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Entrepreneurial orientation and performance within the South African minibus taxi industry

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2021
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Entrepreneurial Orientation and Performance within the South African Minibus Taxi Industry

A research report submitted to the Faculty of Commerce, Law and Management, University of the Witwatersrand, in partial fulfilment of the requirements for the degree of Master of Management in Entrepreneurship and New Venture Creation

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Date: 30 MARCH 2021

ABSTRACT

The primary purpose of this research is to understand the relationship between the three dimensions of entrepreneurial orientation within the South African minibus taxi industry. This industry is pivotal to the South African economic structure and landscape as a whole. The taxi industry serves as the main mode of public transport in South Africa.

A survey was used to conduct an empirical research study. A sample size of 120 participants was originally selected; however, of those 120, only 95 surveys were valid and used due to missing values in the data provided in the others. This sample size is representative of the population concerning the taxi industry. The research instrument included a 7-point Likert scale. Further, the instrument included demographic coverage and sections covering the three entrepreneurial orientations' dimensions.

The aim of this study is to understand the extent to which entrepreneurial orientation enables small- to medium-enterprise growth performance within the South African taxi industry. Empirical data to support research suppositions is difficult to access within the public domain, but this research identified and provided an analysis extracted from private enterprise which fills the gap in the current research literature space.

The results indicated a weak positive influence between the three dimensions of entrepreneurial orientation and growth performance within the industry. Due to the significance of the findings, the results are not strong enough for generalising the same findings for the entire South African minibus taxi population.

This industry is the main source of public transport within the country and needs to increase its literature in order to grow and further improve. Further findings can contribute to the understanding of the complexity that surrounds the industry's atmosphere. The value of working to formulate constructive information on the taxi industry will allow for further engagement within the field.

Key words: Entrepreneurship, growth, innovation, minibus taxi, SME, South Africa.

DECLARATION

I, Jessica Kier, declare that this research report is my own work except as indicated in the references and acknowledgements. It is submitted in partial fulfilment of the requirements for the degree of Master of Management in the Field of Entrepreneurship at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in this or any other university.

Jessica Kier

Signed at

……SANDTON…… On the

28 day of February 2021

ACKNOWLEDGEMENTS

I would like to formally acknowledge all those who have played a role in my academic journey.

My parents, who have supported me and guided me with love and understanding. Without you both, I would not be where I am today.

To my boyfriend, Lee, your encouragement and constant care is always appreciated.

I would like to thank my supervisor, Professor Boris Urban for his expert mentoring and valuable insights. It was an honour to work under your supervision.

My appreciation also extends to SA Taxi Finance, for their kind continued help, generous intuition into the industry and support during this research.

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CHAPTER 1: INTRODUCTION

1.1 INTRODUCTION

South Africa has a unique context, and it is often inappropriate to apply case studies and experiences from western economies to Afrocentric emerging market conditions (Schiele, 1990). Public transport is essential to the South African infrastructure. Small to medium enterprises (SMEs) have become increasingly important to a country's economic growth. SMEs create jobs and with this comes economic sustainability, an important element for a country like South Africa. New and promising entrepreneurs play an essential role in managing resources and opportunity in order to achieve their desired results (Carson et al., 1995). In regard to this, this study will examine the related factors of entrepreneurial orientation and their contribution towards the potential performance of SMEs in the South African minibus taxi industry.

It is estimated that roughly 15-million to 16-million passengers travel daily in minibus taxis on the public roads (Fobosi, 2013). Today, the South African minibus taxi industry remains the critical pillar of the country's public transport sector. Not only is it the most accessible mode of transport, but it is also the most affordable to the general public. The minibus taxi industry therefore is crucial for South African economic development (SA Taxi, n.d.).

South Africa has comparatively low entrepreneurial activity, albeit with high intentions (Harrington, 2017). Entrepreneurship is an essential source of business success and national economic development (Ding and Abetti, 2003).

With current economic challenges having an effect, the notion of creating greater entrepreneurial activity has become an important goal for many national governments (Cooney, 2012). This is because entrepreneurial activity increases employment and economic growth (Kirchhoff et al., 1988). In addition, entrepreneurial activity effects the economy at both regional and national levels (Wu, 2009). "Entrepreneurial orientation has become one of the most established constructs in entrepreneurship", (Covin and Miller, 2014, pp 770-791).

The number of texts on the topic of entrepreneurial orientation has exceeded that of articles examining the broader topic of corporate entrepreneurship (Covin and Lumpkin, 2011).

The importance of entrepreneurial orientation to the survival and growth performance of an organisation has been acknowledged in previous studies (Lumpkin and Dess, 2001). Research confirms three underlying dimensions of entrepreneurial orientation, as innovativeness, risk-taking, and proactiveness (Lumpkin and Dess, 2001). Understanding the importance of entrepreneurial orientation, is prevalent in determining how SMEs generate sustainable growth and build a competitive advantage in a hypercompetitive and dynamic environment (Sirmon, Hitt and Ireland, 2007).

Small businesses in particular tend to excel at adaptability and flexibility (Smallbone et al., 2012). The taxi industry that consists of many SMEs, must demonstrate these characteristics in response to the COVID-19 crisis. The taxi industry faces implications due to the lockdown that was implemented in the country in March 2020. The taxis were only allowed to operate at 70% capacity and only permitted to travel during certain hours.

However, no economist or strategist could have predicted how 2020 would play out. The outbreak and rapid spread of COVID-19 has disrupted lives, communities, and economies worldwide (John Hopkins, n.d.). A crisis such as the COVID-19 pandemic threatens the functioning and performance of a business (Williams et al., 2017). Even during this pandemic, taxis play a vital role as they transport essential workers as well as being pivotal in the functioning of the economy as a whole.

The South African National Taxi Council (SANTACO) launched a disinfection program to aid the curb of the virus. In addition, the taxi drivers faced concern, for both their own safety as well as that of their commuters. To combat this, taxi ranks made sure sanitising innovations were introduced. SA Taxi donated R3m worth of protective equipment that was distributed to ranks across the country (SA Taxi, n.d.).

Further, in order to reduce the financial burden felt due to COVID-19, payment relief for finance and insurance customers was implemented (SA Taxi, n.d.).

This response indicates the importance of the industry and the pivotal role it plays in the country's socio economic framework. Research indicates that the environment is pertinent to business ventures due to external influences (Urban, 2017).

1.2 THEORETICAL BACKGROUND TO THE STUDY

The presence of the entrepreneurial orientation dimensions has been linked to improved industry performance where 'all the dimensions are central to understanding the entrepreneurial process', (c). It is significant to emphasise that for the accumulation of knowledge to take place, future research that will add to the current knowledge based on entrepreneurial orientation should include the three core dimensions of entrepreneurial orientation (Lumpkin & Dess, 1996). Lumpkin and Dess (1996), argue that any enterprise is entrepreneurial provided they engage in an effective combination of innovativeness, risk-taking and proactiveness.

Entrepreneurial orientation is a theoretically defined construct; there is no sole context that exists where "it can be argued on empirical grounds that the three dimensions should not be combined" (Covin & Lumpkin, 2011 pp. 855-872). Researchers must acknowledge that the dimensions of entrepreneurial orientation may form a collective 'catchall' (Miller, 2011). Yet, the dimensions will likely not constantly be equal in strength. Lumpkin and Dess (1996), show the usefulness of viewing the firm's entrepreneurial orientation as a multidimensional construct.

The potential benefits, could to the conclusion that entrepreneurial orientation improves performance. However, close examination of the literature has not conclusively established this relationship (Rauch et al., 2009; Wang, 2008).

However, as mentioned by multiple scholars, the extent to which entrepreneurial orientation improves firm performance may depend upon additional factors (Rauch et al., 2009; Wang, 2008).

1.3 CONTEXT OF THE STUDY

The exclusion in the apartheid era of black South Africans, from freely contributing to the country's economy, created discrepancies and adversities, particularly within the socio-economic landscape (Human, 2006). After 1994, South Africa developed new polices and put in place some transformation measures and legislation in order to improve the residual conditions left behind by the apartheid government (Mkoka, 2012).

Entrepreneurship and small business development have received growing attention by researchers, both locally and in the international arena (Herrington et al., 2009).

The South African taxi industry is acknowledged as being entrepreneurial with many taxi owners identified as being an SME. According to SA Taxi Finance, one of South Africa's leading financiers of minibus taxis, taxi owners are entrepreneurs who start and sustain their own business needs (SA Taxi, n.d.). Each taxi is full of opportunity and the industry itself runs on the backs of local entrepreneurs and their small business (SA Taxi, n.d.).

The minibus taxi industry is considered a critical pillar of South Africa's public transport sector. Not only is it the most available mode of transport but it is also the most affordable to the public. It is thus considered as the servant for the majority of the urban poor (Fobosi, 2013,). "The typical minibus taxi is a 16-seater minibus, typically white in colour. The most common model is the Toyota Quantum Ses'fikile or Hi Ace", (SA Taxi, n.d. pp 3). The minibus taxis operate an unscheduled service on fixed routes which are self-regulated by taxi associations (SA Taxi, n.d.). The minibus taxis travel to remote places within South Africa, which is extremely difficult when using government public transport.

1.4 PROBLEM STATEMENT

Since the early 2000s, South Africa's early-stage entrepreneurial activity has been below average in comparison to that of all participating countries.

The taxi industry is pivotal to South Africa's transport system (SA Taxi, n.d.). South Africa has a relatively high level of unemployment, so entrepreneurial activity is greatly encouraged by the political and economic policymakers of the country. "Regarding South Africa's growing workforce but lack of formal employment opportunities, job seekers have turned more to the informal sector for employment", (Ferreira & Rossouw, 2016, pp. 810).

"Unemployment is the root of many other challenges such as inequality, poverty, labour unrest and slow development" (Ferreira & Rossouw, 2016, pp. 809). In order to combat the problem of unemployment, entrepreneurship must be used as a tool to fix the problem.

For the achievement of sustainable success, entrepreneurs often need support from external sources. It is important to mention that the taxi industry does not benefit from any fiscal support. With little governmental policy intervention, the industry remains fragmented.

1.5 RESEARCH PURPOSE, RESEARCH QUESTION AND AIMS OF THE STUDY

The purpose of this study is to understand the extent to which entrepreneurial orientation enables performance within the South African taxi industry, while taking into account environmental hostility and dynamism. Innovativeness, proactiveness and risk-taking make up the combination of the three dimensions of EO, (Wiklund, 1999,). Entrepreneurial orientation is an established construct that has attracted substantial research.

This study examines the three constructs of entrepreneurial orientation mentioned above, in an industry that has little research surrounding it (SA Taxi, n.d.). However, the taxi industry is pivotal to South Africa's public transport structure.

Only 38% of South Africans make use of private transport, which establishes that the majority of the country relies on public transport for commuting purposes (SA Taxi, n.d.). The South African minibus taxi industry transports 69% of the available public transport market (buses contribute 19% and commuter trains 12%) making it a valuable contributor to the South African economy (Barrett, 2003).

Findings provide an understanding of the entrepreneurial orientation constructs behind the performance of SMEs within the taxi industry as well as which constructs are of higher importance in regard to performance.

This study aims to gain clarity regarding entrepreneurial orientation and the South African taxi industry, using the following premises:

1. Taxi owners with high levels of entrepreneurial orientation innovativeness are associated with SME growth and performance within the taxi industry in South Africa.
2. Entrepreneurial orientation risk-taking relates to SME growth and performance within the South African taxi industry.
3. There is a positive relationship between entrepreneurial orientation proactiveness and SME growth and performance within the South African taxi industry.

4. Environmental dynamism will have a positive influence on the relationship between (a) entrepreneurial orientation innovativeness; (b) entrepreneurial orientation risk taking; and (c) entrepreneurial orientation proactiveness and growth performance.
5. Environmental hostility will have a positive influence on the relationship between (a) entrepreneurial orientation innovativeness; (b) entrepreneurial orientation risk-taking; and (c) entrepreneurial orientation proactiveness and growth performance.

1.6 CONCEPTUAL/THEORETICAL DEFINITION OF TERMS

The key terms that will be used in this research are explained as follows:

- **Dynamism** – Rate and unpredictability of change in the industry (Damanpour &Schneider, 2006).
- **Entrepreneurial orientation** –" A combination of three dimensions: innovativeness, proactiveness and risk-taking", (Wiklund, 1999, pp 39-50).
- **Hostility** – Tough conditions including strict regulation and competition (Damanpour & Schneider, 2006).
- **Minibus taxi** – A 16-seater vehicle used for public transport
- **SANTACO** – South African National Taxi Council

• **SME** – Small to medium enterprise

1.7 CONTRIBUTION OF THE STUDY

The focus of this study is on the minibus taxi industry in South Africa and the extent of entrepreneurial activity embedded within the taxi industry. This study will allow for other researchers to gain insight into an under researched sector. Empirical data to support research suppositions is difficult to access within the public domain, but this research will identify and provide an analysis extracted from private enterprise which will fill the gap in the current research literature space.

This industry is a unique context so could not be applied to similar contexts as this study regards to findings strongly related to specific context.

According to Lumpkin and Dess (1996), the effects of the dimensions of an entrepreneurial orientation vary according to context.

This may enable future research into the specific potential that exists with reference to context and entrepreneurial orientation.

CHAPTER 2: LITERATURE REVIEW

2.1 INTRODUCTION

Entrepreneurship and small business development are imperative to economic growth, particularly in emerging market economies. Research states that in an emerging economies, entrepreneurial activity is mostly represented by small- and medium scale enterprises (Lightelm, 2005; Lightelm 2006; Larossi & Clarke, 2011; Ene & Ene, 2014).

Low levels of entrepreneurship prevail in South Africa compared to those in other developing countries (Hanson, 2009). The development of economic activity lies at the heart of entrepreneurship. Scholars have argued that entrepreneurship is an essential feature of high-performing firms (Covin & Slevin, 1991). Many companies have the belief that entrepreneurship is essential in a world that is fuelled by constant change.

As the primary form of public transport in South Africa, the minibus taxi industry has a significant impact on the environment, society and the economy (Hanson, 2009). Each taxi operator serves as a micro business that contributes to the functioning of the South African economy. In order to get the 15- to 16-million passengers to and from their desired destinations on a daily basis, the taxi operator is a key member of the economic ecosystem.

According to SA Taxi, as of September 2019, the institution currently has financed around 32,441 taxis on the roads, giving direct business to over 32,000 SMEs (SA Taxi, n.d.). The company states that each taxi benefits more than the owner, but the entire rank's economy, including queue organisers, conductors and street traders, benefit as well.

The importance of to the survival and performance of a firm has been acknowledged in previous studies (Lumpkin & Dess, 2001). Businesses that are fast growing attribute much of their success to high levels of entrepreneurial orientation (Dess & Lumpkin, 2005). When a business considers these levels of entrepreneurial orientation they create the opportunity for themselves to exploit new market opportunities, and if need be, to respond to potential threats effectively (Wiklund & Shepherd, 2003).

The objective of this research is to explore the relationship between entrepreneurial

orientation and growth performance by integrating prior theory and empirical findings into a researchable whole within the context of the South African minibus taxi industry.

This research study examines independent variables that form the three dimensions of entrepreneurial orientation: innovation, risk-taking and proactiveness. The study also examines the dependent variables of entrepreneurial growth performance among the South African minibus taxi operators. Factors that may affect this relationship through moderation are also considered. The data is collected around these factors.

2.2 LITERATURE REVIEW ON ENTREPRENEURIAL ORIENTATION

Entrepreneurial orientation is a major topic within both the strategic management and entrepreneurship literatures (Covin, et al., 2006). The three dimensions of entrepreneurial orientation have been identified and used consistently in the literature, namely innovativeness, risk-taking and proactiveness.

Foremost, studies began to explore how organisations can become more entrepreneurial (Brazeal, Schenkel, & Azriel, 2008). These studies focus on how those in managerial positions in the organisations could overcome the natural barriers to entrepreneurship (Hisrich and Peters, 1986). This early work did not directly test but rather assume that entrepreneurial orientation enhanced performance. To combat this, entrepreneurial orientation research emerged to empirically examine this issue.

Past research of these entrepreneurial orientation dimensions has shown high correlations with each other (Bhuian, et al., 2005; Richard, et al., 2004; Stetz, et al., 2000; Tan & Tan, 2005).

These three constructs of entrepreneurial orientation form the independent variables of this study.

Research has shown that there is a relevance to understanding entrepreneurial orientation in relation to enterprise growth performance. Covin and Slevin (1991) explained that there is a reason for growing interest in research in the area of entrepreneurship. This is because there is a strong notion that entrepreneurship can lead to heightened growth performance in both new and established enterprises.

Studies show most used mediating factors concerns learning orientation (Wang, 2008), as well as innovativeness (Hult, Hurley, & Knight, 2004). Most studies find a positive performance relationship. However, the strength of this relationship varies significantly across various studies and contexts (Wales, Gupta, & Mousa, 2013).

Performance is alleged to be a multidimensional and complex construct that has been measured using a range of indicators (Lumpkin & Dess, 1996). From an organisational perspective, performance relates to how well the organisation is managed as well as the value that customers and stakeholders derive from that organisation (Wu & Zhao, 2009). It is important to mention that a basic relevance concerning entrepreneurship and strategic management theory and research is the development of organisational performance (Mthanti, 2012).

The performance of entrepreneurs can be measured through the growth of their businesses which can be seen in sales, number of employees and number of other businesses that the entrepreneur owns (Callaghan & Venter, 2011). It is common that researchers when reflecting on entrepreneurial orientation and firm growth performance reflect on a clear focus around financial performance. Therefore, it is a common practice among researchers to examine growth performance and profitability jointly (Kreiser & Davis, 2010).

Table 2.1: Select studies of entrepreneurial phenomena in established organisations

Author	Focal entrepreneurial phenomenon	Locus of entrepreneurship	Relationship between entrepreneurship phenomenon and strategy	Causally adjacent antecedents of the entrepreneurial phenomenon	Causally adjacent outcomes of the entrepreneurial phenomenon
Covin and Slevin (1991)	Entrepreneurial orientation	Not specified	Reciprocal relationship between entrepreneurial	Firm performance, strategic variables,	Firm performance, strategic variables,

			orientation and strategy	managerial and organizational variables	environmental variables, managerial and organisational variables
Lumpkin and Dess (1996)	Entrepreneurial orientation	Not specified	Strategy and entrepreneurial orientation are distinct, non casually related phenomena	Not specified	Firm performance
Urban & Barreira (2010)	Entrepreneurial orientation	Top level management serving as a proxy for firms	Reciprocal relationships between entrepreneurial orientation and technology orientation	Firm performance, individual and organisational variables	Firm performance and competitive capability of firms
Rauch et al., (2009)	Entrepreneurial orientation	Not specified	Enhancing a firm's performance	Not specified	Firm Performance
Wiklund and Shepherd, (2003)	Entrepreneurial orientation	Not specified	Strong & Positive relationship between entrepreneurial orientation and firm performance	Not specified	Firm Performance
Hisrich and Peters (1986)	Entrepreneurial orientation	Managerial positions in organizations	Assume correlation between entrepreneurial orientation and Firm Performance	Not specified	Firm Performance

Source: Adapted from Ireland, Covin and Kuratko (2009:22)

2.3 INNOVATIVENESS

Studies have found a positive relationship between innovation and firm or industry performance (Rauch et al. 2009).

The minibus taxi industry is a thriving commercial industry which has a 69% public transport market share generating approximately R90bn in yearly revenue (Fobosi, 2019). Despite this, the minibus taxi industry is sadly lacking in technology advancement and usage when compared to other service organisations.

The majority of the taxi passengers work in low-income jobs. Many of those jobs are paid in cash, especially in domestic work or garden employment. A large number of South Africa's poorer commuters do not have bank accounts into which salaries can be paid, or bank cards with which to make payments. This means the industry is cash dominated.

South Africa has a large part of the population that is unbanked. According to recent statistics this is estimated at around 11-million people (BuisnessTech, 2019).

In a direct comparison to the unregulated nature of the taxi industry, the banking industry in the country is acknowledged as being well regulated.

Despite the global move towards more technologically based payment methods, this industry relies on the origins of a cash-based system. Being the most popular form of public transport for the majority of the country, even if the industry were to move towards a cashless system, it would not benefit those who rely on the transport. The industry can therefore not be innovative in the classical technological sense. The cash nature of the business suits owners, who can avoid taxation, as well as drivers, who can earn excess profit off the top, but it also suits passengers very well.

Schumpeter (1942) is one of the first to point out the importance of innovation in the entrepreneurial process. 'He notes the innovation process as 'creative destruction'.

Innovation in itself can be modelled on a process. In terms of this process understanding, a common distinction relates to factors that are inputs in the innovation process. This includes financial resources committed to the innovation task or the number of people working in R&D.

In addition, the process also considers factors that are outputs, including but not limited to, number of patents, new services, products, or the manufacturing processes. (Urban & Mothusiws, 2014).

The innovation process is highly complex and has risks involved. It is not enough for the industry to simply dedicate substantial resources to the innovation process. If the industry is unable to turn the resources into innovative offerings, these resources are wasted, and the performance of the industry is hurt (Lazonick, 2008).

An innovative process that has benefited the industry, concerns that of a system that is truly embedded within the taxi culture.

These hand signals are completely unique to the South African context. They are not taught in schools or advertised on television or in books. There is no formal manual one can download in order to gain insight into these signals. These signals form part of the innovative nature of the industry.

Hypothesis 1: Innovativeness as an entrepreneurial orientation dimension has a positive impact on the growth performance of the South African taxi industry.

2.4 RISK-TAKING

The minibus taxi industry continues to dominate the public transport sector. There has been an increase in commuter density, arising from rapid urbanisation. This trend is projected to increase. Statistics show that currently 63% of South African's live in urban areas. However, by 2050 this number will increase to over 80%. (StatsSA, 2020). This will result in an increase in public transportation and public infrastructure requirements in urban cities.

Bus and rail transport services, responsible for 1-million commuter trips per day in urban areas, receive government subsidies which consequently reduce the transportation cost for commuters. The minibus taxi industry, despite being the dominant form or public

transport and a key service linkage between the other public transport modes, receives no government subsidy, thus costs more that bus and rail, but offers a more reliable transportation service.

For better performance and high returns, SMEs take risks such as collecting higher levels of debt, committing large amounts of resources, introducing entirely new products into new markets and investing in unexplored technologies (Urban & Mothusiws, 2014).

The price of the minibus taxi has increased considerably over the past number of years. The Toyota Quantum diesel, considered to be the most common vehicle type purchased, has increased in price by over 50% (R166 300) from January 2014 to January 2021 (SA Taxi, n.d.).

Minibus taxi fares over the same period have increased by 30% (R80) and 67% (R8) for the illustrative long distance (Johannesburg to Durban) and short distance (Soweto to Johannesburg) routes, respectively (SA Taxi, n.d.).

The taxi industry uses 2- to 3-billion litres of fuel annually, which approximates to an average industry fuel spend of R30bn (SA Taxi, n.d). The full operational cost of these SMEs not recovered from fares, is borne by the minibus taxi operator.

These operational costs include vehicle finance instalments, insurance, tracking devices, fuel, maintenance and repair costs.

Risk-taking is defined as 'the degree to which managers are willing to make large and risky resource commitments i.e. those which have a reasonable chance of costly failures' (Miller & Friesen, 1978, p. 923). Risk-taking involves the taking of actions into the unknown.

It is important to mention that the COVID-19 pandemic has had a negative impact on the global and South African economy.

The minibus taxi, however, demonstrated its resilience. SA Taxi's own published fleet data reflects that as the lockdown levels eased and as economic activity resumed, minibus taxi operators quickly returned to pre-lockdown levels of vehicle operations and average

distances travelled (SA Taxi, n.d.). However, profitability was impacted by the restrictions on passenger loads and fewer trips as passengers worked from home and school transport activity reduced.

The security of the minibus taxi vehicle, the primary asset of the minibus taxi operator's business is an asset that has a high risk of theft. SA Taxi's proprietary data reflects that four of every 10 theft and hijack claims registered, represented valid theft claims (SA Taxi, n.d.).

In order to combat this, the use of technology such as telematics or car tracking devices have been used. Technology as a resource has been moderately successful in recovering stolen vehicles.

Vehicle safety and security remains a primary risk of the minibus taxi operator.

Hypothesis 2: Risk-taking as an entrepreneurial orientation dimension has a positive impact on the growth performance of the South African taxi industry.

2.5 PROACTIVENESS

The term proactiveness is defined in Webster's Ninth New Collegiate Dictionary (1991, p. 937) as "acting in anticipation of future problems, needs, or changes".

The minibus taxi industry is a critical pillar of the South African public transport sector, operating and competing with the heavily subsidised bus industry for more than five decades without receiving a cent from the government in the form of grants.

The industry must therefore be proactive in its approach due to the lack of governmental intervention. Today, the taxi industry operates in a self-regulated context. It is no question that the nature of this industry is informal.

Even though there is a lack of formal documentation as well as regulation, this industry survives due to the notion that routes and stops are well known to the drivers and passengers. These stops are not documented or formally marked, but that does not change the fact that they exist. These stops have been given informal names by both drivers and passengers and are used frequently.

Proactiveness is an opportunity-seeking, forward-looking perspective characterised by the introduction of new products and services ahead of the competition and acting in anticipation of future demand (Rauch et al., 2008). A proactive firm as described by Lumpkin and Dess (1996), is a leader not leader because it has the will and foresight to obtain new opportunities (Lumpkin & Dess, 1996, pp 135 - 172).

Proactiveness can be defined as discovering "new opportunities which may or may not be related to the present line of operations, introduction of new products and brands ahead of competition, strategically eliminating operations which are in the mature or declining stages of their life cycle", (Venkatraman, 1989 pp, 942- 962).

The taxi industry in South Africa has been regarded as informal for many years, although it has elements of a formal industry.

The formation of associations within the taxi industry have managed to resolve certain problems. These include reducing conflict and taxi violence. In vigorously dealing with the transport authorities the associations are proactive.

In terms of previous research, firm-level proactiveness has been operationalised by enquiring about the business's ability to lead rather than follow in the development of new procedures and technologies and the introduction of new products or services (Covin & Slevin, 1989).

SA Taxi aims to broaden inclusivity and create shared value opportunities to ensure the sustainability of the sector (SA Taxi, n.d.). 'Through its dedicated initiatives, SA Taxi has invested R3.5bn into empowering female entrepreneurs in the minibus taxi industry since 2008' (SA Taxi, n.d, pp 3). 'During this time, SA Taxi has increased its female client base by an average of 4.5% per annum, helping to create 8,473 female-owned SMEs and financing 12,092 vehicles', (SA Taxi, n,d).

Hypothesis 3: Proactiveness as an entrepreneurial orientation dimension has a positive impact on the growth performance of the South African taxi industry.

2.6 ENVIRONMENTAL PERCEPTIONS - DYNAMISM

The current perception surrounding the taxi industry is that taxi operators are aggressive and unlawful. The taxi industry in South Africa has for decades suffered from a negative reputation and public perception. This can be seen as partly self-inflicted due to bad driver behaviour on the roads and incidents of taxi violence. News24 wrote that the taxi industry was very violent in response to harsh economic and social conditions, with taxi bosses still killing each other (News24, 2019).

Public transport is essential to the South African infrastructure. Only 38% of South Africans make use of private transport, which establishes that the majority of the country relies on public transport for commuting purposes (SA Taxi, n.d.).
In a developing country context like South Africa, policies have been implemented to promote entrepreneurial activity. Given the possibility that the minibus taxi industry creates entrepreneurial activity within a semi-unregulated context that is mainly unenforced, understanding the governmental influence and the institutional environment is important.

Hypothesis 4: Environmental dynamism will have a positive influence on the relationship between (a) entrepreneurial orientation innovativeness; (b) entrepreneurial orientation risk-taking; and (c) entrepreneurial orientation proactiveness and growth performance.

2.7 ENVIRONMENTAL PERCEPTIONS - HOSTILITY

A hostile environment forms when there is an abundance of competitors, unfavourable supply conditions, and strict regulations (Damanpour & Schneider, 2006). In the taxi industry this manifests with over 250,000 taxis operating within a self-regulated environment.

The minibus taxi industry is acknowledged as being the dominant form of public transport in the country. This mode of transport serves 65% of people using public transport (SA Taxi, n.d.).

The industry supports many jobs, in an economy with an official unemployment rate of 26.7% (Boudreaux, 2006). Taxis, as a form of public transport, are relatively inexpensive and widely accessible to the South African public. They help millions of South African commuters, thus improving worker productivity and the economy as a whole.

Taxis will normally depart from fixed terminals but stop anywhere along their designated route to pick up and drop off passengers. To catch a taxi, passengers will use hand signals in order to indicate where they are travelling.

Five distinct role players make up the informal transport industry, namely the owners, the drivers, the passengers, the taxi associations, and the regulation authorities.

Despite this lack of formal documentation, the taxi routes are well known to the drivers and passengers. The more passengers a driver picks up the more income he will make.

Drivers work exceptionally long shifts, often starting long before sunrise and continuing until after dark. This nature of the business and that of the hardworking driver is often forgotten when the taxi stops in the middle of the road to fetch or drop a passenger.

Instead, what is fuelled by the media and disheartened South African citizens is the negative reputation of the taxi industry as a whole.

Hypothesis 5: Environmental hostility will have a positive influence on the relationship between (a) entrepreneurial orientation innovativeness, (b) entrepreneurial orientation risk-taking and (c) entrepreneurial orientation proactiveness and growth performance.

2.8 CONCEPTUAL FRAMEWORK OF HYPOTHESIS

Based on the theoretical perspectives in this study, a conceptual framework is provided which displays the hypothesised links between the study variables (see Figure 2.1**).**

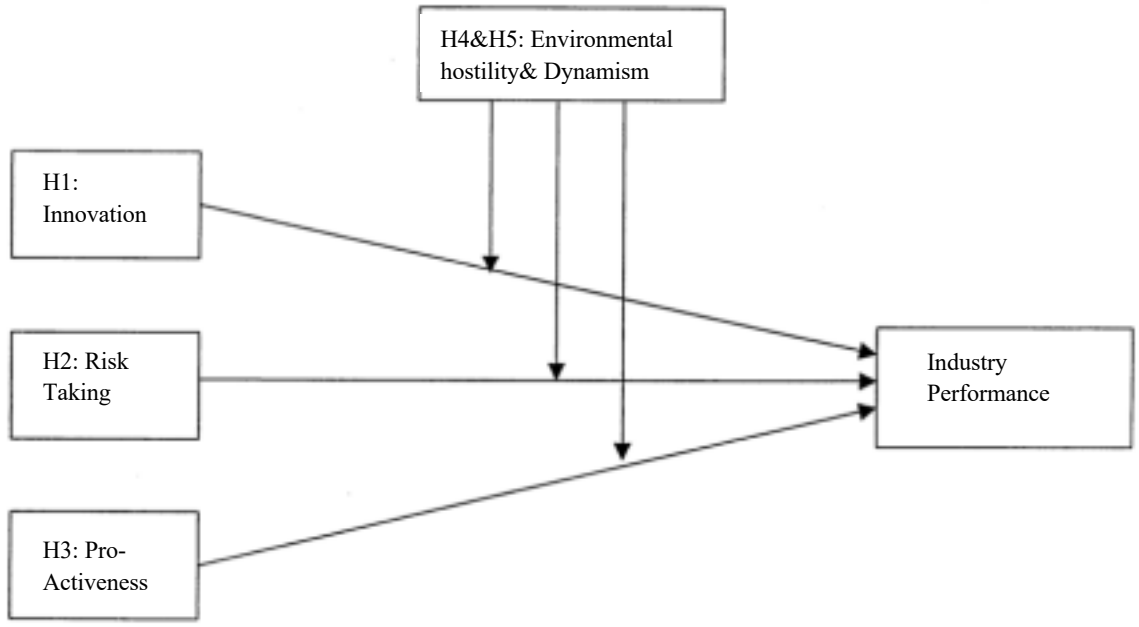


Figure 2.1: Entrepreneurial orientation model with environment relations

(Source: Developed by author)

2.9 CONCLUSION

The South African minibus taxi industry is acknowledged as being the main form of public transport in the country. It provides a transport system to millions of commuters. In doing so, it enables increased levels of productivity and benefits the economy as a whole. The advancement of entrepreneurial activity can be seen on both local and national levels. The literature explains that entrepreneurship is a pivotal tool with regard to economic growth.

The three constructs of entrepreneurial orientation form the independent variables of this

study, these being innovation, risk-taking and proactiveness.

The combination of these dimensions formulate entrepreneurial orientation (Wiklund, 1999). For the purpose of this study, the independent variables are used in order to measure the constructs' relationship between growth performance and the industry.

Covin and Slevin (1991), explain that there is growing interest pertaining to this field of research due to the correlations between entrepreneurship and higher levels of enterprise growth performance. The taxi industry in South Africa is not heavily researched and with that, this study aims to contribute towards business insight with analysis and measurement of data.

The literature provided explains that a mostly a positive growth performance relationship identified. However, the strength of this relationship is context specific. (Wales et al., 2011). With a negative perception, the industry can be connected towards environment hostility and dynamism. This is fuelled by the media as well as ongoing taxi violence.

The study conducted focuses on the relationships between the variables in order to determine the relationship of entrepreneurial orientation and the South African taxi industry.

The following relationships are tested.

2.9.1 Hypothesis 1

Innovation has a positive impact on the growth performance of the South African taxi industry.

2.9.2 Hypothesis 2:

Risk-taking has a positive impact on the growth performance of the South African taxi industry.

2.9.3 Hypothesis 3:

Proactiveness has a positive impact on the growth performance of the South African taxi industry.

2.9.4 Hypothesis 4:

Environmental dynamism will have a positive influence on the relationship between (a) entrepreneurial orientation innovativeness; (b) entrepreneurial orientation risk-taking; and (c) entrepreneurial orientation proactiveness and growth performance.

2.9.5 Hypothesis 5:

Environmental hostility will have a positive influence on the relationship between (a) entrepreneurial orientation innovativeness; (b) entrepreneurial orientation risk-taking; and (c) entrepreneurial orientation proactiveness and growth performance.

CHAPTER 3: RESEARCH METHODOLOGY

This chapter will provide an overview of the methodology adopted for this research. The practical application of how the research aimed to be carried out, the population, sampling method, data collection procedure as well as the analysis of the data are discussed.

The quantitative research approach is therefore considered viable for this study as it is objective and enables the assessment of entrepreneurial orientation through the guidance of theory (Hayton & Cacciotti, 2013). This research study employs theories to guide the development and testing of the five hypotheses.

3.1 RESEARCH METHODOLOGY / PARADIGM

The aim of this research is to determine how the entrepreneurial orientation dimensions contribute to SME growth performance in the South African minibus taxi industry. The research design creates a formation that prescribes a structure to identify relationships between the variables. A quantitative approach is used for the purpose of this study.

Quantitative analysis of data is used as it can provide precise means of testing relationships between the variables (Hayton & Cacciotti, 2013). The use of this method is that it is a reliable scientific means of testing relationships (Blumberg, Cooper, & Schindler, 2011).

A research paradigm refers to the beliefs and values that guide the way in which a researcher solves a problem. Research paradigms are important as to how the work is studied and interpreted. Survey research methodology is suited towards a positive research paradigm. The positivist paradigm is usually validated by applying four criteria, namely internal validity, external validity, reliability and objectivity (Burns, 2000).

3.2 RESEARCH DESIGN

Research design is a blueprint that is used to accomplish research objectives by responding to questions (Schindler, 2019). The research design provides a formal structure to identify the relationships between the variables used for this study.

There are two approaches to research design – longitudinal studies and cross-sectional studies (Schindler, 2019). For the purposes of this study, data from cross-sectional studies are used to analyse patterns between two or more variables.

With the time constraints of this study and in order to analyse relationships, a cross sectional approach for survey research was used. Cross-sectional methodology using survey instruments attempts to test the effects of variables in this study concerning innovation, risk -taking and proactiveness.

The survey, as the chosen methodological approach, allows for the collection of data through the use of structured questions. Pinsonneault and Kraemer (1993), defined a survey as a "means for gathering information about the characteristics, actions, or opinions of a large group of people" (p. 77).

It is a low-cost option and allows for expanded geographic coverage which is important during the Covid-19 pandemic. In terms of advantages, this method is effective in that it allows for the respondents to report directly on their own answers.

Survey research is also used to quantitatively describe specific aspects of a given population (Kraemer, 1991). This allows for the examining of relationships among variables. Survey research uses a selected portion of the population from which the findings can later be generalised back to the population (Kraemer, 1991). "Surveys are inclusive in the types and number of variables that can be studied, require minimal investment to develop and administer, and are relatively easy for making generalisations", (Bell, 1996, p. 68).

"It is important to note, however, that surveys only provide estimates for the population, not exact measurements (Salant & Dillman, 1994, p. 13)". An entire industry cannot be measured, which is why a sample is selected.

The disadvantage here is that an accurate mailing list is needed, and another disadvantage is that response rates may be low as well as skewed. Lastly, a disadvantage to be aware of in terms of this research context is that there is no probing for explanation. Biases can occur unintentionally or from a lack of response.

The main disadvantage of this method as pertaining to this study was the response rate from email and WhatsApp respondents. To combat this, the study was conducted manually to obtain the data in the given time frame as well as to assist in any language barrier concerns that may have arisen if the study were to go ahead virtually.

3.3 POPULATION AND SAMPLE

3.3.1 Population

There are more than 250,000 minibus taxis on the South African roads (SA Taxi, n.d.). This is the population from which the sample wase drawn. A non-disclosure agreement with SA Taxi was signed in order to receive a sample database of existing clients. The non-disclosure ensured that the company was open to discuss the obtaining of this data base for academic purposes. In addition, the non-disclosure protects the privacy rights of the clients and ethical considerations are to be considered.

According to the company, SA Taxi Finance, their database includes settled deals for 71,100 customers and 104,000 loans (SA Taxi, n.d.). All the financed loans have a mandatory telematics device installed and stream real-time data into a Google Cloud platform with real-time events (cross border monitoring, no-go areas and accident detections) and analytics (stops, binding spots, bases and trip details). This frequency data is event based and accumulates approximately 500-million points per month. There are currently 25-billion data points for the taxi movement for the last five years.

3.3.2 Sample and sampling method

A sample consists of a portion of the target population and is carefully selected (Schindler, 2019). From the above-mentioned population, a sample was drawn of 180 respondents for the purpose of the study. Simple random sampling was the method used for this study.

The participants were chosen based on availability and willingness to take part. This proved to be beneficial as surveys were handed out on location to potential respondents.

According to Schindler (2019), a sample is a portion of the target population and this sample should accurately represent the population in order for data to be reliable.

The sample was taken from the SA Taxi database. The company currently has 32,900 minibus taxi loans on their books. The average loan has been on record for 30 months and split across the asset type new (75%) and pre-owned (25%).

The book is heavily weighted towards Toyota Quantum Ses'fikile (88%) followed by Mercedes Sprinter (4%) and Nissan NV350 (3%). The loan book is spread across 26,400 customers (24% female, 76% male). The average age of a financed customer is 47 (SA Taxi, n.d.).

According to the company, in terms of contact method, the communication is mainly telephonic. However, since the start of lockdown, 3,000 customers are registered on the WhatsApp platform. There are also communication channels via email and SMS. These customers are distributed nationally. Below is a table showing this distribution (SA Taxi, n,d):

Table 3.1: Distribution by province

Province	% By Number
Gauteng	29.09%
KwaZulu-Natal	21.82%
Western Cape	12.98%
Mpumalanga	8.94%
Eastern Cape	8.56%
Limpopo	7.63%
North West	5.51%
Free State	2.67%
Northern Cape	2.54%

3.4 THE RESEARCH INSTRUMENT

Decisions regarding the measuring of entrepreneurial orientation must be based on a firm understanding of the theoretical nature of the construct. entrepreneurial orientation as a construct is intended to measure the extent to which an organisation is entrepreneurial. Qualtrics is online software that is used to design and distribute data. The research instrument must not be too confusing or ambiguous (Schindler, 2019).

This survey used closed-ended questions. This requires the respondent to choose from among a given set of responses (McIntyre, 1999, p. 75). The choices form a continuum of responses.

The research instrument included a seven-point Likert scale. The use of this seven-point scale will allow for a greater analysis of the respondents' evaluation. The seven-point Likert scale is reasonable to create and is used for evaluation with regard to how much the respondent agrees or disagrees (Schindler, 2019).

A seven-point Likert scale was used to test independent and dependent variables ranging from (1) Strongly disagree to (7) Strongly agree. Entrepreneurial orientation was measured using this seven-point scale adapted from Covin and Slevin (1990).
The predominant way of measuring entrepreneurial orientation is using the Miller/Covin and Slevin (1989) instrument which is shown in Table 3.2 (Covin et al, 1989). The scales are chosen due to past research establishing instrument validity and reliability, which confirms that the entrepreneurial orientation factor structure is consistent with the three dimensions of innovation, risk-taking and proactiveness (Covin & Lumpkin, 2011).

For the purpose of this research, each entrepreneurial orientation dimension is tested separately. The instrument was divided into blocks. Each block represented an entrepreneurial orientation construct. The instrument began with demographic questions, followed by questions on innovation, risk-taking, proactiveness and the environment, divided into blocks respectively.

Table 3.2: Research instrument scales

Scale	Operationalisation	Literature Support

Independent variables: Entrepreneurial orientation: innovativeness, proactiveness and risk taking.	Entrepreneurial orientation is a measure of entrepreneurship in an organisation that looks at both the degree and frequency of events with respect to innovativeness, risk, and proactiveness. Frequency of entrepreneurship was measured by using summative measures of these three dimensions as they apply to the organisation. entrepreneurial orientation can be viewed as a firm's placement along a continuum ranging from conservative to entrepreneurial. Measured along a seven point Likert scale ranging from 'strongly disagree = (1) to strongly agree = (7)'.	Covin and Lumpkin (2011); Covin et al. (1989); Lumpkin and Dess, (1996); Rauch et al., 2009.; Miller/Covin and Slevin (1989)

Dependent variables: Growth performance	Growth performance was operationalised as an index commonly used performance measures pertaining to performance and growth. These included items such as, profitability, number of vehicles owned growth performance was treated as a perceptive measure for the past three years (performance over three years is broad enough time-space to account for seasonal and cyclical variations in business practices and performance). Used same scale as for IVs.	Lumpkin and Dess, (1996); Kreiser and Davis, (2010); Callaghan and Venter, (2011)

Environmental Hostility & Dynamism	The environmental dimensions of dynamism and hostility are selected. This is due to the modest correlations reported between these two dimensions (Zahra, 1993). 'Environmental dynamism (5-items) and hostility (6-items) are measured with a 7-point Likert scales'. Used same scale as for IVs.	Damanpour and Schneider, (2006); Uzkurt et al., (2012), Urban and Heydenrych, (2015), Zahra, (1993).

3.5 PROCEDURE FOR DATA COLLECTION

Due to Covid-19 it was not safe to collect data on the ground. Data was collected between November 2020 and December 2020. The survey was created on Qualtrics. This system was selected due to its functionality and ease of use.

It is important to mention that originally this form of methodological approach was to be administered via email and WhatsApp; however, due to time constraints the rate of email addresses and WhatsApp responses were too slow. Time was allocated accordingly to collect data manually. This was done by printing out the surveys and allowing respondents to fill them out. SA Taxi allowed the use of their premises to hand out surveys and collect them at the end of the day. This took a full working week. Once all the hard copies were collected, the data was then recorded manually onto Microsoft Excel.

In order to ensure ethical measures were taken into account, the respondents were not incentivised in any way to participate in this research survey. Nowhere in the survey did it require participants to fill out any personal information, to ensure the participants remained anonymous.

The participants were requested to participate completely voluntarily in the survey.

Lastly, the first question of the survey was “I consent to participate” or “I do not consent”, which allowed the option for the respondents to ensure consent is adhered to. In addition, the participants were assured that there were no right or wrong answers and that their participation was greatly appreciated.

University of the Witwatersrand, Johannesburg, insists that all its research be conducted following the very highest ethical standards. All students who are conducting research are required to gain ethical clearance from the university in order to begin the data collection process. According to the university, if one fails to obtain ethical clearance before the research is started, then this may lead to a breach of research integrity.

The ethical clearance certificate was granted by the University on 25 November 2020 and the protocol number is as follows: WBS/BA1122787/558

3.6 DATA ANALYSIS AND INTERPRETATION

The data collected from the completed questionnaires was then analysed using Statistical Package for the Social Sciences (SPSS). SPSS is an electronic system that is especially used for descriptive statistical analysis. By using SPSS, the data from the survey can be analysed and extracted in order to obtain the data that will inform the study.

Firstly, the data needs to be cleaned. This means for all the respondents that did not consent to participation, their data would be discarded. During the cleaning process the incomplete questionnaires are deleted and not be statistically analysed. The data is assessed for any missing values in the data set, meaning if a respondent did not fully answer the question it will not interfere with the data that is collected. This is done to ensure quality results.

The following methods of analysis were used for the purpose of this research:

3.6.1 Descriptive statistics

This method of analysis was used in order to describe the sample of the study. The demographic data collected in the survey is presented in chapter 4, sub section 4.2. The

demographic data is presented in charts and graphs to categorise the results.

3.6.2 Correlation analysis

Correlation analysis is used to evaluate the relationship between two variables; it generally tests the direction and strength of the relationship (Newbold, et al., 2013). The correlation coefficient was used in order to assess the relationship of the three hypotheses.

3.6.3 Multiple regression models

To assess the dependent variables on the three independent variables, the multiple regression tool is used. This is done to examine the independent variables in terms of the three dimensions of entrepreneurial orientation and hostility and dynamism on the dependent variable, growth performance.

3.7 Validity and reliability of research

The data used for this study is data is collected using multi-item and Likert scales; therefore, it was important to ensure that the constructs were valid and scales reliable. Exploratory factor analysis was used to assess the validity of the data. There are several types of validity; however, this research concerns two major varieties being internal validity and external validity. These two varieties will be addressed:

3.7.1 External validity

External validity occurs when the observed causal relationship can be generalised across persons, settings as well as times (Schindler, 2019).

External validity is concerned with the ability of factors and their resulting impact on the ability to generalise the research results. External validity should allow the results of the research to be extended to the minibus taxi industry in South Africa as a whole.

3.7.2 Internal validity

In contrast to the above, according to Schindler, (2019), internal validity can be defined

as the ability of a research instrument to measure what it is alleged to measure.

This test measured how valid the survey was that was sent out to the respondents from the sample. In SPSS the validity test is done by using the Pearson Correlation.

3.7.3 Reliability

Reliability is concerned with the degree to which a measurement is free of random or unstable error (Schindler, 2019). To ensure this, the research and data collected will need to be transparent and consistent. A reliability test indicated how reliable the questions are that were asked in the survey in order to ensure consistent results.

These tests are important to run as questions can be valid yet not reliable. To test this in SPSS, reliability analysis was used in order to test the Cronbach Alpha score. The result indicates if the factors that are being compared are correlated. Reliable instruments can be used with assurance that there is no interference from situational or transient factors (Schindler, 2019). In the event a scale is not reliable it therefore cannot be valid.
With these requirements fulfilled, the research can be considered more valid in that the data represents what it is supposed to.

The next chapter presents and describes the results of the data analysis.

CHAPTER 4: PRESENTATION OF RESULTS

4.1 INTRODUCTION

The data collection administered via the survey was broken down into various categories, starting with demographics. The demographic profile of the respondents is firstly be addressed. The demographic data includes gender, age, education, parental involvement as well as duration in the industry. This is then followed by the results pertaining to each of the hypotheses.

In terms of the hypotheses for this study, there was no valid construct with regard to the environment. Therefore, the hypothesis to do with the moderating effect of environment on the relationship between each of the entrepreneurial orientation dimensions on performance could not be assessed.

At the end of the data collection process, it was identified that 120 respondents provided data. Of these 120, 25 were removed because they lacked all the data points for analysis. Missing values affect the data, so the sample was made up of 95 respondents. The data was captured on Microsoft Excel and imported to the system SPSS in order to be analysed. The outputs of the analysis are presented below.

4.2 DEMOGRAPHIC PROFILE OF RESPONDENTS

4.2.1 Gender

With regard to the demographic data, the results presented in Figure 4.1 indicate that majority of the respondents were male (77%) while the other 23% were female (23%).

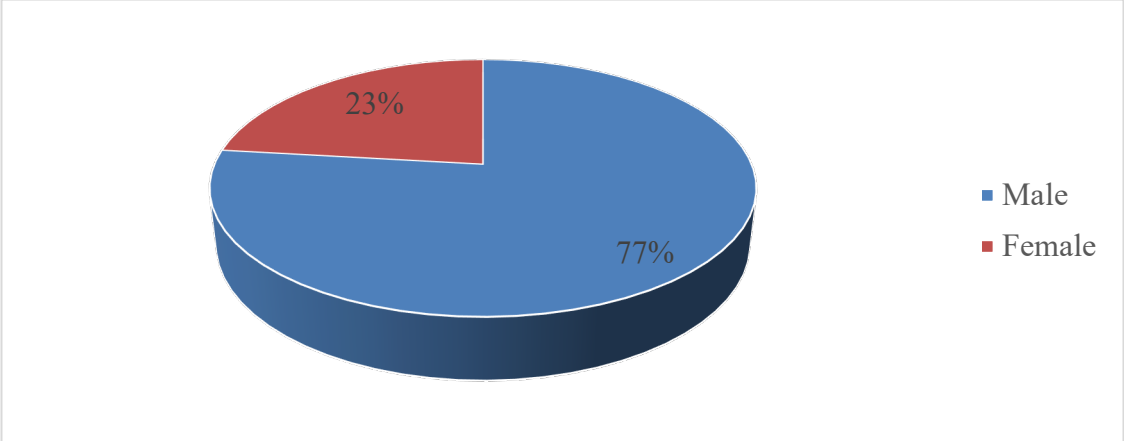


Figure **Error! No text of specified style in document.**.1: Respondent gender

4.2.2 Age

Figure Error! **No text of specified style in document.**.2 presents the age distribution of the respondents. It can be noted that 95% of the respondents were 35 years or older. Only 1% were 18 – 24 years and 5% were between 25 – 34 years old.

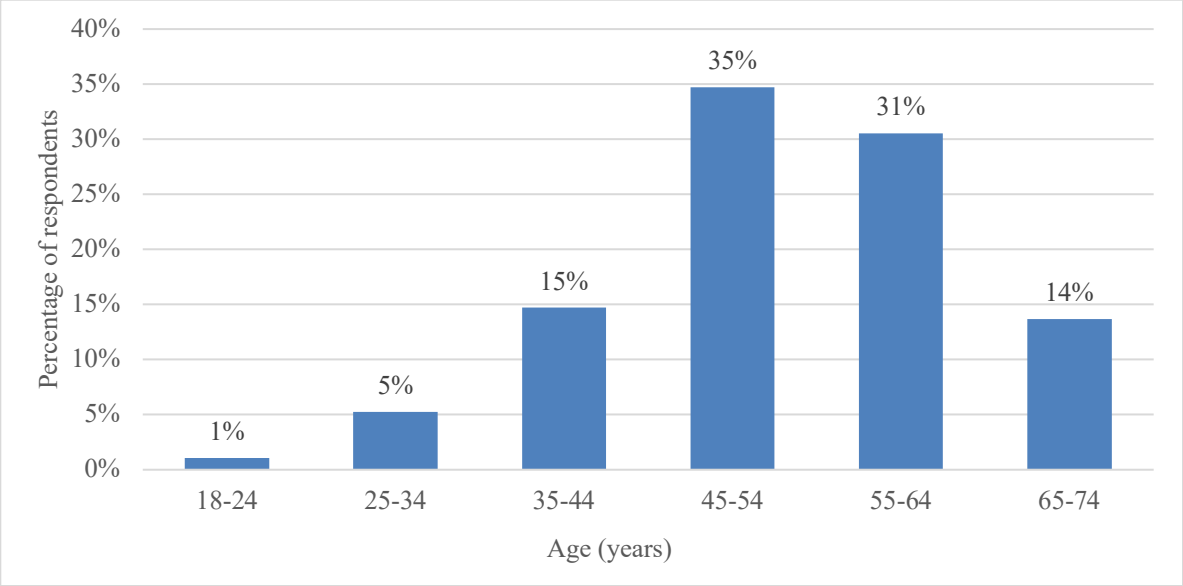


Figure **Error! No text of specified style in document.**.2: Respondent age

4.2.3 Education

The respondents' highest attained level of education is presented in Figure Error! **No text of specified style in document.**.3. Close to one in every two respondents had no formal schooling (48%), followed by 41% that had grade 12 as their highest attained level of education. A proportion of 3% went to college, 5% had diplomas, while 2% of the respondents had degrees.

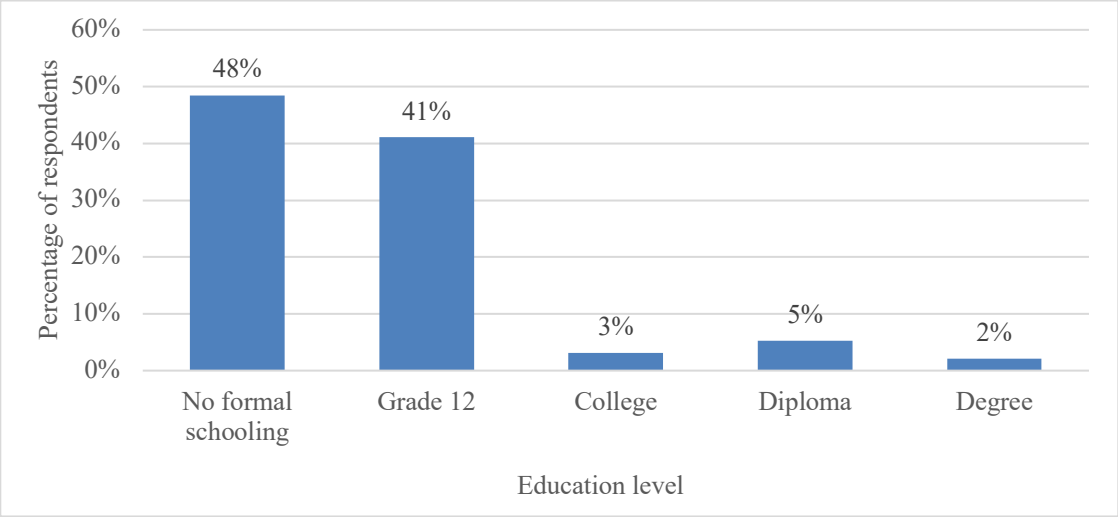


Figure **Error! No text of specified style in document.**.3: Highest level of education

4.2.4 Familial involvement

The respondents were asked if their parents or family relatives were involved in the taxi industry. The results presented in **Figure** Error! No text of specified style in document.**.4** show that more than half of the respondents indicated that their parents or relatives were either definitely involved or probably involved in the taxi industry.

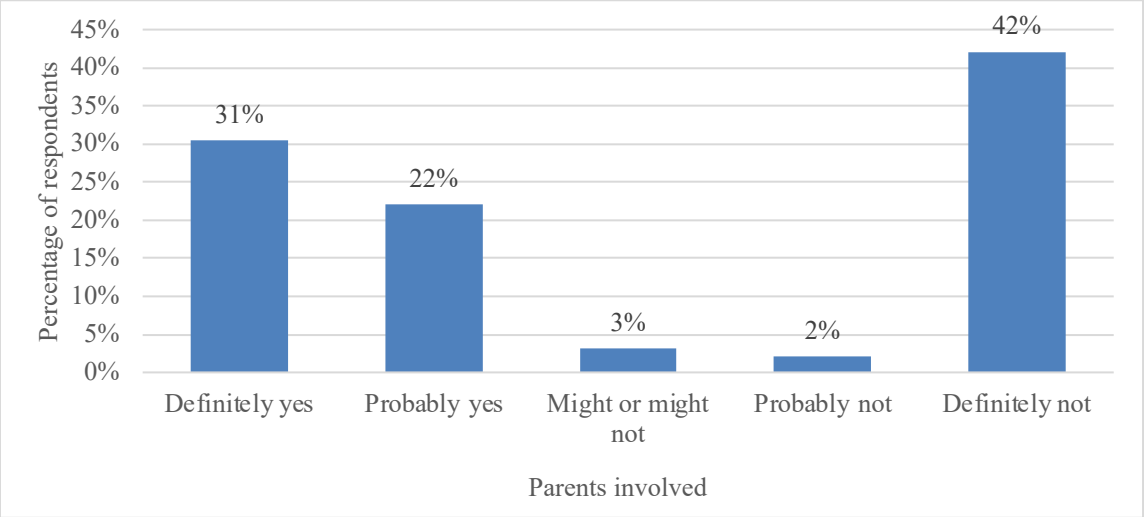


Figure Error! No text of specified style in document.**..4: Highest level of familial involvement**

4.2.5 Experience

The last point with regards to the demographic data regards the respondents' involvement within the industry. Most of the respondents had been involved in the taxi industry for five years or more (88%). The results are illustrated in **Figure** Error! No text of specified style in document.**..5.**

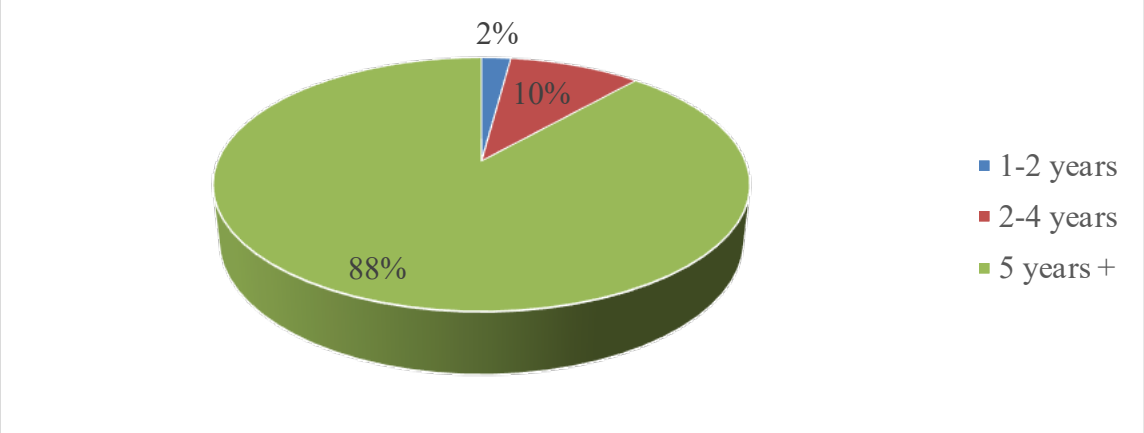


Figure Error! No text of specified style in document.**..5: Length of time in the taxi industry**

4.3 VALIDITY OF CONSTRUCTS

Exploratory factor analysis (EFA) with Principal Axis Factoring method and ProMax rotation were conducted for the dependent variable separately and all the independent variable items in one model. The dependent variable EFA was conducted separately. This was due to the fact that some items from the dependent were loading together with items from the independent variable.

Validity of the dependent variable

The Kaiser-Meyer-Olkin Measure of Sampling Adequacy value was 0.613 as shown in Table Error! No text of specified style in document.**.1**. This was greater than the required value of at least 0.5, indicating that the sample was adequate for conducting EFA. The Bartlett's Test of Sphericity was significant (p-value = 0.000 < 0.05). This implies that the items within the performance construct were correlated strongly enough to support the conducting of EFA.

Table Error! No text of specified style in document.**.1: KMO and Bartlett's test – dependent variable**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.613
Bartlett's Test of Sphericity	Approx. Chi-Square	59.716
	df	3
	Sig.	.000

Table Error! No text of specified style in document.**.2** presents the total variance explained. The results indicate that one factor was retained as one factor had an eigen value greater than 1. The retained factor explained 63.635% of variance of the initial three items in the retained factor as shown by a cumulated initial eigenvalue percentage of 63.635.

Table Error! No text of specified style in document.**.2: Total variance explained – dependent variable**

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.909	63.635	63.635	1.503	50.089	50.089
2	.699	23.295	86.929			

3	.392	13.071	100.000			
Extraction Method: Principal Axis Factoring.						

The scree plot in Figure Error! No text of specified style in document..**6** confirms that there was only one construct as indicated by a steep slope between factor 1 and factor 2. This shows that only one factor explained most of the variation in the initial items.

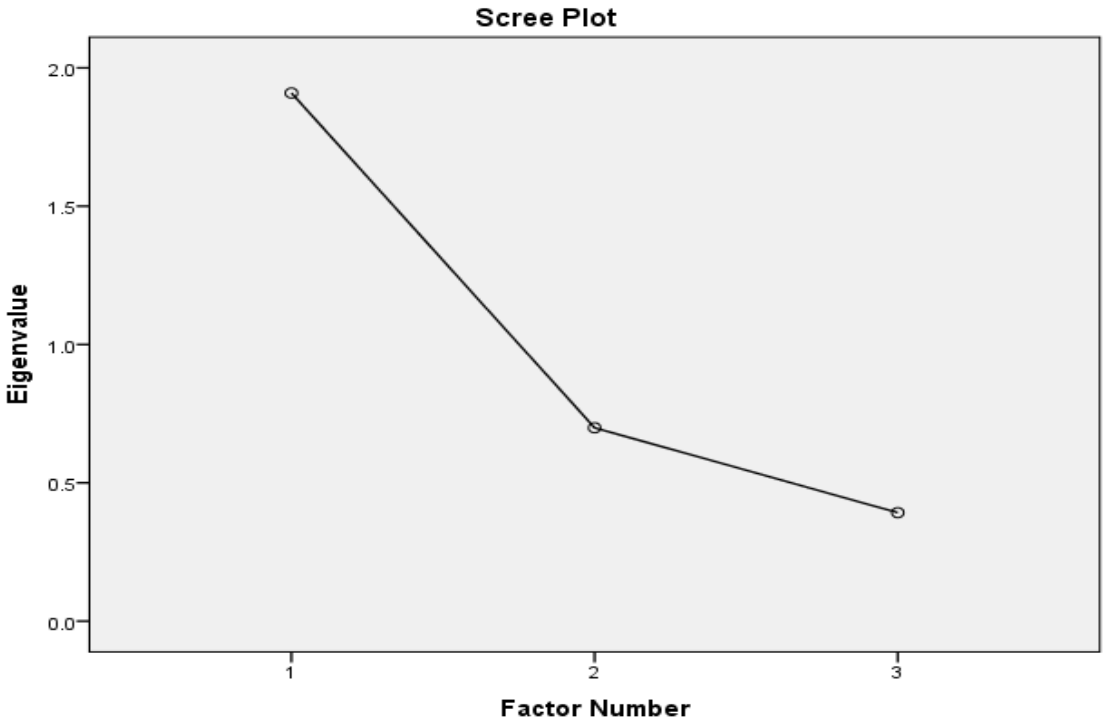


Figure Error! No text of specified style in document..**6:** **Scree plot – dependent variable**

The composition of the retained factor and the factor loadings are presented in Table Error! No text of specified style in document..**3**.

It can be moted that all the three items that initially hypothesised to be in the performance were retained in the factor.

All the items loaded highly onto the retained factor with a minimum factor loading of 0.518. This was greater than the minimum requirement of at least 0.4. This indicates that the performance construct was valid.

Table Error! No text of specified style in document..**3:** **Factor matrix – dependent variable**

	Factor
	1
PERF1 Industry supportive	.939
PERF3 It takes three years to become proficient	.593
PERF2 I am satisfied with my chances of growing	.518
Extraction Method: Principal Axis Factoring.	
a. Attempted to extract one factor. More than 25 iterations required. (Convergence=.001). Extraction was terminated.	

4.3.2 Validity of the independent variables

The KMO and the Bartlett's Test of Sphericity results are presented in Table Error! No text of specified style in document..**4**. The KMO value was 0.690, which was greater than the minimum requirement of at least 0.5. This indicates that the sample was adequate for conducting EFA. The Bartlett's Test of Sphericity was significant (p-value = 0.000 < 0.05). Thus, indicating that the items within the constructs were correlated strongly enough to support the conducting of EFA.

Table Error! No text of specified style in document..**4:** **KMO and Bartlett's test – independent variables**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.690
Bartlett's Test of Sphericity	Approx. Chi-Square	255.391
	df	36

	Sig.	.000

The total variance explained results shown in Table Error! No text of specified style in document.**.5** indicate that the EFA retained three factors instead of the four initially hypothesised independent variables and moderator variable. This is shown by three factors with eigenvalues greater than 1. The retained three factors explained 67.150% of variance of the initial items in the retained factors. This is as indicated by a cumulated initial eigenvalue percentage of 67.150.

Table Error! No text of specified style in document.**.5: Total variance explained – independent variables**

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings[a]
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	3.099	34.435	34.435	2.676	29.729	29.729	2.283
2	1.709	18.989	53.424	1.166	12.952	42.681	1.672
3	1.235	13.726	67.150	.728	8.088	50.769	1.933
4	.777	8.632	75.782				
5	.604	6.711	82.493				

6	.564	6.262	88.755				
7	.439	4.879	93.634				
8	.354	3.934	97.569				
9	.219	2.431	100.000				
Extraction Method: Principal Axis Factoring.							
a. When factors are correlated, sums of squared loadings cannot be added to obtain a total variance.							

The scree plot in Figure Error! No text of specified style in document..**7** confirms that there were indeed three factors as by a steep slope between factor 1 and factor 4 and the line graph flattens after factor 4. This indicates that most of the variance was explained by the first three factors.

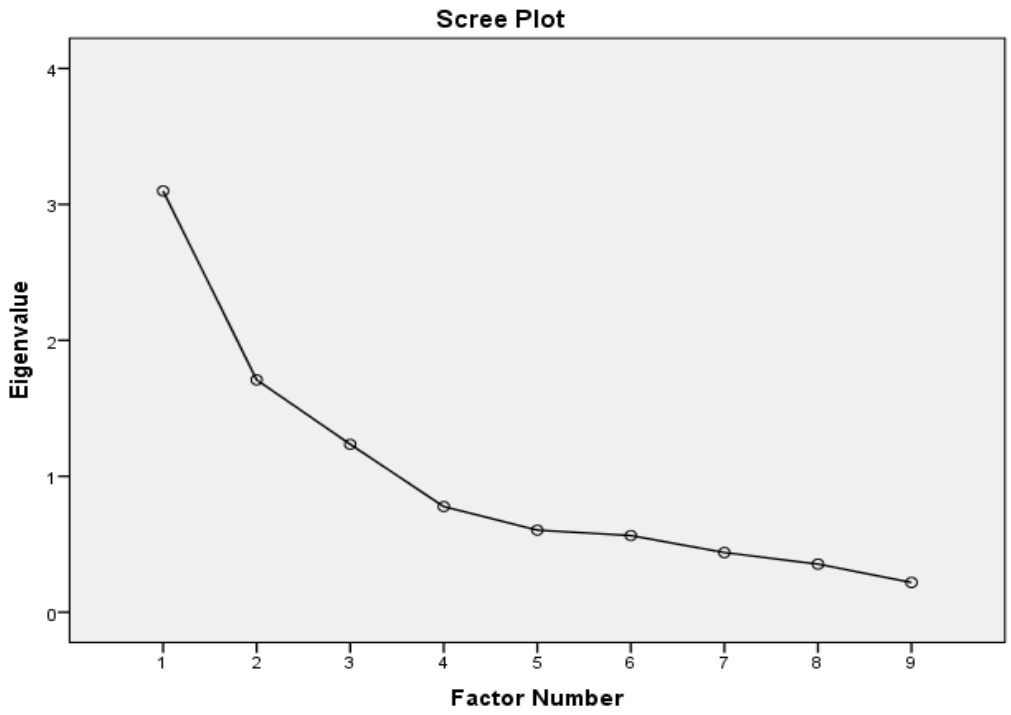


Figure Error! No text of specified style in document.**.7: Scree plot – Independent variables**

The pattern matrix presented in Table Error! No text of specified style in document.**.6** indicates the final construct composition for the independent variables. The innovation construct retained all the three items that were in the hypothesised construct, while the risk-taking construct had the two risk-taking items and one item that had initially been hypothesised to be in the proactive construct. Lastly the proactive construct had two items that were hypothesised to be in the proactive construct and one item that had initially been hypothesised to be in the environment construct.

The items "PRO1 Technology", and "PRO2 Regulatory" were removed during EFA because they had factor loadings less than 0.4, the minimum required factor loadings for an item to belong to a factor.

The environment construct had two items only, namely "ENV1 Competitive" and "ENV2 Environment is aggressive".

These were eliminated during EFA because they were less than the minimum requirement of at least three items in a construct. Thus, there was no valid construct for environment.

The retained items loaded highly (factor loading >0.4) onto their respective factors. This indicates that there were valid constructs for innovation, risk-taking, and proactiveness.

Table Error! No text of specified style in document..**6:** **Pattern matrix independent variables**

		Factor		
		1	2	3
Innovation	INNO3 Idea Gen	.818		
	INNO2 The industry is often bringing in new P/S	.753		
	INNO1 I consider myself to be innovative	.692		
Risk -Taking	RT2 Encouraged to take risks		.705	
	RT1 Leaders encourage risk		.664	
	PRO3 Opportunities		.654	
Proactiveness	PRO4 Proactive awarded			.763
	ENV3 Changing environment			.604
	PRO5 Innovation			.600
	Extraction Method: Principal Axis Factoring. Rotation Method: Promax with Kaiser Normalization.			

	a. Rotation converged in 5 iterations.

4.4 RELIABILITY

Cronbach's Alpha was computed for the items retained in each construct to assess reliability of the scale. The results are presented in **Table** Error! No text of specified style in document.**.7**. It can be noted that there was acceptable reliability level for each of innovation (3 items, $\alpha = 0.798$), performance (3 items, $\alpha = 0.703$), and risk-taking (3 items, $\alpha = 0.701$) as they had Cronbach's Alpha values greater than 0.7.

There was poor reliability for proactiveness (3 items, $\alpha = 0.662$) as the Cronbach's Alpha was less than 0.7. This was, however, greater than 0.5, below which the reliability level becomes unacceptable.

Since the Cronbach's Alpha values for each of the constructs was acceptable or poor but still acceptable, a composite scale was constructed for each construct. The composite scale was computed by calculating the average of the items within each construct.

Table Error! No text of specified style in document.**.7: Reliability of scale**

Construct	Number of Items	Cronbach's Alpha	Reliability level
Innovation	3	.798	Acceptable
Performance	3	.703	Acceptable
Risk -Taking	3	.701	Acceptable
Proactiveness	3	.662	Poor

4.5 DESCRIPTIVE STATISTICS AND CORRELATION

The descriptive statistics and the Pearson's correlation for the final constructs is presented in **Table** Error! No text of specified style in document.**.8**. The results show that proactiveness (mean = 5.08 ± 1.57) was the highest rated construct followed by performance (mean = 5.06 ± 1.59), innovation (4.74 ± 1.71) and risk-taking (2.71 ± 1.54) was the lowest rated construct.

The correlation results show that there was a weak positive and significant correlation between performance and each of innovation ($r = 0.265$, p-value < 0.01), and proactiveness ($r = 0.259$, p-value < 0.05). There was a weak, positive and insignificant correlation between performance risk-taking ($r = 0.077$, p-value > 0.05).

Table Error! No text of specified style in document.**.8: Descriptive statistics and correlation**

	Descriptive Statistics		Pearson Correlation			
Construct	Mean	SD	1.	2.	3.	4.
1. Innovation	4.74	1.71	1			
2. Risk-Taking	2.71	1.54	.250*	1		
3. Proactiveness	5.08	1.57	.405**	.144	1	
4. Performance	5.06	1.59	.265**	.077	.259*	1

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

4.6 REGRESSION

Multiple regression with innovation, risk-taking, and proactiveness as the independent variables and performance as the

dependent variable was applied to assess the hypotheses. There are certain regression assumptions made and these were tested before interpreting the regression results.

Regression assumptions diagnostics

Test for Outliers

Multiple regression and most other models require that there be no outliers (extreme values) that negatively impact on the quality of the model. This assumption was tested by plotting a boxplot for all the variables in the model. As indicated in **Figure** Error! No text of specified style in document..**8**, the set of boxplots to the left indicates that there were a few outliers for the risk-taking variable. Numbers outside the whiskers of a boxplot are outliers.

All the outliers were on the higher end of the scale for the construct. The outliers were eliminated by replacing them with the next highest values that are not outliers. The boxplot to the right shows the boxplots after eliminating the outliers.

It can be noted that the final constructs had no outliers. This implies that the no outlier assumption was met. The model was fitted with the variables that had no outliers.

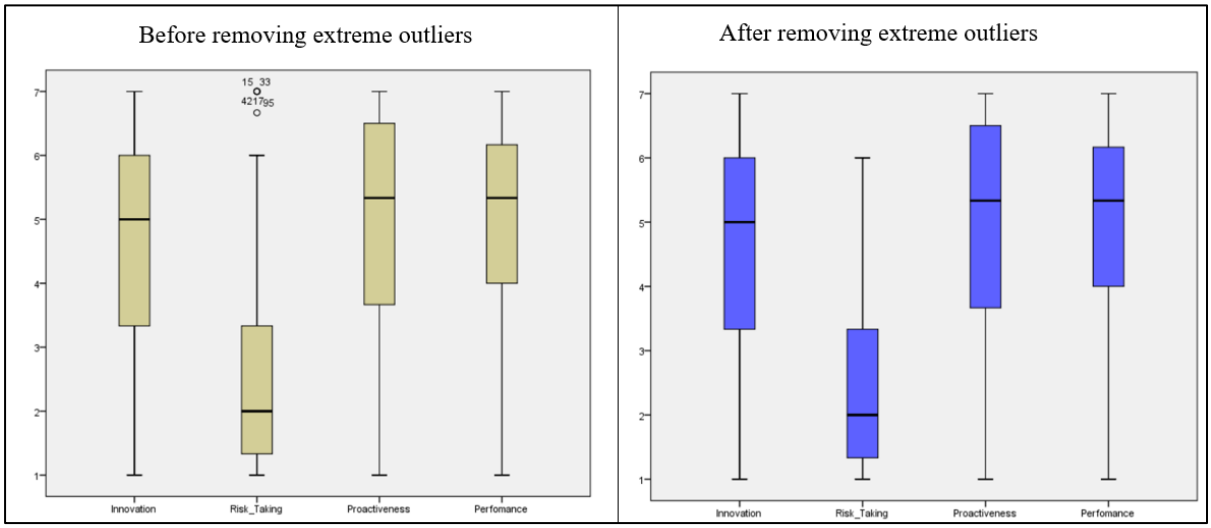
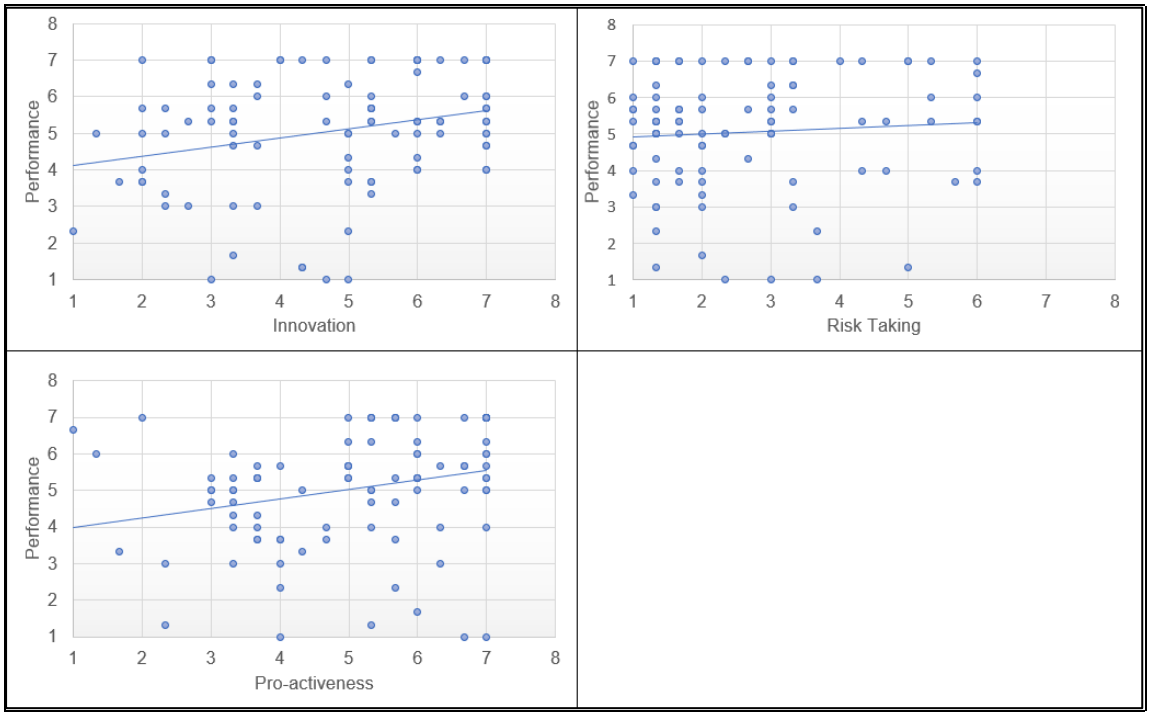


Figure Error! No text of specified style in document.**.8: Boxplots – before and after removing outliers**

Test for Linearity

It is also assumed that there is a at least a linear relationship between performance and each of innovation, risk-taking, and proactiveness. This was tested by plotting scatter plots as illustrated in **Figure** Error! No text of specified style in document.**.9**. A line of best fit drawn within each scatter plot shows that there is a linear relationship between each independent variable and the dependent variable. This implies means that the linearity assumption was also met.

Figure Error! No text of specified style in document.**.9: Scatter plots of independent variable against dependent variable**



Test for normality

The third assumption is the normality assumption, which assumes that the regression residuals are normally distributed. This assumption was tested by plotting a histogram on the regression standardised residuals as shown in **Figure** Error! No text of specified style in document.**.10**. It can be noted that almost all the bars on the histogram fit below the superimposed normal curve. This indicates that the residuals are either normally distributed or at least approximate the normal distribution as required. This means that the normality assumption was met.

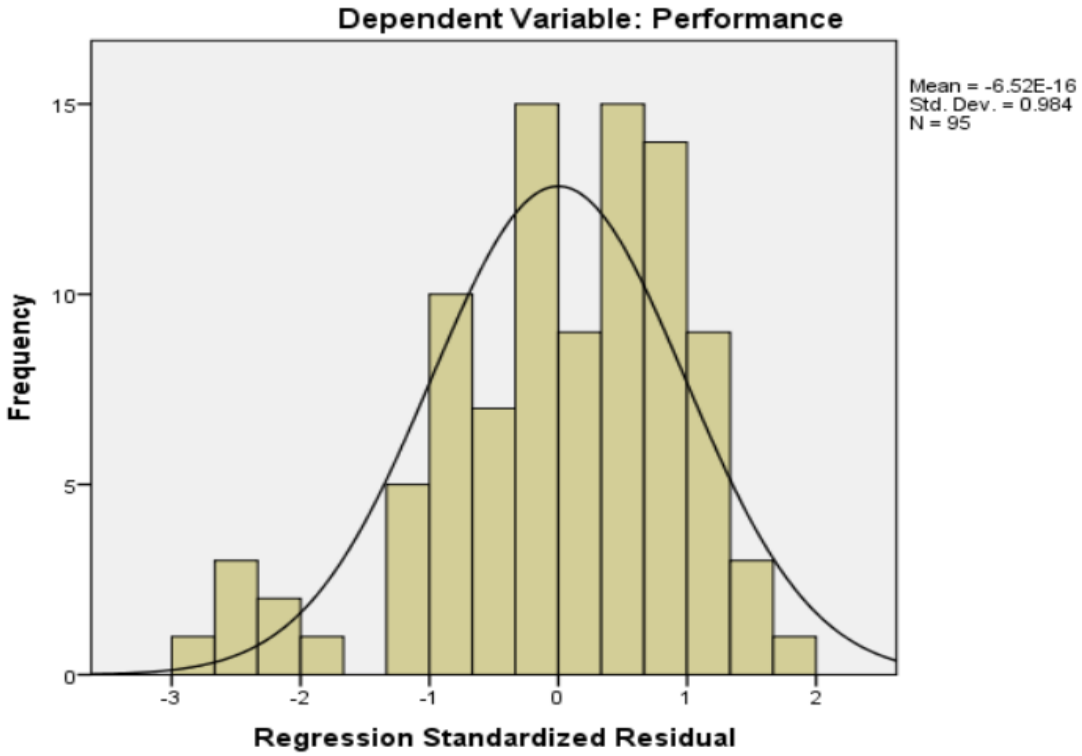


Figure Error! No text of specified style in document.**.10: Histogram of regression standardised residuals**

Test for multicollinearity

It is assumed that there is no multicollinearity, which means that there are no independent variables that have a very strong relationship that negatively impact on the regression model. The variance inflation (VIF) values shown in **Table** Error! No text of specified style in document.**.9** are all below the cut-off of 10, above which there will be a worry about multicollinearity. This implies that the no multicollinearity assumption was also met.

Table Error! No text of specified style in document.**.9: Test for multicollinearity**

	Collinearity Statistics	
	Tolerance	VIF
Innovation	.799	1.252

Risk-taking	.935	1.069
Proactiveness	.834	1.199

Test for homoscedasticity

It is also assumed that there is there no homoscedasticity, which means that the error terms are assumed to be the same for all values of the independent variables. This assumption was tested by charting a scatter plot of the regression standardised residuals against the regression standardised predicted values as indicated in **Figure** Error! No text of specified style in document..**11**. The scatter plot showed values randomly dotted around the zero line with no obvious pattern. This indicates that the homoscedasticity assumption was also met.

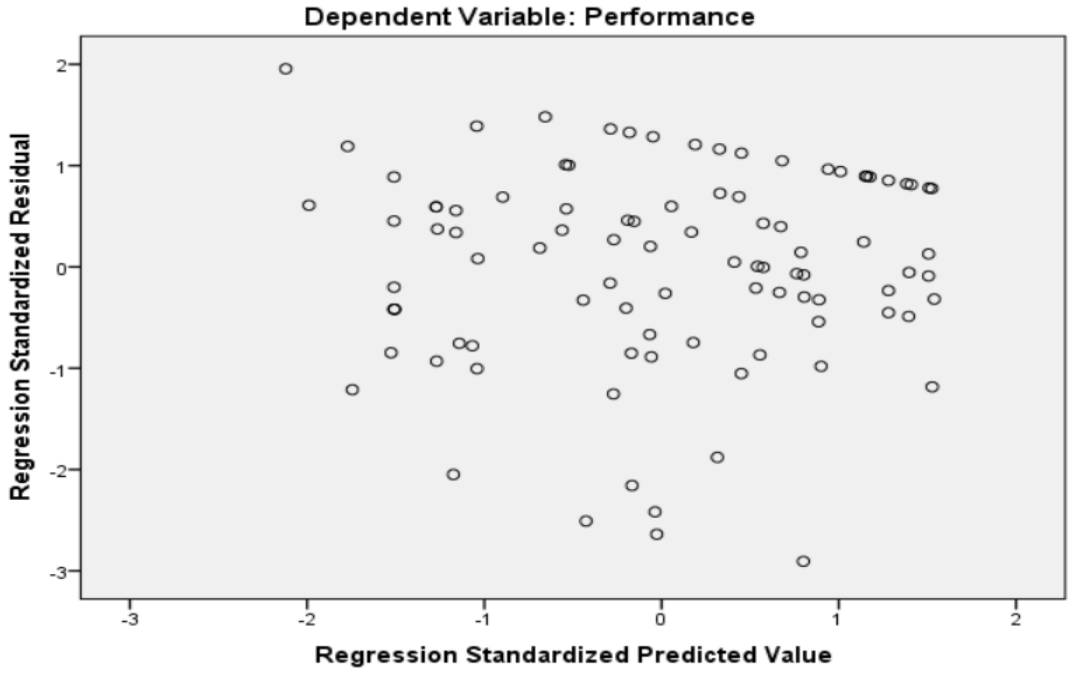


Figure Error! No text of specified style in document..**11: Scatter plot of regression standardised residuals**

Regression results

Table Error! No text of specified style in document.**.10** presents the regression model summary. It can be noted that proactiveness, risk-taking, innovation explained only 9.8% of variance in performance as indicated by an r-square of 0.098 shown in **Table** Error! No text of specified style in document.**.10**

Table Error! No text of specified style in document.**.10: Model summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.313[a]	.098	.068	1.53220	2.335
a. Predictors: (Constant), Proactiveness, Risk-taking, Innovation					
b. Dependent Variable: Performance					

The ANOVA shown in **Table** Error! No text of specified style in document.**.11** indicates that a model with proactiveness, risk-taking, and innovation was significant in predicting performance. This is because the p-value of the model was less than 0.05 as indicated by $F(3, 91) = 3.291$, p-value = 0.024.

Table Error! No text of specified style in document.**.11: ANOVA**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	23.176	3	7.725	3.291	.024[b]
	Residual	213.636	91	2.348		
	Total	236.812	94			

a. Dependent Variable: Performance
b. Predictors: (Constant), Proactiveness, risk-taking, Innovation

The coefficients presented in **Table** Error! No text of specified style in document.**.12** indicate the individual contribution of each of proactiveness, risk-taking, and innovation in predicting performance. The results revealed that none of innovation (p-value = 0.091), risk-taking (p-value = 0.974), and proactiveness (p-value = 0.099) was significant in predicting performance. This is because the p-vales were greater than 0.05.

Table Error! No text of specified style in document.**.12: Coefficients**

Model		Unstandardised Coefficients		Standardised Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	3.272	.613		5.338	.000		
	Innovation	.177	.104	.190	1.709	.091	.799	1.252
	Risk-taking	.003	.106	.003	.032	.974	.935	1.069
	Proactiveness	.184	.110	.182	1.668	.099	.834	1.199

a. Dependent Variable: Performance

4.7 RESULTS PERTAINING TO HYPOTHESIS 1

H0: There is no impact between innovativeness growth performance within the South African taxi industry.
H1: Innovation has a positive impact on the growth performance of the South African taxi industry.

The results presented in **Table** Error! No text of specified style in document.**.12** show that although innovation (β = 0.190, t-value = 1.709, p-value = 0.091) had a positive impact on performance, the impact was not significant. The impact was positive because the coefficient of innovation (β = 0.190) was greater than zero. The impact was, however, not significant because the p-value was greater than 0.05.

This shows that the null hypothesis could not be rejected at 5% significance level. This implies that there was no sufficient evidence at 5% significance level to suggest that there is a positive impact between innovativeness and growth within the South African taxi industry.

4.8 RESULTS PERTAINING TO HYPOTHESIS 2

H0: There is no impact between risk-taking and growth performance within the South African taxi industry.
H2: Risk-taking has a positive impact on the growth performance of the South African taxi industry.

The results presented in **Table** Error! No text of specified style in document.**.12** show that although risk-taking (β = 0.003, t-value = 0.032, p-value = 0.974) had a positive impact on performance, the impact was not significant. The impact was positive because the

coefficient of risk-taking (β = 0.003) was greater than zero. The impact was however not significant because the p-value was greater than 0.05.

This shows that the null hypothesis could not be rejected at 5% significance level.

This implies that there was no sufficient evidence at 5% significance level to suggest that there is a positive impact between risk-taking and growth within the South African taxi industry.

4.9 RESULTS PERTAINING TO HYPOTHESIS 3

H0: There is no impact between proactiveness and growth within the South African taxi industry.

H3: Proactiveness has a positive impact on the growth performance of the South African taxi industry.

The results presented in **Table** Error! No text of specified style in document.**.12** show that although proactiveness (β = 0.182, t-value = 1.668, p-value = 0.099) had a positive impact on performance, the impact was not significant. The impact was positive because the coefficient of proactiveness (β = 0.182) was greater than zero. The impact was, however, not significant because the p-value was greater than 0.05. This shows that the null hypothesis could not be rejected at 5% significance level. This implies that there was no sufficient evidence at 5% significance level to suggest that there is a positive relationship between proactiveness and growth within the South African taxi industry.

4.10 SUMMARY OF THE HYPOTHESES

Table Error! No text of specified style in document.**.13: Summary**

Hypothesis		**Supported/ Not**	**Significant/ Not**
H1	Innovation has a positive impact on the growth performance of the South African taxi industry.	Supported	Not Significant

H2	Risk-taking has a positive impact on the growth performance of the South African taxi industry.	Supported	Not Significant
H3	Proactiveness has a positive impact on the growth performance of the South African taxi industry.	Supported	Not Significant

CHAPTER 5: DISCUSSION OF THE RESULTS

5.1 INTRODUCTION

This chapter is the discussion of the results as well as an explanation of the findings with reference to the relevant literature. First, the demographic profile of the respondents of the sample will be addressed. This will include the findings and any comparison as to what was planned to be obtained and what was indeed obtained. Differences will be explained accordingly. Second, a discussion pertaining to each of the hypotheses in relation to the literature will follow.

Only the three hypotheses concerning the dimensions of entrepreneurial orientation will be discussed. As previously highlighted in chapter 4, there was no valid construct for the environment. The discussion of the results will therefore not include hypotheses 4 and 5, as the requirements for analysis were not met.

5.2 DEMOGRAPHIC PROFILE OF RESPONDENTS

5.2.1 Gender

The sample size is reflective of the industry as a whole. It is majority male orientated. However, 23% of the respondents were female. This indicates that although the industry is male dominated by an overwhelming majority, there is female involvement. The sample size therefore coincides with SA Taxi's loan book that is spread across 26,400 customers of whom 24% are female, and a majority of 76% are male (SA Taxi, n.d.).

Despite being a male-orientated industry, the results coincide with a growing female base. 'SA Taxi has increased its female client base by an average of 4.5% per annum', (SA Taxi, n.d.).

Thus, indicating a growing inclination towards female involvement.

5.2.2 Age

The average age of a financed customer is 47 (SA Taxi, n.d.). In terms of the age demographic, the results indicate that most of the respondents fall into the category of 35 and above. Only 1% of the respondents were between 18 and 24. This indicates that the industry is not majority youth based but instead tends toward an older age group.

The findings are therefore consistent with regard to the sample size of a majority being over 47 years old.

5.2.3 Education

This industry is not one that is founded upon high levels of education. A staggering statistic from the data collected highlights that most of respondents had no formal schooling (48%). Grade 12, the highest level of school education, was attained by 41% of the respondents. This industry can therefore be said to be an opportunity for those who are lacking formal education to create an income. College or university is therefore not a necessary requirement for entry into the industry.

5.2.4 Familial involvement

Being an unregulated industry, the means of entry is not linear. However, 53% of the respondents indicate some familiar involvement in the industry. This indicates some type of a grounding based on familial expertise.

5.2.5 Experience

The results indicate with an overwhelmingly high majority that the respondents have been involved for over five years.

Hardly any of the respondents were newcomers into the industry. Being an unregulated industry, level of entry and experience coincide.

5.3 DISCUSSION PERTAINING TO HYPOTHESIS 1

H1: Innovation has a positive impact on the growth performance of the South African taxi industry.

Research findings showed that entrepreneurial orientation generally has a positive effect on business performance in the United States, Europe and other developed countries (Hughes & Hosman, 2012). However, several studies, like that of Wiklund and Shepherd (2005) show that these studies are context sensitive. This is in line with the findings of this research.

The results indicate that, although there is a positive impact between innovation and growth performance, the impact is not significant. However, there is an impact between the independent variable, innovation, and dependent variable, growth performance. This is shown in the results as when innovation increases so too does growth performance.

The findings for this hypothesis show a weak positive relationship between innovativeness and growth performance within the South African taxi industry. The results are not strong enough for generalising the same findings for the entire population. Therefore, it can be deduced that there is no general concrete evidence to imply that innovation is guaranteed to be related to growth performance within this industry.

There is agreement in previous literature that entrepreneurial orientation positively influences industry performance (Rauch et al., 2009). 'Of the original three dimensions that constitute the entrepreneurial orientation construct, innovativeness is the one dimension that meets with the greatest degree of consensus regarding its positive relationship with firm growth performance' (Rauch et al., 2009:779).

'Moreno and Casillas (2008, p. 507) state that strategy of innovation in new products and new processes has a positive and significant influence on an industries growth rate'.

However, these studies have largely been done in developed economies, leaving a gap in the research with regard to developing economies (Gupta & Batra, 2015).

In terms of the South African minibus taxi industry, as in many other African countries, minibuses dominate the public transport space. 'Critical to an understanding of the minibus taxi industry is the fact that the industry is very dynamic – it is not easy to understand, and is also dangerous' (Karol, 2006). The industry is said to be very complicated in how it operates.

According to President Cyril Ramaphosa (2020), the industry is acknowledged as being the lifeblood of the South African public transport system. At the Taxi Lekgotla in 2020 it was stated that government have an 'aspiration to see the minibus taxi industry overcome its challenges, adapt in response to the demands of modern public transportation, and ultimately to grow and thrive'.

In order for this to be achieved, government acknowledge that at the core of their endeavours is formalisation, regulation and economic empowerment (Taxi Lekgotla, 2020). The Lekgotla further states that, 'concrete measures to ensure long-term sustainability is of importance to the industry'. In accordance with the literature, innovation has to address market needs, and requires effective entrepreneurship if it is to lead to commercial success (Yiu & Lau, 2008).

The literature further implies that in order to generate economic sustainability of an industry, innovation can be applied, and if used correctly, can generate economic success. The government need to address the conflict relating to competition over routes and the associated acts of violence and criminality. In order to encourage innovation, the industry must create a safe space for innovation not only to prosper, but to be encouraged.

Due to this nature of the industry, the results further indicate the uniqueness of those involved in this line of work. 'Given its financial size, formalising the taxi industry is a vital step towards ensuring its contribution to the national tax revenue base' (Taxi Lekgotla, 2020). The help of governmental intervention and increase in support towards technology can further drive innovation.

The results of this study speak to a disjointed industry that encapsulates to the

low significance of the results of this study. In order to increase innovation and eventually capture results highlighting significance in an empirical study, the industry needs to be able speak with one voice and act together. In doing so, this will further create an advancement in acting in support for common interests of all involved.

5.4 DISCUSSION PERTAINING TO HYPOTHESIS 2

H2: Risk-taking has a positive impact on the growth performance of the South African taxi industry.

That taxi industry has been entrepreneurial from inception. Since the late 1970s the taxi industry has been significant in providing an accessible means of public transport in nearly every corner of the country (Taxi Lekgotla, 2020).

The industry was founded on risk and determination and has continued to grow from strength to strength. It is important to mention and commend the industry that emerged at a time when apartheid spatial planning severely restricted people's access to safe and reliable transport. The apartheid government forcibly relocated many black South Africans to areas that were far from commercialised entities. Due to this, a need for a transport system that was for the public, by the public emerged.

Over the last decade there has been significant empirical research on the factors of small business growth (Dobbs & Hamilton, 2007; Wiklund, Patzelt & Shepherd, 2009; Wolff, Pett & Ring, 2015).

Casillas and Moreno (2010) attribute the growth of small businesses to their entrepreneurial activities.

'Studies such as that of Lumpkin and Dess (1996), Moreno and Casillas (2008) and Wiklund, Patzelt and Shepherd (2009) have shown that the performance outcomes of entrepreneurial orientation are context specific'.

The results indicate a positive impact between risk-taking and growth performance in the industry. This is in line with the literature with regard to risk-taking and growth performance.

The presence of entrepreneurial orientation dimensions have been linked to improved enterprise performance where all the dimensions are central to understanding the entrepreneurial process, although they may occur in different combinations, depending on the type of entrepreneurial opportunity the enterprise pursues (Lumpkin & Dess, 1996).

With regard to the results of this study, although there is a positive impact between risk-taking and growth performance, the impact is not significant.

However, there is a relationship between the independent variable, risk-taking, and the dependent variable, growth performance. This is shown in the results as when risk-taking increases so too does growth performance. According to Naldi, Nordqvist, Sjöberg and Wiklund (2007:37) small businesses that are risk opposed will obtain a lower rate of growth than those small businesses with a risk alignment

The findings for this hypothesis, show a weak positive relationship between risk-taking and growth performance within the South African taxi industry.

Taking this into account, it can be said that industries should provide more studies and insight into the adoption of entrepreneurial orientation as the benefits of a deeper understanding can prove to be constructive.

Further, this can be extended in that entrepreneurial orientation research in a South African context is unique when compared to studies that have taken place in more developed markets.

5.5 DISCUSSION PERTAINING TO HYPOTHESIS 3

H3: Proactiveness has a positive impact on the growth performance of the South African taxi industry.

Rauch et al. (2009) identified that, apart from innovativeness, proactiveness is the other dimension of entrepreneurial orientation that tends to reflect a positive relationship with business growth. The impact of entrepreneurial orientation on firm performance has received consideration from scholars in explaining SME performance (Rauch et al., 2009). There is agreement in previous literature that entrepreneurial orientation positively impacts firm performance.

However, these studies have largely taken place in developed economies leaving a gap in the literature with regard to developing economies (Gupta & Batra, 2015).

The hypothesis is built to test this relationship between proactiveness and growth performance to research gap in entrepreneurial orientation literature which is found to have neglected emerging economies (Gupta & Batra, 2015). This is why the study was conducted in the context of the South African minibus taxi industry.

The research question that needed to be answered by the hypotheses was whether there is an influence between proactiveness and performance.

This question was formulated following the literature review. The results found that there was a trend that emerged from all three of the entrepreneurial orientation dimensions.

Just as with the above two hypotheses that were tested, the findings for hypothesis three show a weak positive relationship between proactiveness and growth performance within the South African taxi industry.

The results are not strong enough for generalising the same findings for the entire population. Therefore, it can be deduced that there is no general concrete evidence to imply that proactiveness is guaranteed to be related to growth performance within this industry in its entirety.

The effect of the entrepreneurial orientation dimensions on growth performance has been found to be context dependent. (Gupta & Batra, 2015).

Despite that significance level, findings from different context of emerging economy like South Africa are important with regard to contributing to an under-researched context.

‘The industry is praised for supporting South African communities by providing a decentralised, low-cost, and more accessible alternative to public transportation. It has, to a large extent, empowered South Africans at a time when few opportunities existed for economic empowerment. It also provides a strong example of an industry serving as a platform for aiding unemployment, for job formation and for poverty alleviation’.

The taxi industry plays a critical role in providing an opportunity for self-employment. As such, given high unemployment rates, this continues to be considered as a key economic approach. The industry is a major source of business creation. It has approximately 150,000 taxi business owners in operation. It is a major employer of around 300,000 drivers and 100,000 rank marshals.

In South Africa, the accurate size of the SMME sector is unknown ‘because of the sizable number of businesses that operate in the informal sector (FinMark Trust, 2010, p. 7). However, it has been stated that there are 2,251,821 SMMEs in South Africa, of which 667,433 are “formal” and 1,497,860 “informal” (Bureau for Economic Research, 2016:1)’.

Since SMEs are so diverse in nature with different modes of operation and phases of development, it can be drawn from this study that a ‘one size fits all’ approach to understanding the dimension of proactiveness is limiting given that the intensity of entrepreneurial orientation differs across the SME cohort.

It becomes apparent that a unique understanding of the dimensions of entrepreneurial orientation is necessary for effective entrepreneurship and small business development in South Africa. Such understandings and further research must consider that of environmental factors, entrepreneurial action, nature of the business and the context in which it operates.

The results from the study correlate with the literature in that the industry can adapt in complex environments through its innovative, risk-taking and proactive behaviours (Covin & Slevin, 1989). The taxi industry has had to be proactive since its start. Today, taxi drivers push themselves to work maximum hours, making it difficult for the Department of Labour to enforce minimum wages.

According to an article published in 2016, many taxi associations do not strictly follow the minimum wage structure, with pay determined by various local taxi associations and their operational level, and also the routes drivers are allocated (BusinessTech, 2016).

The South African National Taxi Council (SANTACO) previously reported that there are more than 200,000 minibus taxis in South Africa, generating more than R90 billion annually. However, due to the unregulated nature of the industry, the exact figure is currently unknown.

Based on this figure mentioned above, each taxi makes an annual revenue of approximately R450,000. Suppose that the taxi is in operation every day of the year, bar Christmas, the average income stream for a taxi in South Africa, is around R1,236 per day, orR37,500per month (BuisnessTech, 2016).

SA Taxi explain that each taxi generates seven jobs related to the industry, but reports show that taxi owners lose between 35% and 50% of fares that are pocketed by drivers through a cash-based system (SA Taxi, n.d.).

The industry continues to overlap the formal and informal economies in South Africa. There continues to be tension around the formalisation process of the taxi industry. The approach to the industry must be that it is as a complex system in its totality.

5.6 CONCLUSION

The taxi industry in South Africa is large in scale and contributes to the country's economy more than most industries that are regarded as formal in the public transport sector. It creates employment for many of the urban poor who remain excluded from accessing employment opportunities. Those who cannot access the job market so easily, continue to face the impact of poverty. In order to combat this, many make a living by working within the informal sector of the taxi industry.

The taxi industry thus plays a major role in rescuing these urban marginalised poor from poverty. This industry is therefore important for many to support themselves and their families. As such, given high unemployment rates in the country, self-employment continues to be considered as a key survival strategy. Taxi ownership allows entrepreneurs to work for themselves and accumulate an income.

The results pertaining to the three hypotheses indicate that there is a trend in that the findings of the study. All three hypotheses support that there is a relationship between innovation, risk-taking and proactiveness on growth performance. However, all three of these hypotheses conclude that the findings are not significant.

Combs (2010) warned that researchers should focus less on achieving statistical significances and focus more in ensuring research studies have theoretical grounding and are of value. This means that in terms of this research report the results are still appreciated due to the important insights and validity of the study.

This therefore opens future research points for academics for more improvements. The results of this study are important to the South African government as they are responsible for promoting the taxi industry and entrepreneurship in their effort to ensure growth.

CHAPTER 6: CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS

6.1 INTRODUCTION

The final chapter of this research paper will discuss the conclusions of the study based on the results with reference to the existing theory. This will enable future research to be conducted. This chapter will conclude with implications and recommendations that may aid and develop the literature and further enhance this field of study.

6.2 CONCLUSIONS OF THE STUDY

This study therefore contributes to our understanding of the dimensions of entrepreneurial orientation in relation to an industry that is pivotal within the South African context. Entrepreneurship is a tool used in order to stimulate economic growth. During the times of the pandemic, stimulation of growth is now more important than ever. Many industries have been impacted; many businesses have had to close their doors permanently.

For the government, renewal and sustainability is vital during this time of rebuilding due to the Covid-19 pandemic (Taxi Lekgotla, 2020).

Sectors that are key to the South African economy are called on during this pandemic to create opportunity and stimulate economic growth. Entrepreneurship becomes vital during these times.

The focus of the study was to investigate whether the three dimensions of entrepreneurial orientation impact growth performance within the South African taxi industry. The theory states that entrepreneurial orientation involves in technological innovation, undertakes risky ventures, and pursue opportunities proactively (Miller, 1983). While the study found the three dimensions to an impact on growth performance, the results of all three dimensions were acknowledged as being not significant.

6.3 IMPLICATIONS AND RECOMMENDATIONS

The focus of this study is on the minibus taxi industry in South Africa and the extent of entrepreneurial activity embedded within the taxi industry. This study will allow for other researchers to gain insight into an under-researched sector.

An increase in governmental intervention can allow for further regulation, thus creating a more sustainable environment. According to, South Africa's transport minister, Fikile Mbalula, in an article published in November 2020, the government has committed to implement a new subsidy for the country's minibus taxi sector (The Conversation, 2020).

To extend on this, Mbalula also provided a timeline for the proposal, promising to work with the national treasury and the taxi sector to put the subsidy in place by April 2021 (The Conversation, 2020). This support from the government will allow for beneficial financial gains to an industry that is a central part to the countries mobility landscape.

Governmental interventions should include that of job creation in the industry create both directly and indirectly. There is, therefore, a call for further research contribution with regard to sustainable economic development goals in South Africa. This development should include insight into entrepreneurial growth within the taxi industry.

Further empirical data should be granted public access in order to build an industry that majority of the country rely on for transportation needs.

Recommendations should also include research with regards to formalisation of the industry. More so, in that industry can become more mainstream so that the invaluable service provided by the taxis can be improved and grow.

6.4 LIMITATIONS OF THE STUDY

- Sample size was limited to 95 respondents due to time constraints.
- A numbers of those infected by COVID had to drop out before surveys could be conducted, placing further pressure with regard to time constraints.
- This study is confined South African minibus taxi industry.
- The minibus taxi industry is a unique context, so previous findings in Westernised contexts could not be easily applied.
- Research on the industry in South Africa is limited.
- The study cannot be applied to e-hailing services such as Uber.

6.5 SUGGESTIONS FOR FURTHER RESEARCH

The benefit of academic research allows for the opening of doors to further academic pursuits. This industry is under-researched yet plays an integral part in the South African ecosystem. It dominates the transport sector, yet little information is available to further one's knowledge with regard to the integral organisation of the minibus industry.

Further research can be considered in terms of technological entrepreneurship. The movement from a cash-based sector to that of cashless payments should be considered. Further, the technology of an app-based system, like that of Uber or Lyft should be researched as to why the industry encompasses a lack of technological advances. This information should be widely accessible to the public domain.

The world is moving towards industries heavily incorporated with technology so in terms of further research this is the avenue that would be most conducive to academic studies. In light of the current pandemic, there is greater need for a cashless payment system to be researched.

Follow-up studies could examine the cashless payment system with regard to the industry. The cashless payment system will reduce the danger of spreading diseases like Covid-19. Transactional records from the system can be used for financial and taxation purposes. This system can also help provide the taxi owner immediate access to the funds after the trip has been completed.

The influence of environmental conservation is a new space that academic research should consider in terms of the industry. The pollution caused by exhaust fumes has significantly negative effects on our environment and therefore, alternative methods to petrol fuel need to be considered. The movement from petrol cars to electric cars and the infrastructure that accompanies this is worth noting.

Lastly, strategic entrepreneurship is an area of research that needs to be examined within the context of the South African taxi industry. Future research could also examine how entrepreneurial orientation can be applied to the transport system in South Africa as a whole. This includes trains and buses as well as e-hailing services such as Uber.

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APPENDIX A: RESEARCH INSTRUMENT

Dear Sir / Madam,

My name is Jessica Kier and I am a Masters student in Management in Entrepreneurship and New Venture Creation at the University of the Witwatersrand, Johannesburg. As part of my studies, I have to undertake a research project, and I am investigating *Entrepreneurial orientation (EO) and performance within the South African minibus taxi industry*, under the supervision of Professor Boris Urban. The aim of this research project is to find out the relationship between EO and the industry.

As part of this project, I would like to invite you to take part in answering a questionnaire. This activity will involve answering questions and will take around 10 minutes and consists of 22 questions.

There will be no personal costs to you if you participate in this project. You will not receive any direct benefits from participation but there are no disadvantages or penalties if you do not choose to participate or if you withdraw from the study. You may withdraw at any time or not answer any question if you do not want to. The questionnaire will be completely confidential and anonymous as I will not be asking for your name or any identifying information, and the information you give to me will be held securely and not disclosed to anyone else.

If you have any questions during or afterwards about this research, feel free to contact me on the details listed below. This study will be written up as a research report which will be available online through the university library website. If you have any concerns or complaints regarding the ethical procedures of this study, you are welcome to contact the University Human Research Ethics Committee (Non- Medical), telephone +27(0) 11 717 1408, email hrec-medical.researchoffice@wits.ac.za

Yours sincerely, Jessica Kier Researcher:

Jessica Kier 1122787@students.ac.za 0836461066 Supervisor:

Professor Boris Urban Boris.urban@wits.ac.za +27 11 717 3762

TAXI SURVEY

Start of Block: Default Question Block

Q1 Do you consent to answering this survey

- ○ Yes, I consent, begin the study (1)
- ○ No, I do not consent, I do not want to participate (2)

End of Block: Default Question Block

Start of Block: DEMOGRAPHIC QUESTIONS

Q2 What is you gender?

- ○ Male (1)
- ○ Female (2)

Q3 What is your age?

- ○ Under 18 (1)
- ○ 18 - 24 (2)
- ○ 25 - 34 (3)
- ○ 35 - 44 (4)
- ○ 45 - 54 (5)
- ○ 55 - 64 (6)
- ○ 65 - 74 (7)
- ○ 75 - 84 (8)
- ○ 85 or older (9)

Q4 What is your level of education?

- ○ No formal schooling (1)
- ○ Grade 12 (2)

- ○ Collage (3)
- ○ Diploma (4)
- ○ Degree (5)
- ○ Master Degree (6)
- ○ PHD (doctorate) (7)

Q5 Are your parents or a relative involved in the taxi industry?

- ○ Definitely yes (1)
- ○ Probably yes (2)
- ○ Might or might not (3)
- ○ Probably not (4)
- ○ Definitely not (5)

Q6 How long have you been involved in the taxi industry for?

- ○ 1-2 years (1)
- ○ 2-4 years (2)
- ○ 5 years + (3)

End of Block: DEMOGRAPHIC QUESTIONS

Start of Block: INNOVATION

Q7 I consider myself to be innovative in the industry

- ○ Strongly agree (1)
- ○ Agree (2)
- ○ Somewhat agree (3)
- ○ Neither agree nor disagree (4)
- ○ Somewhat disagree (5)
- ○ Disagree (6)
- ○ Strongly disagree (7)

Q8 The industry is often bringing in new products and services

- Strongly agree (1)
- Agree (2)
- Somewhat agree (3)
- Neither agree nor disagree (4)
- Somewhat disagree (5)
- Disagree (6)
- Strongly disagree (7)

Q9 The industry provides a platform for idea generation

- Strongly agree (1)
- Agree (2)
- Somewhat agree (3)
- Neither agree nor disagree (4)
- Somewhat disagree (5)
- Disagree (6)
- Strongly disagree (7)

End of Block: INNOVATION

Start of Block: RISK-TAKING

Q10 Leaders encourage risk-taking in the industry?

- Strongly agree (1)
- Agree (2)
- Somewhat agree (3)
- Neither agree nor disagree (4)
- Somewhat disagree (5)
- Disagree (6)

- ○ Strongly disagree (7)

Q11 I am encouraged to take risks with new ideas for my business

- ○ Strongly agree (1)
- ○ Agree (2)
- ○ Somewhat agree (3)
- ○ Neither agree nor disagree (4)
- ○ Somewhat disagree (5)
- ○ Disagree (6)
- ○ Strongly disagree (7)

End of Block: RISK-TAKING

Start of Block: Proactiveness

Q12 Technology is often introduced into my industry

- ○ Strongly agree (1)
- ○ Agree (2)
- ○ Somewhat agree (3)
- ○ Neither agree nor disagree (4)
- ○ Somewhat disagree (5)
- ○ Disagree (6)
- ○ Strongly disagree (7)

Q13 Regulatory changes are considered positive in the taxi industry

- ○ Strongly agree (1)
- ○ Agree (2)
- ○ Somewhat agree (3)
- ○ Neither agree nor disagree (4)
- ○ Somewhat disagree (5)

- ○ Disagree (6)
- ○ Strongly disagree (7)

Q14 I constantly look for new business opportunities

- ○ Strongly agree (1)
- ○ Agree (2)
- ○ Somewhat agree (3)
- ○ Neither agree nor disagree (4)
- ○ Somewhat disagree (5)
- ○ Disagree (6)
- ○ Strongly disagree (7)

Q15 The proactive individuals in the system are being rewarded

- ○ Strongly agree (1)
- ○ Agree (2)
- ○ Somewhat agree (3)
- ○ Neither agree nor disagree (4)
- ○ Somewhat disagree (5)
- ○ Disagree (6)
- ○ Strongly disagree (7)

Q16 The industry is leading in introducing new innovation or technology

- ○ Strongly agree (1)
- ○ Agree (2)
- ○ Somewhat agree (3)
- ○ Neither agree nor disagree (4)

- ○ Somewhat disagree (5)
- ○ Disagree (6)
- ○ Strongly disagree (7)

End of Block: Proactiveness

Start of Block: PERFORMANCE

Q17 The industry is supportive and offers guidance in terms of job skills

- ○ Strongly agree (1)
- ○ Agree (2)
- ○ Somewhat agree (3)
- ○ Neither agree nor disagree (4)
- ○ Somewhat disagree (5)
- ○ Disagree (6)
- ○ Strongly disagree (7)

Q18 I am satisfied with my chances of growing my business

- ○ Strongly agree (1)
- ○ Agree (2)
- ○ Somewhat agree (3)
- ○ Neither agree nor disagree (4)
- ○ Somewhat disagree (5)
- ○ Disagree (6)
- ○ Strongly disagree (7)

Q19 It takes three years to become proficient as a taxi operator

- ○ Strongly agree (1)
- ○ Agree (2)
- ○ Somewhat agree (3)

- ○ Neither agree nor disagree (4)
- ○ Somewhat disagree (5)
- ○ Disagree (6)
- ○ Strongly disagree (7)

End of Block: PERFORMANCE

Start of Block: ENVIRONMENT

Q20 The industry is highly competitive

- ○ Strongly agree (1)
- ○ Agree (2)
- ○ Somewhat agree (3)
- ○ Neither agree nor disagree (4)
- ○ Somewhat disagree (5)
- ○ Disagree (6)
- ○ Strongly disagree (7)

Q21 The environment I work in is an aggressive one

- ○ Strongly agree (1)
- ○ Agree (2)
- ○ Somewhat agree (3)
- ○ Neither agree nor disagree (4)
- ○ Somewhat disagree (5)
- ○ Disagree (6)
- ○ Strongly disagree (7)

Q22 The environment I work in is constantly changing

- ○ Strongly agree (1)
- ○ Agree (2)

- ○ Somewhat agree (3)
- ○ Neither agree nor disagree (4)
- ○ Somewhat disagree (5)
- ○ Disagree (6)
- ○ Strongly disagree (7)

End of Block: ENVIRONMENT

APPENDIX B: CONSISTENCY MATRIX

Title: EO and performance within the South African minibus taxi industry. **Statement:** The relationship between the dimensions of EO and SME growth performance in the taxi industry in South Africa.							
Sub – Problems	Literature Review	Hypotheses	Research question	Variables	Source of data	Type of data	Analysis
Taxi owners with high levels of innovation are associated with SME growth within the taxi industry in South Africa.	Lumpkin and Dess (2011)	**H1:** Innovation has a positive impact on the growth performance of the South African taxi industry.	Are taxi owners with high levels of innovation associated with SME growth performance within the taxi industry in South Africa?	IV: Innovation DV: Growth performance	Online survey Q: 7-9	Ordinal data (7 Likert Scale)	SPSS Reliability Validity Correlation Regression Descriptive
Risk-taking relates to SME growth within the South African taxi industry.	Lumpkin and Dess (2011)	**H2:** Risk-taking has a positive impact on the growth performance of the South African taxi industry.	Does risk-taking relate to SME growth performance within the South African taxi industry?	IV: Risk-Taking DV: Growth performance	Online Survey Q:10, -11	Ordinal data (7 Likert Scale)	SPSS Reliability Validity Correlation Regression Descriptive

There is a positive relationship between proactiveness and SME growth within the South African taxi industry.	Lumpkin and Dess (2011) (Rauch et al., 2008).	**H3**: Proactiveness has a positive impact on the growth performance of the South African taxi industry.	Is there a positive relationship between proactiveness and SME growth performance within the South African taxi industry?	IV: Proactiveness DV: Growth performance	Online Survey Q: 12 - 16	Ordinal data (7 Likert Scale)	SPSS Reliability Validity Correlation Regression Descriptive
There is a positive influence between environmental dynamism and (a) EO innovativeness, (b) EO risk-taking and (c) EO proactiveness and growth performance	Damanpour and Schneider, (2006); Uzkurt et al., (2012).	**H4:** Environmental dynamism will have a positive influence on the relationship between (a) EO innovativeness, (b) EO risk-taking and (c) EO proactiveness and growth performance.	Is there a positive influence between environmental dynamism and (a) EO innovativeness, (b) EO risk-taking and (c) EO proactiveness and growth performance?	IV: Innovation, risk-taking, proactiveness DV: Growth performance	Online survey Q: 20-21	Ordinal data (7 Likert Scale)	SPSS Reliability Validity Correlation Regression Descriptive
There is a positive influence between environmental hostility and (a) EO innovativeness, (b) EO risk-taking and (c) EO proactiveness and growth performance	Damanpour and Schneider, (2006); Uzkurt et al., (2012).	**H5:** Environmental hostility will have a positive influence on the relationship between (a) EO innovativeness, (b) EO risk-taking and (c) EO proactiveness and growth performance.	Is there a positive influence between environmental hostility and (a) EO innovativeness, (b) EO risk-taking and (c) EO proactiveness and growth performance?	IV: Innovation, risk-taking, proactiveness DV: Growth performance	Online survey Q: 22	Ordinal data (7 Likert Scale)	SPSS Reliability Validity Correlation Regression Descriptive