	0.2557
Dependent Mean	2.51217	**Adj R-Sq**	0.2330
Coeff Var	23.20312		

Variable	**DF**	**Parameter Estimate**	**Std Error**	**t Value**	**Pr > |t|**	**Type I SS**	**Type II SS**	**Stdized Estimate**	**Toler ance**	**Variance Inflation**
Intercept	**1**	1.88863	0.21727	8.69	<.0001	1924.85806	25.67353	0	.	0
hrsWkPD	**1**	0.05076	0.01893	2.68	0.0078	2.61601	2.44174	0.13728	0.96212	1.03937
InitialInv	**1**	0.03256	0.00593	5.49	<.0001	17.00950	10.24268	0.28533	0.93418	1.07045
TrainingCourses	**1**	0.23296	0.09872	2.36	0.0189	1.95021	1.89211	0.12003	0.97520	1.02543
Orderofcapture	**1**	-0.00169	0.00036825	-4.58	<.0001	3.72140	7.13917	-0.24697	0.86912	1.15059
Satisfaction	**1**	0.09312	0.02358	3.95	<.0001	3.87197	5.30147	0.22702	0.76383	1.30920
Innov/15	**1**	-0.01725	0.00833	-2.07	0.0393	0.81767	1.45685	-0.10972	0.89866	1.11277
CompA/10	**1**	0.02319	0.01100	2.11	0.0358	1.19310	1.51086	0.11020	0.92389	1.08238
Auton/15	**1**	-0.02277	0.00970	-2.35	0.0196	1.85610	1.87047	-0.13140	0.80438	1.24319
RiskTP/15	**1**	0.01892	0.00931	2.03	0.0431	1.40260	1.40260	0.10608	0.92553	1.08047

Table 73. The collinearity diagnostics for the multiple linear regression analysis run with the natural log of Earnings as dependent variable, with points removed

Collinearity Diagnostics												
Number	Eigenvalue	Condition Index	Proportion of Variation									
			Intercept	hrsWkPD	InitialInv	Training Courses	Orderofcapture	Satisfaction	Innov/15	CompA/10	Auton/15	RiskTP/15
1	6.98210	1.00000	0.00045847	0.00055854	0.00447	0.00245	0.00342	0.00433	0.00517	0.00482	0.00228	0.00545
2	0.88716	2.80538	0.00003871	0.00009511	0.00191	0.95210	0.00080576	0.00356	0.00303	0.00036729	0.00003407	0.00022897
3	0.58360	3.45889	0.00005020	0.00002709	0.00531	0.00013636	0.03421	0.09027	0.53498	0.01633	0.00298	0.01965
4	0.37878	4.29336	0.00015048	0.00047001	0.10029	0.01041	0.01077	0.08542	0.17523	0.00262	0.00867	0.60239
5	0.35718	4.42127	0.00052792	0.00063302	0.05725	0.00013126	0.00517	0.15397	0.08313	0.41167	0.00067864	0.24610
6	0.31835	4.68316	0.00000256	0.00001723	0.55107	0.00803	0.10341	0.01635	0.03517	0.16242	0.00005906	0.08715
7	0.24849	5.30075	0.00613	0.00752	0.00830	0.00029290	0.25260	0.41925	0.00289	0.27696	0.00514	0.02268
8	0.14447	6.95201	0.01130	0.01447	0.15399	0.01977	0.35098	0.09202	0.10003	0.12231	0.36252	0.00948
9	0.08567	9.02773	0.04201	0.09636	0.10671	0.00255	0.22144	0.12320	0.05954	0.00248	0.58612	0.00000359
10	0.01419	22.17891	0.93933	0.87984	0.01069	0.00412	0.01720	0.01162	0.00082719	0.00001161	0.03151	0.00688

Collinearity Diagnostics (intercept adjusted)											
Number	Eigenvalue	Condition Index	Proportion of Variation								
			hrsWkPD	InitialInv	TrainingCourses	Orderofcapture	Satisfaction	Innov/15	CompA/10	Auton/15	RiskTP/15
1	1.60668	1.00000	0.02372	0.02072	0.00300	0.05873	0.16780	0.00010438	0.03405	0.16290	0.04234
2	1.38096	1.07863	0.01645	0.03035	0.00530	0.13133	0.03354	0.22320	0.12772	0.00024718	0.08069

Collinearity Diagnostics (intercept adjusted)											
Number	Eigenvalue	Condition Index	Proportion of Variation								
			hrsWkPD	InitialInv	TrainingCourses	Orderofcapture	Satisfaction	Innov/15	CompA/10	Auton/15	RiskTP/15
3	1.11590	1.19992	0.34166	0.00281	0.38497	0.00077315	0.00710	0.04096	0.00095411	0.00623	0.07286
4	1.06100	1.23057	0.01218	0.60143	0.07214	0.06531	0.00914	0.06999	0.03297	0.00638	0.00321
5	0.95705	1.29568	0.00040323	0.00029542	0.04598	0.19084	0.00159	0.01032	0.02822	0.16717	0.48635
6	0.89690	1.33842	0.26071	0.00730	0.32352	0.01699	0.01359	0.02200	0.39935	0.00619	0.00244
7	0.86155	1.36561	0.24706	0.05203	0.09288	0.06954	0.07736	0.21486	0.22571	0.06601	0.00578
8	0.61632	1.61458	0.09560	0.19966	0.05659	0.27076	0.02215	0.39734	0.00935	0.10318	0.30574
9	0.50362	1.78613	0.00222	0.08540	0.01564	0.19573	0.66773	0.02124	0.14168	0.48170	0.00059146

Table 74. The results of the test for autocorrelation for the model with points removed

Durbin–Watson D	1.705
Number of Observations	305
1st Order Autocorrelation	0.146

In terms of the results reported in this section, and the significant associations identified between the entrepreneurial orientation dimension: risk taking propensity and earnings, and between certain contextual factors and earnings, the null sub-hypothesis 2b, that there is no significant association between entrepreneurial orientation dimensions, or informal sector contextual factors, and gross earnings was rejected. The alternative sub-hypothesis, that there is a significant association between total entrepreneurial orientation, entrepreneurial orientation dimensions or informal sector contextual factors and gross earnings, was therefore accepted.

5.4.8. CONTINUANCE SATISFACTION

The analysis of the contribution of entrepreneurial orientation dimensions and informal sector contextual factors to continuance satisfaction as a dimension of entrepreneurial performance is reported in this section. The testing of the related hypotheses and testing relating to continuance satisfaction as a dependent variable is considered in this section and results are reported. The discussion of these results is undertaken expressly within the discussion section. Each section below is outlined according to the specific hypothesis tested. In each of the sections below, the sub-hypotheses are used to specifically test the following hypothesis relating to continuance satisfaction.

- **Null Hypothesis 3:** There is no significant association between Total Entrepreneurial Orientation, Entrepreneurial Orientation dimensions, or informal sector contextual factors, and Continuance Satisfaction
- **Alternative Hypothesis 3:** There is a significant association between Total Entrepreneurial Orientation, Entrepreneurial Orientation dimensions, or informal sector contextual factors, and Continuance Satisfaction

5.4.8.1. Null Sub-hypothesis 3.a: There is no significant association between Total Entrepreneurial Orientation and Continuance Satisfaction.

This hypothesis was tested as a sub-hypothesis of null hypothesis 3, that there is no significant association between total entrepreneurial orientation and continuance satisfaction.

This hypothesis was derived from the research question: “To what extent do informal sector contextual factors and entrepreneurial orientation dimensions contribute to entrepreneurial performance?” A multiple linear regression was run with continuance satisfaction, referred to as satisfaction, as the dependent variable and total entrepreneurial orientation as an independent or predictor variable, together with contextual variables as independent variables.

An examination of the observed plots and residual plots was undertaken. A natural log transformation of the dependent variable was tested in order to ascertain if any clearly measurable improvement was evident. No clear improvement was evident. This was judged to indicate that a specific transformation was not necessary. The model was therefore not transformed. The overall model was significant ($p<0.0001$), with an R squared of 0.1957 and an adjusted R squared of 0.1787.

Table 75. The overall statistics of the testing of the multiple linear regression of the entire sample of respondents, with Continuance Satisfaction as the dependent variable and contextual factors together with Total Entrepreneurial Orientation as predictor variables, without points removed

Number of Observations Read	339
Number of Observations Used	339

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	7	173.44901	24.77843	11.50	<.0001
Error	331	712.97724	2.15401		
Corrected Total	338	886.42625			

Root MSE	1.46765	**R-Square**	0.1957
Dependent Mean	1.98525	**Adj R-Sq**	0.1787
Coeff Var	73.92792		

Variable	DF	Parameter Estimate	Std Error	t Value	Pr > |t|	Type I SS	Type II SS	Stdized Estimate	Tolerance	Variance Inflation
Intercept	**1**	2.72810	0.87953	3.10	0.0021	1336.07375	20.72363	0	.	0
yrsinJhb	**1**	0.01689	0.00912	1.85	0.0651	23.28308	7.38053	0.10580	0.74383	1.34439
DaysWPW	**1**	-0.40794	0.13532	-3.01	0.0028	15.82862	19.57557	-0.15359	0.93616	1.06820
TotalEducation	**1**	-0.17076	0.06602	-2.59	0.0101	12.02488	14.41136	-0.13323	0.91590	1.09182
Experience	**1**	0.05113	0.03063	1.67	0.0960	7.36868	6.00396	0.09730	0.71543	1.39777
Earnings	**1**	0.03167	0.00683	4.64	<.0001	40.73631	46.33322	0.23565	0.94130	1.06236
Orderofcapture	**1**	0.00384	0.00085227	4.50	<.0001	56.68065	43.61897	0.23047	0.92638	1.07947
TotEO/75	**1**	0.02355	0.00826	2.85	0.0046	17.52680	17.52680	0.14776	0.90566	1.10417

Table 76. The overall statistics of the testing of the multiple linear regression of the entire sample of respondents, with Continuance Satisfaction as the dependent variable and contextual factors together with Total Entrepreneurial Orientation as predictor variables, with points removed

Number of Observations Read	335
Number of Observations Used	335

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	7	200.11978	28.58854	13.95	<.0001
Error	327	670.37723	2.05008		
Corrected Total	334	870.49701			

Root MSE	1.43181	**R-Square**	0.2299
Dependent Mean	1.99701	**Adj R-Sq**	0.2134
Coeff Var	71.69757		

Variable	DF	Parameter Estimate	Std Error	t Value	Pr > |t|	Stdized Estimate	Tolerance	Variance Inflation
Intercept	**1**	2.57027	0.86176	2.98	0.0031	0	.	0
yrsinJhb	**1**	0.02243	0.00918	2.44	0.0151	0.13627	0.75662	1.32167
DaysWPW	**1**	-0.40319	0.13228	-3.05	0.0025	-0.15272	0.93807	1.06601
TotalEducation	**1**	-0.18692	0.06480	-2.88	0.0042	-0.14564	0.92383	1.08245
Experience	**1**	0.06214	0.03008	2.07	0.0396	0.11724	0.73113	1.36774
Earnings	**1**	0.03337	0.00675	4.95	<.0001	0.24666	0.94740	1.05552
Orderofcapture	**1**	0.00409	0.00083409	4.90	<.0001	0.24696	0.92879	1.07666
TotEO/75	**1**	0.02447	0.00807	3.03	0.0026	0.15439	0.90831	1.10095

The overall statistics of the multiple linear regression model run with continuance satisfaction as the dependent variable are illustrated in table 75. The equation found for the model was the following:

y = 2.72810+ 0.01689 Years in Johannesburg - 0.40794 Days Worked per Week - 0.17076 Total Education + 0.05113 Experience + 0.03167 Earnings + 0.00384 Order of Capture + 0.02355 Total Entrepreneurial Orientation

In order to facilitate a more precise interpretation, the standardised residuals were tested and the following points greater than or less than the threshold of two were identified and removed: 135, 174, 253 and 311 according to order of capture. In table 76, the table of tested relationships is shown for the model with points removed.

The model with points removed was found to be significant ($p<0.0001$), with an R squared of 0.2299 and an adjusted R squared of 0.2134. In terms of the other diagnostic processes, no serious problems were identified that were judged to reasonably potentially disqualify an interpretation of the reported results. In order to ensure that the reported results of the linear regression could be interpreted with more certainty, the regression was run again without the removed data points. Total entrepreneurial orientation was found to be positively and significantly associated with continuance satisfaction ($\beta = 0.02355$; $p<0046$; $\beta s = 0.14776$) in the model without points removed, and was also found to be significant in the model with points removed ($\beta = 0.02447$; $p<0.0026$; $\beta s = 0.15439$).

According to the significant association found between total entrepreneurial orientation and continuance satisfaction, the null sub-hypothesis that no significant association exists between continuance satisfaction and total entrepreneurial orientation was rejected. The alternative hypothesis was therefore found to be supported: that there is a significant association between total entrepreneurial orientation and continuance satisfaction.

5.4.8.2. Null Sub-hypothesis 3.b: There is no significant association between Entrepreneurial Orientation dimensions, or informal sector contextual factors, and Continuance Satisfaction.

This hypothesis was tested, as a sub-hypothesis of null hypothesis 3, that there is no significant association between entrepreneurial orientation or contextual factors; and continuance satisfaction.

Hypothesis 3.b. was derived from the research question: "To what extent do informal sector contextual factors and entrepreneurial orientation dimensions contribute to entrepreneurial performance?" A multiple linear regression was run with continuance satisfaction as the dependent variable, and with entrepreneurial orientation dimensions and contextual variables as independent or predictor variables.

The overall statistics of the multiple linear regression model with continuance satisfaction as the dependent variable, run with the total sample of respondents, is shown in table 77. The model was found to be significant ($p<0.0001$), with an R squared of 0.2782 and an adjusted R squared of 0.2652. The standardised residuals were calculated and points greater than the threshold absolute value of two were identified and removed. In terms of the other diagnostic processes, no problems were identified that were judged to reasonably potentially disqualify an interpretation of the reported results.

According to the testing of the standardised residuals and the studentised residuals the following points were identified as potential outliers and influential points, these according to order of capture: 111, 122, 142, 174, 253, 311, and 325. According to the testing of covariance the points at 227 and 270 in the order of capture were also identified, after all these points were removed, the model was retested. The R squared of the model tested without these points was found to have increased to 0.3467, and the adjusted R squared to have increased to 0.3325. The overall model statistics for this model run without these points is illustrated in table 78.

Table 77. The overall statistics of the testing of the multiple linear regression of Continuance Satisfaction as the dependent variable without points removed

Analysis of Variance: Number of Observations 339					
Source	**DF**	**Sum of Squares**	**Mean Square**	**F Value**	**Pr > F**
Model	6	246.63166	41.10528	21.33	<.0001
Error	332	639.79460	1.92709		
Corrected Total	338	886.42625			

Root MSE	1.38820	**R-Square**	0.2782
Dependent Mean	1.98525	**Adj R-Sq**	0.2652
Coeff Var	69.92555		

Variable	**DF**	**Parameter Estimate**	**Std Error**	**t Value**	**Pr > |t|**	**Type I SS**	**Type II SS**	**Stdized Estimate**	**Tolerance**	**Variance Inflation**
Intercept	**1**	2.21140	0.83544	2.65	0.0085	1336.07375	13.50235	0	.	0
yrsinJhb	**1**	0.01837	0.00758	2.42	0.0159	23.28308	11.30897	0.11510	0.96294	1.03849
DaysWPW	**1**	-0.35113	0.12521	-2.80	0.0053	15.82862	15.15447	-0.13220	0.97825	1.02223
TotalEducation	**1**	-0.18115	0.06094	-2.97	0.0032	12.02488	17.02787	-0.14134	0.96155	1.03999
Earnings	**1**	0.02954	0.00643	4.59	<.0001	44.12700	40.67516	0.21979	0.94993	1.05271
Orderofcapture	**1**	0.00362	0.00079635	4.55	<.0001	55.68767	39.85649	0.21764	0.94927	1.05345
Auton/15	**1**	0.14235	0.02020	7.05	<.0001	95.68042	95.68042	0.33482	0.96285	1.03858

The equation for the tested model without points removed was found to be the following:

y = 2.21140 + 0.01837 Years in Johannesburg - 0.35113 Days Worked per Week - 0.18115 Total Education + 0.02954 Earnings + 0.00362 Order of Capture + 0.14235 Autonomy

Table 78. The overall statistics of the testing of the multiple linear regression of Continuance Satisfaction as the dependent variable with points removed

Analysis of Variance: Number of Observations used 330					
Source	**DF**	**Sum of Squares**	**Mean Square**	**F Value**	**Pr > F**
Model	7	296.25486	42.32212	24.41	<.0001
Error	322	558.24211	1.73367		
Corrected Total	329	854.49697			

Root MSE	1.31669	**R-Square**	0.3467
Dependent Mean	1.99697	**Adj R-Sq**	0.3325
Coeff Var	65.93437		

Variable	**DF**	**Parameter Estimate**	**Std Error**	**t Value**	**Pr > |t|**	**Stdized Estimate**	**Tolerance**	**Variance Inflation**
Intercept	**1**	2.53602	0.90016	2.82	0.0051	0	.	0
yrsinJhb	**1**	0.01755	0.00897	1.96	0.0512	0.10404	0.71775	1.39323
DaysWPW	**1**	-0.46285	0.13841	-3.34	0.0009	-0.15252	0.97529	1.02534
TotalEducation	**1**	-0.18397	0.06084	-3.02	0.0027	-0.14143	0.92734	1.07835
Experience	**1**	0.04761	0.02804	1.70	0.0905	0.09041	0.71555	1.39753
Earnings	**1**	0.03106	0.00626	4.96	<.0001	0.22976	0.94640	1.05664
Orderofcapture	**1**	0.00406	0.00076090	5.34	<.0001	0.24570	0.95689	1.04506
Auton/15	**1**	0.15607	0.01937	8.06	<.0001	0.36999	0.96194	1.03956

With points removed, the variable experience was found to have become significant in terms of the model. This was the only change in terms of significant variables entering or leaving the equation. In terms of the significant associations found between entrepreneurial orientation (autonomy) and continuance satisfaction, and between contextual factors and continuance satisfaction, null hypothesis 3.b was rejected. The alternative hypothesis, that there was a significant association between

informal sector contextual factors or entrepreneurial orientation dimensions and continuance satisfaction was found to be supported.

The following additional tests were also conducted: a Cronbach apha test with regard to the dimensions of entrepreneurial orientation as a test for internal consistency; a test of Pearson's correlation coefficient between innovativeness and proactiveness; autonomy and competitive aggressiveness; and days worked per week and hours worked per day; and a Cronbach alpha test for all the entrepreneurial orientation dimensions. The results of these tests are illustrated in Appendix B, in tables B.1, B.2 and B.3 respectively.

5.5. CONCLUSION

The results of the testing processes were outlined and expressed in this chapter. The results of the statistical testing of the hypotheses were reported, according to tests undertaken. The testing of the hypotheses was directed at answering the research questions, "To what extent do informal sector contextual factors shape an entrepreneurial orientation?" and "To what extent do informal sector contextual factors, total entrepreneurial orientation and entrepreneurial orientation dimensions contribute to entrepreneurial performance along the dimensions of earnings and continuance satisfaction?"

Null hypothesis one, two and three were rejected. The alternative hypotheses one, two and three were therefore accepted for these three core tested hypotheses. The significant relationships are analysed in the following chapter.

According to the results of the hypothesis testing, certain factors were found to have potentially shaped entrepreneurial orientation (EO) and the entrepreneurial performance (EP) dimensions. The significant associations reported in this chapter with regard to the testing process are summarised in table 79. The results reported in this chapter are discussed and analysed in the following chapter.

Table 79. Significant predictors of entrepreneurial orientation (EO) and entrepreneurial performance (EP)

EO/EP Dimension	Positive Predictors	Negative Predictors
Innovativeness	Hours worked per day	Order of capture
Autonomy	Gender	
	Days worked per week	
	Continuance satisfaction	
Proactiveness	Days worked per week	RSA origin
	Total education	
	Order of capture	
Competitive Aggressiveness	Years in Johannesburg	Experience
	Days worked per week	RSA origin
	Training courses	
	Earnings	
	Rental stand	
Risk Taking Propensity	Gender	Age
	Initial investment	Rental stand
	Total education	
	Experience	
	Order of capture	
Total EO	Gender	RSA nationality
	Days worked per week	
	Total education	
	Training courses	
	Order of capture	
	Continuance satisfaction	
	Johannesburg origin	
Earnings	Hours worked per day	Years in Johannesburg
	Initial investment	Order of capture
	Total education	
	Experience	
	Training courses	

	Continuance satisfaction	
	Risk taking propensity	
Continuance Satisfaction	Years in Johannesburg	Days worked per week
	Earnings	Total education
	Order of capture	
	Autonomy	

CHAPTER 6

ANALYSIS OF RESEARCH FINDINGS

6.1. INTRODUCTION

From the interpretation of the results of the testing of the hypothesised model and its constituent relationships, this section explores the resultant implications and understandings that have emerged. The research findings are analysed in this chapter. At this point, the context of the discussion is briefly revisited. With regard to this the following is the core context within which the hypothesised model was tested.

An entrepreneurial orientation is associated with increased earnings in certain environments, according to Lumpkin and Dess (1996). The contextual factors shaping an entrepreneurial orientation in the informal sector street trading context were investigated. In terms of entrepreneurial performance, the contention of Lumpkin and Dess (1996) that an entrepreneurial orientation is associated with learning: the how of entrepreneurship, the learnable process conception of Stevenson and Jarillo (1990), was tested.

Innovativeness, autonomy, proactiveness, competitive aggressiveness and risk taking propensity, the dimensions of an entrepreneurial orientation (Lumpkin and Dess, 1996), and the influence of certain contextual factors were tested as to their effects on entrepreneurial performance, defined in this context as a construct comprising earnings and continuance satisfaction.

The research questions, namely “What informal sector contextual factors shape an entrepreneurial orientation?” and “What contextual factors and entrepreneurial orientation dimensions contribute to entrepreneurial performance?” are discussed and answered in this chapter. Significant results are discussed and analysed in terms of the argument supported or refuted in terms of tested theory.

The contention is made that the condition of entrepreneurial street traders cannot be understood without an understanding of their specific entrepreneurial orientation, that there are factors that can increase the entrepreneurial performance of central Johannesburg street traders, and that there are factors that can contribute to upliftment and a betterment of their condition. It is contended that certain of these factors are

within the power of the individual trader, or other stakeholders, to influence for the purposes of upliftment, yet knowledge of these factors must first be garnered.

In terms of the testing of the derived hypotheses, table 80 illustrates the results of the null hypotheses tested and alternative hypotheses accepted.

Table 80. The results of hypothesis testing

Null Hypothesis	**Result**
1: There is no significant association between Entrepreneurial Orientation and informal sector contextual factors.	Null Hypothesis Rejected Alternative Hypothesis Accepted
2: There is no significant association between Total Entrepreneurial Orientation, Entrepreneurial Orientation dimensions, or informal sector contextual factors, and Gross Earnings.	Null Hypothesis Rejected Alternative Hypothesis Accepted
3: There is no significant association between Total Entrepreneurial Orientation, Entrepreneurial Orientation dimensions, or informal sector contextual factors, and Continuance Satisfaction	Null Hypothesis Rejected Alternative Hypothesis Accepted

The testing of these hypotheses was found to support the alternative hypotheses, and significant relationships were discovered. In the following section, the significant associations are discussed and analysed.

6.2. DISCUSSION AND ANALYSIS

The structure of this analysis differs from that of the literature review. Each entrepreneurial orientation dimension is discussed in turn and this is followed by the

discussion of earnings and continuance satisfaction. These are discussed with regard to the significant associations found by the testing process.

The discussion of factors that were found to potentially shape the dimensions of an entrepreneurial orientation and total entrepreneurial orientation are considered in the first section below, section 6.2.1. The discussion of factors contributing to the entrepreneurial performance components, namely gross earnings and continuance satisfaction are discussed in section 6.2.2. The analysis of significant associations relating to earnings is undertaken in section 6.2.2.1. The analysis of significant associations relating to continuance satisfaction is undertaken in section 6.2.2.2. The analysis follows.

6.2.1. ENTREPRENEURIAL ORIENTATION DIMENSIONS

In terms of the research question, "To what extent do informal sector contextual factors shape an entrepreneurial orientation?" entrepreneurial orientation dimensions are considered in turn in this section. The results of the hypothesis testing process and the significant associations found relating to innovativeness, autonomy, proactiveness, competitive aggressiveness and risk taking propensity are analysed as follows.

6.2.1.1. Innovativeness

According to Lumpkin and Dess (1996: 142), innovativeness reflects a tendency for an enterprise "to engage in and support new ideas, novelty, experimentation, and creative processes that may result in new products, services, or technological processes". Zulu (1991: 122) found his research to "demonstrate both originality and innovation on the part of practitioners" in the South African informal sector. In the Johannesburg inner city informal sector street trading context, this study found that almost 44 percent of street traders scored zero for innovativeness. Most traders therefore exhibit low levels of innovativeness in the Johannesburg street trading context.

The more regular introduction of new goods and services might perhaps be associated with higher levels of wealth creation, yet this might depend on context, as Lumpkin and Dess (1996) contend, since in this regard, no association between innovativeness and gross earnings or between continuance satisfaction and innovativeness was found in this specific context.

In terms of the related research question being tested, specifically, "What informal sector contextual factors shape the innovativeness dimension of an entrepreneurial orientation?" innovativeness was tested as the dependent variable in a multiple linear regression model. Hours worked per day was a positive, significant predictor of innovativeness whereas order of capture was a negative, significant predictor of innovativeness (table 81). These associations are discussed, followed by a consideration of the association; or the absence of association, between innovativeness and earnings.

Table 81. Significant associations between contextual factors and Innovativeness

Significant predictors of Innovativeness			
Variable with positive association	**Significance**	**Variable with negative association**	**Significance**
Hours Worked per Day	$p<0.0048$	Order of Capture	$p<0.0001$

- Innovativeness and Hours Worked per Day

In testing significant associations, hours worked per day was found to be a positive and significant predictor of innovativeness ($p<0.0084$). Hours worked per day as a variable was, however, found to be significantly associated with earnings: positively so. Innovativeness was not found to be associated with higher or lower levels of earnings or continuance satisfaction. This finding suggests that innovativeness itself is not directly rewarded in this tested street trading context.

It might be possible that hours worked per day shape innovativeness in that individuals that work more hours per day might become more innovative. However, the direction of causality cannot be claimed. It might also be possible that more

innovative individuals may choose to work longer hours. The average number of hours worked per day by street trader respondents was found to be 10.15 hours. This indicates that street traders typically work relatively long hours. Seventy-five percent of the traders were found to work for nine or more hours a day.

Innovativeness, in this context, might therefore be shaped by some element of work ethic, to the extent that work ethic might be reflected in the hours worked per day measure. Therefore, the finding of a positive association between innovativeness and hours worked per day might indicate that some higher level of engagement, or commitment of street traders to their work, is associated with more innovative individuals, and that this higher level of engagement or commitment is captured through the dimension of longer hours worked.

Of note here is what was picked up by the differentiation of the work ethic indicators: between hours worked per day and days worked per week. A Pearson's correlation coefficient of 0.19677 was found between days worked per week and hours worked per day (Appendix B; Table B.2). This, however, might be interpreted as being surprisingly low, considering that work ethic should reasonably be expected to contribute to a higher measured correlation between these factors. It was therefore found that street traders that worked longer hours did not necessarily work more days per week.

Days worked per week or hours worked per day might represent decisions made by street traders that might be driven by some other factor or factors than merely work ethic. It might be reasonable to expect that the flow of potential clients in the city centre, unlike other outlying areas that might have a more residential nature, does drop off similarly for most of the city centre at the same time. An attempt was made to control for this city centre effect through the process of delimiting the study to the city centre business district.

Fewer hours worked per day as a tested factor was found to be a significant predictor of a lower endowment of innovativeness. Conversely, less innovative individuals

were found to be associated with working fewer hours. However, days worked per week as a tested factor was not found to be associated with increased earnings.

Hours worked per day as a tested factor was found to be a predictor of higher earnings. An explanation of this might be that higher earning traders might choose to substitute leisure time for working time, and choose to work fewer days but not necessarily fewer hours per day. If higher earnings did enable a street trader to choose leisure, and work fewer days, then this effect might have cancelled out the effect of days worked per week on earnings. On the other hand, these findings might also suggest that innovative individuals might be no different from less innovative individuals in terms of their choice of days worked per week.

More innovative individuals might not be more inclined to, or be able to, work more days in a week but are associated with working more hours in a day. If demand did drop off in a marginally different way due to the underlying structure of the city blocks, it might be possible that innovative individuals do place themselves to access greater exposure to longer flows of customers. This might explain to some degree the finding of the positive association between hours worked per day and innovativeness within a context that had largely been controlled for in terms of city centre location and the customer flows within the CBD.

- Innovativeness and Order of Capture

Order of capture was found to be negatively and significantly associated with innovativeness. This might reflect a change in respondent results according to the fundamental underlying structure of certain city blocks that are adjacent to large taxi ranks, or this might reflect some aspect of the process of the study that was not resistant to the introduction of variation.

The finding of a negative association between order of capture and innovativeness could possibly be explained by a tendency for innovative individuals to place themselves into streams of customers that flow longer through the day. The order of capture variable captured the underlying block structure in that certain blocks were unavoidably sampled earlier in the process. The first blocks surveyed might therefore

have captured an effect related to relatively longer customer flows on a daily basis. The finding of a positive association between hours worked per day and earnings might reflect this dynamic directly. An innovative orientation, however, was not found to be directly penalised or rewarded in this context for the entire tested sample of respondents.

On the other hand, it is possible that the order of capture variable might have just picked up variance, however introduced, from multiple other sources, which potentially include the effect of street traders positioning themselves locationally due to their endowment of entrepreneurial orientation.

- Earnings and Innovativeness

For Schumpeter (2002: 299) the "purest type of entrepreneur genus" is "the entrepreneur who confines himself most strictly to the characteristic entrepreneurial function, the carrying out of new combinations", or innovation. For Lumpkin and Dess (1996), however, this is one of the entrepreneurial orientation dimensions that theoretically can vary, independently of each other in terms of effect on performance, according to specific context. The results seem to indicate that this might indeed be possible, with only risk taking propensity having been found to be positively and significantly associated with earnings, and only autonomy being found to be positively and significantly associated with continuance satisfaction in the specific context of the Johannesburg inner-city street trader.

Certain factors that influence failure rates within populations exist, but innovation is not a negative factor in most cases; most innovations are competence enhancing, building on existing skills and knowledge, and not making large areas of production irrelevant (Aldrich, 1990). Accordingly, it was predicted that if innovativeness was competence enhancing in this context, then innovativeness might be associated with higher earnings. This was not, however, found to be supported in this context. It may be that the specific context is not particularly suited to innovativeness.

According to Maslow's (1987) hierarchical needs theory, individuals with developed self actualisation needs may desire challenging work, which would allow for creative

and innovative approaches. The satisfaction of certain lower order needs might allow for the activation of higher order needs, which might therefore be associated with a desire for work process more associated with creativeness and innovative entrepreneurial behaviour.

Based on Maslow's theory, higher earnings might be associated with higher levels of innovativeness, to the extent that more self actualising behaviour might be increasingly creative and innovative, if creative and innovative behaviour were expected to contribute to higher earnings. However, the extent to which creativity or innovativeness is rewarded in entrepreneurial enterprise might be related to context. Because the activation of higher order needs would be dependent on the satisfaction of lower order of needs (Maslow, 1987), it might be plausible that at lower levels of earnings, as encountered in the informal sector context, the lower level needs are indeed relevant.

Therefore the absence of a return on innovation in this specific informal sector context might be reasonably expected, to the extent that lower order needs might dominate the behaviour of the individual trader. Most street traders would not be expected to demonstrate creative and innovative behaviour if their basic needs were not being satisfied to the extent that higher needs were enabled. This could account for the finding that almost 44 percent of the traders were found to have scored zero for innovativeness.

- Innovativeness and Human Capital

According to Aldrich (1990) higher levels of human capital may be associated with higher levels of innovation. This was not found to be supported. An insignificant association was found between innovativeness and education or any of the learning-related contextual factors. Innovativeness was therefore not found to be shaped by education or human capital in this context. An explanation for this effect might be the overarching effect of context. If the context allowed for no direct return on innovativeness, other than perhaps on innovative location choices with greater exposure to customers, there would perhaps be no incentive for an individual to display higher levels of innovative behaviour.

Making changes to selling processes or stock was not found to be associated with higher earnings. Higher education or human capital endowments were found to be associated with higher earnings (total education, $p<0.0336$; experience, $p<0.0467$; training courses, $p<0.0971$). These endowments perhaps enable traders to realise that innovativeness was not rewarded in this context. The street trader customer market might reflect the stable and mature demand pattern of a large group of customers that do not currently require innovative or changing service provisions.

In summation, the above section relating to innovativeness considered the significant associations relating to innovativeness. Hours worked per day was found to be positively and significantly associated with innovativeness, this perhaps indicating a relationship between work ethic and innovativeness in this context. The only other variable found to be significantly associated with innovativeness was order of capture, this negatively so. Earnings and human capital were not found to be significantly associated with innovativeness. Innovativeness was therefore not found to be rewarded or penalised for informal street traders in this context in terms of a contribution to earnings or continuance satisfaction, other than through a potentially indirect effect of working longer hours in a day.

In terms of testing how informal sector contextual factors might contribute to the shaping of entrepreneurial orientation along its constituent dimensions, autonomy is considered as follows.

6.2.1.2. Autonomy

An "independent spirit" is necessary for entrepreneurship (Lumpkin and Dess, 1996: 140). This discussion is undertaken in terms of the research question: "What informal sector contextual factors shape an entrepreneurial orientation, along the dimension of autonomy?" Table 82 shows the significant associations with autonomy that were found in terms of the testing process: gender, days worked per week and continuance satisfaction were found to be positively and significantly associated with autonomy. No factors were found to be negatively associated with autonomy in terms of the testing.

Table 82. Significant Predictors of Autonomy

Significant predictors of Autonomy		
Variables with positive association	**Significance**	**Variables with negative association**
Gender	Male p<0.0555	Nil
Days Worked Per Week	P<0.0978	
Continuance Satisfaction	P<0.0001	

According to the predictions of theory and according to the findings, gender; earnings; days worked per week; continuance satisfaction; South African nationality; and competitive aggressiveness will be discussed. Predicted associations, and the absence of certain predicted associations, will also be considered below.

- Autonomy and Gender

Gender was found to be positively and significantly associated with autonomy (p<0.0555). This indicated that being male was associated with higher endowments of autonomy. This might be considered to be an unfair association, to the extent that males would be unequally associated with access to the potential benefits of higher levels of autonomy. However, no significant association was found between autonomy and earnings, although continuance satisfaction was found to be associated with autonomy.

Gatewood et al. (1995) found that potential entrepreneurs that were female and offered internal and stable attributions were more likely to actually follow up and start businesses, yet male entrepreneurs that offered external and stable attributions were found to be more likely to follow up and become entrepreneurs. To the extent that Gatewood et al. (1995) offered conceptions supporting the presence of unequal effects with regard to gender and entrepreneurial effects, this potentiality was supported in this context. Gender was found to contribute differently to shaping an entrepreneurial orientation. Males were found to be more strongly associated with autonomy.

- Autonomy and Earnings

Some entrepreneurs have been associated with difficulties regarding authority relations and this might be a differentiating factor in terms of separating managers as a group from some entrepreneurs (Kets de Vries, 1985). If this is related to a preference for independence and therefore a contribution to an autonomous orientation, then it must be considered in terms of potential negativity. The negative effect can therefore be considered a potentially limiting factor. The extent to which this conception offered by Kets de Vries (1985) was found to be present was not established, however, as no effect was found between earnings and autonomy.

This potentially negative component of autonomy might also be associated with other negative dimensions. However, in terms of the potentially negative effect of autonomy in terms of employment, in this specific sector where individuals might be considered to be working for themselves, no significant association was found between autonomy and earnings. The tested association was considered to represent a net effect, and the net effect of autonomy was found to show a positive association between autonomy and continuance satisfaction.

Earnings was not found to be a significant predictor of autonomy, and autonomy was not found to be a significant predictor of earnings in this specific informal street trading context. According to this, autonomy might not have contributed to any effect that might have increased earnings enough to have manifested in a net tested effect.

- Autonomy and Days Worked per Week

Days worked per week as a tested variable was found to be positively associated with autonomy to the extent of being just within the limit of 10 percent significance ($p<0.0978$). Street traders that worked more days per week were found to be more autonomous. Days worked per week as a factor was therefore found to potentially shape an entrepreneurial orientation along the dimension of autonomy.

This effect might have manifested due to certain more autonomous street traders working relatively more days in a week. If days worked per week was taken to represent a measure of work ethic, then this indicator of work ethic was found to be

associated with higher levels of measured autonomy. Autonomous individuals were found to work more days a week. This result can possibly be explained in terms of the greater engagement that might be expected from autonomous individuals with their work due to the higher association between autonomy and continuance satisfaction ($p<0.0001$).

In terms of the direction of this effect it might be possible that the effect runs from days worked to autonomy, in which case it would be possible to consider days worked per week to positively shape entrepreneurial orientation along the dimension of autonomy. Similarly, this effect might run the other way, in that autonomy might influence the number of days an individual might work per week.

- Autonomy and Continuance Satisfaction

Gagne and Deci (2005: 339) reviewed studies that were found to support the notion that an autonomy orientation, in terms of self-determination theory "is positively related to self-actualisation, self esteem, ego development, integration in personality, and satisfying relationships". To the extent that this was taken to predict an association between autonomy and continuance satisfaction, this was found to be supported in terms of the testing ($p<0.0001$).

According to cognitive evaluation theory, social-contextual factors that contribute to perceptions of autonomy and competence will also contribute to intrinsic motivation (Gagne and Deci, 2005: 332).

Entrepreneurs are associated with an internal locus of control, and individuals with an internal locus of control are self reliant and seek out independence and autonomy (Shapero, 1975). An individual with a desire for independence might also be attracted to becoming an entrepreneur, and the experience itself of working for oneself, whether caused by push or pull factors might also result in a desire for independence and hence entrepreneurship (Shapero, 1975).

It was thus considered reasonable to assume that, for those individuals who value autonomy, the experience of an autonomous work process such as street trading might be associated with higher levels of satisfaction. According to the above conception of

Shapero (1975), the experience of context might allow for an effect from context toward autonomy. Autonomy might therefore be considered to be shaped by the experience of entrepreneurship for certain individuals. Autonomy might then, for certain individuals, also be shaped by the satisfaction experienced from the experience of entrepreneurship.

Bussing et al. (1999) found that the degree to which controllability of the work situation by the individual existed contributed positively to satisfaction. Accordingly, a positive and significant association between autonomy and continuance satisfaction was predicted. This was found to be supported. Continuance satisfaction ($p<0.0001$) was found to be significantly and positively associated with autonomy, before and after the retesting of the model with potential outliers and influential points removed.

It is possible that these findings may suggest that continuance satisfaction might shape autonomy, or it might be possible that autonomy might cause continuance satisfaction. It might also be possible that a positive effect might run in both directions. Due to the difficulty in ascribing directional causality in terms of autonomy and continuance satisfaction, certain tested theory is discussed in the section that considers the testing of continuance satisfaction as the dependent variable and contextual factors and entrepreneurial orientation dimensions as predictor variables.

- Nationality and Autonomy

The independence factor can also be influenced by an element of displacement as a push factor, as in the case of immigrant groups that have been associated with higher levels of entrepreneurship and the practice of independent professions (Shapero, 1975). However, in terms of the testing, no significant association was found between national origin and autonomy.

Another possibility that had to be considered was that foreign street traders might have been reluctant to disclose their status in terms of origin. It was therefore acknowledged that the responses of individuals of foreign origin as measured by the South African origin variable might have been under-represented. It is possible that this lack of disclosure might have affected the measurement of a tested effect between

autonomy and foreign origin. However, displacement per se, as measured in terms of all traders originating from other countries or from other areas within the country other than Johannesburg, was not found to be significantly associated with autonomy, and therefore was not found to shape autonomy.

- Autonomy and Competitive Aggressiveness

Research has indicated that individuals with a high need for autonomy "tend not to be committed to the goals and objectives of their organisations, not to perform well unless they are allowed to participate in the determination of their tasks, and not to respond to external pressures for conformity to group norms" (Porter et al., 2003: 11). Some measure of non conformity might therefore be expected in terms of autonomous individuals. If a group norm existed that competitive aggressiveness was not encouraged, then autonomous individuals might be expected to be more resistant to these group norms.

Therefore autonomous individuals might be expected to be able to override certain of the cultural influences that might shape dimensions of entrepreneurial orientation. This might be relevant in terms of a high level of autonomy reducing the conflict between a high level of competitive aggressiveness and cultural or group norms that might place a negative association on this behaviour in a social context. However, the Pearson's Correlation Coefficient between autonomy and competitive aggressiveness was found to be only 0.1691 (Appendix B, Table B.2). This indicated that a low correlation existed between these entrepreneurial orientation dimensions in this specific Johannesburg street trading context. This theoretical effect was not found to be supported to the extent that it might have manifested in a net tested effect.

In summation, certain relationships predicted by theory were not found with regard to the findings. Gender was found to shape autonomy to the extent that males were found to be more autonomous than females. Days worked per week and continuance satisfaction were found to possibly shape entrepreneurial orientation along the dimension of autonomy.

6.2.1.3. Proactiveness

In the following discussion a consideration of the research question, "To what extent do informal sector contextual factors shape an entrepreneurial orientation along the dimension of proactiveness?" is undertaken with regard to the contribution of informal sector contextual factors to proactiveness. The significant predictors of proactiveness are illustrated in table 83.

Table 83. Significant predictors of Proactiveness

Significant predictors of Proactiveness			
Variables with positive association	**Significance**	**Variable with negative association**	**Significance**
Days Worked per Week	p<0.0087	RSA origin	P<0.0065
Total Education	p<0.0047		
Order of Capture	p<0.0001		

- The predicted association between Proactiveness and Innovativeness

Lumpkin and Dess (1996: 146) argue that proactiveness may be "crucial to an entrepreneurial orientation because it suggests a forward-looking perspective that is accompanied by innovative" and entrepreneurial activity. In terms of this theoretical conception an association between proactiveness and innovativeness was considered to be predicted. However, as shown in Appendix B, Table B.2, a Pearson's Correlation Coefficient of 0.00171 was obtained for the correlation between innovativeness and proactiveness. This finding does not support the idea that proactiveness is necessarily accompanied by innovative activity. The potential of entrepreneurial orientation dimensions to vary independently in this tested context was therefore supported (Lumpkin and Dess, 1996).

- The predicted association between Competitive Aggressiveness and Proactiveness

Proactiveness, for Lumpkin and Dess (1996: 147), is considered to be distinct from competitive aggressiveness, as proactiveness relates to market opportunity in entrepreneurship by "seizing initiative and acting opportunistically in order to shape

the environment, that is, to influence trends and, perhaps, even to create demand", whilst competitive aggressiveness related to competitors. A Pearson's Correlation Coefficient of 0.08179 was obtained for the correlation between competitive aggressiveness and proactiveness. This finding supported the potential of these entrepreneurial orientation dimensions to vary independently of each other according to context, concurring with Lumpkin and Dess (1996).

- What informal sector contextual factors shape Proactiveness?

The results of testing the research question, "What informal sector contextual factors shape an entrepreneurial orientation along the dimension of proactiveness?" are discussed in this section. The null sub-hypothesis 1.c, that there was no significant association between proactiveness and informal sector contextual factors, was found not to be supported. Therefore, the alternative sub-hypothesis 1.c, that there was a significant association between proactiveness and informal sector contextual factors, was accepted.

In terms of the 10.95 percent of the variance explained by the model, this relatively low contribution of these factors is perhaps reasonable in that there may be a range of factors beyond the specific informal sector street trading contextual factors tested that might shape an entrepreneurial orientation along the dimension of proactiveness. Albeit, significant associations were discovered; these indicated relationships that allowed for the answering of the research questions in this context. The informal sector contextual factors are discussed as follows: days worked per week, total education, order of capture, and South African origin, in terms of the results produced by the testing process.

- Days worked per week and Proactiveness

A positive and significant association was found for days worked per week as a predictor of proactiveness ($p<0.0087$). This might be an example of seizing opportunity and acting opportunistically (Lumpkin and Dess, 1996); a more proactive individual might seize the opportunity to maximise income in a specific situation, and might be expected to work more days per week in this regard.

The average number of days worked per week for the tested respondents was about 6.2 days. The lower quartile was measured at six days worked per week, and the upper quartile was measured at seven days a week. This might indicate that there might not be much opportunity for a proactive individual to work more days a week. Therefore the net effect captured by the testing process might have picked up less proactive individuals working fewer days a week, to the extent that certain more proactive individuals might have been shown to work seven days a week, since only about 3.23 percent of the respondents were found to work fewer than six days a week.

If the proactive individual works more days a week, this might indicate that the proactive individual is resistant to certain effects that might influence less proactive individuals. One such effect might be the preference of a trader (when more is earned) to substitute leisure time in favour of work time despite the extra earnings that might otherwise be earned: the backward bending labour supply curve effect (Douglas and Morris, 2006)..

The proactive individual might be more resistant to the effect of a preference to work less as more is earned in terms of days worked per week, but since no significant association was found between hours worked per day and proactiveness, the individual might not necessarily be resistant to this effect in terms of hours worked per day. The lack of a significant association between proactiveness and earnings might indicate that the working of more days a week for a more proactive individual was not enough to contribute to a net effect between proactiveness and earnings. The tested effect might represent the tip of a metaphorical iceberg, in that many of the underpinning relationships might have an effect at a range of underlying levels, and only a net effect is captured.

However, it is argued that the level at which the theoretical relationships are tested is appropriate, since this level of testing represents entrepreneurial behaviour, which can be learned: the how of entrepreneurship according to Stevenson and Jarillo (1990). It is argued that a range of underlying levels might reasonably exist that relate to the why of entrepreneurial behaviour (Stevenson and Jarillo, 1990).

In terms of whether the amount of days worked per week shapes proactiveness, this is unclear. It is also possible that there is a relationship that runs both ways, or that this effect might run the other way in that proactiveness might influence the amount of days worked in a week. Proactiveness was also found to be a significant and positive predictor of days worked per week ($p<0.0051$).

- Total Education and Proactiveness

If proactiveness (Lumpkin and Dess, 1996: 147) is associated with "seizing initiative and acting opportunistically in order to shape the environment, that is, to influence trends and, perhaps, even to create demand", then an association might be considered to extend to growth willingness, for an entrepreneur. In this work, growth willingness is considered to be a measurable indicator of proactiveness.

According to Davidsson (1989: 224), growth willingness for an entrepreneur may be influenced by education directly and indirectly, directly because individuals "with higher education are likely to have higher aspirations in general, and indirectly through more self-confidence in managing growth and a better ability to spot growth opportunities". A positive and significant association between educational contextual factors and proactiveness was predicted in terms of this; education shapes proactiveness according to this conception. This was confirmed, with a positive, significant relationship ($p<0.0047$) being found between proactiveness and total education, this variable consisting of all an individual's years of formal schooling and tertiary education (if present).

According to Becker (1975), human capital theory stresses the potential of the individual, through an investment in education, to solve the problem of low wages and unemployment through behavioural factors such as the acquisition of skills. From this perspective there is a return on learning factors: that choices made to increase productivity through education and training, for example, would have an impact on their earnings.

It is possible that education might shape proactiveness as a dimension of entrepreneurial orientation, and it is possible that proactiveness might shape education as an endowment of human capital within the individual. However, whether this effect

might represent a potential contribution to the upliftment of the informal street trader would be dependent on these effects and how they impact on relationships within this context.

If education indeed shapes proactiveness, and the positive and significant result indicates that this is possible, this would support the theoretical contribution of Stevenson and Jarillo (1990): of entrepreneurship as relating to a "how" dimension, which is able to be learned to the extent that education might enable the "how" of proactive entrepreneurial behaviour. In this context, proactiveness was, however, not found to be associated significantly with earnings or continuance satisfaction.

- Order of Capture and Proactiveness

Order of capture was found to be positively and significantly associated with proactiveness. This indicated that the model might have reflected some underlying factor in terms of the order in which the respondents were approached. This might reflect the underlying structure of the respondents as to their positioning in terms of the two major taxi ranks that were adjacent to certain city blocks sampled.

It might be possible that later sampled city blocks were populated by individuals with higher endowments of proactiveness. Later sampled respondents were, however, also found to be associated with lower earnings.

It is also possible that certain variability entered into the process, which was captured and reported in terms of the inclusion of this variable. This variable was included in order to capture potential sources of variability in terms of this process as it moved according to the order of capture from earlier respondents to later respondents. The significant association found between order of capture and proactiveness might suggest that certain variability was found to have been captured in the process according to the order of capture.

- RSA origin and Proactiveness

Immigrants have been associated with differences in terms of entrepreneurial behaviour with regard to enterprise as contrasted with local enterprises (Basu and

Altinay, 2002; Portes, 1998; Reynolds, 1991; Wilson and Martin, 1982). This association was found to be supported. A difference was found between traders of foreign origin and traders of local origin in terms of proactiveness: a negative and significant relationship was found between the RSA variable, representing South African origin, and proactiveness. This indicates that South Africans were less proactive than traders of a foreign origin. Traders of foreign origin made up 56.34 percent of the sampled respondents.

Differences between certain groups of street traders in terms of proactiveness were found to exist in this context, and certain theory predicting this dynamic was therefore supported. According to Basu and Altinay (2002), in terms of immigrant entrepreneurship, ethnic entrepreneurs are not a homogenous group, with differences between groups that may manifest in entrepreneurial behaviour. Basu and Altinay (2002) argue that these differences can result from a range of factors, including religion and the existence of differing attitudes to integration into host country culture.

Concerning differences between certain groups of people and the strength of an association between entrepreneurship and certain groups, this has typically been found to manifest as a result of historic, regional and ethnic factors in addition to economic factors (Shapero and Sokol, 1982). Shapero and Sokol (1982) argue that refugee groups have historically demonstrated a trend towards the establishment of entrepreneurial ventures at a higher level than in their own countries. This theory was found to be supported in this study in terms of the significant and positive association found between being of foreign origin and proactiveness.

According to Light (1984), foreign born economic participants have been found to be overrepresented in entrepreneurship in the context of small business. This was found to be supported, with 56.34 percent of this sample being of foreign origin. Light (1984) argues that this overrepresentation might occur due to practical limiting factors, which may include poor language skills, the lack of recognition and verification of educational certification, discrimination, or other factors linked specifically to the ethnic group itself. Groups facing the same disadvantages,

however, were found to be different: some ethnic minority groups displayed higher rates of entrepreneurship than others (ibid.).

A disproportionate representation of individuals from countries other than South Africa was evident, this supporting theory predicting this in the small enterprise context, in that the majority of trader respondents were found to be of foreign origin. Only about 44 per percent of these traders were found to be of South African origin. In terms of the finding that 165 000 informal sector participants, or 7.05 percent of the informal participants had left the sector between July and September of 2008, this might need to be related to the history of hostility of host country inhabitants with regard to entrepreneurs of foreign origin (Bonacich, 1973), or factors outside the scope of this study.

It might be possible that this foreign component could have been higher, but that certain respondents might have claimed to be South African if afraid of identifying themselves as foreign. Refusals might represent respondents that may be difficult to sample and who wish to avoid scrutiny: the obscurity problem (Macmillan and Katz, 1992). In terms of this it might reasonably be expected that a certain segment of the sample that took part in the survey were not South African but may have identified themselves as being of South African origin.

Of relevance in this context is the issue of atypicality of street trader respondents within the Johannesburg street trading context. Host country measures that attempt to limit a group's economic influence may serve to increase their concentration in certain areas of the economy, as relatively less amenable political and socioeconomic conditions and lower incomes in the home countries bind them to the host country through their own economic success (Bonacich, 1973). This conception was found to be supported to the extent that a relatively high concentration of foreign born traders were found in the informal street trading context.

If restrictions were imposed on illegal immigrants such as being denied access to formal work, then this and other related factors might possibly contribute to a higher concentration of traders that might otherwise have been candidates for formal employment. The presence of these traders in the informal sector might therefore have

contributed to some atypical effect to the extent that the "typical" nature of the informal sector might have been influenced by the 56.34 percent foreign origin of the tested traders. Testing might therefore have revealed a higher percentage of atypical street traders making up the Johannesburg street trading context.

Atypical in this regard might represent street traders that, in the absence of the constraints that might exist in the formal workplace, might be working in the formal sector. The assumption made here, however, is that there is a relatively high level of illegal immigrants in the formal sector. However, this was not specifically tested.

In summation, in terms of the research question, days worked per week, total education, and being of foreign origin were found to potentially shape proactiveness. These factors were found to be significant predictors of an entrepreneurial orientation along the dimension of proactiveness. The discussion attempted to reduce the problem space around the lack of understanding of the contribution of proactiveness and its component relationships in the Johannesburg inner-city street trading context. Competitive Aggressiveness as a dimension of entrepreneurial orientation is discussed as follows.

6.2.1.4. Competitive Aggressiveness

According to Lumpkin and Dess (1996; 147), competitive aggressiveness as a dimension of entrepreneurial orientation refers to "the type of intensity and head-to-head posturing that new entrants often need to compete with existing rivals". Competitive aggressiveness, in contrast to proactiveness, refers to how enterprises "relate to competitors" and "respond to trends and demand that already exist in the marketplace" (ibid.).

The following discussion of the results of the hypothesis testing process relating to the research question: "To what extent do contextual factors shape an entrepreneurial orientation along the dimension of competitive aggressiveness?" is undertaken in this section. A multiple linear regression analysis was run with competitive aggressiveness as the dependent variable. It was found that years in Johannesburg, days worked per week, training courses, earnings and rental stand as variables were positively and

significantly associated with competitive aggressiveness. Experience and South African origin were found to be negatively and significantly associated with competitive aggressiveness. The significant predictors of competitive aggressiveness are illustrated in table 84.

Table 84. Significant predictors of Competitive Aggressiveness

Significant predictors of Competitive Aggressiveness			
Variables with positive association	**Significance**	**Variables with negative association**	**Significance**
Years in Johannesburg	p<0.0508	Experience	p<0.0005
Days Worked per Week	p<0.0007	RSA origin	p<0.0147
Training Courses	p<0.0951		
Earnings	p<0.0403		
Rental Stand	p<0.0147		

- Competitive Aggressiveness and Years in Johannesburg

Years in Johannesburg was found to be a positive and significant predictor of competitive aggressiveness (p<0.0508). This might indicate that more years exposed to the Johannesburg context might shape competitive aggressiveness in a positive manner; the longer an individual had been living in Johannesburg, the more competitively aggressive the street trader was found to be. This indicated that some effect was associated with being a resident of Johannesburg that was related to higher levels of competitive aggressiveness.

This variable, however, also included variance introduced by newer arrivals in Johannesburg. The average amount of time spent living in Johannesburg was found to be about 9.7 years. However, this included the 10.3 percent of respondents that were of Johannesburg origin. Being of foreign origin was more strongly associated with competitive aggressiveness; being of foreign origin was therefore found to positively shape both proactiveness and competitive aggressiveness.

If certain cultural values of groups can be conducive to entrepreneurship (Light, 1984), and if it is possible that effects of social change might be associated with economic change (Hagan, 1962), then a significant association between time spent in Johannesburg and entrepreneurial orientation would indicate that the Johannesburg context itself can shape entrepreneurial orientation.

No association was found between Johannesburg origin and competitive aggressiveness. Therefore no regional effect was evident. The effect of the Johannesburg context, however, on traders of foreign origin was strong enough in this context to be reflected in the net effect of the testing. The culture or social context of Johannesburg therefore may possibly have had an effect on certain individuals exposed to life in the city for a period of time. This might be a fruitful area for further research in that some effect may drive a manifested change in entrepreneurial behaviour over time with regard to the exposure of an entrepreneur to the emerging culture of a city exposed to the levels of change that have affected Johannesburg (Peberdy and Rogerson, 2003).

- Competitive Aggressiveness and Days worked per Week

Competitive aggressiveness was found to be significantly ($p<0.0007$) and positively associated with days worked per week. According to this, street traders with higher levels of competitive aggressiveness were found to work more days per week, and therefore street traders with lower levels of competitive aggressiveness were found to work fewer days per week. This might indicate an association with an element of work ethic.

There might be a difference, however, between this work ethic dimension as it relates to days worked per week and to hours worked per day, since these were not found to be highly correlated (Appendix B; Table B.2). There might indeed be an effect in terms of some other influence upon this factor which is not related to an effect common between hours worked per day and days worked per week.

The commonality between hours worked per day and days worked per week might represent some measure of work ethic, with the work ethic effect manifesting differently according to different dimensions of entrepreneurial orientation.

Competitive aggressiveness, autonomy and proactiveness were found to be positively associated with days worked per week and yet not associated with hours worked per day. However, innovativeness was found to be positively associated with hours worked per day and not days worked per week. This might indicate that work ethic might be manifested differently according to different entrepreneurial orientation dimensions. This might also indicate that some other effect is at work and that work ethic might only be one dimension of the varied influences that have an effect on the measured association between the entrepreneurial orientation dimensions and hours worked per day and days worked per week.

With regard to days worked per week, proactiveness, autonomy and competitive aggressiveness might be associated with some degree of resistance to the influence of an effect whereby street traders at higher levels of earnings potentially substitute leisure for work (Douglas and Morris, 2006: 405). However, this effect might not be evident due to the low levels of earnings experienced by traders in this context. The association between competitive aggressiveness and experience is considered as follows.

- Competitive Aggressiveness and Experience

Competitive aggressiveness was found to be associated negatively and significantly ($p<0.0005$) with experience as a predictor of competitive aggressiveness. Experience was therefore considered to shape competitive aggressiveness. According to Covin and Covins (1990) a passive competitive orientation places lower levels of constraints upon resources than that of an aggressive competitive orientation. The negative assoc iation between competitive aggressiveness and experience might possibly have represented a learning effect, or a more efficient adjustment of entrepreneurial orientation with regard to the specific context.

An increase in population density might lead to efficiency oriented specialist enterprises and efficiency oriented generalist enterprises coexisting, and displacing the others in a population of enterprises according to Aldrich (1990). Over time, this potentiality might be discovered by the informal street trader, as a result of experience, as a more efficient state of operation. If this is a learned effect, this would support the conception of this dimension (competitive aggressiveness) being shaped

by a learning effect. This would be in line with the conception that entrepreneurship can be learned, along a "how" dimension, the conception of Stevenson and Jarillo (1990).

- Training Courses and Competitive Aggressiveness

A significant and positive relationship between operational sophistication and formal occupational training ($p<0.10$) was found by Morris and Pitt (1995) with regard to their study of informal traders producing and selling products and services. It was expected that a positive and significant association between entrepreneurial orientation and training courses would exist in this context, to the extent that entrepreneurial learning could be facilitated by training courses.

Almost 13 percent of street traders surveyed were found to have attended training courses after entering the informal sector. The argument that increased levels of educational factors representing human capital could potentially shape entrepreneurial orientation was found to be confirmed, in that a positive association was found between training courses and increased levels of competitive aggressiveness ($p<0.0951$).

It is possible that training courses shape competitive aggressiveness, in that they might have enabled more competitively aggressive behaviour. Competitive aggressiveness was also found to be a predictor of training courses ($p<0.0816$). Ascribing directional causality to this relationship was not possible, and it was acknowledged that it was also possible that a higher endowment of competitive aggressiveness might also cause an individual to undertake training if available.

- Competitive Aggressiveness and Earnings

Earnings as a contextual variable was found to be positively and significantly ($p<0.0403$) associated, as a predictor, of competitive aggressiveness. When potential outliers and influential points were removed and the model tested again, earnings was found to also be positively and significantly ($p<0.0067$) associated with competitive aggressiveness. This indicates that the more a street trader earns, the more competitively aggressive the street trader was found to be. It is therefore possible that

earnings as a contextual factor might shape competitive aggressiveness. Competitive aggressiveness was, however, not found to be a significant predictor of earnings.

It might therefore be possible that a higher level of earnings potentially has an effect in terms of increasing the level of competitive aggressiveness of an individual street trader. According to Covin and Covin (1990), increased competitive hostility may be associated with aggressive behaviour in high performing enterprises yet with passive behaviour for low performing enterprises. The passivity in low performing firms may be a response to the low level of performance or a cause of it, in that a passive competitive orientation places lower levels of constraints upon resources than that of an aggressive competitive orientation according to Covin and Covin (1990). At higher levels of earnings it might be possible that competitive aggressiveness becomes enabled, in that constraints upon resources might not be the most critical factor for the street trader in terms of survival.

- Competitive Aggressiveness and Rental Stand

Rental stand as a variable was found to be positively associated with competitive aggressiveness ($p<0.0147$). This indicated that street traders with rental stands were found to be associated with higher levels of competitive aggressiveness. It might be possible that operating from a rental stand might shape competitive aggressiveness, in terms of some effect related to the rental stand operation. However, it is not possible to determine in which direction this effect manifested, since it is also possible that a higher endowment of competitive aggressiveness might cause an individual to obtain a rental stand.

- RSA nationality

Findings that immigrants are associated with differences in terms of entrepreneurial behaviour with regard to enterprise as contrasted with local individuals (Basu and Altinay, 2002; Portes, 1998; Reynolds, 1991; Wilson and Martin, 1982), are supported by this study.

The RSA variable ($p<0.0147$), representing South African origin for street trader respondents, was found to be negatively and significantly associated with competitive

aggressiveness. This would suggest that for a street trader in this context, being of foreign origin is associated with higher levels of competitive aggressiveness, or that South Africans were associated with lower levels of competitive aggressiveness.

According to ethnic enclave theory ethnic immigrant groups may develop horizontally and vertically integrated structural relations between ethnic firms, with access to capital and relationships between buyers and suppliers providing some measure of advantage over other firms without these strong relationships (Wilson and Martin, 1982). These strong relationships, if they exist in the informal sector, might be associated with a differential degree of manifested entrepreneurial behaviour, and might be associated with increased competitive aggressiveness.

Other factors might also contribute to higher levels of competitive aggressiveness amongst immigrant street traders. These can be considered according to certain factors, particularly the effects of cultural factors, that differentiate immigrant traders from traders of local origin.

- Cultural factors and Competitive Aggressiveness

It is possible that competitive aggressiveness might entail a degree of overt competition for market share that may run contrary to certain individual and group values. The development of this dimension of an entrepreneurial orientation would be constrained to some extent if this ethos of competitiveness did conflict with these values.

Theory was tested that predicted that certain groups of people would be associated with a stronger orientation toward entrepreneurship than other groups (Shapero and Sokol, 1982). This was verified by foreign born traders being separated from traders of local origin in a measured group. In terms of certain contexts, there may be a degree of rejection of the values of other perceived groups according to Hagan (1962). If traders of foreign origin differed from traders of local origin in terms of their rejection of values associated with competitive aggressiveness, then a difference would be expected. A difference was found. Further research might offer insights into whether ideological or cultural factors do in fact constrain entrepreneurship in the informal sector context.

Certain cultural and social environments are hostile to entrepreneurship (Shapero and Sokol, 1982). If this hostility existed, or if it were associated with a disdain for competitively aggressive behaviour and manifested itself in lower measured competitive aggressiveness, then a difference would be expected between groups, differing in terms of their relative hostility to entrepreneurship. Street traders of foreign origin were found to be associated with higher levels of tested competitive aggressiveness. This might indicate that the values of foreign traders were more strongly accepting of a competitively aggressive orientation.

However, if a cultural norm existed for certain street traders in that competitive aggressiveness was perceived as unacceptable behaviour, then it is reasonable to consider that lower measured endowments of competitive aggressiveness might be captured for these individuals. Certain street trader respondents might therefore have underreported their responses with regard to competitive aggressiveness.

If the individual did reject behaviours associated with competitive aggressiveness, then this would simply place these individuals correctly into the category of those with lower levels of competitive aggressiveness. To what precise extent the positive association of competitive aggressiveness with years in Johannesburg, or the negative association of competitive aggressiveness with being of South African origin was due to differing cultural effects is a suggested topic for further research.

In conclusion, the entrepreneurial orientation dimension of competitive aggressiveness for informal traders was found to potentially be shaped by the specific context or by contextual factors. Competitive aggressiveness was found to potentially be positively shaped by years spend in Johannesburg, days worked per week, training courses, earnings, the operation of a rental stand and being of foreign origin. Experience was found to potentially shape competitive aggressiveness in this context in a negative manner. Risk taking propensity is considered as follows.

6.2.1.5. Risk Taking Propensity

Lumpkin and Dess (1996) related the origins of the conception of the bearing of personal risk in enterprise to the early literature that regarded entrepreneurs as individuals that worked for themselves. In the context of the informal street trader this is the relevant perspective.

Table 85. Significant predictors of Risk Taking Propensity

Significant predictors of Risk Taking Propensity			
Variables with positive association	**Significance**	**Variables with negative association**	**Significance**
Gender	p<0.0947	Age	p<0.0990
Initial Investment	p<0.0357	Rental Stand	p<0.0960
Total Education	p<0.0113		
Experience	p<0.0473		
Order of Capture	p<0.0011		

In terms of the research question: "What informal sector factors shape risk taking propensity?" and the findings of the testing process, gender, age, initial investment, total education, experience, order of capture and the operation of a rental stand were found to be significantly associated with risk taking propensity (table 85). The research findings are compared to theory tested and the relationships with risk taking propensity of each of these seven variables in turn are discussed. The section is concluded with a consideration of the tested associations with regard to risk perception and bias; variability and hazard; and the pursuit of opportunity and security. First follows the discussion of gender.

- Gender

Gatewood et al. (1995) found a difference between males and females in terms of the manifestation of entrepreneurial choice. The conception of a difference between the genders in terms of entrepreneurial choice was found to be confirmed to the extent that differences in tested risk taking propensity represented entrepreneurial choice. Gender (p<0.0947) was found to be positively and significantly associated with risk taking propensity; being male was associated with higher levels of risk taking

propensity. This indicates that risk taking propensity may be shaped by gender and this may be further interpreted as a discriminatory relationship in that individuals have no control over their gender.

- Age

As individuals get older, they allocate relatively more time to waged labour and relatively less time to new firm creation because of "the discount attached" to future income according to Levesque and Minniti (2006: 189). Levesque and Minniti (2006) argue that certain triggering factors that contribute to entrepreneurial decision making are not related to the socio-economic environment, but are associated with certain intrinsic characteristics of the individual. A negative relationship was found between age and entrepreneurship by Levesque and Minniti (2006). The premise that risk taking as a component of entrepreneurial orientation is expected to be negatively associated with age was confirmed by the negative association found between age and risk taking propensity (($p<0.0990$), table 85).

Older entrepreneurs were found to accept lower returns according to Gimento et al. (1997). If lower returns are more acceptable to older entrepreneurs, and if acceptance of lower returns is associated with lower risk taking propensity, then this might predict that age is negatively associated with risk taking propensity. This would also have been confirmed according to the negative association found between age and risk taking propensity.

The older that traders become, therefore, the less likely they are to take risks. This effect might work against the effect of experience, however, in that if experience is associated with the learning of risk taking propensity (in a specific context) as a dimension of entrepreneurial orientation, age might have an effect in the opposite direction. In terms of the standardised coefficients, within the framework of the same model, the effect of experience was interpreted to be stronger than the effect of age (table 61).

The average age of a street trader was found to be 32.7 years; the lower quartile was measured at 26 years and the upper quartile at 39 years. The youngest street trader sampled claimed to be 17 years old; the oldest street trader sampled was 73 years old

(table 2). The average experience of a tested street trader was about 4.2 years. The lower quartile was measured at 2 years and the upper quartile was measured at 6 years of experience (table 16). Experience as a tested factor is considered in the section titled "experience and risk taking propensity" below.

- Risk Taking Propensity and Initial Investment

Forlani and Mullins (2000: 307) argue that certain factors influence entrepreneurial decisions relating to start ups, and that these factors include risk perceptions, contextual effects and the traits of individual entrepreneurs. Risk perception is motivated by funding levels, outcome variability and potential losses (ibid.). A high level of financial leverage, however, may not be enough in itself to classify an enterprise as entrepreneurial along the dimension of risk taking according to Miller (1983).

In terms of testing the relationship between risk taking propensity and initial investment, a positive and significant ($p<0.0357$) association was found. Risk taking propensity might be shaped by initial investment, as the higher the initial investment of a street trader, the higher the level of risk taking propensity found in terms of the testing procedure. In terms of the testing of the predictors of initial investment, however, risk taking propensity was also found to be a predictor of initial investment. It is therefore possible that initial investment might potentially shape risk taking propensity, yet there is no way of implying the direction of this effect, whether it runs from initial investment to risk taking propensity or from risk taking propensity to initial investment.

Forlani and Mullins (2000: 317) found that a higher level of risk propensity was associated with riskier decisions. This finding was supported, to the extent that a higher level of initial investment could be interpreted to represent a riskier decision. The positive association between risk taking propensity and earnings indicated that risk taking was rewarded in this context.

The consideration of initial investment and related associations is briefly undertaken as follows, due to the interrelatedness that might exist with regard to initial investment and risk taking propensity within the context of inequality. The manifestation of a

positive return on initial investment and risk taking propensity was not expected to occur equitably in this context. Initial investment was a factor taken to largely be beyond the power of the individual to control for most of the more impoverished street traders.

Initial investment and education were found to be inequitably distributed amongst street traders to the extent that the average initial investment for the tested street traders was found to have been between about six hundred and fifty and seven hundred and fifty rand and the average schooling of tested street traders was found to be below the completed high school level. The unequal endowments of human and financial capital were therefore shown to accentuate unequal effects that might perhaps represent a magnification of this inequality. It is argued that a strong case was therefore found to support any policy maker intervention that might increase the access of street traders to the endowments found to be significantly associated with earnings and/or continuance satisfaction. Such intervention might enable a more equitable informal street trader context. Risk taking propensity might possibly be increased to the extent that the predictors of risk taking propensity that might shape this dimension of entrepreneurial orientation are enabled.

Risk taking propensity was found to be a significant and positive predictor of initial investment, together with gender (being male), age, total education, earnings, having a rental stand, and being of foreign origin. Of these, the association found between total education and risk taking propensity is now discussed.

- Total Education and Risk Taking Propensity

Risk taking propensity was found to be a positive and significant predictor of education, and total education ($p<0.0113$; Table 85) was found to be a positive and significant predictor of risk taking propensity. The potential contribution of this dimension of entrepreneurial orientation to earnings and the potential effect of education in shaping this orientation might support the argument that education has an effect in shaping entrepreneurial orientation along a dimension that might increase earnings. The effect of education would therefore be related to some degree of upliftment for the individual street trader.

- Experience and Risk Taking Propensity

Smaller and younger enterprises were found to be associated with higher levels of entrepreneurial orientation according to a study of 3562 enterprises in China (Chow, 2006), using three dimensions of entrepreneurial orientation: proactiveness, innovativeness and risk taking propensity. Experience in the informal sector street trading context was represented by the length of time the street trading enterprise had been in operation. In the informal Johannesburg street trading context, however, more experienced traders were found to be more risk taking, but the older a street trader was found to be, the less risk taking that street trader was found to be. The effect found with regard to experience, however, was stronger than the effect found with regard to age. The different effect found by Chow (2006) might however have represented some difference in context along the dimension of national differences.

Experience ($p<0.0473$) was found to be positively and significantly associated, as a predictor, of risk taking propensity. The average experience of the street trading respondents was found to be 4.24 years, with 25 percent of traders having been in the street trading sector for two or less years, and 25 percent of traders having been in the sector for six years or more. This might indicate that this sector is associated with a relatively high turnover, if the average trader was found to have been in the sector for only about four years. This might therefore be considered a non-permanent occupation, or the operation in the city centre might represent a non-permanent location for a career street trader or informal participant. Further research into the movement of street traders into the formal sector or "upwards" into more formal enterprise might yield insights into the position of the informal street trading sector within the greater flow of entrepreneurs through sectors of enterprise.

According to Aldrich (1990) an increase in population density might lead to efficiency oriented specialist enterprises and efficiency oriented generalist enterprises coexisting, and displacing the others in a population of enterprises. According to this conception, over time in a population that is increasing in density, it might be expected that more efficient enterprises would be more numerous, having displaced less efficient enterprises. According to this conception of Aldrich (1990), that more efficient enterprises do displace other less efficient enterprises over time, it is possible that higher levels of risk taking propensity would be associated with more efficient

enterprises, to the extent that experience is associated with risk taking propensity. The association found between risk taking propensity and experience might reflect an adaptive or learned response as a result of the continued exposure of the individual to the context over time.

However, the displacement effect as considered by Aldrich (1990) might not manifest in terms of testing the association between experience and efficiency over time if traders were leaving the sector as a result of some measure of upliftment and not as a result of displacement due to a lack of efficiency. It might be possible therefore that certain traders have left the sector due to improvements in efficiency. However, the conception of Aldrich (1990) was supported to the extent that experience was found to be associated with earnings, if earnings are considered to be a measure of increased efficiency. Increased efficiency and risk taking propensity might be associated in this sector if earnings reflect a measure of efficiency, since a positive association was found between increased earnings and risk taking propensity.

According to the association found between experience and risk taking propensity, this finding indicated that experience potentially shapes risk taking propensity. It is possible that experience shapes risk taking propensity through some kind of learning effect inherent in experience. Since risk taking propensity was found to be significantly and positively associated with earnings, this might indicate that a positive learning effect might be present in the informal sector through the effect of experience.

- Risk Taking Propensity and Earnings

According to Lumpkin and Dess (1996) a contingency framework is needed to gauge the effect of entrepreneurial orientation on performance. Lumpkin and Dess (1996) argue that certain environments are less suited to risk taking or certain behaviours that might be too entrepreneurial in relation to the environment. In terms of the lack of a negative association found between any dimension of entrepreneurial orientation and entrepreneurial performance it was concluded that entrepreneurial orientation had no significantly negative effect in this context.

However, entrepreneurs may be associated with certain cognitive errors such as excessive confidence and control illusions: positive affective states that can affect perceptions and judgement according to Baron (1999). If a higher risk taking propensity resulted from of cognitive errors, then risk taking propensity would not necessarily be expected to be associated with higher earnings; in this case, the higher risk taking behaviour could be inappropriate to the context. However, the lack of a negative association found between risk taking propensity and earnings might indicate that if certain traders did manifest a higher risk taking propensity as a result of cognitive errors, then this effect was not found to be a net effect with regard to the testing.

The lack of a negative association between risk taking propensity and earnings might therefore indicate that this specific context was not unsuited to what might have possibly represented overly high risk taking propensity in another context. The context might therefore have been resistant to the effect of cognitive errors and their potential negative effect on performance. It is also, however, possible that the negative effect proposed by Baron (1999) in terms of cognitive errors and diminished judgement was simply not found to affect performance in this sector through the mechanism of risk taking propensity.

Similarly, Forlani and Mullins (2000: 319) argue that entrepreneurs are biased in their risky decision making which could "result in decisions which lengthen the already daunting odds for venture success". According to this conception, this might entail reduced probability for success, which might have been expected to be associated with a negative influence on earnings. However, risk taking propensity as a predictor of earnings was associated with higher levels of earnings in terms of the findings of the testing. Yet, in terms of earnings contributing to or having an effect in the shaping of risk taking propensity, earnings was not found to be a predictor of risk taking propensity.

- Order of Capture

Order of capture ($p<0.0455$) was found to be positively and significantly associated with risk taking propensity. Some effect was found, in that those respondents captured later in the process were found to have a higher level of risk taking propensity. This

might reflect the underlying structure of the city blocks sampled, since there were two taxi ranks adjacent to the city centre blocks demarcating the geographic limits of the central business area.

This finding might have also acted as a cumulative measure of net variation that had entered into the research process, this having allowed for its quantification. Any other effects associated with the sequential process of the study were therefore expected to have been included in terms of the testing of this variable.

If these significant associations were taken to represent differences according to city blocks sampled, then later sampled city blocks were found to be populated more by female traders, younger traders, and traders that had been in Johannesburg longer, earned less yet were more satisfied.These traders were also found to be less likely to have been from Johannesburg originally, and were found to be associated with lower levels of innovativeness yet higher levels of proactiveness and risk taking propensity.

The order of capture variable allowed for the differentiation of respondents that were surveyed later in the convenience sampling process versus those captured earlier. This variable might therefore have picked up variance relating to differences in the type of traders that traded closer to taxi ranks, and the types of traders that serviced flows of pedestrians further away from the taxi ranks. It was therefore judged to be possible that these differences within the delimited area of the centre of Johannesburg with regard to the specific context of the pedestrian flows of an individual street block might shape entrepreneurial orientation. The significant association found between the operation of a rental stand and risk taking propensity is discussed as follows.

- Rental Stand

The use of a rental stand ($p<0.0960$) was found to be negatively and significantly associated with risk taking propensity. This might indicate that street traders with greater endowments of risk taking propensity may be less inclined to use rental stands. Reasons could include the size constraints of these rental stands in terms of the potential reward associated with the sales of a certain volume of stock. Alternatively, the use of a rental stand might possibly have an effect in terms of somehow shaping risk taking propensity.

- Risk Perception, Bias and Risk Taking Propensity

According to Forlani and Mullins (2000: 317), the lack of an effect of risk propensity on risk perceptions might indicate that entrepreneurs do characterise business situations according to a "consistently optimistic pattern" compared to non entrepreneurs having the same risk propensity. The implication of this conception offered by Forlani and Mullins (2000: 317) might be that the dimension of risk taking propensity might not capture a further differentiation between more entrepreneurial individuals and less entrepreneurial individuals. This might, however only mean that a further level of entrepreneurial manifestation might exist along the dimension of risk taking perception. The level of entrepreneurial effects associated with risk perception was not tested in this context.

In the informal street trading context, perhaps the most appropriate measure of risk taking propensity would be the simplest. The simplicity of the testing process with regard to risk taking propensity was expected to have rendered more complex testing of derivative conceptions relating to risk taking propensity beyond the scope of this research.

Entrepreneurs "often adopt a strong future-oriented perspective that might reduce their tendency to reflect on past events" (Baron, 1999:79). In terms of the testing of this theory, the negative potential associations as potentially manifested in terms of earnings was not found, since risk taking propensity was found to be positively associated with earnings in terms of being a predictor of earnings.

Certain bias might also exist in terms of the entrepreneurial consideration of risk specifically related to the perception of context, according to prospect theory (Kahneman and Tversky, 1979). Individuals typically deviate from the predictions of utility theory in that outcomes that are certain are "over-weighted" and outcomes that are only probable are "under weighted" in the decision making process: the certainty effect (Kahneman and Tversky, 1979). In terms of the manifestation of these biases and their contribution to risk taking propensity, no negative effect was found between risk taking propensity and earnings.

- Variability, Hazard and Risk Taking Propensity

Entrepreneurs were found by Forlani and Mullins (2000: 315) to prefer risky choices associated with lower levels of variability yet higher levels of hazard, or potential loss, the latter "presumably to obtain the potential for the greater gains". The potential for greater gains or earnings in this context being associated with a risk taking propensity was found to be supported due to the finding of a significant and positive relationship between risk taking propensity and earnings. Risk taking propensity was found to be a predictor of earnings, but earnings was not found to be a predictor of risk taking propensity. Yet in terms of the differentiation of variability and hazard, no attempt was made to extract or test this differentiation in this work.

- The Pursuit of Opportunity, Security and Risk Taking Propensity

Methods or styles of management associated with risk taking are an indication of an entrepreneurial orientation according to Lumpkin and Dess (1996). The external environment of the entrepreneur becomes represented within the individual within a social context, and social cognition contributes to an understanding of opportunity recognition according to Shaver and Scott (1991). This fundamental association, the pursuit of opportunity, with entrepreneurship itself might suggest that an entrepreneurial individual considers security to be subordinate to opportunity. In terms of this a higher level of manifested pursuit of opportunity might be expected to be associated with higher levels of risk taking propensity. If the pursuit of opportunity at a higher threshold of tolerance of risk is undertaken, it is not unreasonable to expect such behaviour to be associated with increased earnings in certain contexts, as was supported by the finding in this tested context where risk taking propensity was found to be a predictor of earnings.

In conclusion, risk taking propensity, tested as to the factors that might contribute to the shaping of this dimension of an entrepreneurial orientation, revealed significant and positive associations with: gender, initial investment, total education, experience and order of capture. Factors potentially having a negative effect in terms of shaping the risk taking propensity dimension were found to be increased age and the operation of a rental stand.

The associations found between risk taking propensity and education and initial investment were discussed, and it was concluded that these were factors that might enable upliftment for informal street traders, yet potential endowments for informal sector street traders in terms of their access to these factors might be considered to be constrained in the context of informal sector street trading. Order of capture was discussed as a variable that might have picked up variation in the process of the study: variation that might have been introduced either by the underlying structure of the tested population, or through sampling variation.

Also discussed was certain theory relating to the broader conceptions of risk taking propensity being tested, and an attempt was made to acknowledge what was not considered in terms of the testing. Risk aversion is a characteristic of the individual, which cannot be easily changed by exogenous interventions according to Levesque and Minniti (2006). However, in the above discussion, the factors that might have shaped risk taking propensity were discussed in terms of the significant associations found in this context.

The informal street trading context was found to potentially be discriminatory in nature, due to the unequal endowments of resources in this context. With regard to risk taking propensity, factors such as being male, initial investment, and total education in terms of their potentiality to shape a risk taking propensity, were not considered to all be within the power of the individual to control or improve. In the following section, the significant associations between total entrepreneurial orientation and contextual factors are discussed.

6.2.1.6. Total Entrepreneurial Orientation

A key finding in a review across four industries in terms of four studies utilising Lumpkin and Dess' (1996) entrepreneurial orientation construct in the Australian industry context by Coulthard (2007: 35) was that all five of the entrepreneurial orientation dimensions had an impact on perceived firm performance. In terms of the testing of the net effect of the five entrepreneurial orientation dimensions, the effects of these dimensions might possibly cancel each other out or strengthen effects through

synergistic effects. It might be possible that certain cumulative effects relating to the influence of contextual factors might not be captured if total entrepreneurial orientation is not tested in order to enrich an understanding of the interplay of tested relationships. In light of this it was judged necessary to test total entrepreneurial orientation.

In terms of the research question, "What informal sector contextual factors shape total entrepreneurial orientation?" and the testing of the derived hypothesis, the following positive associations with total entrepreneurial orientation were found to be significant: gender (being male), days worked per week, total education, training courses, order of capture, continuance satisfaction, being of Johannesburg origin and being of foreign origin. These significant predictors of total entrepreneurial orientation are shown in table 86. The discussion of these respective associations is undertaken as follows.

Table 86. Significant predictors of Total Entrepreneurial Orientation

Significant predictors of Total Entrepreneurial Orientation			
Variables with positive association	**Significance**	**Variables with negative association**	**Significance**
Gender	Male, $p<0.008$	RSA nationality	$p<0.0229$
Days Worked per Week	$p<0.0001$		
Total Education	$p<0.0144$		
Training Courses	$p<0.0385$		
Order of Capture	$p<0.0011$		
Continuance Satisfaction	$p<0.0014$		
Johannesburg origin	$p<0.0232$		

- Gender and Total Entrepreneurial Orientation

A significant and positive association was found between gender ($p<0.008$) and total entrepreneurial orientation. Being male was associated with having a higher endowment of total entrepreneurial orientation. In terms of informal sector trading, differences between male and female traders might be relevant in terms of a differentiated contribution to entrepreneurial performance that might reflect societal

or other relevant factors unique to the differences between the genders. Gatewood et al. (1995) found differences between male and female entrepreneurs in terms of reasons for entrepreneurial persistence.

In terms of gender distribution, there was a relatively equal distribution of male and female street traders in and around Johannesburg according to a study by the City Council (O'Reilly, 2004). Fifty-seven percent of the street trader respondents were found to be male in this context. The positive association found between being male and risk taking propensity was also found to extend to total entrepreneurial orientation. The differentiation along gender lines as found with regard to the testing might represent the net effects of a potentially discriminatory context, in that certain manifestations of entrepreneurial orientation might have differed in terms of their contribution to entrepreneurial behaviour. However, no significant association was found between gender and earnings or between gender and continuance satisfaction.

- Age and Total Entrepreneurial Orientation

A negative relationship was found between age and entrepreneurship by Levesque and Minniti (2006). As individuals age, the opportunity cost of entrepreneurial activity increases, and the relative return decreases as individuals grow older (ibid.). According to this a negative relationship would be expected to be found between age and entrepreneurship. This was not found to be confirmed in this context with regard to total entrepreneurial orientation, to the extent that total entrepreneurial orientation represented entrepreneurship, as no significant association between age and total entrepreneurial orientation was found. The negative association between age and risk taking propensity as a dimension of entrepreneurial orientation was not found to extend to total entrepreneurial orientation.

- Days Worked per Week and Total Entrepreneurial Orientation

Entrepreneurs are associated with working long hours (Bird and Jelinek, 1988). An element of work ethic was thus conceived to exist in terms of entrepreneurial individuals. In a survey of Johannesburg street traders carried out by the Johannesburg City Council, it was found that traders worked between eight and

eleven hours per day, this varying according to seasonal influences (O'Reilly, 2004). The average street trader was found to work almost 6.2 days a week (table 8).

Days worked per week as a measure of entrepreneurial work ethic might conceivably be expected to contribute to the level of earnings. Conversely, days worked per week as a variable was not found to be associated with earnings, but was found to be negatively associated with the level of continuance satisfaction. However, the other possible work ethic measure, hours worked per day, was found to be associated with increased earnings. In terms of the testing of this factor, days worked per week, as a predictor of total entrepreneurial orientation, a positive and significant association ($p<0.0001$) was found between total entrepreneurial orientation and days worked per week. This would indicate that less entrepreneurial traders were found to work fewer days in a week, according to this measure of total entrepreneurial orientation.

- Total Education and Total Entrepreneurial Orientation

A positive and significant association ($p<0.0144$) was found with total education as a predictor of total entrepreneurial orientation, this potentially supporting the conception of entrepreneurship as a potentially learned orientation, the how perspective of entrepreneurship (Stevenson and Jarillo, 1990). Total education might therefore have shaped total entrepreneurial orientation. This was a key argument of this work: that an entrepreneurial orientation, and entrepreneurial performance, is associated with entrepreneurial behaviour that can be learned.

- Training Courses and Total Entrepreneurial Orientation

A significant and positive relationship between operational sophistication and formal occupational training ($p<0.10$) was found by Morris and Pitt (1995) with regard to their study of informal traders making and selling products and services. It was expected that a positive and significant association between entrepreneurial orientation and training courses would exist in this context, to the extent that entrepreneurial learning could be conceived of as facilitated by training courses. This expectation was found to be supported in terms of the positive association found between total entrepreneurial orientation and training courses. This finding was taken to support the contention of Stevenson and Jarillo (1990) that the "how" of

entrepreneurship can be learned, to the extent that total entrepreneurial orientation could be regarded as the how of entrepreneurship and that the association with training courses represented the net results of a learning effect.

Training courses attended by informal sector participants since entry into the informal sector were found to have a positive and significant ($p<0.0385$) association as a predictor of total entrepreneurial orientation. This might indicate that the postulated potential positive effects of a higher entrepreneurial orientation might be accessible through access to training courses. If this were the case, then this would be a factor that could contribute to the shaping of an individual's total entrepreneurial orientation. If accessible to the individual street trader training courses may, through this effect, allow for access to the possible benefits associated with a higher entrepreneurial orientation. Training courses were therefore found to potentially enable entrepreneurial behaviour, or potentially enable an individual's endowment of entrepreneurial orientation. The enabled entrepreneurial orientation of an individual might be differentially rewarded in different contexts (Lumpkin and Dess, 1996). In this context, training courses were found to be directly associated with higher earnings.

- Continuance Satisfaction contributing to Total Entrepreneurial Orientation

Continuance Satisfaction was found to be a positive and significant ($p<0.0014$) predictor of total entrepreneurial orientation. Continuance satisfaction was found to potentially shape total entrepreneurial orientation. Total entrepreneurial orientation as a variable was also found to be a significant predictor of continuance satisfaction. Traders with a higher endowment of total entrepreneurial orientation were therefore found to be more satisfied with continuing in informal sector trading, and more satisfied individuals were found to have higher endowments of total entrepreneurial orientation. This might represent a fit between an entrepreneurial lifestyle and entrepreneurial behaviour, in that the less entrepreneurial an individual was measured to be, the less satisfied the individual was found to be in the tested entrepreneurial context.

- Earnings and Total Entrepreneurial Orientation

Earnings, as a tested variable, was not found to be a significant predictor of total entrepreneurial orientation. However, total entrepreneurial orientation was found to be a significant predictor of earnings. This was found to support theory that associated an entrepreneurial orientation with earnings, albeit according to different contexts (Lumpkin and Dess, 1996).

- Johannesburg Origin and Total Entrepreneurial Orientation

Johannesburg origin was found to be positively and significantly ($p<0.0232$) associated with total entrepreneurial orientation. Traders of Johannesburg origin were found to be associated with higher levels of total entrepreneurial orientation. However, only 10.1 percent of traders were found to be of Johannesburg origin, this potentially also included those respondents of foreign origin that might have purposefully identified themselves as being of Johannesburg and local origin. This might indicate that a range of factors related to being of Johannesburg origin may have contributed to the net effect tested.

- RSA nationality and Total Entrepreneurial Orientation

According to the conception that immigrants have been associated with differences in terms of entrepreneurial orientation to enterprise as opposed to local enterprises (Basu and Altinay, 2002; Portes, 1998; Reynolds, 1991; Wilson and Martin, 1982), it was predicted that differences in entrepreneurial orientation would be found between immigrant entrepreneur street traders and street traders of local origin. This was confirmed with regard to total entrepreneurial orientation.

RSA nationality was found to be negatively and significantly associated with total entrepreneurial orientation ($p<0.0229$). Traders from other countries of origin were found to be associated with higher levels of total entrepreneurial orientation. Certain groups of people have been associated with a stronger orientation toward entrepreneurship than other groups according to Shapero and Sokol (1982), which may be a result of historic, regional and ethnic factors in addition to economic factors. In certain contexts, there may be a degree of rejection of the values of other perceived groups according to Hagan (1962). Certain cultural and social environments are

hostile to entrepreneurship according to Shapero and Sokol (1982). Theory that predicted differences between different groups of street traders was found to be supported, to the extent that foreign origin was a differentiator between two groups in this tested context. Street traders of foreign origin were found to be more entrepreneurial.

In terms of these results, foreign origin might have been a measure of cultural variability. This variability might exist with regard to local differences in culture, and the use of the Johannesburg origin variable was used to capture the effects of migrant and immigrant effects. The results of the testing therefore indicated that it was possible that cultural differences may have accounted for a some amount of variance in terms of the effects involved in shaping entrepreneurial orientation.

6.2.2. ENTREPRENEURIAL PERFORMANCE

The dimensions of entrepreneurial performance: earnings and continuance satisfaction are considered in this section in terms of the analysis of the results of the hypothesis testing process. The hypotheses tested were derived from the research question, "To what extent do informal sector contextual factors and entrepreneurial orientation contribute to entrepreneurial performance?" Earnings and continuance satisfaction are analysed with regard to the research findings as follows.

6.2.2.1. Earnings

The reported results of the hypothesis testing process relevant to answering the research question of "What informal sector contextual factors or entrepreneurial orientation dimensions contribute to earnings?" are discussed as follows. As a component of entrepreneurial performance for the purposes of this work, earnings is considered to be an important dimension in terms of the contention that certain factors might be associated with the upliftment of street traders. Also considered is the possibility that certain of these factors might represent variables that are under the control of the individual in terms of the potential facilitation of upliftment.

Earnings, as a tested variable, is considered to represent an important measure of the potential for upliftment for an individual street trader.As a universal measure of improvement, earnings is considered to represent an objective measure, as opposed to continuance satisfaction, which is considered to be a subjective measure that accrues to individuals selectively, according to the effect of perception and other internal factors within the individual. Significant predictors of earnings are shown in table 87. The contribution of factors found to be predictors of earnings is considered as follows.

Table 87. Significant predictors of Earnings

Significant predictors of Earnings			
Variables with positive association	**Significance**	**Variables with negative association**	**Significance**
Hours Worked per Day	p<0.0016	Years in Johannesburg	p<0.0887
Initial Investment	p<0.0003	Order of Capture	p<0.0001
Total Education	p<0.0336		
Experience	p<0.0467		
Training Courses	p<0.0971		
Continuance Satisfaction	p<0.0001		
Risk Taking Propensity	p<0.0878		

- Earnings and Innovativeness

Earnings was found to not be associated with innovativeness in this context. If the need for creative and innovative work or behaviour is only activated after lower order needs such as physiological or safety needs are largely satisfied, then it would be expected that street traders might not necessarily be highly innovative according to Maslow's (1987) conception. Certain behaviour associated with the dimensions of entrepreneurial orientation might be "too entrepreneurial" for a certain context, according to Lumpkin and Dess (1996). Therefore, if innovative behaviour were found to be manifested in this context, it might be inappropriate with regard to the context to the extent that there was no association between innovativeness and earnings.

- Earnings and Total Entrepreneurial Orientation

In consideration of the dynamic capability view of the firm, entrepreneurial behaviour, as represented by entrepreneurial orientation, combined with organisational reconfiguring capabilities constitutes "a potential source of competitive advantage" according to Jantunen et al. (2005: 223). An entrepreneurial orientation can be associated with performance, depending upon context (Lumpkin and Dess, 1996). In terms of the predicted positive effect of total entrepreneurial orientation on earnings, this predicted positive effect was confirmed.

In terms of the multiple linear regression model run with total entrepreneurial orientation as the predictor variable and earnings as the dependent variable, total entrepreneurial orientation was found to be positively and significantly ($p<0.0285$; Table 65) associated with earnings. Order of capture was the other independent variable tested in this model.

Total entrepreneurial orientation was not expected to be strongly correlated with the individual dimensions of an entrepreneurial orientation, due to the theoretical structure of entrepreneurial orientation: that the effects of entrepreneurial orientation may vary independently of each other (Lumpkin and Dess, 1996). If an entrepreneurial orientation was shaped by the context, and learning adaptation was found to have occurred, then the entrepreneurial orientation over time would be expected to represent a more optimal fit with the context. Therefore, correlations between the dimensions would not necessarily be expected. However, the cumulative effect of total entrepreneurial orientation was expected to be associated with earnings according to the argument that learning can occur. It is argued that entrepreneurial orientation is shaped by learning factors and contextual factors, and that an entrepreneurial orientation contributes to entrepreneurial performance in that opportunity is pursued optimally according to a specific context. The finding of a significant association between total entrepreneurial orientation and earnings was found to support this conception.

The predicted potential of entrepreneurial orientation dimensions to vary independently of each other as conceptualised by Lumpkin and Dess (1996) was supported, this relationship illustrated by a Cronbach's alpha found only 0.316078

between all five entrepreneurial orientation dimensions (Appendix B; Table B.3). Risk taking propensity was found to be the only entrepreneurial orientation dimension associated with earnings.

Therefore, the significant association found between total entrepreneurial orientation and earnings might indicate that the learning or adaptive effects manifested as a result of the effect of context in shaping entrepreneurial orientation might have resulted in a cumulative learning effect. This cumulative learning effect, or learned "how" of entrepreneurship as shaped by the context, might therefore only have been picked up through the testing of total entrepreneurial orientation. The effect might only have been found as a cumulative effect.

- Gender and Earnings

In terms of gender distribution, there had been a relatively equal distribution of male and female street traders in and around Johannesburg according to a study by the City Council (O'Reilly, 2004), yet in terms of this study, 57 percent of respondents were found to be male. In terms of the testing of contextual factors with regard to their effect on earnings, gender was not found to be significantly associated with earnings.

The finding of no significant difference between earnings for males or females might indicate that the context is not inherently discriminatory along the dimension of gender in terms of earnings potential. This might indicate that the effect of factors related to gender may have equalled out to the extent that no net effect was found with regard to the testing of these factors. However, due to the finding that being male was more strongly associated with risk taking propensity and autonomy, this might indicate that only in this specific context were the effects of gender differences with regard to entrepreneurial orientation not shown to be transmitted to differences in earnings. Different effects might be manifested in different contexts.

- Age and Earnings

A negative relationship was found between age and entrepreneurship by Levesque and Minniti (2006). Levesque and Minniti (2006: 178) found support for a model showing that after a certain threshold age is reached, "individual willingness to invest

time in starting new firms declines." According to this conception, a lower level of entrepreneurial orientation might be expected to be associated with older individuals. If a lower entrepreneurial orientation were expected to be associated with lower earnings, then lower earnings might be expected for older individuals that were found to have a lower endowment of entrepreneurial orientation. However, no significant association was found between age and earnings. In terms of this, the effect of there being a return on age, as offered by Becker (1975), was not found to be supported in this informal sector context.

De Clerq and Ruis (2007: 483) found a positive relationship between an individual's age and their commitment and effort in the Mexican context of small and medium sized enterprises. If commitment and effort were universally positively associated with increased earnings then this would predict that age would be associated with increased earnings, to the extent that other age related factors did not together create a net effect that worked against this positive effect. In terms of this context, however, no significant association, or net effect was found between age and earnings.

- Years in Johannesburg and Earnings

Years in Johannesburg, as a tested variable, was found to be significantly and negatively associated with earnings. This effect might indicate that those arriving in Johannesburg more recently might experience higher earnings in the informal sector. This might have indicated that there might have been a change in the type of individual arriving in Johannesburg that was entering the informal sector. This might be an effect that further research could provide more insight into, in that this informal context might impose a cost of some sorts on street traders who have been in Johannesburg longer than others.

The testing of associations might have captured a point in time within a changing pattern of migration or immigration, in that changes in the composition of new entrants into the informal sector might have been occurring. However, no significant difference was found in terms of immigrants, migrants or traders of local origin in terms of earnings. Effects might have remained in the total sample that might have been the net result of individuals entering, remaining or leaving the sector over time.

In this regard, longitudinal research could offer a greater insight into the effects of the flow of individuals through the sector over time.

Such longitudinal research might offer a greater understanding in terms of the informal sector selecting for certain individuals, or alternatively in terms of empowering certain other individual entrepreneurs to rise out of the informal sector. The effect of such a longitudinal effect might shift the balance of a tested effect, such as the case of empowered individuals leaving the sector and increasing the relatively dysfunctional component of the informal sector over time. Certain of these effects, however, might have been captured in this research through the testing of variables such as years in Johannesburg.

- Hours worked per day and Earnings

Entrepreneurs are associated with the working of long hours (Bird and Jelinek, 1988). An element of work ethic is thus perceived to exist in terms of entrepreneurial individuals. In a survey of Johannesburg street traders carried out by the Johannesburg City Council, it was found that traders worked between eight and eleven hours per day, this varying according to seasonal influences (O'Reilly, 2004). Theory predicting a positive association between hours worked per day and earnings was supported. Hours worked per day ($p<0.0016$) was found to be positively and significantly associated, as a predictor, of earnings. This might have been expected in terms of theory associating elements of work ethic with entrepreneurial behaviour because entrepreneurial behaviour was expected to be associated with higher levels of earnings.

The average amount of hours found to be worked by street traders was 10.15 hours per day (table 6). An entrepreneurial orientation can have a positive effect on the internal practices of an enterprise, as individuals in more entrepreneurial enterprises "may experiment more freely and thereby be more willing to devote substantial energy" to their enterprises according to De Clerq and Ruis (2007: 483). A higher level of entrepreneurial orientation might be associated with longer hours worked. An association was found between more hours worked per day and innovativeness, and a positive association with earnings was found for increased hours worked per day.

De Clerq and Ruis (2007: 483) also found a negative effect in terms of increased size of an enterprise as related to commitment and effort in small and medium enterprises in Mexico. In terms of this, it is expected that the small enterprise that represents a street trading venture might be associated with higher levels of commitment and effort than larger enterprises, and this might be reflected in terms of hours worked per day. This was confirmed to some extent by the finding that street traders within this context worked an average of 10.15 hours a day.

However, traders at higher levels of earnings may potentially substitute leisure for work (Douglas and Morris, 2006: 405). If present, this effect might have been expected to mitigate against a positive association between hours worked per day and earnings. This potential effect was not found to have influenced the net positive association between hours worked per day and earnings. Days worked per week, however, were not found to be associated with earnings.

- Days worked per week and Earnings

It was perhaps a reasonable assumption to make, that the more days worked per week, the more earnings might be generated. The absence of this effect was considered odd. Important in this context was the conception that days worked per week was a variable that was within the power of the individual to control. The absence of an increase in earnings due to increased days worked per week might have indicated a perverse condition for a working individual. This represented an effect measured across the entire tested sample. This would have included the most disadvantaged individuals in this specific context. This effect perhaps indicated some measure of dysfunctionality within this context.

The dysfunctional effect thus captured might have been significant enough to disintermediate the contribution of a factor to increased earnings. This might be an area indicated for further research in terms of the thresholds of dysfunction that might have been found to exist in the informal context.

In terms of street traders at higher levels of earnings, if the individual did prefer to substitute leisure time in favour of work time "despite the opportunity to earn even higher income", a backward bending labour supply curve effect would occur

according to Douglas and Morris (2006: 405). If above a higher level of earnings an individual did prefer to substitute leisure time for work time, this effect would be expected to manifest as fewer days worked or fewer hours worked.

Since this effect, according to Douglas and Morris (2006) is be activated through increased earnings, this would potentially dissociate increased earnings and increased days worked per week or hours worked per day. Athough no association was found between days worked per week and earnings, a positive association was found between hours worked per day and earnings.

This finding might indicate that if an effect were present that negated the expected association between more time worked and increased earnings then this effect was more likely to have affected days worked per week, and less likely to have affected hours worked per day.

- Initial Investment and Earnings

Initial investment ($p<0.0003$), was found to be positively and significantly associated with earnings. This would indicate that the more an informal trader invests in their enterprise on entry into the sector, the more return is achieved, or that there is a return on capital in the informal sector. This is a factor, however, that might reflect some implicit discriminatory process inherent in the informal sector, in that individuals with smaller endowments of capital or more constrained access to resources, might earn less, this reflecting the inequalities of the broader society. This might not be a factor that is universally accessible to the individual in the informal street trading context in terms of facilitating upliftment.

- Level of Total Education and Earnings

Human capital theory emphasises the potential of the individual, through the investment in education, to solve the problem of low wages and unemployment through behavioural factors such as the acquisition of skills (Becker, 1975). However, dual market theorists are an example of theorists that contest this and stress the structural factors of jobs that exist whereby "workers are not able to improve wages, skills and status" (Cassim, 1982: 373). Implied here from the latter perspective is that

in certain contexts there might be no return on learning factors and that choices made to increase productivity through education and training, for example, may have no impact on their earnings.

Becker's (1975) conception that greater endowments of human capital, as measured by level of education, would manifest in a measurable return on human capital was found to be supported in this context. A return on human capital was found for Johannesburg inner city street traders. Educational linkages may contribute to the creation of social networks and social capital: the potential achievement of outcomes and resources derived from social networks (Coleman, 1998), which would predict that earnings may be higher due to an increased access to these resources. However social capital was not expressly tested in this work.

- Level of Tertiary Education and Earnings

In terms of the testing of the following: Becker's (1975: 7) conception that tertiary education provided a return on the investment, and Gimento et al.'s (1997) findings that tertiary education was associated with significantly higher economic performance than the next lower level: high school and partially completed tertiary qualifications, these conceptions were not found to be supported in this tested context, as no significant association was found between earnings and the level of tertiary education. About 8.26 percent of the informal street trading respondents were found to have at least some tertiary education. However, with about 56.34 percent of traders being of foreign origin, entry into other sectors that might have offered a higher return on the investment in tertiary education might have been constrained if certification or other problems had existed. Twenty-eight traders were found to have had some tertiary education. Nine traders were found to have completed a tertiary qualification. Two traders were found to have some postgraduate education, and one trader was found to have a completed postgraduate qualification. A return on tertiary education was not found to exist in this sector.

- Experience and Earnings

An increase in population density might lead to efficiency oriented specialist enterprises and efficiency oriented generalist enterprises coexisting, and displacing

the others in a population of enterprises (Aldrich, 1990). The effect of experience might have captured this displacement effect, in that the higher the level of experience, the longer the enterprise had remained in the population. A higher level of efficiency might indicate that resources are more efficiently used. This might in turn indicate that higher earnings would be expected from enterprises that had optimally used resources within a certain context. A higher level of earnings was found to be associated with higher levels of experience in terms of the testing. This indicated that learning might have occurred, in that informal street traders might have learned to be more efficient, or have learned to manage resources in a more efficient manner which allowed for the achievement of higher levels of earnings.

Years of experience in street trading was not found to be associated with increased earnings by Teilhet-Waldorf and Waldorf (1983). However, experience was found to be associated with higher earnings by Dasgupta (2003). In terms of a core argument of this work: that learning is associated with entrepreneurship in terms of the shaping of entrepreneurial orientation and that learning contributes to entrepreneurial performance, it is argued that experience is associated with increased earnings in this context, this providing some evidence that entrepreneurial learning might occur in the informal street trading context. This argument was found to be supported to the extent that experience was found to be associated with increased earnings for informal sector street traders.

A positive and significant ($p<0.0467$) association was found between experience and earnings. There might therefore be evidence of a learning effect of some nature existing in this regard. This effect, if confirmed as a learning effect, would confirm conceptions of elements of entrepreneurship as being able to be learned (Stevenson and Jarillo, 1990).

In light of the positive findings with regard to the contribution of risk taking propensity and of total entrepreneurial orientation to earnings any factor that was found to shape entrepreneurial orientation might have had some indirect effect in terms of the contribution of entrepreneurial orientation to earnings. Risk taking propensity was found to increase with experience yet competitive aggressiveness was found to decrease with experience. It is argued that learning occurred in this context.

The positive association between experience and earnings might indicate that learning does occur as a result of experience. Experience might, over time, contribute to an increasingly optimal fit between the context and the entrepreneurial orientation of the enterprise through the effect of context in shaping entrepreneurial orientation through experience. The effectiveness of the learning or the shaping of entrepreneurial orientation might be measured by the extent to which earnings were increased in a specific context.

- Training Courses and Earnings

A significant and positive relationship between operational sophistication and formal occupational training ($p<0.10$) was found by Morris and Pitt (1995) with regard to their study of informal traders making and selling products and services. A return on specific human capital and general human capital was expected as training was expected to increase productivity (Becker, 1975). A positive association between training courses and earnings was expected to be found in terms of the testing, and this expectation was confirmed. Training courses ($p<0.0971$) were found to be positively and significantly associated with increased earnings.

Street traders that had received training, or had attended training courses, were found to be associated with higher earnings. This indicated that some increase in productivity or some effect associated with this training might have increased earnings potential in this context. Training courses were also found to be positively associated with increased competitive aggressiveness and total entrepreneurial orientation. This might in this context be considered to support Stevenson and Jarillo's (1990) theoretical position in terms of the learned how of entrepreneurship, to the extent that training courses might have shaped entrepreneurial orientation and might have contributed to increased entrepreneurial performance through a learning effect.

- Order of Capture and Earnings

Order of capture ($p<0.0001$) was found to be negatively and significantly associated with earnings for the entire sample of tested respondents. It was possible that underlying effects associated with city block structure might have contributed to this

effect, in that respondents surveyed later in the process were found to earn less than those traders sampled earlier. Another possibility was that process variability was isolated and captured within this variable.

- Rental Stand and Earnings

Rental stand as a variable was not found to be significantly associated with increased or decreased earnings in this context, in spite of its positive association with competitive aggressiveness and its negative association with risk taking propensity. The difference in earnings was therefore found to be insignificant in terms of the difference between having a rental stand and using a space on the street that was not a rental stand.

A possible explanation for these findings is that traders with a higher level of risk taking propensity might invest more in terms of initial investment (to the extent that initial investment was found to be a positive predictor of risk taking propensity: $p<0.0357$). A higher level of initial investment might allow for more stock or a bigger space to sell from. The use of a rental stand might constrain the size of the selling area or the amount invested in stock for a trader with a higher level of risk taking propensity who is expected to have a preference for higher levels of investment in their enterprise. An individual with a higher level of risk taking propensity might have a higher tolerance for risk to the extent that pavement space is not state sanctioned or allocated is chosen.

An individual with a high endowment of competitive aggressiveness might be attracted to the perceived competitive advantages of a stand in terms of its features. However, this might be an unsubstantiated perception due to the finding that no advantage or disadvantage was associated with operating a rental stand. This might also indicate that the placement of the rental stands is not necessarily associated with any advantage or disadvantage over pavement placements.

- Continuance Satisfaction and Earnings

Continuance Satisfaction ($p<0.0001$) was found to be positively and significantly associated with earnings for the entire tested sample of respondents. The more

satisfied street traders were with continuing, the more earnings they were found to make. Continuance satisfaction was found to be a significant predictor of earnings and earnings was also found to be a significant predictor of continuance satisfaction. Higher levels of continuance satisfaction might possibly be associated with a higher degree of engagement with the street trading process which might enable higher earnings.

- Innovativeness and Earnings

Covin and Slevin (1989: 77) argue that in hostile environments, "an advantage will more likely result from the proactive, innovative, and risk taking efforts of entrepreneurial firms than the passive and reactive efforts of conservative firms". In an environment that is not hostile, an entrepreneurial posture might "not be essential for superior performance, and could possibly represent an unwarranted risk" for smaller enterprises according to Covin and Slevin (1989: 77). In the model with points removed, innovativeness was found to be negatively associated with earnings. However, this model was not integrated into the analysis because it did not represent the entire sample of tested respondents.

Lumpkin and Dess (1996: 163) argue that "the idea that the dimensions of entrepreneurial orientation may vary independently is consistent with the work of prior entrepreneurship scholars, who have proposed different typologies to characterise entrepreneurship". Lumpkin and Dess (1996: 163) suggest that future research might demonstrate that "innovativeness, proactiveness, and competitive aggressiveness are present only under certain conditions" in terms of new entry: their definition of entrepreneurship. For the entire sample of tested respondents innovativeness was not found to be associated with earnings in this context, nor found to be associated with more than one contextual factor: hours worked per day.

Only risk taking propensity out of the entrepreneurial orientation dimensions was found to be positively associated with earnings, and innovativeness, proactiveness, autonomy and competitive aggressiveness were not found to be positively or negatively associated with earnings in this context. Autonomy was the only entrepreneurial orientation dimension associated with continuance satisfaction.

- Autonomy and Earnings

An internal locus of control, as a belief, may be associated with higher achievement according to Shaver and Scott (1991). If an internal locus of control is a component of autonomy, this would predict a positive association between autonomy and increased earnings to the extent that higher achievement would be associated with higher earnings. This predicted association was not found to be supported in this context.

According to Shaver and Scott (1991) the behavioural effects of losing control also relate to learned helplessness and psychological reactance: where a loss of control or freedom to choose can create a condition of learned helplessness as an individual gives up. Should giving up or a condition of learned helplessness be associated with a low measured level of autonomy, a low measured level of autonomy was expected to be associated with lower earnings. However, no significant effect was found in terms of the testing between earnings and autonomy.

Some entrepreneurs might be motivated by a preference for creating their own work environment, due to an element of distrust (Kets de Vries, 1985). If distrust potentially introduces an element of dysfunctionality into the equation, this might predict a suboptimal association of earnings with autonomy, to the extent that a preference for creating an autonomous work environment due to elements of distrust might be associated with autonomy for certain entrepreneurs.

Although no association was found between autonomy and earnings with regard to the entire sample tested, the lack of a positive association of autonomy with earnings in this context might possibly indicate some support for this theoretical conception of Kets de Vries (1985) or other conceptions that predict other than positive associations between autonomy and earnings. In the model tested with removed points, the earnings variable was found to be negatively associated with autonomy. However, the model tested without potential outliers or influential points did not represent the entire tested sample, and the results of the model tested without these points was not interpreted for more than exploratory insight.

It might be possible that for the entire sample tested, both negative and positive effects were present within the informal sector context. It might therefore have been

possible that the net effect was not strong enough in a positive or a negative direction to be measured with regard to the testing. The association between autonomy and earnings was therefore found to be inconclusive in this context.

- Risk Taking Propensity and Earnings

Risk taking propensity ($p<0.0878$) was found to be positively and significantly associated with earnings. Any intervention or any factor that might increase an endowment of risk taking propensity for a street trader in this context might increase earnings for these individuals.

Covin and Slevin (1989: 77) argue that in an environment that is not hostile, an entrepreneurial posture might "not be essential for superior performance, and could possibly represent an unwarranted risk" for smaller enterprises. Risk taking propensity was the only entrepreneurial orientation dimension found to be positively associated with earnings. For the whole sample of tested respondents, no entrepreneurial orientation dimension was found to be negatively associated with earnings.

For a sub-set of respondents, however, that is the entire sample with potential outlier and influential points removed, innovativeness and autonomy were found to be negatively associated with earnings. This finding might have supported Covin and Slevin's (1989) conception. For this sub-set, higher endowments of autonomy and innovativeness might have contributed to lower earnings for street trader respondents. However, because this sub-set did not represent the entire tested sample, only the results of the testing of the entire sample were interpreted. According to these results, risk taking propensity was the only entrepreneurial orientation factor found to be significantly associated with earnings.

According to Levesque and Minniti (2006) factors inherent in the make-up of the individual, unlike contextual factors, cannot be altered quickly by exogenous shocks such as, for example policy measures. This might indicate that policy measures aimed at increasing entrepreneurial orientation might need ongoing intervention in order to ensure sustainability.

Lumpkin and Dess (1996: 163) suggest that future research might demonstrate that "risk taking and autonomy are needed for all types of new entry, but that innovativeness, proactiveness, and competitive aggressiveness are present only under certain conditions". Some significant association might thus be expected to be found with regard to risk taking propensity and autonomy. In terms of this, for the entire tested sample, risk taking propensity was found to be positively and significantly associated with earnings, and autonomy was found to be positively and significantly associated with continuance satisfaction. These were the only entrepreneurial orientation dimensions found to be associated with entrepreneurial performance in this context.

In terms of testing the conception offered by Forlani and Mullins (2000: 319): that entrepreneurs are biased in their risky decision making which could "result in decisions which lengthen the already daunting odds for venture success", this was not found to be supported in that the higher the level of risk taking propensity, the higher the level of earnings was found to be.

- RSA origin and Earnings

If any advantage accruing to traders of foreign origin over local traders was expected to exist according to ethnic enclave theory (Wilson and Martin, 1982), this was not found to be the case, as no significant association was found between being of foreign origin and earnings. Street traders of foreign origin were found to make up the majority (about 56 percent) of the tested respondents. Street traders of Johannesburg origin were found to make up 10.03 percent of the tested respondents. This indicated that almost 90 percent of the city centre street traders sampled were migrants originally from either other areas of South Africa or other countries.

According to the conception that social networks and casual information networks can benefit enterprises (Reynolds, 1991), no differentiation was found in terms of increased earnings and national origin, this indicating that social networks that local individuals might have accessed for longer through growing up in the country did not offer an advantage over foreign traders to the extent that any net earnings effect was found in terms of the testing.

Being of Johannesburg origin or not being of Johannesburg origin was also not found to be significantly associated with differences in earnings. The finding that no association was found between national origin and earnings might indicate that in the informal street trading context, individuals from other countries are not discriminated against to the extent that any difference in earnings was found. Continuance satisfaction is considered as follows.

6.2.2.2. Continuance Satisfaction

With reference to the research question of "To what extent do informal sector contextual factors and entrepreneurial orientation dimensions contribute to entrepreneurial performance?" in this case specifically along the dimension of continuance satisfaction, the research findings are discussed in the following section. The table of significant predictors of continuance satisfaction is illustrated in table 88.

Total entrepreneurial orientation, years in Johannesburg, earnings, order of capture and autonomy were found to be positive and significant predictors of continuance satisfaction. Days worked per week and total education were found to be significant and negative predictors of continuance satisfaction. The results of the testing are discussed as follows with regard to the associations found or not found between continuance satisfaction and the following: years in Johannesburg; days worked per week; initial investment; total education; earnings; experience; order of capture; and autonomy.

Table 88. Significant predictors of Continuance Satisfaction

Significant predictors of Continuance Satisfaction			
Variables with positive association	**Significance**	**Variables with negative association**	**Significance**
Years in Johannesburg	$p<0.0159$	Days Worked per Week	$p<0.0053$
Earnings	$p<0.0001$	Total Education	$p<0.0032$
Order of Capture	$p<0.0001$		
Autonomy	$p<0.0001$		

- Years in Johannesburg and Continuance Satisfaction

Years in Johannesburg was found to be a positive and significant predictor ($p<0.0159$) of continuance satisfaction. According to this finding, street traders were found to be more satisfied the longer they had been residing in Johannesburg. This might also indicate that those that are more recent in terms of arrival in Johannesburg might have been found to be more dissatisfied. Some adaptation to the city environment might have occurred, and individuals that have become more settled in terms of Johannesburg city life, might be more satisfied.

Almost half of the respondents were found to have been in Johannesburg for three years or less: 47.79 percent (table 5). Another 24.19 percent of respondents were found to have arrived in Johannesburg between three and nine years before being sampled. This indicated that 71.98 percent of the street traders surveyed had arrived in Johannesburg within the last decade. A total of 11.8 percent of sampled street traders were found to have arrived in Johannesburg between nine and fifteen years before. Therefore 83.78 percent of street traders were found to have arrived in Johannesburg within the last fifteen years. If more recent arrivals in Johannesburg were relatively more dissatisfied, this would support a finding of a positive and significant association between continuance satisfaction and a longer period of residence in Johannesburg.

Recalling the change (Peberdy and Rogerson, 2003:79) that South Africa has been exposed to over the past decades, these changes would be expected to affect entrepreneurial orientation in Johannesburg and entrepreneurial performance along some dimension. Some effect might also have been associated with the emerging culture of a city.

The net effect of a positive and significant association between continuance satisfaction and years in Johannesburg might therefore have captured some element of political, social or economic change over time in the Johannesburg context.

The years in Johannesburg variable might have captured potential variance with regard to more recent arrivals that was not captured as a net effect by the

Johannesburg origin variable. The contrast between those newer to Johannesburg and those having arrived earlier was found to be strong enough to reveal an association between continuance satisfaction and years spent in Johannesburg.

- Days worked per week and Continuance Satisfaction

Increased days worked per week were found to be negatively and significantly ($p<0.0053$) associated with continuance satisfaction. This would indicate that those traders operating for fewer days a week were associated with higher levels of continuance satisfaction. This might indicate that dissatisfaction was found to be associated with relatively long hours worked. The average days worked per week were found to be about 6.2 days, with a lower quartile of 6 days, and an upper quartile of 7 days (table 8). Respondents found to be working 6.3 days per week or more accounted for 96.46 percent of the sample. This would indicate that working many days a week was widespread in this context. The average street trader respondent was found to therefore work 10.15 hours per day (table 6) and 6.2 days a week. The average street trader therefore was found to work about 62.93 hours a week. The dissatisfaction with more days worked per week might represent a response to a relatively harsh context in terms of working conditions.

- Initial Investment and Continuance Satisfaction

In terms of the testing of the entire sample of respondents, higher levels of initial investment were not found to be positively and significantly associated with increased continuance satisfaction. This might indicate that there is no direct return on financial capital in terms of continuance satisfaction in this context.

- Total Education and Continuance Satisfaction

Higher levels of total education were found to be negatively and significantly ($p<0.0032$) associated with increased continuance satisfaction. This might indicate that there might be a negative return on human capital in this context, along the dimension of continuance satisfaction. The more formally educated a street trader was found to be, the more dissatisfied they were found to be with continuing in informal street trading.

Human capital was found by Gimento et al. (1997) to be positively related to enterprise performance in terms of earnings but not necessarily related to survival. Individuals might therefore earn more due to higher levels of human capital yet not necessarily continue in an entrepreneurial activity. According to this conception of Gimento et al. (1997) therefore, human capital may be related to earnings yet not necessarily with satisfaction relating to continuance in a specific enterprise. Human capital, as represented by total education was found to be positively associated with earnings, but negatively associated with continuance satisfaction in this context.

More educated individuals might be aware of different potential opportunities that may be available for more highly educated individuals in the formal sector. A differential return on human capital, or education, may exist in terms of these sectors, in that this return might have been higher in the formal sector or other areas of economic activity. With traders of foreign origin making up 56.68 percent of the informal sector, it might have been possible that certification and legal requirements for jobs in the formal sector or other limiting factors (Light, 1984) might have represented barriers for a certain segment of street traders. This effect might have been most intense for more educated individuals. This might have been reflected in the negative association between total education and continuance satisfaction.

- Earnings and continuance satisfaction

Earnings were found to be positively and significantly ($p<0.0001$) associated with continuance satisfaction. Street traders that earned more were found to be more satisfied with continuing in street trading. In terms of the consideration of extrinsic motivation, by Gagne and Deci (2005: 331), this "requires an instrumentality between the activity and some separable consequences" such as rewards, tangible or intangible, so "satisfaction comes not from the activity itself but rather from the extrinsic consequences to which the activity leads". With regard to this the predicted association between higher levels of earnings and higher levels of satisfaction was found to be supported.

- Experience and Continuance Satisfaction

For the entire tested sample, the absence of a measured association between experience and continuance satisfaction indicated that the length of time that a trader was exposed to the informal sector was found to have no significant effect in terms of an increase or a decrease in satisfaction with continuing to trade in this context. However, for a sub-sample of the street traders tested after potential outliers and influential points had been removed, experience was found to be associated with continuance satisfaction ($p<0.0905$).

- Order of Capture

Order of capture was found to be positively and significantly ($p<0.0001$) associated with continuance satisfaction. This might have represented some underlying effect in terms of the order in which certain city blocks were surveyed. This might also have represented a catch-all variable for all variance that might have entered the survey process that was related to the sequence of the process.

- Autonomy and Continuance Satisfaction

Autonomy was found to be positively and significantly ($p<0.0001$) associated with continuance satisfaction. More autonomous street traders were found to be associated with higher levels of continuance satisfaction in this context. In terms of the relationship of work tasks, control, independence and stability to growth willingness, Davidsson (1989: 218) found control and independence to be the variables that displayed the strongest relationship, with independence being a motivating, and fear of loss of control being a demotivating factor.

Expected outcomes can be "important determinants" of willingness to perform a behaviour, "as suggested by expectancy theory" according to Davidsson (1989: 218). In terms of this, independence was predicted to be a motivating factor and in so far as motivation was associated with continuance satisfaction, this supported the hypothesised relationship of autonomy, conceived by definition as independence, being positively and significantly associated with continuance satisfaction.

In terms of the autonomy orientation of self determination theory which was found to be "positively related to self-actualisation, self esteem, ego development, integration in personality, and satisfying relationships" (Gagne and Deci, 2005: 339), this was taken to potentially predict a positive association between an individual entrepreneur's endowment of autonomy and satisfaction. In this context of testing, a predicted positive association between autonomy and satisfaction was found to be supported.

Certain research indicated that individuals with a high need for autonomy "tend not to be committed to the goals and objectives of their organisations, not to perform well unless they are allowed to participate in the determination of their tasks, and not to respond to external pressures for conformity to group norms" (Porter et al., 2003: 11). According to this, the effects associated with autonomy might have been expected to also include negative associations according to the organisational context. In this regard, although a significant and positive effect was found with regard to autonomy and satisfaction, no significant association was found between autonomy and earnings. This indicated that theory that predicted that autonomy was not necessarily positively associated with earnings was found to be supported in this context. The chapter is concluded as follows.

6.3. CONCLUSION

In this chapter the results of the testing of the hypotheses were discussed in terms of the answering of the research questions. The testing of theory relating the dimensions of entrepreneurial orientation to contextual factors and relating entrepreneurial orientation dimensions and contextual factors to entrepreneurial performance reported in the previous chapter was discussed. The results as reported in chapter five were analysed and discussed in this chapter.

Tested associations were discussed and analysed in this chapter with reference to tested theory. The following chapter concludes the dissertation, as conclusions based upon the tested results are presented, and the implications and issues for further research are derived from the analysis.

CHAPTER 7

CONCLUSIONS AND ISSUES FOR FURTHER RESEARCH

7.1. INTRODUCTION

The informal sector has emerged from an environment of unprecedented change (Nasser et al., 2003; Padayachee, 2005; Peberdy and Rogerson, 2003). Testing of the associations between informal sector contextual factors has shown entrepreneurship at the level of the street trader to be a fundamentally complex phenomenon (Jantunen et al., 2005; Kilby, 1976), in that significant associations were found that were differentially related to entrepreneurial performance.

The research findings provided insight into what contributes to entrepreneurial orientation and what contributes to earnings and continuance satisfaction for informal sector street traders in the Johannesburg central business district. The findings suggest an improved understanding of what contributes to upliftment for informal sector street traders. The objectives of this chapter are the following:

- to provide a summary of the research reported and analysed in chapters 5 and 6,
- to provide a discussion of implications of the results of the analysis of the research, and
- to discuss issues for further research.

7.2. SUMMARY OF THE RESEARCH

In this section, the aims and objectives of the research are summarised. After this, a summary of the hypothesis testing process is undertaken and finally the empirical findings of the study are summarised.

7.2.1. SUMMARY OF THE RESEARCH AIMS AND OBJECTIVES

A quantitative research study was undertaken of street traders in the central business district of Johannesburg. The aims of this research were to investigate:

- the factors which might contribute to the shaping of an entrepreneurial orientation in the Johannesburg informal sector context; and

- the potential contribution of informal sector contextual factors and entrepreneurial orientation dimensions to entrepreneurial performance.

In terms of these aims, the potential for individual entrepreneurial upliftment in terms of earnings and continuance satisfaction as components of entrepreneurial performance was assessed in this context. Through the investigation of the effects of entrepreneurial orientation, insight was provided into the potentialities of informal sector inner city street traders.

The objective of this research was the testing of theory that relates contextual factors to entrepreneurial orientation dimensions, and relates these entrepreneurial orientation dimensions and contextual factors to entrepreneurial performance. In terms of these aims and objectives, and the conclusions relating to the answering of the research questions, a summary of the process of hypothesis testing and a summary of the research findings is undertaken in this section. The summary of the process of hypothesis testing is undertaken as follows.

7.2.2. SUMMARY OF THE PROCESS OF HYPOTHESIS TESTING

In terms of the testing of the derived hypotheses, the following core null-hypotheses and alternative hypotheses were developed:

- Null Hypothesis 1: There is no significant association between Entrepreneurial Orientation and informal sector contextual factors.
- Alternative Hypothesis 1: There is a significant association between Entrepreneurial Orientation and informal sector contextual factors.
- Null Hypothesis 2: There is no significant association between Total Entrepreneurial Orientation, Entrepreneurial Orientation dimensions, or informal sector contextual factors, and Gross Earnings.
- Alternative Hypothesis 2: There is a significant association between Total Entrepreneurial Orientation, Entrepreneurial Orientation dimensions or informal sector contextual factors and Gross Earnings

- Null Hypothesis 3: There is no significant association between Total Entrepreneurial Orientation, Entrepreneurial Orientation dimensions, or informal sector contextual factors, and Continuance Satisfaction
- Alternative Hypothesis 3: There is a significant association between Total Entrepreneurial Orientation, Entrepreneurial Orientation dimensions or informal sector contextual factors and Continuance Satisfaction

The null hypotheses were broken down into null sub-hypotheses and these were tested. Based upon the results of the testing of the null sub-hypotheses, the three null hypotheses were rejected. The alternative hypotheses were therefore accepted, and significant relationships were discovered, which provided the insight that enabled an analysis of these significant relationships and allowed for the process of addressing the research questions. A summary of the significant associations follows.

7.2.3. SUMMARY OF THE EMPIRICAL FINDINGS

This research has established that significant associations do exist between entrepreneurial orientation and contextual factors, and between contextual factors and entrepreneurial orientation, with respect to earnings and continuance satisfaction. These findings are therefore found not to be congruent with any generalised conceptualisation of informal street traders that ignores individual entrepreneurial orientation. In terms of this, the significance of entrepreneurial orientation in the street trading context was demonstrated. Without seeking to reiterate the analyses undertaken in chapter 6, the specific findings relating to the answering of the research questions are revisited as follows.

What contextual factors shape innovativeness as an entrepreneurial orientation dimension? Hours worked per day and order of capture were found to potentially shape innovativeness. Hours worked per day was also found to be a predictor of higher earnings.

An unexpected finding was that more days worked per week was not associated with higher earnings. It was concluded that street traders might be exhibiting leisure

preference (Douglas and Morris, 2006: 405) with regard to days worked per week but not hours worked per day.

The conception that higher levels of human capital may be associated with higher levels of innovation (Aldrich, 1990) was not found to be supported, according to the research findings; this was surprising and unexpected. Conclusions associated with autonomy are considered as follows.

What contextual factors shape autonomy as an entrepreneurial orientation dimension? Autonomy was found to potentially be positively shaped by a male gender orientation, more days worked per week and higher levels of continuance satisfaction.

The differential association of autonomy with gender was found to support research by Burke et al. (2002), De Clerq and Ruis (2007), Gatewood et al. (1995) and Mueller (2008: 4) that identifies differences in entrepreneurial behaviour according to differences between the genders. However, no difference between the genders was found with regard to entrepreneurial performance: no unequal effects were found for street traders along the dimensions of earnings or continuance satisfaction.

The conceptions offered by theorists such as Gagne and Deci (2005) and Bussing et al. (1999), that predict an association between autonomy and continuance satisfaction were supported. Negative associations related to a high need for autonomy (Porter et al., 2003: 11), to the extent that this might have been associated with any negative effect in the testing of autonomy, were not found to be supported in terms of the research findings. Conclusions relating to proactiveness are considered as follows.

What contextual factors shape proactiveness as a dimension of entrepreneurial orientation? Proactiveness was found to potentially be shaped positively by foreign origin, days worked per week, total education and order of capture.

The association between proactiveness and foreign origin supports the theory offered by Basu and Altinay (2002), Portes (1998), Reynolds (1991), and Wilson and Martin (1982), that host country entrepreneurs and entrepreneurs of foreign origin may differ in terms of entrepreneurial behaviour.

Proactiveness was measured as growth willingness, and its association with education as a research finding supported theory by Davidsson (1989) that increased levels of education would be associated with proactiveness. The contention of Stevenson and Jarillo (1990) that entrepreneurship behaviour, that the "how" of entrepreneurship, is able to be learned, is considered to be supported to the extent that total education was found to potentially shape proactiveness, and to the extent that this relationship could be explained as a learned association.

The significance of the positive association between proactiveness and foreign origin is taken to be an important finding for street traders, since 56 percent of all the street traders surveyed were found to be of foreign origin. Forty-four percent of traders were found to be of local origin: a minority in this context. It might be possible that this foreign component may have been higher, in that certain foreign respondents might have claimed to be South African in order to remain obscure (Macmillan and Katz, 1992). In terms of the relevance of Johannesburg origin in the informal sector context, only about 10 percent of traders were found to be of Johannesburg origin. Conclusions relating to competitive aggressiveness are considered as follows.

What contextual factors shape competitive aggressiveness as a dimension of entrepreneurial orientation? Competitive aggressiveness was found to potentially be positively shaped by years spent in Johannesburg, days worked per week, training courses and being of foreign origin, and negatively shaped by experience.

Covin and Covin (1990) argue that a passive competitive orientation might place lower levels of constraints upon resources than that of an aggressive competitive orientation in certain contexts. It was concluded that if this was the case in the informal sector street trading context, and if the associations with experience were evidence of the results of adaptive learning, then the negative association between

competitive aggressiveness and experience might have represented evidence of a learning effect. The shaping of an entrepreneurial orientation by experience might therefore represent a learned effect. Street traders might "learn" in an adaptive manner to be less competitively aggressive.

If this is a learned effect, this would support the conception that entrepreneurship can be learned, along a "how" dimension, the conception of Stevenson and Jarillo (1990), supporting an argument of this work: that earnings-related upliftment is possible through learning-related factors in this context.

Another effect potentially supporting this argument was the positive association found between training courses and higher levels of competitive aggressiveness and also with increased earnings, to the extent that training courses might represent learned skills and behaviours that have been successfully transferred to the informal trading context.

It was concluded that the ethos of competitiveness associated with high levels of competitive aggressiveness might possibly have conflicted with the values of certain street traders. To the extent that street traders of foreign origin were found to be more competitively aggressive, this finding is taken to support the conception that entrepreneurship behaviour differs between groups due to cultural or other factors (Hagan, 1962; Shapero and Sokol, 1982). Conclusions relating to risk taking propensity are considered as follows.

What contextual factors shape risk taking propensity as a dimension of entrepreneurial orientation? The results revealed that risk taking propensity was found to be shaped by gender in that being male was associated with higher risk taking propensity. Risk taking propensity was also found to potentially be positively shaped by initial investment, by total education, by experience and order of capture, and potentially negatively shaped by age and the operation of a rental stand.

Entrepreneurs might have a different perception of risk than distanced others that take a rational perspective on scenarios (Baron, 1999; Shapero, 1975), and this conception

was found to be supported to the extent that individuals with higher levels of risk taking propensity were found to have risked more in terms of initial investment when entering the sector.

The finding that risk taking propensity was potentially shaped by total education suggests support for the argument that entrepreneurial behaviour can be learned (Stevenson and Jarillo, 1990), to the extent that total education in the form of human capital is interpreted as enabling further learning of entrepreneurial behaviour.

The negative relationship found between age and entrepreneurship by theorists such as Levesque and Minniti (2006) was found to be supported, to the extent that age was found to be negatively associated with risk taking propensity as a dimension of entrepreneurial orientation. This finding suggests that as street traders grow older, they become less risk taking. Age therefore is taken to shape risk taking propensity negatively. Conclusions relating to earnings are considered as follows.

What informal sector contextual factors and entrepreneurial orientation dimensions contribute to increased earnings as a dimension of entrepreneurial performance? Total entrepreneurial orientation (tested together with the variable order of capture for an association with earnings); hours worked per day; initial investment; total education; experience; training courses; risk taking propensity and continuance satisfaction were potentially found to positively contribute to increased earnings. Years in Johannesburg and order of capture were found to potentially contribute negatively to earnings.

A contingency framework is needed to gauge factors that might have an effect on the entrepreneurial orientation to performance relationship, in that certain environments are less suited to risk taking or other behaviours that might be too entrepreneurial in relation to a specific environment (Lumpkin and Dess, 1996). It was concluded that high levels of entrepreneurial orientation were not found to be "too entrepreneurial" for this specific context to the extent that no negative associations were found between the entrepreneurial orientation dimensions and earnings for the testing of the entire sample of respondents as a group.

The association of total education with earnings supported the theory offered by human capital theory that stresses the potential of the individual, through the investment in education, to solve the problem of low wages and unemployment through behavioural factors such as the acquisition of skills (Becker, 1975). Therefore Becker's (1975) conception that greater endowments of human capital, as measured by level of education, would result in a measurable return on human capital was found to be supported in this context: a positive return on human capital was found for Johannesburg inner city street traders.

The positive and significant association found between experience and earnings suggested that an adaptive learning effect of some nature might exist in this sector, which would perhaps support conceptions that regard elements of entrepreneurship as being able to be learned (Stevenson and Jarillo, 1990). The positive association found between training courses and increased earnings was taken to support the argument that entrepreneurial behaviour that is related to higher earnings can be learned.

Continuance Satisfaction was found to be positively and significantly associated with earnings for the entire tested sample of respondents. This finding suggested that the more satisfied street traders were with continuing in street trading, the more earnings they were found to make.

Lumpkin and Dess (1996: 163) contend that "the idea that the dimensions of EO may vary independently is consistent with the work of prior entrepreneurship scholars, who have proposed different typologies to characterise entrepreneurship". Lumpkin and Dess (1996: 163) suggest that future research might demonstrate that "risk taking and autonomy are needed for all types of new entry, but that innovativeness, proactiveness, and competitive aggressiveness are present only under certain conditions". This was found to be partially supported in that risk taking propensity was found to be positively associated with earnings and autonomy positively associated with continuance satisfaction.

The research findings suggest that the optimal typology for an informal sector street trader in this context in terms of higher earnings is an individual who has a high tolerance for long hours worked per day; that invests more in his or her enterprise; is

more educated; has more street trading experience; has undertaken training courses; has a higher level of risk taking propensity; has a higher level of continuance satisfaction and is a more recent arrival in Johannesburg. Conclusions relating to continuance satisfaction are considered as follows.

What informal sector contextual factors and entrepreneurial orientation dimensions contribute to increased continuance satisfaction as a dimension of entrepreneurial performance? It was discovered in this study that years spent in Johannesburg, earnings, order of capture and autonomy potentially contributed positively to continuance satisfaction. Days worked per week and total education were found to potentially contribute negatively to continuance satisfaction.

The research findings suggest that street traders are more satisfied the longer they have been residing in Johannesburg. This might also indicate that those that are more recent in terms of arrival in Johannesburg might have been found to be more dissatisfied. The segment of tested respondents who had been in Johannesburg for three or less years were found to make up almost half the total tested street traders. This might indicate that some adaptation to the city context might have occurred.

Increased days worked per week were found to be negatively associated with increased continuance satisfaction. This finding might suggest that poor working conditions in terms of long hours worked per week are associated with dissatisfaction.

The finding that higher levels of total education were found to be negatively associated with increased continuance satisfaction was taken to indicate that there might be a negative return on human capital in this context, along the dimension of continuance satisfaction. The more formally educated a street trader was found to be; the more dissatisfied that street trader was found to be with continuing in informal street trading.

This research found that foreign street traders make up almost 60 percent of the informal sector, and the finding of a negative association between total education and continuance satisfaction might be explained, to some extent, by the possibility that illegality, certification and legal requirements for jobs in the formal sector might be

barriers to formal work for certain street traders of foreign origin. Higher levels of education might have contributed to greater frustration for traders of foreign origin if they were to have experienced certification problems, according to Light's (1984) conception.

The optimum typology for a street trader according to continuance satisfaction was therefore found to be an individual that had spent more years spent in Johannesburg, worked fewer days a week, had higher earnings and was more autonomous yet was less formally educated.

This study has provided evidence that the context of entrepreneurship has a significant effect on entrepreneurial orientation in the informal street trading context. Levesque and Minniti's (2006: 178) argument, and related conceptions offered by other reviewed theorists that argue that context has a significant effect on entrepreneurial behaviour, were found to be supported. The contention of Lumpkin and Dess (1996): that entrepreneurial orientation dimensions can vary independently of each other within a specific context was also found to be supported.

This study has provided evidence that factors associated with learning such as total education, experience and training courses were found to be associated with increased earnings. This supported a core argument of this study: that learning related factors and human capital do have an effect in the informal street trading context, and that therefore upliftment potential, according to the predictions of Becker (1975) does exist in this sector, along this dimension. These findings suggest, therefore, that an increase in potential performance is possible through individual behaviour associated with an entrepreneurial orientation (Lumpkin and Dess, 1996), and in terms of this, a core argument of this work was found to be supported.

This study addressed a deficiency in the literature, in that entrepreneurial orientation theory was extended into and was investigated in the informal sector street trading context. This research has shown that entrepreneurial orientation plays a significant role in the informal sector, in that it was found to be associated with increased earnings for informal street traders. Learning related factors were shown to increase earnings. These findings suggest that factors such as education can provide some way

that individual informal street traders can experience upliftment through increased earnings.

It is concluded that this research, to some degree, has reduced the problem space around knowledge of entrepreneurial orientation in the informal street trading context. It is argued that these findings challenge any assumption that a theoretically permanent and immutable survivalist condition exists for all informal street traders. This study found that entrepreneurial orientation was not necessarily homogenous in this tested context. The research findings support the conclusion that an increase in earnings potential is possible through individual behaviour associated with an entrepreneurial orientation and learning related factors for informal street traders in the tested context. Implications arising from the research findings and issues for further research are considered as follows.

7.3. IMPLICATIONS ARISING FROM THE RESEARCH FINDINGS AND ISSUES FOR FURTHER RESEARCH

In this section, further implications derived from the research findings are considered in terms of being issues suggested for further research.

The results suggest that entrepreneurial orientation does have a role in informal sector enterprise performance. Further research might suggest more detailed knowledge as to how entrepreneurial orientation enables greater earnings and satisfaction in the informal street trading context. It is therefore suggested that further research explore the "why" of entrepreneurial orientation in the informal street trading context, according to the conception of Stevenson and Jarillo (1990).

An implication of the findings is that practitioners in local or national government, and others that have an interest in the upliftment of these individuals involved in street trading, might be able to increase the earnings of street traders through the increased provision of training courses and educational opportunities. This research demonstrated a potential positive return on human and financial capital in the informal sector street trading context. The findings suggest that assistance with regard

to finance, or initial investment for these enterprises might enable higher earnings for street traders. Actions, aimed at stimulating informal sector activities, contribute to employment creation and "are a direct attack on poverty" (Dewar and Watson, 1991: 184).

The provision of assistance to entrepreneurial enterprises needs a strong understanding of processes of growth and change in these enterprises to avoid potential mismatches between policy measures and the needs of these enterprises (O'Farrell and Hitchins, 1988). The specific alignment of policy maker assistance with the entrepreneurial orientation and context of street traders might be enabled through further research into the more detailed mechanisms of how entrepreneurial performance can be enabled.

In order to develop theory regarding entrepreneurship, research should focus more on continued entrepreneurship and on degrees of entrepreneurship (Davidsson, 1991). In terms of this, this research focused on continuance satisfaction and determined degrees of entrepreneurship according to the entrepreneurial orientation measure contributed by Lumpkin and Dess (1996). The identification and measurement of entrepreneurial orientation and its associated relationships provided evidence that certain informal street traders display an entrepreneurial orientation. A question that derives from these findings is to what extent does a higher entrepreneurial orientation or a higher level of earnings enable a street trader to "grow out of" informal street trading?

In a context where most street traders had been in the sector for fewer than four years, the nature of the sector was found to not necessarily represent a sector into which all individuals are permanently absorbed. Therefore further research is suggested into whether higher levels of entrepreneurial orientation or increased earnings enable traders to "grow up and out" of street trading and at what level of earnings this usually occurs. The informal sector acts as a training ground for potential entrepreneurs according to De Soto (1989). A limitation of this research was that it employed a cross-sectional analysis. Longitudinal research is suggested, in that these effects over time might be captured.

It has been an intention of this work to contribute to the development and upliftment of this group of people in terms of applicable insights relating to entrepreneurship. In terms of this, further research is recommended in terms of potentially unequal or potentially discriminatory effects in this context. Unequal gender effects were found with regard to the shaping of autonomy, and risk taking propensity, yet no significant association was found between a difference in gender and earnings or continuance satisfaction. Further research is suggested on the entrepreneurial effects of gender differences with regard to autonomy and risk taking propensity in the street trading context. This research is concluded with a brief summary of this chapter.

7.4. CONCLUSION

This chapter sought to conclude the documentation of the research process, in that the conclusions derived from the research process were summarised. The aims, objectives and findings of the research were summarised.

This study sought to answer the question of what shaped entrepreneurial orientation in the informal sector street trading context. This research also sought to answer the question of what contributed to entrepreneurial performance for informal sector street traders. It was shown that contextual factors did potentially shape entrepreneurial orientation and that certain entrepreneurial orientation dimensions and contextual factors were associated with entrepreneurial performance.

This study provided evidence that certain learning related factors did potentially contribute to shaping entrepreneurial orientation and did contribute to increased earnings. The answering of the research questions and the themes of contextual factors and learning related factors were briefly revisited in this chapter in order to conclude the research process. The chapter and the study was concluded with a discussion of the implications deriving from the research findings, and suggestions for further research were made with regard to these considered implications.

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APPENDIX A

A.1. COVER LETTER

University of the Witwatersrand

School of Economic and Business Sciences

Dear Sir/Madam,

I am currently registered for the degree of Master of Commerce, which I am completing, by dissertation in the Division of Human Resource Management, School of Economic and Business Sciences.

My study is investigating the relationship between entrepreneurship and performance in the informal sector of the Johannesburg city centre.

Attached is a questionnaire that should take no more than 25 minutes to complete. Your participation in the study is purely *voluntary*. There will be no penalty if you decide not to participate in the study and you may choose not to answer certain questions. If you complete this questionnaire, it will be assumed that you have given your consent to participate in the study.

Your input will be greatly appreciated and will contribute enormously to an understanding of some of the challenges faced by South African informal sector traders.

The study is for academic publication purposes only. The results of the study will be reported in my dissertation, which will be published by the University of the Witwatersrand. Confidentiality is ensured at all times, and personal details are not required at any stage. The questionnaires will be stored in the office of my supervisor for further data analysis and will thereafter be destroyed after a period of five years. Captured information may be disclosed if required by law.

Any queries regarding the questionnaire or any other aspect of the study can be directed to myself or to my supervisor, Rob Venter, on the numbers listed below.

Yours sincerely,

Chris Callaghan

072 222 2190
082 561 1024

Rob Venter

011 717 8090
084 580 7587

A.2. CONSENT FORM

The following consent form was used. Respondents signed the form but did not write their names on the document in order to maintain anonymity.

Consent Form

I, on this date……., state that I voluntarily choose to participate in this study. I understand that participation is my choice. I do so knowing that my identity will be protected, and my name is not to be part of the information I give. I understand that this form will be kept separate from the information collected. Captured information may be disclosed if required by law.

Respondent's signature……

A.3. THE QUESTIONNAIRE

Please do not write in this column

1. Please indicate your gender Male ❑ Female ❑ | **Gender**

2. How old are you? (in years) _____ | **Age**

3. What do you sell? (You can tick more than one product or service) | **Sell**

❑ Vegetables and Fruits	❑ Hats	❑ Trinkets and Handiwork Jewellery	❑ Pap and meat	❑ Sweets
❑ Chocolates	❑ Hair Braiding Services	❑ Toys	❑ Luggage and Bags	❑ Pest Control items
❑ Vegetables only	❑ Fruits only	❑ Other (Please write this in the space below) _____		

4. How many years have you been in Johannesburg for?…….. | **Years in Johannesburg**

5. Where are you from originally? (City or Town)…… | **Origin**

Please do not write in this column

6. What Country are you from? ……..

Country of Origin

7. What time do you set up in the mornings?……

Start Work

8. What time do you finish work each day?……

Finish Work

9. How many days a week do you not work ? (Please tick the appropriate box)

❑ 1 ❑ 2 ❑ 3 ❑ 4 ❑ 5 or more

Days Not Worked

10. How much did it cost to set up your business? (Please tick the appropriate box)

❑ Nothing	❑ R1-50	❑ R51-150	❑ R151-250	❑ R251-350
❑ R351-450	❑ R451-550	❑ R551-650	❑ R651-750	❑ R751-850
❑ R851-950	❑ R951-1050	❑ R1051-1150	❑ R1151-1250	❑ R1251-1350
❑ 1351-1450	❑R1451-1550	❑ R1551-1650	❑ R1651-1750	❑R1751 or more

Initial Invest

Please do not write in this column

11. What work did you do before you started your enterprise? (Please tick the appropriate box)

❑	❑	❑	❑	❑
Working in the informal sector	At School	Unemployed	Working in the formal sector	Other

Prior Activity

12. If you ticked other in 11 above, then please describe this activity in the space below:

Other Activity

_____

17. What is your highest level of schooling (Please tick the appropriate box)

Schooling

❑ None	❑	❑	❑	❑
	Some Primary School	Completed Primary School	Some High School	Completed High School

14. Have you completed any years of study at a technicon or university? (Please tick the appropriate box)

Complete Tertiary

❑	❑
Yes	No

Please do not write in this column

15. If so then to what level?
(Please tick the appropriate box)

❑ Some University or Technicon ❑ Completed Undergraduate Qualification ❑ Some Post Graduate Qualification ❑ Post Graduate Qualification

Level Tertiary Ed

16. How many years of experience do you have in this present activity?
(Please tick the appropriate box)

❑ Less than 1 ❑ 1 to 2 ❑ 3 to 4 ❑ 4 to 5 ❑ 5 to 6

❑ 6 to 7 ❑ 7-8 ❑ 8-9 ❑ 9-10 ❑ 10 or more

Exp

17. How many training courses have you been on since beginning in the informal sector?
(Please tick the appropriate box)

❑ None ❑ 1 ❑ 2 ❑ 3 ❑ 4 or more

Training

18. What are your total average SALES per DAY? –The total amount that you have at the end of the day from sales- how much do you sell per DAY? (Please tick)

Earnings

❑ Less than R10	❑ R10-20	❑ R21-30	❑ R31-40	❑ R41-50
❑ R51-60	❑ R61-70	❑ R71-80	❑ R81-90	❑ R91-100
❑ R101-110	❑ R111-120	❑ R121-130	❑ R131-140	❑ R141-150
❑ R151-160	❑ R161-170	❑ R171-180	❑ R181-190	❑ R191-200
❑ R201-210	❑ R211-220	❑ R221-230	❑ R231-240	❑ R241-250
❑ R251-260	❑ R261-270	❑ R271-280	❑ R281-290	❑ R291-300
❑ R301-310	❑ R311-320	❑ R321-330	❑ R331-340	❑ R341-350
❑ R351-360	❑ R361-370	❑ R371-380	❑ R381-390	❑ R391-400
❑ R401-410	❑ R411-420	❑ R421-430	❑ R431-440	❑ 441-450
❑ R451-460	❑ R461-470	❑ R471-480	❑ R481-490	❑ more than R490

Please do not write in this column

For the following questions, please tick the box that represents best how you feel.

Ticking **box 1** means you **feel very strongly that you agree** with the statement on the **left,** closest to it.
Ticking box 5 means that you **feel very strongly that you agree** with the statement on the **right**.
If you feel the **same way** about both statements, please tick **box 3**.
If you **agree, but not strongly**, with the statement on the left, then please tick **box 2**.
If you **agree** with the statement on the right, **but not strongly**, please tick **box 4**.

19. Please tick the box that represents the closest to how you feel.

I am happy with continuing in street trading	❑ 1	❑ 2	❑ 3	❑ 4	❑ 5	I am not happy with continuing in street trading

Satisfacti on contin.1

20. Please tick the box that represents the closest to how you feel.

I like my work now- I don't want to do any other kind of work	❑ 1	❑ 2	❑ 3	❑ 4	❑ 5	I don't like my work now- I want to do other work	**Satisfaction work2**

21. Please tick the box that represents the closest to how you feel.

I like to sell the same things all the time- I can rely on them	❑ 1	❑ 2	❑ 3	❑ 4	❑ 5	I like to sell new types of things all the time	**Innov1**

22. Please tick the box that represents the closest to how you feel.

In the last 3 years I have sold no new types of things	❑ 1	❑ 2	❑ 3	❑ 4	❑ 5	In the last 3 years I have sold very many new types of things	**Innov2**

Please do not write in this column

23. Please tick the box that represents the closest to how you feel.

When I have changed the types of things I sell, I only change them a little bit	❑ 1	❑ 2	❑ 3	❑ 4	❑ 5	When I have changed the types of things I sell, I change them a lot	**Innov3**

24. Please tick the box that represents the closest to how you feel.

I want to grow my business	❑ 1	❑ 2	❑ 3	❑ 4	❑ 5	I don't need to grow my business- I like it as it is	**Proact1**

25. Please tick the box that represents the closest to how you feel.

Growing my business fast is very important to me	❑ 1	❑ 2	❑ 3	❑ 4	❑ 5	Growing my business fast is not so important to me, I get enough customers

Proact2

Please do not write in this column

26. Please tick the box that represents the closest to how you feel.

I prefer to take action to make customers come	❑ 1	❑ 2	❑ 3	❑ 4	❑ 5	I prefer to do nothing- my customers will come anyway

Proact3

Please do not write in this column

27. Please tick the box that represents the closest to how you feel.

In terms of competitors…

I don't like to compete with other traders	❑ 1	❑ 2	❑ 3	❑ 4	❑ 5	I like to compete and win over other traders

CA1

28. Please tick the box that represents the closest to how you feel.

I like to compete and win customers from other traders	❑ 1	❑ 2	❑ 3	❑ 4	❑ 5	I don't like to compete and take customers from other traders

CA2

29. Please tick the box that represents the closest to how you feel.

I like to copy other sellers to get their customers	❑ 1	❑ 2	❑ 3	❑ 4	❑ 5	I don't like to copy other sellers to get their customers	**CA3**

30. Please tick the box that represents the closest to how you feel.

I like being my own boss	❑ 1	❑ 2	❑ 3	❑ 4	❑ 5	I like to have a boss	**A1**

Please do not write in this column

31. Please tick the box that represents the closest to how you feel.

I prefer working for myself	❑ 1	❑ 2	❑ 3	❑ 4	❑ 5	I prefer working in a job for a company	**A2**

32. Please tick the box that represents the closest to how you feel.

I don't like to be told what to do if I am working in a job	❑ 1	❑ 2	❑ 3	❑ 4	❑ 5	I don't mind being told what to do if I am working in a job	**A3**

33. Please tick the box that represents the closest to how you feel.

I only like to take small chances with money- that might lose me small money or give me small money back	❑ 1	❑ 2	❑ 3	❑ 4	❑ 5	I only like to take big chances with money- that I might lose big money or might give me big money back	**R1**

34. Please tick the box that represents the closest to how you feel.

If I am not sure, I like to wait and see before making decisions or choices, in order not to lose	❑ 1	❑ 2	❑ 3	❑ 4	❑ 5	If I am not sure, I like to just decide or make a choice quickly to take advantage of a chance I get	**R2**

Please do not write in this column

35. Please tick the box that represents the closest to how you feel.

I like to take chances in my business- I don't like to be careful because I don't need to	❑ 1	❑ 2	❑ 3	❑ 4	❑ 5	I do not like to take chances in my business- I rather like to be careful	**R3**

36. Do you hire a stand to sell from? (Please tick the appropriate box)

Yes❑ No❑ **Rental Stand**

Thank you for completing this questionnaire.
Your feedback is much appreciated and will be of great assistance.
Rest assured, your responses will be treated as confidential.

APPENDIX B

In this appendix, the following tables are illustrated. The Cronbach's alpha of the five entrepreneurial orientation dimensions are illustrated in table B.1. The Pearson's correlation coefficients for selected variables tested for the purposes of further understanding of certain predicted associations are shown in table B.2.

THE CRONBACH'S ALPHAS FOR THE ENTREPRENEURIAL ORIENTATION DIMENSIONS

Table B.1. The tested Cronbach Alpha Coefficients for the Entrepreneurial Orientation dimensions

Entrepreneurial Orientation dimension	Alpha Coefficient
Innovativeness (3 items)	$\alpha = 0.829568$
Competitive Aggressiveness (2 items)	$\alpha = 0.767906$
Autonomy (3 items)	$\alpha = 0.802745$
Risk Taking Propensity (3 items)	$\alpha = 0.652820$
Proactiveness (2 items)	$\alpha = 0.613450$

Table B.2. Pearson Correlation Coefficients (PCC) between selected variables

Variable	Variable	PCC
Innovativeness	Proactiveness	0.00171
Autonomy	Competitive Aggressiveness	0.1691
Days worked per week	Hours worked per day	0.19677

Table B.3. The Cronbach Alpha (CA) for the Entrepreneurial Orientation dimensions

Variable	CA between all the EO dimensions
Innovativeness Competitive Aggressiveness Autonomy Risk Taking Propensity Proactiveness	Alpha (not standardised) 0.354487 Alpha (standardised) 0.353161