

https://dspace.org/

Employee attitudinal and behavioural requirements for entrepreneurial behaviour in South African SMMEs

Ramolobeng, Phuti Zacharia

2021

https://hdl.handle.net/10539/37264

Downloaded from a DSpace repository. https://dspace.org/

Employee attitudinal and behavioural requirements for entrepreneurial behaviour in South African SMMEs

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

Student: Phuti Zacharia Ramolobeng

Supervisor: Dr. McEdward Murimbika

Wits Business School

August 2021

ABSTRACT

SMMEs are seen, in the context of South Africa, as essential for growing big companies and, by extension, propel the entire economy of the country. This research study's main focus was on intrapreneurship in South African SMMEs. It explicated the effect that attitude towards intrapreneurship (ATI) and perceived behavioural control (PBC), have on employee intrapreneurial behaviour. It also sought to explain the role played by a firm's support, as moderator, on the relationships that exist between ATI and PBC, and intrapreneurial behaviour.

This study used a quantitative approach, which allows quantification of constructs with scales so that relationships between constructs as well as the strength of such relationships can be tested to accept or reject hypotheses. The study also followed a cross-sectional methodological approach and used online questionnaires to collect primary data from SMME employees in a survey. The target population for the research study comprised employees of SMMEs in South Africa.

Some important implications of intrapreneurial behaviour for SMMEs, emanating from the findings would point founders, managers, and employees of SMMEs in the direction of attitudinal and behavioural requirements for intrapreneurial behaviour.

Key words: corporate entrepreneurship; firm support; entrepreneurial orientation; hypothesis; intrapreneurial intention

DECLARATION

I, Phuti Zacharia Ramolobeng, 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 of 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.

_____

Phuti Zacharia Ramolobeng

Signed at ……

On the ……. Day of …….. 2022

DEDICATION

I dedicate this work to Modimo wa Thaba-Sione, for your guidance throughout my journey of life. You are the King of peace, my light, the loving and merciful God.

To my late parents, Michael and Elsie Ramolobeng, even if you are not around anymore to witness this accomplishment, I say thank you for bringing me up and supporting me in all ways possible throughout my schooling until I qualified and got a job to fend for myself. I know you have made huge sacrifices just for me to get an education. Your rearing and support are what made this possible.

To my son, Lesiba, and my adorable daughters, Mahlodi and Tshwanetji, thank you for understanding this whole time when I was not available to you when you, rightfully, needed my uninterrupted attention. Let this accomplishment inspire you and be the bedrock upon which you will pursue your goals.

ACKNOWLEDGEMENTS

My gratitude goes to my supervisor, Dr. Murimbika for your support and contribution in completing this research study. I will forever appreciate your wise counsel and insightful advice.

To the programme director, Prof. Boris Urban, for your patience and belief in us, the class of MMENVC 2021. I will forever be thankful for the opportunity to have been in the programme.

To Dr. J. Galawe, for taking us through your Statistics lectures with patience and a motherly love. Without your insightful guidance, I would not have made it through this research report.

To my sister, Cate Shai, my brother-in-law, Namanetona Shai, and Ms Mamsy Moloko, you went out of your way, despite your tight work schedules, and agreed to help me when I needed help. Thank you, I will forever be grateful for your contribution.

To all the respondents, your responses made this research study possible. I appreciate your efforts and the time you spent completing the questionnaires. Thank you very much.

List of Figures

Figure 1: Framework of intrapreneurship 23

Figure 2: Corporate entrepreneurship delineation 24

Figure 3: Theory of planned behaviour 26

Figure 4: Conceptual framework and hypotheses 31

Figure 5: Gender of respondents 49

List of Tables

Table 1: Prior research on entrepreneurship 32

Table 2: Profile of respondents 37

Table 3: Measures used in the study 38

Table 4: Age of respondents 48

Table 5: Level of education of respondents 50

Table 6: Work experience in company 51

Table 7: Construct items 52

Table 8: Patter Matrix 55

Table 9: Attitude towards intrapreneurship 57

Table 10: Perceived behavioural control 58

Table 11: Intrapreneurial behaviour 59

Table 12: Firm support 60

Table 13: Attitude regression model 61

Table 14: Perceived behavioural control regression model 62

Table 15: Firm support-Attitude regression model 64

Table 16: Firm support-Perceived control regression model 65

Table of Contents

1 **1. INTRODUCTION 1**

1.1 CONTEXT OF THE STUDY 2

1.2 THEORY SECTION 5

1.3 PROBLEM STATEMENT 8

1.4 RESEARCH QUESTION AND RESEARCH PURPOSE 9

1.5 CONCEPTUAL DEFINITION OF TERMS 10

1.6 CONTRIBUTION OF THE STUDY 12

1.7 ASSUMPTIONS 13

1.8 CONCLUSION 14

2 **2. LITERATURE REVIEW 15**

2.1 INTRODUCTION 15

2.2 DISCUSSION OF ENTREPRENEURSHIP WITHIN ESTABLISHED COMPANIES 17

2.3 CORPORATE ENTREPRENEURSHIP 19

2.4 INTRAPRENEURING 22

2.5 CONCLUSION OF THE LITERATURE REVIEW 34

3 **3. RESEARCH METHODOLOGY 35**

3.1 PARADIGM **35**

3.2 RESEARCH DESIGN **35**

3.3 POPULATION AND SAMPLING **36**

3.4 MEASUREMENT OF VARIABLES **37**

3.5 DATA COLLECTION **42**

3.6 DATA ANALYSIS **42**

3.7 VALIDITY AND RELIABILITY OF RESEARCH **43**

3.8 REGRESSION ANALYSIS **45**

3.9 CONCLUSION **46**

4 **4.** ..... **PRESENTATION OF RESULTS** **47**

4.1 INTRODUCTION **47**

4.2 DEMOGRAPHIC PROFILE OF RESPONDENTS **47**

4.3 VALIDATION AND RELIABILITY **51**

4.4 REGRESSION **60**

4.5 SUMMARY OF THE RESULTS **66**

5 **5.** ..... **DISCUSSION OF THE RESULTS** **67**

5.1 INTRODUCTION **67**

5.2 DEMOGRAPHIC PROFILE OF RESPONDENTS **67**

5.3 DISCUSSION OF THE FINDINGS **69**

5.4 CONCLUSION **75**

6 **6. CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS 76**

6.1 INTRODUCTION 76

6.2 CONCLUSIONS OF THE STUDY 77

6.3 IMPLICATIONS AND RECOMMENDATIONS 80

6.4 LIMITATIONS OF THE STUDY 83

6.5 SUGGESTIONS FOR FURTHER RESEARCH 84

7 **7. REFERENCES 86**

Appendix A: Consistency matrix 93

Appendix B: Actual survey instrument 95

1. INTRODUCTION

“In his seminal paper, Burgelman (1983) posits that corporate entrepreneurship mainly results from entrepreneurial behaviours undertaken by employees at lower levels of companies” (Sakhdari, 2016, p. 11).

The state of study in the field of corporate entrepreneurship, so far, has not shed enough light on many pertinent issues concerning the central works in the field and how they are interconnected. Unfortunately, according to Carrier (1996), the terms “intrapreneurship” as well as "corporate entrepreneurship" were used, all along, to explain the features of a scenario that takes place in a large organisation. Previous research focused mainly on corporate entrepreneurship within large established corporations (Antoncic and Hisrich, 2001; Aaltio, et al., 2006) and mainly on businesses in the manufacturing sector (Glinyanovaet al., 2021). Nevertheless, to explain intrapreneurship as entrepreneurship inside an established company is not suggesting that the company is large (Carrier, 1996). Glinyanova et al. (2021) recommended that “future research focus on other sectors of the economy, such as the service sector, and put more emphasis on small and medium-sized firms”.

In particular, the complex nature of the construct ‘employee entrepreneurial behaviour’, which is in support of corporate entrepreneurship, implies that a myriad of contextual impacts act on the emergence of such behaviour (Mustafa et al., 2018). Previous approaches to conceptualisation of employee entrepreneurial behaviour, according to Mustafa et al. (2018), have

largely been premised on the firm-level construct of entrepreneurial orientation (EO), which can be a resource-consuming strategic orientation (Wiklund, 1999).

1.1 Context of the study

1.1.1 Theoretical context

Coetzee (2016) posits that corporate entrepreneurship is conceptualised as incorporating the entrepreneurial behaviour and actions of individuals within an organisation, while facing a host of environmental and organisational challenges. With regard to boosting an open market, companies should consider creating new products and coming up with new ways of doing business, continuously, so that they could improve in terms of competitiveness and response (Carrier, 1996).In line with this thinking, numerous authors have highlighted the significance of intrapreneurship as a stimulation to technology in organisations.Companies have to address and act on rapidly changing technological developments, changing markets and environments, which can be done by exploiting and investing in employees and entrepreneurial cultures inside their companies (Coetzee, 2016).

In their study, Mustafa et al. (2018, p.288) state, “Sharma and Chrisman (1999, p. 18) define CE as: ‘the process whereby an individual or group of individuals, in association with an existing organisation, create a new organisation or instigate renewal or innovation in that organisation’”. Corporate entrepreneurship strategy is conceptualised by identifying key principles and components (Coetzee, 2016).

This research study was designed to examine the effect of ATI and PBC on IB of employees in South African SMMEs. Furthermore, the role of a firm's support as a moderator on the effects that attitude and perceived behavioural control have on intrapreneurial behaviour. The interrelatedness of the four variables was clarified by Badoiu et al. (2020) when they posited that the antecedents of intrapreneurship included, on the one hand, different internal organisational factors such as managerial support, incentive system, organisational structure, and organisational culture, and personal factors such as attitude and "perceived behavioural control", on the other side. The relationships between the identified variables will be measured in the South African SMME sector context.

1.1.2 South African SMMEs

In his short article, Luiz (2002) assumed that a dynamic small company field can make an important contribution in work production and also reducing concentration in South Africa's generally oligopolistic industrial structure. While TIPS (2020) reports that the number of SMMEs in South Africa was 2,4 million at the end of 2019, Kavese (2021) recorded 2,36 million at the end of quarter 3 of 2020. Further, SEDA (2021) recorded a decline in the number of South African SMMEs by 11% (or 290 000) year-on-year from 2,65 million to 2,36 millionin the third quarter of 2020.

Small companies serve a crucial duty of providing job opportunities, contributing to tax obligation, export as well as import profits, promoting the dissemination of items, as well as contributing to human resource development (Zeebaree & Siron, 2017: 43). Rankhumishe and Letsoalo (2019, p. 1) emphasised the description of SMMEs being referred to as "efficient and prolific

job creators, the seeds of big business and the fuel of national economic engines". This is particularly so, given the importance of SMMEs as employers of a substantial number of South Africans, contributing 43% of the total worth in salaries and wages paid in South Africa (Tembe, 2018). South Africa, according to Tembe (2018), is perceived to have low levels of entrepreneurial activity and, therefore, the potential for SMMEs to contribute meaningfully towards employment and economic growth poses a challenge. Bokaba (2015) argues that the economic growth of South Africa can be bolstered by nurturing and growing small, medium, and micro enterprises (SMMEs). According to him, previous research studies focused more on external factors that make it difficult for SMMEs to perform, grow and contribute to the mainstream economy (Bokaba, 2015).

This research study paid more attention to the internal factors, which are the primary sources of entrepreneurial behaviour by employees. To grow, perform, and contribute meaningfully to the mainstream economy, South African SMMEs need to behave like big businesses, which is why this study has them as the context of employee intrapreneurial behaviour investigation. Antoncic and Hisrich (2001) maintain that intrapreneurship can be vital not only for big firms however additionally for small and medium-sized enterprises (SMEs). SMMEs are the cradle of innovation and entrepreneurship (Zeebaree & Siron, 2017).

1.2 Theory section

"Corporate entrepreneurship refers to the entrepreneurial activities such as innovation, venturing, and strategic renewal within existing firms" (Sakhdari, 2016, p. 5). Mustafa et al. (2018) have already given the framework indicating three contextual determinants of employee entrepreneurial behaviour: job/role context, work/organisational context, and firm characteristics and external environment. This study developed from the fact that Mustafa et al.'s (2018) approach to conceptualising employee entrepreneurial behaviour had been largely premised on the firm-level construct of entrepreneurial orientation. It could not properly define employee entrepreneurial behaviour at the individual-level and delve into its uniqueness.

Four theories were explicated to provide theoretical foundation to this study, namely, the Resource-based view, Social exchange theory, Theory of reciprocity, and Theory of planned behaviour.

1.2.1 Resource-based view

Barney et al. (2001) acknowledge that much of the focus of the resource-based view (RBV) research has been on larger firms, yet smaller firms also face the need to acquire critical resources to gain sustainable competitive advantage (SCA). According to them, Ragone (1999) provided an interesting RBV perspective on how a small-medium sized enterprise (SME) can develop a sustainable competitive advantage, identifying the importance of three basic capabilities: innovative capability, production capability, and market management capability (Barney et al. 2001). They also touted the entrepreneur as an

exceptional resource in SMMEs (Barney et al. 2001). Baumane-Vitolina (2013), on the other hand, states that RBV uses enterprise resources as the factor affecting growth and innovation, which is pivotal to intrapreneurial behaviour. In this study, if RBV was to be touted as a valid conceptual framework for the analysis of SMME innovativeness, the drawback would pertain to the lack of sufficient resources by SMMEs.

1.2.2 Social exchange theory

Social exchange was defined in Cook and Rice (2006) as an exchange of activity that is satisfying or less satisfying between two people. According to this theory, “behaviour that is rewarded in general continues up to its limit of diminishing marginal utility, and behaviour that has been rewarded on such occasions in the past will be performed in similar situations” (Cook & Rice, 2006, p. 55). Blau (1964) defined “social exchange as referring to voluntary actions of individuals that are motivated by the returns they are expected to bring and typically do in fact bring from others” (Blau, 1964 as cited in Cook & Rice, 2006, p. 55). For this research study, the theory of social exchange would imply that employees of SMMEs would act in an intrapreneurial way if their intrapreneurial actions were rewarded by the company.

1.2.3 Theory of reciprocity

Falk & Fischbacher (2001) describe reciprocity as the act of rewarding kind gestures and punishing unkind actions. They make a claim of the existence of a body of evidence that professes the power of reciprocity in determining human behaviour (Falk & Fischbacher, 2001). Numerous scholars have come out

in support of the value of reciprocity for economics, the most compelling evidence of which comes from laboratory experiments (Falk & Fischbacher, 2001). In one of their experiments Falk and Fischbacher (2001) found that reciprocal behaviour is driven as a response to kindness. The implication of this theory on the present study would suggest that if managers and founders of SMMEs were kind enough to reward intrapreneurial endeavours, the employees would reciprocate the gesture by acting more intrapreneurially for the benefit of the company.

1.2.4 Theory of Planned Behaviour (TPB)

The main theory, which formed the basis of this research, is “theory of planned behaviour” as described by Ajzen (1991), and Vamvaka et al. (2020, p. 6) additionally specified that extant research and meta-analytic testimonials offer strong empirical assistance for the theory of planned behavior as an effective version of clarifying and recognizing entrepreneurial intent development and also behaviour.

According to Ajzen (1991), the theory of planned behaviour is made to anticipate as well as uncover and clarify human behaviour in specific contexts. The theory places the construct of “self-efficacy” or “perceived behavioural control” within a more general framework of the relations among beliefs, attitudes, intentions, and behaviour (Ajzen, 1991).

1.3 Problem statement

1.3.1 The main problem

South African enterprises are struggling to grow, for instance, Galawe (2017) argues that the sluggishness of South African SMMEs is hindering growth in the SMME sector and rendering the sector dysfunctional. Literature reviewed, so far, showed that there were several factors that influenced the performance of SMMEs in South Africa (Galawe, 2017). One of the contributors to this is lower intrapreneurial activity levels, fuelled by high unemployment levels. The drivers of intrapreneurship have not sufficiently been examined, in the case of South Africa, to the extent that research on the effects of employee attitude and perceived behavioural control is of great importance.

1.3.2 Sub-problems

The first sub-problem the study sought to address related to the lack of a fierce confrontation on the low intrapreneurial activity in SMMEs and its resulting high unemployment rate with urgent measures, particularly, by identifying the attitudinal and behavioural requirements for intrapreneurship.

Another sub-problem pertained to a dearth of understanding of the interaction among the concepts of intrapreneurial behaviour, attitude towards intrapreneurship (ATI), perceived behavioural control (PBC), and firm support (FS), which, if understood by stakeholders, they would be able to position SMMEs for improved performance.

The other issue involved inadequate knowledge of those things that enable workers to divulge their deep-seated ideas, so that firms can utilize them for corporate entrepreneurship (Sakhdari, 2016).

The last of the problems which the study sought to provide solutions to was the new fact that COVID-19 brought about more need for corporate entrepreneurship, as more businesses could collapse if they failed to innovate and adapt.

1.4 Research question and research purpose

1.4.1 Research questions

1. What is the effect of attitude towards intrapreneurship on intrapreneurial behaviour of employees in South African SMMEs?
2. What is the effect of perceived behavioural control on intrapreneurial behaviour in South African SMMEs?
3. How is the effect of attitude towards intrapreneurship on intrapreneurial behaviour moderated by a firm's support?
4. How is the effect of perceived behavioural control on intrapreneurial behaviour moderated by a firm's support?

1.4.2 Purpose of the study

The focus of the study was on employee attitude, perceived behavioural control, and intrapreneurial behaviour among South African SMMEs. Its purpose was to empirically examine the effects of ATI and PBC on intrapreneurial behaviour of employees in South African SMMEs. Furthermore, it examined the

role of a firm's support, as a moderator, in the effects that ATI and PBC have on IB, as clarified in Appendix A.

1.5 Conceptual definition of terms

Intrapreneurship: Christos (2017) defines entrepreneurship as a human creative act which creates value by exploiting an opportunity that uses a unique blend of resources. As such, intrapreneurship describes the act of entrepreneurship within an existing organisation (Christos,2017).

SMME: In South Africa, Republic of South Africa (1996) specifies a small business as: "a separate distinct business entity, including cooperative enterprises and non-governmental organisations, managed by one owner or more, and which can be classified as a micro, very small, a small or medium enterprise by satisfying the criteria mentioned in columns 3, 4 and 5 of the Schedule opposite the smallest relevant size or class as mentioned in column 2 of the Schedule" (p. 2).

Republic of South Africa (1996) provides a structure that guides the description of small, micro and medium enterprises in South Africa. The interpretation described in the Act utilizes the number of employees; annual turn over; and the gross assets to classify ventures.The interpretations for the numerous enterprise groups are provided as follows:

- **Survivalist enterprise**: "the revenue created is less than the minimal income standard or the poverty line" (Kavese, 2021, footnote 3).

• **Micro enterprise**: “The turn over is less than the barrel registration limit (that is, R150 000 annually) and employ no greater than 5 people” (Kavese, 2021, footnote 3).

• “**Very small enterprise**: these are enterprises employing fewer than 10 paid employees, except mining, electricity, manufacturing and construction sectors, in which the figure is 20 employees” (Kavese, 2021, footnote 3).

• **Small enterprises**: “These are enterprises that employ no more than 50 employees and are typically extra well-known than very small businesses and also show extra complex business methods”.

• **Medium enterprises**: “the employment of 200 and capital assets (excluding property) of about R5 million are often seen as the upper limit” (Republic of South Africa, 1995, p. 10).

Behavioural intention: Behavioural intention can find expression in behaviour only if the person can decide whether to execute the behaviour (Ajzen, 1991). The intention is defined by Vamvaka et al. (2020) as an indication of an individual's preparedness to execute a behaviour.

Perceived behavioural control: Ajzen (1991) specifies perceived behavioral control as describing anindividuals's understanding of the convenience or problem of carrying out the behaviour concerned.

Attitude towards the behaviour: ATB is specified as the level over which anindividual has favourable or damaging analysis or assessment of the practices concerned (Ajzen, 1991). Attitude towards the behaviour, subjective norms, and

PBC are normally located to predict behavioural intentions with a high precision (Ajzen, 1991).

Vamvaka et al. (2020) maintain that the many studies that analysed the fit of TPB in the domain name of entrepreneurship have actually frequently concluded that both attitude (perspective) as well as perceived behavioral control are considerable forecasters of intention.

Corporate entrepreneurship: "The process whereby an individual or a group of individuals, in association with an existing organization, create a new organization or instigate renewal or innovation within that organization" (Sharma & Chrisman, 1999, p. 18, as cited in Mustafa et al., 2018, p. 288).

Employee entrepreneurial behaviour: The level to which workers proactively take part in the production, introduction, and also application of opportunities at the workplace, noted by taking business-related risk (Mustafa et al.,2018).

1.6 Contribution of the study

Small companies serve a crucial duty in providing job opportunities, contributing to taxpayer's duty, export as well as import profits, promoting the dissemination of items, as well as contributing to human resource development (Zeebaree & Siron, 2017). This study noted that SMMEs in South Africa are struggling to grow, which is lamented by Galawe (2017) when she argues that the passivity of South African SMMEs is hindering growth in the SMME sector and rendering the sector dysfunctional. Intrapreneurship (Corporate entrepreneurship)

is widely recognized as a practical means for promoting as well as sustaining company competitiveness as well as performance (Urban et al., 2012).

This research study aimed to contribute to the existing SMME literature, particularly on intrapreneurial behaviour, ATI, PBC, and firm support, by gathering new primary data which highlighted unique knowledge on the interaction among the four afore-mentioned concepts.

The study also sought to provide insight into how a firm's support moderates the effects that ATI and PBC have on intrapreneurial behaviour. IB is a dynamic feature of the individual, and consists of a situational component, dependent on organizational circumstances as well as work position (Badoiu et al., 2020).

The research would add value and help policymakers who needed to contemplate specific intrapreneurial needs and requirements for implementation in the SMME sector.

This study would be of particular value for developing countries such as South Africa because by increasing and enhancing intrapreneurial behaviour, SMMEs in South Africa will realise growth and, thereby, contribute to the overall economy of the country more significantly.

1.7 Assumptions

When this research study was conducted, the researcher made a few assumptions. It was assumed that:

- All respondents had access to a smartphone or computer, as well as connection to the internet as the survey was done only online.
- The research instrument was validated to be used to measure intrapreneurial behaviour and its determinants.
- The respondents would understand and answer the questions honestly and to the best of their knowledge.
- The respondents would be a fair representation of SMME employees, and that their responses would paint a true picture of intrapreneurial behaviour in South African SMMEs.
- The respondents would show interest in answering the questions and spend their spare time to do the questionnaire fully, without skipping questions.

1.8 Conclusion

This research study was meant to try and address the gaps identified in intrapreneurship literature by, particularly, focusing on intrapreneurial behaviour in South African SMMEs as reflected in the research questions in section 1.4.1.

2. LITERATURE REVIEW

2.1 Introduction

The literature reviewed included articles on Corporate Entrepreneurship, Small, Micro-, and Medium-sized Enterprises, and Research Methods. To conduct individual-level research that examines the ATI and PBC of employees, articles on corporate entrepreneurship were reviewed and recommendations thereof noted. Sakhdari (2016), in the article on corporate entrepreneurship, recommended a few avenues for future research, including the need for more individual-level research. In the article, Sakhdari (2016) noted that intrapreneurship mostly comes from the actions of workers at lower ranks in organisations as they apply their innovative ideas, and then lamented lack of will by organisations and organisational support encouraging companies to enhance intrapreneurial behaviour from the workers. As a result, the recommendation was that future research could be looking into those things that enable workers to divulge their deep-seated thoughts (Sakhdari, 2016).

To be able to investigate the determinants of entrepreneurial behaviour in South African SMMEs, the analysis of the reviewed articles helped to expose some gaps in the current literature. In their article, Mustafa et al. (2018) noted the contextual determinants of employee entrepreneurial behaviour. Further, they noted that approaches to conceptualisation of employee entrepreneurial behaviour had largely been dependent on the firm-level construct of

entrepreneurial positioning (EO) and felt that even more effort at appropriately conceptualising and specifying employee entrepreneurial behaviour was needed (Mustafa et al., 2018). The authors acknowledged the complicated nature of employee entrepreneurial behaviour and posited that a numberof circumstantial impacts acted upon the development this kind of behaviour (Mustafa et al., 2018).

Douglas and Fitzsimmons (2008) argue that entrepreneurial behaviour can take place either in the context of newly formed business ventures, where the entrepreneur is self-employed owner-manager of the firm, or in existing business ventures where the “intrapreneur” behaves entrepreneurially as an employee of the firm.

De Jong et al. (2015) determined 3 attributes of intrapreneurial practices for examination: proactivity, innovation, as well as risk-taking.

Mafiniet al. (2016), in their article “Interrogating antecedents to SME supplier performance in a developing country”, posited that small sample size and the restricted geographical contexts might make it difficult to generalise the results of the study to other contexts and recommended that similar studies could be conducted in the future, using amplified sizes and an enlarged geographic scope. Again they recommended that the framework be tested in industry-specific SME categories to refine the results (Mafini et al., 2016).

Luiz (2002), in his article Small Business Development in SA recommended thateven more research on the web links in between small and also large corporations have to be performed to comprehend the resistance of large business to doing business with SMMEs.

To investigate the core components of employee entrepreneurial behaviour, articles on corporate entrepreneurship were reviewed. In one post, Mustafa et al. (2018) recommended that future research study was required to examine the uniqueness of employee entrepreneurial practices, by looking into its fundamental parts. They went on to say that the adoption of explorative approaches such as interviews, study, and/or vital incident techniques could be particularly productive, which could uncover the special facets of such behavior (Mustafa et al., 2018).

2.2 Discussion of entrepreneurship within established companies

As years passed on, the use of corporate entrepreneurship had been increasing in interest in firms to develop the capabilities of workers, while building up on company performance by creating brand new corporate ventures.

The need for companies to become more entrepreneurial to survive and grow is becoming apparent because the contemporary marketplace has a lot of volatility, complexity and uncertainty increased by global competition and advancements in technology (Venter et al., 2015). Many large organisations have been reinventing themselves and revitalising their entrepreneurial roots that have been decreasing over time. In large companies, managers and employees need to act and think like entrepreneurs to survive.

Zahra (1991) noted that writers were using numerous terms to describe different elements ‘corporate entrepreneurship’ might entail, such as

intrapreneurship (Pinchot, 1985), corporate venturing (Ellis & Taylor, 1987), as well as interior business endeavor (Burgelman & Sayles, 1986). But Carrier (1996) argues that regardless of the tag, intrapreneurship entails innovation inside big companies to enhance revenue and place the firm higher over its competitors.

In their research, Glinyanova et al. (2021) define company entrepreneurship as the action wherein a person or a group of persons, in conjunction with an existing firm, produce a different and better organisation or initiate revival or technology inside that company. “From this, the concept of an entrepreneurial orientation (EO) emerges as an imperative for corporate entrepreneurship” (Venter et al., 2015, p. 514).

2.2.1 Entrepreneurial orientation (EO)

The notion of EO speaks to the processes, practices, and decision-making styles at company level (Venter et al., 2015). This is a firm-level construct that largely informed approaches to the conceptualization of employee entrepreneurial behavior (Mustafa et al., 2018). The concept EO originated in strategy literature, and has been used in strategic management with reference to the entrepreneurial tendencies of firms (Willemse, 2018).

As a concept EO is, nevertheless, equally relevant to large corporations and small businesses and finds expression in the strategic orientation of a company’s willingness to pursue entrepreneurial behavior (Venter, et al., 2015). Various types of environments may lead to different impact of EO on performance (Wiklund & Shepherd, 2005). To describe EO, five dimensions have

been used, namely, autonomy, innovativeness, risk-taking, proactiveness, and competitive aggressiveness (Venter, et al., 2015).

There has been a clear distinction between entrepreneurial orientation (EO) and corporate entrepreneurship (CE), as concepts that underpin this research study as is evident in the way corporate entrepreneurship is unpacked in the section that follows.

2.3 Corporate Entrepreneurship

Corporate entrepreneurship is widely recognized as an appropriate vehicle for promoting and maintaining corporate competitiveness and performance (Urban et al., 2012). This research aimed to investigate the innovative endeavours by workers in the firm, which is essentially called intrapreneurship. Some authors (Antocic & Hisrich, 2001; Aygun, et al., 2010) state that scholars and also professionals have actually shown interest in this idea of "intrapreneurship" as from the beginning of the 1980s because of its helpful impact on revitalisation as well as efficiency of companies. Organisations that are capable of merging strategic action with entrepreneurial action are well positioned to survive in the 21st century (Wood, 2012).

For the topic of this study, the definition of corporate entrepreneurship by Glinyanova et al. (2021) has been the working definition. A table of prior research is included. “To examine intrapreneurship, the employee’s intrapreneurial behaviour (innovation, proactiveness, and risk-taking) will be measured” (Madu, 2011, p. 12).

2.3.1 Innovativeness

Kuratko et al. (2011) defined innovation as interested in presenting something new to the market, which can consist of brand-new products and services, processes, management systems, or programs relating to employees of the organisation. At firm degree, innovation includes the behaviours as well as interactions of individuals and various organisational aspects (Urban & Woods, 2017). Many other authors are in agreement that innovativeness revolves around the introduction of something new to an existing organisation. De Jong et al. (2015), defined innovativeness as a predisposition to participate in imagination and also trial and error via the introduction of brand-new items. They went on to define the construct of innovative job practices as the instigation and deliberate intro (inside a job function, syndicate or organisation) of unique and helpful concepts, procedures, items or treatments (De Jong et al., 2015). Innovativeness, according to Venter et al. (2015), is one of the key aspects of an entrepreneurial strategy and refers to creativity that leads to new products, services, or an increase in technological processes. It is a company's pursuit of new opportunities and novel solutions (Venter et al., 2015).

2.3.2 Risk-taking

De jong et al. (2015) described entrepreneurial risk-taking by entrepreneurs as connected to possible mislays of capital, but also for employees, the writers suggested that risk-taking had a somewhat various definition. They asserted that while product mislays would be partly or

whollyinherited by employers, employees may encounter some loss of honour, noncompliance by fellow employees, as well as also shedding their jobs (De Jong et al., 2015). Risk-taking refers to the extent of uncertainty and maybe loss that has to do with certain outcomes after an action or certain actions (Venter et al., 2015). In the context of corporate entrepreneurship, risk-taking refers to anorganisation's will to pursue opportunities while the uncertainty of whether the action will be successful or not, in other words, acting without being certain of the consequences (Venter et al., 2015). Kuratko et al. (2011), on the other hand, described risk-taking as involving 'pursuing initiatives that have a calculated likelihood of loss or failure, either of financial resources or stakeholder support.

2.3.3 Proactiveness

Kuratko et al. (2011) define proactiveness as entailing an action-orientation tenacity in moving an idea towards implementation, and an emphasis on anticipating and preventing problems before they occur. Furthermore, for Venter et al. (2015), proactiveness referred to efforts by a firm in pursuing new opportunities. It is about being pioneering and initiative seen in top management orientations (Venter et al., 2015). De Jong et al. (2015) refer to proactive behaviours which are self-initiated as well as future-oriented action aimed to alter as well as improve the situation or oneself. These practices might be focused on improving the inner company and also its wider environment (De Jong et al., 2015). Madu (2011) found that the results from a Proactivity Personality Scale highlighted the relatedness of proactiveness and intrapreneurship.

2.4 Intrapreneuring

According to Mustafa et al. (2018), intrapreneurship describes employees that identify opportunities as well as establish developments from within an existing company. Neessen et al. (2019) specify it as a process wherein employee(s) identify as well as make use of opportunities when they innovate, stay positive, and by taking risks, which allows the organisation to design brand-new items, systems, as well as services, start rebirth or endeavorother services that will improve competition as well as performance of the organisation.

Berzin et al. (2016) explained intrapreneurship as the procedure of entrepreneurship within an existing organizational framework and also speaks of purposes and also practices that are distinct from typical practice. The success of intrapreneurs likewise depends upon the business circumstances. Intrapreneurs see success where others see failure or problems (Garzon, 2005). The organization facilitates or hinders the actions of intrapreneurs, as indicated in the framework below (Figure 1).

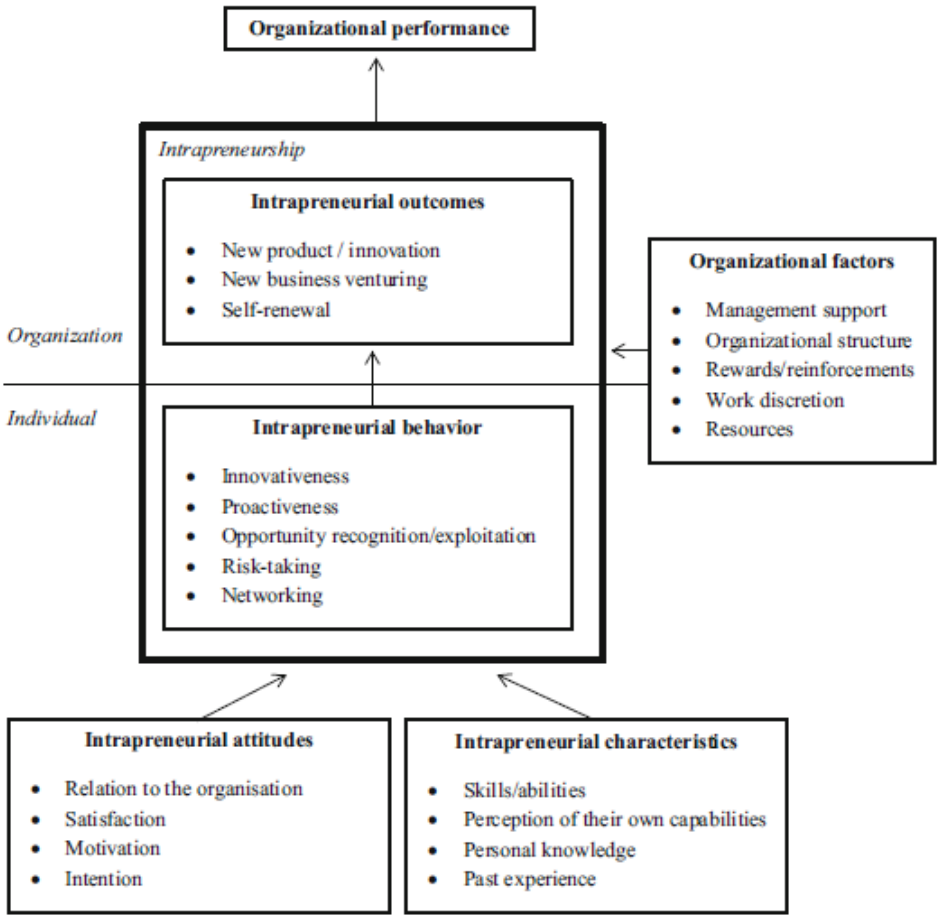


Figure 1: Framework of intrapreneurship

Source: (Neessen et al., 2019)

The organisation can be thought about a prevention or a facilitator of individual intrapreneurial behaviour (Neessen et al., 2019). The organisation can give resources and also knowledge as well as sustain the intrapreneur in recognising intrapreneurship as well as the consent to act intrapreneurially (Neessen et al., 2019). According to Neessen et al. (2019), organisational aspects mediate between the activities of intrapreneurial employee and intrapreneurial outcomes.

Kuratko et al. (2011), on the other hand, presents the delineation of the different forms of Corporate Entrepreneurship as in Figure 2 below:

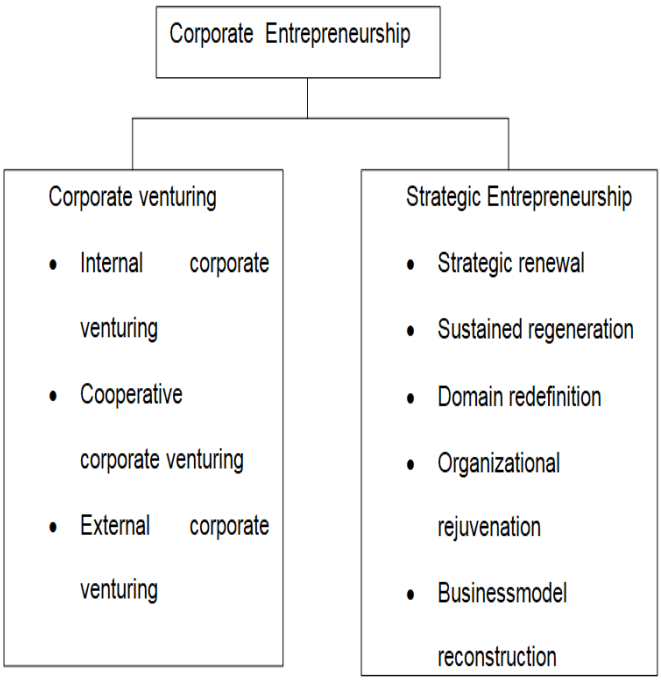


Figure 2: Corporate entrepreneurship delineation

Source: (Kuratko et al., 2011)

Madu (2011) contends that corporate entrepreneurship comprises two distinct and separate areas, the stance which was affirmed by Kuratko et al. (2011), when they argued that corporate entrepreneurship could be delineated into corporate venturing and strategic entrepreneurship.

2.4.1 Corporate venturing

Kuratko et al. (2011), describes corporate venturing as including various techniques for producing, contributing to, or buying brand-new services. Corporate venturing can take three forms: internal corporate venturing, cooperative business venturing, and outside company venturing (Kuratko et al., 2011).

2.4.2 Strategic entrepreneurship

Kuratko et al. (2011) preserve that while business venturing involves business participation in the production of brand-new businesses, strategic entrepreneurship represents a broader range of business efforts that include organisationally substantial innovations that are embraced in the quest of competitive advantage. Strategic entrepreneurship includes tactical revival, maintained regrowth, domain regeneration, organisational rejuvenation, and business model reconstruction.

But for Urban and Woods (2015), the construct of corporate entrepreneurship includes three dimensions, namely, strategic renewal, innovation, and corporate venturing, which are essential and legitimate components of CE process.

This research, premised on TPB, was designed for looking into how ATI and PBC moderated by a firm's support would affect employee intrapreneurial behavior. According to Ajzen (1991), the more favourable the attitude and the greater the PBC, the stronger should be the intention of executing the behaviour of interest. Even though, TPB was designed to look into intention as the mediating factor between attitude, subjective norms, and PBC, and behaviour, this research decided to apply it on behaviour because the author felt that the same antecedents of intention could apply to explain behaviour. If it was possible to determine the actual behaviour, instead of intention, it made sense for the study to look into behaviour (intrapreneurial), in which case, the antecedents of intention could be applied to explain it. The following diagram (Figure 3) represents the theory of planned behaviour as conceived by Ajzen (1991):

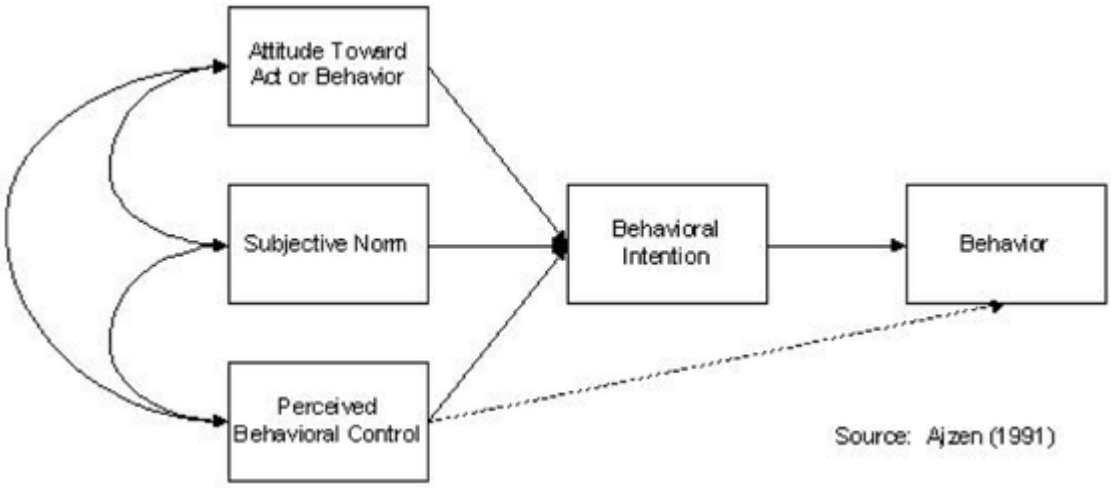


Figure 3: Theory of planned behaviour

2.4.3 Intrapreneurial behaviour

Esposito De Falco and Renzi (2020) suggest that the idea 'intrapreneurship' is attested, even though, it has not yet gained momentum as well as reputation at the present time. Just like it was indicated, current circumstances have positively increased business innovativeness demand, because reading the situation implies that businesses should embrace moving in the direction of open innovation as well as within, in the direction of their own workers, and in that way they would open up the appropriate capacity of all their resources (Esposito De Falco & Renzi, 2020). Sakhdari (2016) established that intrapreneurship mostly came from the actions of workers at the lower ranks in organizations as they applied their innovative thoughts.

Badoiu et al. (2020) assert that intrapreneurial behaviours of workers can arise in spite of the shortage of time and also minimal resources allocated to taking on jobs. Furthermore, work discernment as well as common self-

confidence including the top calibre of the relationship in between workers and also most senior management are the most rated attributes for intrapreneurs (Badoiu et al., 2020). Intrapreneurs are the creative individuals who have the entrepreneur soul within an institution, see an opportunity for innovation and catch it, and not only innovate but also can turn their ideas and models into an enhancement for their institution's profits and competitive power (Aygun et al., 2010). The authors contend that intrapreneurial behaviour is defined by three facets, particularly, a set of ingenious, proactive, and also risk-taking behaviours, and that, with intrapreneurial habits, organisations, particularly those that prevail in dynamic as well as unstable settings, become better when it comes to results (Badoiu et al., 2020). They use a model that explores the contribution of two main types of antecedents of intrapreneurship – personal factors and organizational factors/context – towards comprehending the intrapreneurial activity of employees (Badoiu et al., 2020).

2.4.4 Attitude towards the behaviour

Scharrer and Stubenrauch (2018) posit that a staff member's mindset in the direction of intrapreneurship associates with the level to which that person believes he/she has favourable or unfavourable thoughts of ending up being an intrapreneur.

Attitude toward the behaviour, as defined earlier on from Ajzen (1991), describes the level to which an individual has a beneficial or damaging evaluation or judgement of the behavior of interest. Vamvaka et al. (2020) assert that

theorists have argued for a difference between two parts of attitudes: affective attitude, on the one hand, describing sensations (e.g., pleasure, fulfillment), and affinities stimulated by the ensuing actions; as well as instrumental or cognitive attitude, on the other hand, referring to thoughts or reasonable arguments. According to this line of thinking, we can conclude that attitude towards intrapreneurship is a two-dimensional construct consisting of cognitive and also affective parts. The model of study above suggested that the following hypothesis would be formulated and tested:

H1: Attitude towards intrapreneurship has a positive influence on intrapreneurial behavior in South African SMMEs.

2.4.5 Perceived behavioural control

While attitude towards behaviour and subjective norms were thought to be mediated by intention to determine behaviour, PBC, on the other side, could directly affect behavior without any mediating factor (Figure 3). According to Scharrer and Stubenrauch (2018), “perceived behavioural control implies the extent of an individual’s fear of losing control when having responsibility and its influence on intrapreneurial intention” (p. 24). By extension, perceived behavioural control will have an influence on intrapreneurial behaviour.

Ajzen (1991) specifies PBC as an individual's understanding of the simplicity or problem of carrying out the actions concerned. Researchers, as claimed by Vamvaka et al. (2020), have actually provided proof that perceived behavioral control, conceived by Ajzen (1991), has 2 making up elements: self-efficacy and also perceived controllability. As the authors clarify, “self-efficacy

incorporates inner control factors such as expertise and capabilities as well as shows one's view concerning the convenience or problem of taking on a specific behaviour, as well as one's confidence in his/her ability to do the behaviour" (Vamvaka et al., 2020, p. 4). Perceived controllability, on the other hand, incorporates exterior attributes like sources, opportunities, and also prospective obstacles, while it shows an individual's understanding that the execution of the behaviour remains totally as much as him or her (Vamvaka et al., 2020). A study by Ajzen (1991) confirmed that PBC made a significant contribution to the prediction of behaviour. He noted that regression coefficients of PBC were significant in every study (Ajzen, 1991). This result could be ascribed to the truth that PBC, by definition, derives its meaning from the ease or difficulty of executing the action, and it is thought to show the past experiences, and thus, it becomes ideal for informing behaviour than intention, which would be better informed by attitude. Our model of study above suggested that the hypothesis that would be formulated and tested was:

H2: Perceived behavioural control has a positive effect on intrapreneurial behaviour in South African SMMEs.

2.4.6 A firm's support

Firm support was advanced by Cook and Rice (2006) and Falk and Fischbacher (2001) in their theories of social exchange and reciprocity, respectively. The theory of social exchange contends that behavior that is rewarded continues, albeit rather, up to the limit of diminishing marginal utility, while the theory of reciprocity, on the other hand, suggests that reciprocal

behaviour is driven as a response to kindness, which is evaluated by people, not only by its consequences but also by the intention underlying the action.

Badoiu et al. (2020) affirm the relevance of companies recognizing intrapreneurial actions among their workers and matching them with the particular business demands of the company. According to their line of thinking, antecedents of intrapreneurship include various internal business elements such as supervisory support, reward system, business structure, and also business culture, on the one hand, and personal factors such as attitude and also perceived behavioural control on the other hand (Badoiu et al., 2020). Furthermore, intrapreneurial behaviour is a dynamic attribute of a person, and includes a situational component, established by company circumstances as well as the task setting (Badoiu et al., 2020). Business strategies should also be matched with complementary environments and structures to promote success (Miller, 1988).

“Morris and Kuratko (2002) believe that entrepreneurs are not necessarily ‘born’ and that many of the key characteristics associated with entrepreneurial behavior are a function of a person’s background and experiences” (Durkan, 2005, p. 10). According to her (Durkan, 2005), if a firm enhances the entrepreneurial behaviour of its employees, it surely will realize a rise of success through innovation. By enabling workers to spot, promote and pursue chances while cultivating a flexible work environment with common foresight as well as beliefs, the firm will certainly enhance its breadth and also depth of commercialised development (Durkan, 2005).

This study examined the moderating role of a firm's support on the effects that ATI and PBC have on intrapreneurial behavior of employees in South African SMMEs. Based on the structural "support" needed for corporate entrepreneurship, as outlined above, the hypotheses that couldbe formulated and tested as follows:

H3: The effect of attitude towards intrapreneurship on intrapreneurial behaviour is positively moderated by a firm's support.

H4: The effect of perceived behavioural control on intrapreneurial behaviour is positively moderated by a firm's support.

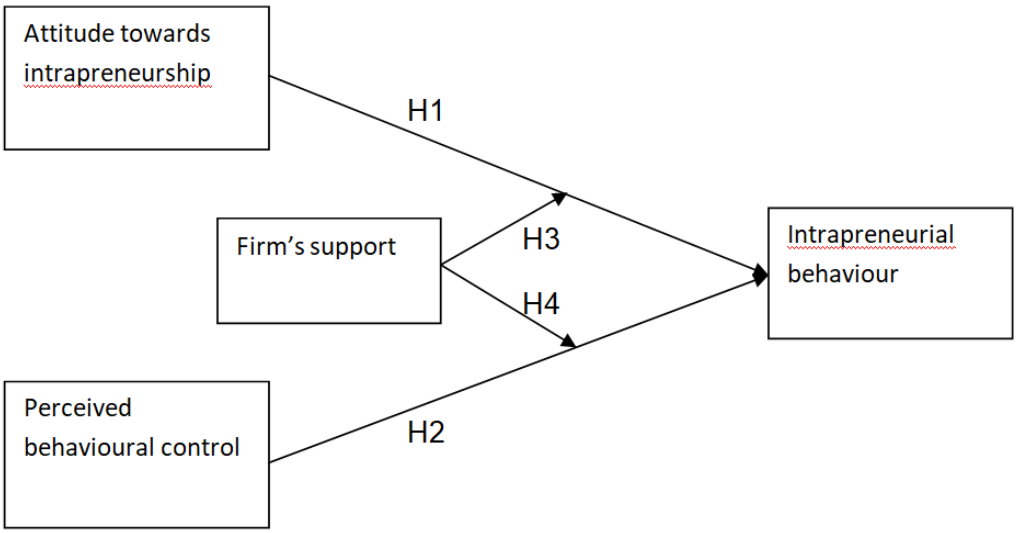


Figure 4: Conceptual framework and hypotheses

Source: Own model (Formulated from literature review – Ajzen, 1991; Durkan, 2005; Venter et al., 2015)

Table 1: Prior research on entrepreneurship

Author	Focal entrepreneurial phenomenon	Locus of entrepreneurship	Key findings of prior research
Glinyanova et al. (2021)	Corporate entrepreneurship	Whole organization	The field of CE has evolved significantly over the last decades.
Hughes and Mustafa (2016)	Corporate entrepreneurship	Whole organization	Cultural and contextual factors appear to influence the extent to which the antecedents are able to produce CE activity.
Luiz (2002)	SMMEs	Whole organization	The SMME sector in SA is not yet fully integrated in the mainstream economy.
Mafini et al. (2016)	SMMEs	Whole organization	SMEs seeking to improve the performance of

			their suppliers should expedite their collaborative efforts in supply chains.
Mustafa et al. (2018)	Corporate entrepreneurship	Whole organization	Employee Entrepreneurial behaviour is an emergent research field and that its behaviours can manifest in many ways.
Sakhdari (2016)	Corporate entrepreneurship	Whole organization	Despite a large body of informative research on CE, there is a dearth of research on individual-level research of CE.
Urban (2010)	Antecedents of entrepreneurship	Whole organization	Entrepreneurial motivation is likely to be a function of

			not only culture and personality but also the interaction between personality and the cultural values.
Zahra et al. (2013)	Corporate entrepreneurship	Whole organization	Limited research attention on the role of SMEs as important players in the global economy persists in CE research.

2.5 Conclusion of the literature review

From the rigorous review of relevant literature carried out, various materials were considered and perused to give perspective to this study. Theory of planned behavior (TPB) was found to be most relevant and, as a result, was used in the development and formulation of the hypotheses. Though using this theory, the researcher chose to be selective and omitted subjective norm, as an antecedent of behavior, and only focused on attitude toward intrapreneurship and perceived behavioural control. Firm support was also added in the development of the measurements of intrapreneurial behavior.

3. RESEARCH METHODOLOGY

This chapter describes the research paradigm and design, the population and sampling, the research instrument, the data collection, and data analysis to address the research questions. The validity and reliability of the research design will also be explained.

3.1 Paradigm

The research was based on a post-positivist paradigm which can be described as compatible with quantitative analysis (Sigauke, 2020). A quantitative and correlational approach was used because it allows quantification of constructs with scales and relationships between constructs as well as the strength of such relationships can be tested to accept or reject hypotheses (Schindler, 2019).

3.2 Research design

The methodological approach for the research study was a cross-sectional survey using questionnaires to collect primary data from SMME employees. A cross-sectional study is quicker and, thus, allows the collection of data in a short space of time, especially when writing a dissertation in six months (Schindler, 2019). However, a cross-sectional study restricts cause and effect deductions to

be concluded, which can be done with relative ease in longitudinal studies (Schindler, 2019).

3.3 Population and sampling

3.3.1 Population

According to Schindler (2019), population will refer to the people that possess the desired information to answer the research question. “After defining the targeted population it must be made operational by constructing a sampling frame from which the sample will be drawn” (Madu, 2011, p. 75).

The target population for the research study comprised employees of SMMEs employed in different industries and sectors. This would include both males and females between the ages of 18 to 85 years at any level of education and length of time in the company. It would be unworkable to survey all the employees and, therefore, the study adopted a sampling frame. The population parameter of interest was the intrapreneurial behaviour of lower level employees in the sampled SMMEs (

Table 2).

3.3.2 Sampling method

Madu (2011) distinguishes between “two primary kinds of samples which differ in the ways the elementary units are chosen: probability sample and non-probability sample” (p. 75). This study used probability random sampling for a sample of employees of companies from different industries and sectors. Probability sampling allows for generalisation of the study and statistical

inferences to determine intrapreneurial behaviour of SMME employees in South Africa (Sigauke, 2020). This study targeted a minimum of 200 respondents and drew a sampling frame from online databases comprising of approximately 600 respondents with readily available email addresses.

Table 2: Profile of respondents

Description of respondent type, e.g., Manager, lower level employees etc.	Number to be sampled
Managers	40
Employees (Lower levels)	360

3.4 Measurement of variables

An online self-administered structured questionnaire was used as a primary means of collecting data (refer to APPENDIX B). Items previously used by other researchers were included in the measurement instrument for this study. Together with the information on biography and general characteristics of the respondents, ATI, PBC, intrapreneurial behaviour, and a firm's support were measured by the research instrument. Previously used items included items used by Madu (2011) to measure intrapreneurial behaviour, items used by Hill (2003) to measure a firm's support, and those used by Scharrer and Stubenrauch (2018) to measure attitude towards intrapreneurship and perceived behavioural control.

Table 3 gives a summary of the scales used.

Table 3: Measures used in the study

Description of constructs/variables/items	Sourced from	Prior reliability and validity issues
Attitude towards intrapreneurship 1. If I had the opportunity and resources, I would like to pursue an innovative project for my firm. 2. In my workplace, I look for independence and responsibility. 3. Creating something new for my company entails great satisfaction.	Scharrer and Stubenrauch (2018)	Reliability (α) α = 0,786
Perceived behavioural control 1. Pursuing and executing an own idea for my company would mean overcoming my obstacles. 2. I have skills and capabilities to succeed as an intrapreneur. 3. I am confident that I would succeed if I could be assigned a project to lead in my company. 4. I am certain that I can initiate a project	Scharrer and Stubenrauch (2018)	Reliability (α) α = 0,786

for my company and keep it viable. 5. I can control the creation process of a new project in my company. 6. The events outside my control which could prevent me from being an intrapreneur are very few. 7. I would have complete control over the situation.		
Intrapreneurial behaviour 1. I display an enthusiasm for acquiring skills. 2. I quickly change course of action when results aren't being achieved. 3. I take the initiative for my own ideas. 4. I think about my work in new and stimulating ways. 5. I find ways to improve our products and services. 6. I show support for the good ideas of others. 7. I boldly move ahead with a promising new approach when others might be more cautious.	Madu (2011)	Reliability (α) α = 0,89

8. I get people to rally together to meet a challenge. 9. I devote a great deal of effort to selling my ideas. 10. I use opportunities quickly in order to attain my goals. 11. I search for a solution immediately whenever something goes wrong. 12. I actively attack pressing organisational problems.		
A firm's support 1. Employees are given support for self-initiated and unofficial activity that is to the benefit of the organisation. 2. The organisation has systems that offer both financial and non-financial rewards for entrepreneurial behaviour. 3. Employees are rewarded for taking calculated risks. 4. Employees receive recognition from the organisation for innovative ideas and suggestions.	Hill, M. (2003)	Reliability (α) Internal consistency = 0,89 Validity (r) Correlation coefficient = 0,80

3.5 Data collection

Galawe (2017) maintains that when questionnaires are used to collect data, researchers should always consider the ethics that govern the involvement of the respondents or participants in the study. This research also ensured that information was collected ethically to protect both the respondents and the researcher.

Qualtrics, which is an electronic software, was employed for designing and distributing the questionnaire, as well as, further, capturing and summarising the quantitative data. The information was gathered by means of the survey questionnaire over three months from December 2021 to February 2022. The questionnaire is self-administered and, as such, there was no interaction with the respondents when they completed the survey.

3.6 Data analysis

For interpreting the data, the study used two types of statistics i.e., descriptive as well as inferential statistics.

3.6.1 Descriptive statistics

Descriptive statistics was used, which is practically numerical summaries of samples, because the data had to be summarised into a shorter form.

The quantitative variables were measured on an ordinal scale. “Like a rubber yardstick, an ordinal scale can stretch varying amounts at different places along its length” (Schindler, 2019, p. 233), for example, the 7-point Likert scale.

Overall, data analysis was done by means of the computer software, SPSS. The captured data were cleaned for errors and quality-checked before they were confirmed, in SPSS, to have not violated any statistical assumptions of analysis.

3.7 Validity and reliability of research

3.7.1 Validity

For the validity of the scales, this study did exploratory factor analysis (EFA) of all the items in the research instrument in order to reduce the dimensions of the accumulated data. The study used exploratory factor analysis, over confirmatory factor analysis, since the measurement instrument had never been tested before (in the context of this study) for validity and reliability. Exploratory factor analysis is the one method suitable for testing a new research instrument.

To reduce the dimensions, Principal axis factoring was chosen as the suitable extraction method, due to the assumption that the factors are correlated or might correlate. For rotation, Promax was chosen as the method best suited for Principal axis factoring. Promax is a method of oblique rotation that is computationally faster than direct oblimin, and so useful for large datasets. It was also ensured that the following assumptions were not violated: extraction coefficients, KMO, significance, and determinant. This included items for ATI, items for PBC, items for intrapreneurial behaviour, and those for a firm's support.

Even though it does not have satisfactory alternatives within it to guide the choice of the optimal number of components or factors to retain (Velicer et al., 2000), EFA was used for this study in investigating the hidden theoretical composition pertaining to various phenomena, identify the structure of the relationship between the variable and the respondent, and for the validation of the measurement instrument (Watkins, 2018). The connections in between the constructs and their indicator variables are important since that expertise allows unambiguous ‘mapping of academic constructs onto empirical phenomena’ as well as, consequently, meaningful testing of concepts (Watkins, 2018). Care must, though, be exercised, Watkins (2018) alerts, as suboptimal choices in EFA can generate ‘altered and potentially worthless solutions’ that can adversely influence the growth and improvement of theories and measurement tools.

3.7.2 Reliability

For the reliability test, items for each scale – attitude,perceived behavioural control, intrapreneurial behaviour, firm’s support – were run through the analysis separately, one after another, watching their Cronbach alphas carefully, and their results tabulated in terms of Cronbach alphas before and after iteration. The acceptable Cronbach alpha is $\alpha > 0.7$.

3.7.3 Composite scores

Composite scores of items for each construct – attitude, perceived behavioural control, entrepreneurial intention, firm mechanisms – were performed on SPSS to prepare them for regression analysis.

3.7.4 Inferential statistics

The study also used inferential statistical analysis to understand the relationships between my constructs and make generalisations, based on that understanding. To test hypotheses, inferential statistics employing parametric tests were used (Urban, 2009).

3.8 Regression analysis

Regression analysis was done on SPSS to establish the relationships among the various variables represented in Figure 4. Linear regression was done for all the hypotheses because with each one of them we wanted to establish the relationship between one independent variable and one dependent variable:

H1: Attitude towards intrapreneurship has a positive influence on intrapreneurial behavior in South African SMMEs.

H2: Perceived behaviouralcontrol has a positive effect on intrapreneurial behavior in South African SMMEs.

H3: The effect of attitude towards intrapreneurship on intrapreneurial behavior is positively moderated by a firm's support.

H4: The effect of perceived behavioural control on intrapreneurial behavior is positively moderated by a firm's support.

3.9 Conclusion

The chapter dealt with the methodology followed in the actualisation of this research study. It included the research paradigm, research design, population and sampling, measurement of variables, data collection, data analysis, as well as validity and reliability of the measurement instrument.

The research study was based on a post-positivist paradigm, and followed a cross-sectional approach. Probability random sampling method was used, and the target population comprising employees of SMMEs was defined. For the measurement of variables, an online survey questionnaire was used to collect data. The data was then analysed and interpreted by means of descriptive and inferential statistics. Lastly, validity and reliability tests were performed before linear regression analysis was done on SPSS software.

4. PRESENTATION OF RESULTS

4.1 Introduction

The main objective in this chapter is to present the results of the study obtained from the questionnaire administered online during the research process. A description of the data analysis results is given, including demographic characteristics of the respondents (age, gender, level of education, and period spent in company), exploratory factor analysis, reliability testing, and regression in relation to the constructs identified in the previous chapter.

4.2 Demographic profile of respondents

Over 360 questionnaires were sent out to employees of South African SMMEs and 50 responses were received. From the 50 responses, 5 were not considered as all of them either were not matching the SMME requirements or had data that were not usable. A total of 45 had usable data and were, therefore, included in the analysis.

4.2.1 Age

Most of the people who took part in this research, were within the age groups of 26-34 and 36-45, as illustrated in Table 4.Only 8.9% were in the 56-65 age group. Adults over the age of 55 are conservatively available for the online study as they may be non-tech savvy or computer illiterate. Adults under the age

of 25 make up only 13.3% of the respondents as they may tend to have little experience in their field of interest (Sigauke, 2020).

Table 4: Age of respondents

Age group					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18 - 25	6	13.3	13.3	13.3
	26 - 35	16	35.6	35.6	48.9
	36 - 45	12	26.7	26.7	75.6
	46 - 55	7	15.6	15.6	91.1
	56 - 65	4	8.9	8.9	100.0
	Total	45	100.0	100.0	

4.2.2 Gender

As illustrated in Figure 5 below, the gender results affirm an overwhelming number of men (57.8%) over women (40.0%) took part in the survey, with only 2.2% preferring not to disclose their gender.

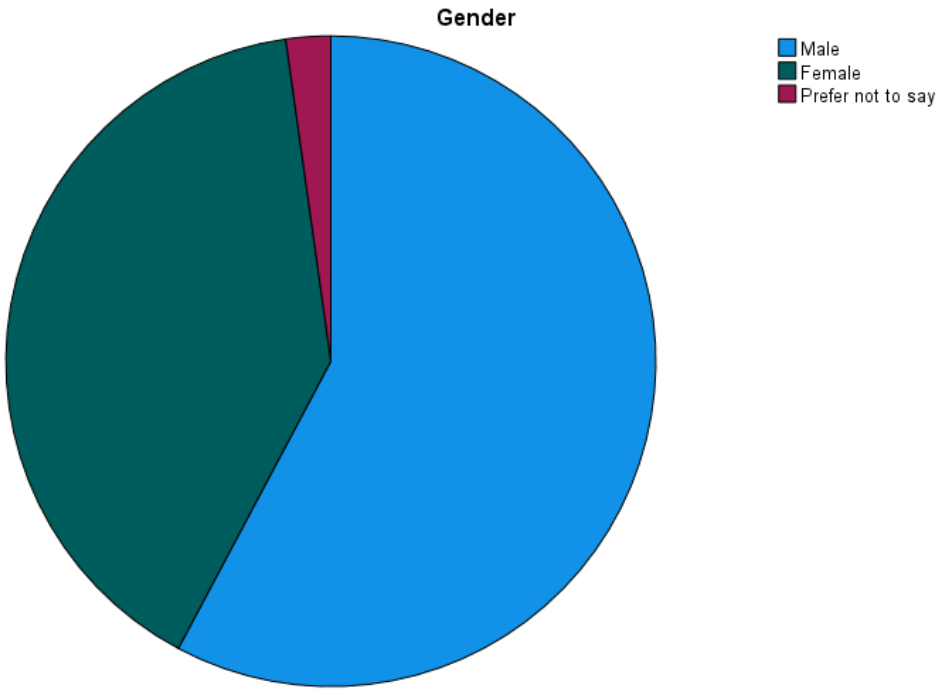


Figure 5: Gender of respondents

4.2.3 Education level

Most of the respondents in this study were not very educated, and this could be due to the fact that the overwhelming majority are of a young age. Table 5 shows that 16 respondents were college graduates, 13 were high school graduates, graduates and post graduate degrees were each 6, professional degrees were 3, and only one respondent had a profile less than high school.

Table 5: Level of education of respondents

Level of education

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than high school	1	2.2	2.2	2.2
	High school graduate	13	28.9	28.9	31.1
	College graduate	16	35.6	35.6	66.7
	Graduate	6	13.3	13.3	80.0
	Post graduate degree	6	13.3	13.3	93.3
	Professional degree	3	6.7	6.7	100.0
	Total	45	100.0	100.0	

4.2.4 Period in company

Regarding the period of time that the respondents had been in the company, the sample results in Table 6, reveal that 15 respondents had been there for 2-5 years, 14 less than 1 year, 11 were there for 6-10 years, 3 had been in their companies for 16-20 years, one was there for 11-15 years, and another one for 26+.

Table 6: Work experience in company

Period in company					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 1 year	14	31.1	31.1	31.1
	2 - 5 years	15	33.3	33.3	64.4
	6 - 10 years	11	24.4	24.4	88.9
	11 - 15 years	1	2.2	2.2	91.1
	16 - 20 years	3	6.7	6.7	97.8
	26 +	1	2.2	2.2	100.0
	Total	45	100.0	100.0	

4.3 Validation and reliability

This study used exploratory data analysis (EDA), described by Schindler (2019) as a process that explores – and reduces – the data using descriptive statistics and some graphical displays of data; “patterns in the collected data guide the data analysis or suggest revisions to the preliminary data analysis plan” (p. 581).

4.3.1 Exploratory factor analysis (EFA)

According to Sigauke (2020), exploratory factor analysis (EFA) seeks to establish the degree to which items, as observable phenomena, reflect an underlying psychological concept or concepts. The premise of exploratory factor analysis is to find a well-ordered measure between the test scores and the factors (Bokaba, 2015). Adequate sample size is a crucial assumption to meet in order to provide a stable factor solution (Sigauke, 2020). In this study exploratory factor analysis was run on the 26-item questionnaire, which had four subscales,

to determine whether the various measures converge and diverge with factors or not. It was actually looking into the relatedness of the factors with their apparent variables. Principal axis and Promax rotation were used through IBM SPSS Dimension reduction on a sample of 45 SMME employees as respondents. The constructs were refined through exploratory factor analysis (EFA), and the results are shown in Table 7 in the form of retained and excluded items.

Table 7: Construct items

Description of constructs/variables/items	Scale	Result
Attitude towards intrapreneurship		
If I had the opportunity and resources, I would like to pursue an innovative project for my firm.	ATI	Retained
In my workplace, I look for independence and responsibility.	ATI	Retained
Creating something new for my company entails great satisfaction.	ATI	Retained
Perceived behavioural control		
Pursuing and executing an own idea for my company would mean overcoming my obstacles.	PBC	Retained
I have skills and capabilities to succeed as an intrapreneur.	PBC	Excluded
I am confident that I would succeed if I could be assigned a project to lead in my company.	PBC	Excluded
I am certain that I can initiate a project for my company and keep it viable.	PBC	Retained
I can control the creation process of a new project in my company.	PBC	Retained
The events outside my control which could	PBC	Excluded

Intrapreneurial behaviour		
I display an enthusiasm for acquiring skills.	IB	Excluded
I quickly change course of action when results aren't being achieved.	IB	Excluded
I take the initiative for my own ideas.	IB	Excluded
I think about my work in new and stimulating ways.	IB	Retained
I find ways to improve our products and services.	IB	Retained
I show support for the good ideas of others.	IB	Retained
I boldly move ahead with a promising new approach when others might be more cautious.	IB	Excluded
I get people to rally together to meet a challenge.	IB	Excluded
I devote a great deal of effort to selling my ideas.	IB	Excluded
I use opportunities quickly in order to attain my goals.	IB	Retained
I search for a solution immediately whenever something goes wrong.	IB	Retained
I actively attack pressing organisational problems.	IB	Excluded

A firm's support		
Employees are given support for self-initiated and unofficial activity that is to the benefit of the organisation.	FS	Retained
The organisation has systems that offer both financial and non-financial rewards for entrepreneurial behaviour.	FS	Retained
Employees are rewarded for taking calculated risks.	FS	Retained
Employees receive recognition from the organisation for innovative ideas and suggestions.	FS	Retained

The initial EFA run resulted in five (5) factors, some of which had less than three loadings and items loading on more than one factor (cross-loadings). Items that loaded on more than one factor, and those that loaded inadequately (less than three items) were removed, resulting in a pattern matrix consisting of three (3) adequately loaded factors as depicted in Table 8 below:

Table 8: Patter Matrix

Pattern Matrix[a]

	Factor		
	1	2	3
Attitude towards intrapreneurship 1	.730		
Attitude towards intrapreneurship 2	.895		
Attitude towards intrapreneurship 3	.739		
Perceived behavioural control 1	.861		
Perceived behavioural control 4	.889		
Perceived behavioural control 5	.880		
Intrapreneurial behaviour 4	.757		
Intrapreneurial behaviour 5	.968		
Intrapreneurial behaviour 6			.818
Intrapreneurial behaviour 10			.811
Intrapreneurial behaviour 11			.887
Firm support 1		.782	
Firm support 2		.892	
Firm support 3		.899	
Firm support 4		.825	

Extraction Method: Principal Axis Factoring.
Rotation Method: Promax with Kaiser Normalization.

Table 8 shows that Factor 1 is loaded with 7 items, all of which had scores well over 0.4 minimum. The observed measures are interrelated because they share a common cause, which means they are influenced by the same underlying construct (Watkins, 2018). Factor 2 has four loadings which are all

greater than 0.7, and Factor 3 has three loadings, all, with high scores of over 0.8.

4.3.2 Reliability test

Madu (2011) defines internal-consistency reliability as “a function of the correlation among the items in a scale, and measured with Cronbach’s alpha” (p. 80). “This reliability measure was chosen because Cronbach’s coefficient alpha has the most utility for multi-item scales at the interval level of measurement” (Madu, 2011, p. 80). In this study, four constructs were measured using Cronbach alpha, which indicated a higher reliability of measurement scale when the alphas were above 0.7.

Attitude towards intrapreneurship

As depicted in Table 9, attitude towards intrapreneurship with three items had a high Cronbach alpha of 0.837.Table 9 also shows that a higher alpha of 0.860 would be achieved if attitude_1 was deleted, but it was not deleted in order to keep the items three as they are (minimum of three items per construct).

Table 9: Attitude towards intrapreneurship

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.837	.841	3

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Attitude towards intrapreneurship 1	11.56	9.843	.615	.414	.860
Attitude towards intrapreneurship 2	11.29	9.528	.802	.659	.681
Attitude towards intrapreneurship 3	11.47	9.527	.695	.575	.779

Perceived behavioural control

Table 10 displays that perceived behavioural control, also with three items, had a high Cronbach alpha of 0.867. The table also shows that a higher Cronbach alpha of 0.923 would be achieved if PBC_1 was deleted, but it was not deleted in order to keep the items to the required minimum.

Table 10: Perceived behavioural control

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.867	.881	3

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Perceived behavioural control 1	12.04	6.225	.664	.449	.923
Perceived behavioural control 4	11.49	7.165	.832	.764	.749
Perceived behavioural control 5	11.62	7.195	.789	.738	.782

Intrapreneurial behaviour

Table 11 illustrates that intrapreneurial behaviour, with five items, had a good Cronbach alpha of 0.880.

Table 11: Intrapreneurial behaviour

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.880	.887	5

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Intrapreneurial behaviour 4	24.72	14.444	.761	.831	.843
Intrapreneurial behaviour 5	24.63	14.811	.701	.798	.860
Intrapreneurial behaviour 6	24.40	16.530	.758	.730	.846
Intrapreneurial behaviour 10	24.53	16.540	.642	.591	.870
Intrapreneurial behaviour 11	24.33	17.082	.758	.733	.849

Firm support

As shown in Table 12, firm support, with four items, had an excellent Cronbach alpha of 0.919. This suggests that firm support had the highest reliability of measurement scale.

Table 12: Firm support

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.919	.921	4

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Firm support 1	13.21	33.979	.805	.651	.901
Firm support 2	13.77	30.707	.818	.672	.894
Firm support 3	13.88	31.486	.824	.682	.892
Firm support 4	13.70	29.835	.822	.680	.894

4.4 Regression

The purpose of regression analysis remains to explain the variance of the dependent variable using its relationship with other (independent) variables (Bokaba, 2015). To test the effect of ATI and PBC on intrapreneurial behaviour, a simple linear regression (correlation) analysis was conducted.

4.4.1 The results pertaining to Hypothesis 1

The results of the correlation analysis of attitude towards intrapreneurship against intrapreneurial behaviour are illustrated in Table 13 below:

Table 13: Attitude regression model

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statisti: R Square Change	F Change	f1
1	.723[a]	.523	.512	2.99227	.523	44.998	

a. Predictors: (Constant), Intrapreneurial_attitude

b. Dependent Variable: Intrapreneurial_behaviour

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	402.896	1	402.896	44.998	.000[b]
	Residual	367.101	41	8.954		
	Total	769.996	42			

a. Dependent Variable: Intrapreneurial_behaviour

b. Predictors: (Constant), Intrapreneurial_attitude

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
	(Constant)	13.787	1.818		7.584	.000
	Intrapreneurial_attitude	.877	.131	.723	6.708	.000

a. Dependent Variable: Intrapreneurial_behaviour

Table 13 displays the impact of attitude towards intrapreneurship on intrapreneurial behaviour. The model of regression matches the relatedness of the two variables shown from the values of R and R^2, which are 0.723 and 0.523 respectively. These values demonstrate that attitude of the employees towards intrapreneurship is accounted for by 52.3% of the expounded variation of intrapreneurial behaviour. Table 13 reveals that the examination of discrepancy of

the regression formula was having the value of F as 44.998, which is significant enough. As a result, the hypothesis was supported and duly accepted.

4.4.2 The results pertaining to Hypothesis 2

With regard to the relationship between PBC and IB for hypothesis 2, the results of the correlation analysis are depicted in Table 14.

Table 14: Perceived behavioural control regression model

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statisti: R Square Change	F Change	df 1
1	.815[a]	.664	.656	2.51145	.664	81.078	1

a. Predictors: (Constant), Perceived_behav_control

b. Dependent Variable: Intrapreneurial_behaviour

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	511.393	1	511.393	81.078	.000[b]
	Residual	258.603	41	6.307		
	Total	769.996	42			

a. Dependent Variable: Intrapreneurial_behaviour

b. Predictors: (Constant), Perceived_behav_control

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	10.244	1.747		5.865	.000
	Perceived_behav_control	1.125	.125	.815	9.004	.000

a. Dependent Variable: Intrapreneurial_behaviour

Table 14 shows the effect of perceived behavioural control on the intrapreneurial behaviour of employees. The regression model achieves a considerable degree of compatibility, which can be observed in the R and R^2 values of 0.815 and 0.664 respectively, which suggest that 66.4% of the variance

in IB is attributed to perceived behavioural control. Table 14 reveals that the examination of discrepancy of the slotted regression formula is statistically considerable, having the amount of F as 81.078, which is a sign that the version is an excellent model (ALmasri & Ahmad, 2020). Therefore, the hypothesis was accepted.

Moderating role of the firm support

Schindler (2019) defines a moderating variable (MV) as "a second independent variable, believed to have a significant contributory or contingent effect on the originally stated IV-DV relationship" (p. 584). In this study, the firm's support was coupled with each of the independent variables, for analysis, as a moderating variable.

4.4.3 The results pertaining to Hypothesis 3

The results of the multiple linear regression analysis of attitude towards intrapreneurship, moderated by firm support, against intrapreneurial behaviour are illustrated in Table 15 below:

Table 15: Firm support-Attitude regression model

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics: R Square Change	F Change	df1
1	.727[a]	.528	.504	3.05859	.528	21.284	2

a. Predictors: (Constant), Firm_Support, Intrapreneurial_attitude

b. Dependent Variable: Intrapreneurial_behaviour

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	398.227	2	199.113	21.284	.000[b]
	Residual	355.489	38	9.355		
	Total	753.715	40			

a. Dependent Variable: Intrapreneurial_behaviour

b. Predictors: (Constant), Firm_Support, Intrapreneurial_attitude

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	13.321	1.956		6.810	.000
	Intrapreneurial_attitude	.823	.144	.683	5.699	.000
	Firm_Support	.075	.088	.102	.851	.400

a. Dependent Variable: Intrapreneurial_behaviour

Table 15 exhibits the resultant effect of attitude towards intrapreneurship and firm support on intrapreneurial behaviour of employees. The model of regression indicates some considerable match for the relatedness of the two variables. This is revealed from the numerical amounts of R and R^2, which are 0.727 and 0.528 respectively, and demonstrate that 52.8% variance of intrapreneurial behaviour is explained by attitude towards intrapreneurship, moderated by firm support. The results confirm the statistical significance of the effect firm support has on the relatedness of attitude towards intrapreneurship to intrapreneurial behaviour, where the percentage of interpretation of variation in the intrapreneurial behaviour has improved, as the percentage increased from

52.3% (Table 13) to 52.8% (Table 15). Based on these results, the hypothesis was supported and duly accepted.

4.4.4 The results pertaining to Hypothesis 4

Depicted in Table 16, are the outcomes of the multiple regression evaluation with regard to the relationship between perceived behavioural control, moderated by firm support, and intrapreneurial behaviour.

Table 16: Firm support-Perceived control regression model

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statisti		
					R Square Change	F Change	df1
1	.822[a]	.676	.659	2.53414	.676	39.683	2

a. Predictors: (Constant), Firm_Support, Perceived_behav_control

b. Dependent Variable: Intrapreneurial_behaviour

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	509.683	2	254.842	39.683	.000[b]
	Residual	244.032	38	6.422		
	Total	753.715	40			

a. Dependent Variable: Intrapreneurial_behaviour

b. Predictors: (Constant), Firm_Support, Perceived_behav_control

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	9.539	1.851		5.153	.000
	Perceived_behav_control	1.066	.133	.775	8.042	.000
	Firm_Support	.098	.071	.132	1.373	.178

a. Dependent Variable: Intrapreneurial_behaviour

Table 16 shows the resultant effect of PBC and firm support on intrapreneurial behaviour. The regression model achieves a considerable degree

of compatibility, which can be observed from the numerical amounts of R and R^2, which are 0.822 and 0.676 respectively, and demonstrate that 67.6% of the expounded variance of the intrapreneurial behaviour of employees could account for perceived behavioural control, coupled with a firm's support. The results confirm the statistical significance of the effect firm support has on the relatedness of PBC to IB, where the percentage of variance evaluated in the intrapreneurial behaviour of employees was enhanced, increasing from 66.4% (Table 14) to 67.6% (Table 16). Based on these results,the hypothesis was supported and duly accepted.

4.5 Summary of the results

The study sample was sufficiently representative of the SMME employees profile in terms of age, gender, level of education, and period spent in company. Validation process focused on exploratory factor analysis and regression. Exploratory factor analysis was run on a 26-item questionnaire which eventually yielded a measurement model consisting of three (3) factors. Linear regression model that resulted, confirmed the hypotheses and all the four hypotheses were accepted.

5. DISCUSSION OF THE RESULTS

5.1 Introduction

While organisations are trying so hard to make full use of the innovation potential of their workers, and despite the fact that SMMEs lack resources such as digital intrapreneurship systems or platforms making this innovative process easier (Huang et al., 2021), this study investigated the effect that TPB antecedents of attitude towards intrapreneurship and PBC have on the intrapreneurial behaviour of SMME employees. The study, further, evaluated the impact of firm support as a moderating variable on the link between these TPB factors and IB. This chapter aims to detail and discuss the findings presented in the previous chapter, interpret and compare the results with existing literature – similarities and differences are highlighted. First, it discusses the demographic characteristics of the respondents, followed by the results obtained from the descriptive statistics, and the regression analysis results used to test the hypotheses.

5.2 Demographic profile of respondents

This study comprised 45 respondents even though it initially anticipated more than 200 as recommended by authors such as Field (2018). This number

lowered the chances to generalise the findings of the study, and as such reduced the robustness thereof.

The overwhelming majority of the respondents were within the age groups of 26-35 and 36-45, which are considered the most economically active age groups by STATS SA (Q4 2020), which recorded the majority for the age group of 35-44. This study is in agreement with Scharrer and Stubenrauch's (2018) research which also recorded most respondents in the age groups of 25-34 and 35-44. The gender results affirmed the overwhelming number of men over women took part in the survey. This means it would be fair to suggest that generally, there are more male employees in South African SMMEs than female employees. This study's sample was not a highly educated group. The result supports other researches, for instance, OECD Council Ministerial Level Meeting (2017) which alluded to SMEs often facing difficulties in drawing in and also maintaining highly certified personnel and staff with appropriate abilities, as well as having greater problems in determining employees with desired skills in the labour market. When it came to work experience in company, this study noted that most of the respondents had been in the company for 2 to 5 years. This observation could be attributed to, and is consistent with the younger age demographics, showing that most of the respondents had under ten years of work experience (Sigauke, 2020).

5.3 Discussion of the findings

This study's model is a modified version of Ajzen's (1991) TPB, the constructs of which include attitude towards intrapreneurship (ATI), perceived behavioural control (PBC), and intrapreneurial behaviour (IB), instead of entrepreneurial intention (EI). The researcher could not see any reason to measure intrapreneurial intention, if intrapreneurial behaviour could be measured directly. The study chose not to include subjective norm that features in the original model of TPB by Ajzen (1991), as Fishbein and Ajzen (2010), supported by Ahmed et al (2019), argued that the theory of planned behaviour did not need all the 3 antecedents of intention to have a substantial impact on intention under all the circumstances in which it is used. According to this line of thinking, this study was still on track to focus only on two of the antecedents i.e. ATI and PBC. The study also included firm support construct as a moderator of the relationships.

5.3.1 The effect of attitude on intrapreneurial behaviour

The hypothesis for testing the relationship between attitude towards intrapreneurship and intrapreneurial behaviour was stated as follows:

H1: Attitude towards intrapreneurship has a positive effect on intrapreneurial behaviour in South African SMMEs.

From the study's regression model, the model summary (Table 13) indicates that attitude towards intrapreneurship, only moderately, explains the variability of intrapreneurial behaviour. Scharrer and Stubenrauch (2018), on the other hand, found attitude to have a dominant effect on intentions to act

intrapreneurially. “The research shows that attitude has the strongest relationship with entrepreneurial intentions, and that attitude can be influenced by external factors, so to increase the initial attitude the student has towards entrepreneurship” (Scharrer & Stubenrauch, 2018, p. 44). According to Scharrer and Stubenrauch (2018), “a firm can only increase the level of intrapreneurship through individual attitudes of their workforce” (p. 46). The difference in the findings of this study and, Scharrer and Stubenrauch’s (2018) research could be attributed to the depenent variable, which is intrapreneurial behaviour in the current study, but intrapreneurial intentions in Scharrer and Stubenrauch’s (2018) study. Another perspective could be that, as attitude can be influenced by external factors (Scharrer & Stubenrauch, 2018), it is possible for an employee’s attitude to improve and affect intrapreneurial behaviour as a result, for instance, of the environment.

“An ANOVA table provides an F-test to determine whether the model is a good fit for the data” (ALmasri & Ahmad, 2020, p. 1013). The numerical amount of F that is appearing in Table 13, statistically explains the significance of the evaluated variance of intrapreneurial behaviour. The amount is a sign that the model is an appropriate and quality one. This means attitude towards intrapreneurship significantly predicts intrapreneurial behaviour of the employees. Overall, this model of regression displayed statistical significance and fitted very well in the relatedness of attitude towards intrapreneurship to intrapreneurial behaviour.

Attitude positively influences intrapreneurial behaviour. This result, essentially, means for every unit increase in attitude towards intrapreneurship, an

increase in the intrapreneurial behaviour of employees occurred (ALmasri & Ahmad, 2020). In view of these results, the hypothesis was supported and thus accepted.

5.3.2 The effect of perceived behavioural control on intrapreneurial behaviour

The hypothesis for the relationship between PBC and intrapreneurial behaviour was stated as follows:

H2: Perceived behavioural control has a positive effect on intrapreneurial behaviour in South African SMMEs.

The model summary of the regression analysis in this study (Table 14) shows that the relationship between PBC and intrapreneurial behaviour is relatively significant. The result supports other researches linking the theory of planned behaviour to entrepreneurial intention and behaviour. A study by Ajzen (1991) confirmed perceived behavioural control variable regression coefficient made a substantial contribution to the projection of behaviour. He noted that regression coefficients of PBC were significant in every study (Ajzen, 1991). This result could be ascribed to the truth that PBCrefers to the ease or difficulty of executing the behaviour and it is thought to show the past experience, and thus, making it better in informing actual behaviour than intention, which would otherwise be better informed by attitude. This kind of thinking is corroborated by Scharrer and Stubenrauch's (2018) study which found that PBC did not have any direct effect on intrapreneurial intention.

The F-test (Table 14), which determines whether a model is an excellent suit for the data (ALmasri & Ahmad, 2020), displays a numerical amount of F, which explains the statistical significance of the evaluated variance of intrapreneurial behaviour. It further provides a good ground for concluding in saying this version gives an excellent model. The amount of p, which is less than the maximum alpha allowed, indicates a statistical significance of the relatedness of PBC and intrapreneurial behaviour. This model of regression, overall, displayed a statistical significance, and fitted very well in the relatedness of PBC to IB.

The beta values (β) for perceived behavioural control suggest that intrapreneurial behaviour is positively influenced by perceived behavioural control. This result means for each unit growth in perceived behavioural control, an escalation in intrapreneurial behaviour of employees occurred (ALmasri & Ahmad, 2020). In view of the results the hypothesis was supported and accepted.

5.3.3 The moderating role of firm support

The hypotheses in this section were stated separately as follows:

H3: The effect of attitude towards intrapreneurship on intrapreneurial behaviour is positively moderated by a firm's support.

Table 15 exhibits a modest influence that firm support has on the relatedness of attitude towards intrapreneurship and intrapreneurial behaviour of employees in South African SMMEs. In the other model, the addition of firm support as a moderating variable, slightly improved the correlation as well as "the predictive capacity", which represents an increase that has statistical

significance. These results confirm the statistical significance of the effect firm support has on the relatedness of attitude towards intrapreneurship to intrapreneurial behaviour of employees, because the proportion of the variance for intrapreneurial behaviour that is explained by attitude towards intrapreneurship has become better. Field (2018) posited that a simple way to quantify the improvement when predictors are added is to compare the R^2 for the new model to that of the old model. On the basis of these outcomes, it is concluded that the hypothesis is supported and duly accepted. The result is in agreement with Hill's (2003) argument that a high score on her Incentive Policies Index signified that the firm is doing its best to support employees when they try out new designs or plans without fearing any repercussions being instituted against them if they don't succeed. Workers will maintain a positive attitude if managers and founders encourage and promote intrapreneurial activity while they, at the same time, monitor it at all times (Hill, 2003). This essentially means that the greater the firm's support on the employees' efforts to innovate the stronger the effect of attitude towards intrapreneurship on the employees' intrapreneurial behaviour. The result of this study has confirmed the relationship between attitude towards intrapreneurship and intrapreneurial behaviour which is moderated by a firm's support. The result is not surprising at all because if employees believe that there are support systems and incentives for innovation within the company, their attitude towards intrapreneurship would become positive and, as a result, they would start to act intrapreneurially. Once more and more employees act intrapreneurially, the firm would gain the competitive advantage over its competitors.

H4: The effect of perceived behavioural control on intrapreneurial behaviour is positively moderated by a firm's support.

A significant impact of firm support on the relationship between PBC and intrapreneurial behaviour of employees in South African SMMEs is shown in Table 16. In the first model (Table 14), the correlation coefficient essentially suggested that PBC positively influenced intrapreneurial behaviour in South African SMMEs. These results likewise reveal the statistically considerable impact of PBC on worker intrapreneurial behaviour. In the second model (Table 16), firm support was entered, as amoderating variable. As a result of this entry of the moderating variable (firm support), correlation (R) as well as R^2 increased. This outcome suggests that the effect of firm support, as a moderating variable, has a statistical significance on the relationship between PBC and employee intrapreneurial behaviour, where the percentage of interpretation has improved. Comparing R^2 of the new model and that of the old model provided a simple way of quantifying the improvement when more predictors are added in the model (Field, 2018). In view of these outcomes, the hypothesis was supported and thus accepted. The result is also shown in Durkan (2005) when she acknowledged that if a firm enabled employees to spot and pursue opportunities, it would surely gain tremendous success through innovation. implies that the greater the firm support on innovation and other entrepreneurial actions of employees within the firm, the stronger the effect of PBC on the intrapreneurial behaviour. This result of the study, confirmed the relationship between PBC and intrapreneurial behaviour, which is moderated through a firm's support more than the other antecedents of TPB. From this perspective, if employees were exposed to firm support

(encouragement from management, freedom to experiment with ideas, rewards for beneficial ideas, etc.), they would, in turn, unleash their capabilities and find it easy to act intrapreneurially.

5.4 Conclusion

The results of this study confirmed all the four hypotheses in the TPB-inspired research model. All the four hypotheses were supported by statistical evidence, and duly accepted. Attitude towards intrapreneurship has a positive effect (although moderate) on intrapreneurial behaviour. PBC has also been found to have a marked positive effect on intrapreneurial behaviour. Firm support, as a moderator, also proved to have an impact on the relationships of attitude towards intrapreneurship and perceived behavioural control, with intrapreneurial behaviour.

6. CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

6.1 Introduction

This research study has attempted to show how a modified version of TPB can be used to predict and understand IB of employees in South African SMMEs. The study provides a framework that incorporates attitudes towards intrapreneurship and perceived control to look into how they affect intrapreneurial behaviour, and also if the relationships are moderated by a firm's support. Ajzen (1991) posits that "attitudes towards the behaviour, subjective norms with respect to the behaviour, and perceived control over the behaviour are usually found to predict intentions with a high degree of accuracy" (p. 206). While this study appreciates the work done in previous studies to use TPB in predicting intentions (Ajzen, 1991; Vamvaka et al., 2020; Sigauke, 2020), it chose not to use the original version of TPB, but deviate from the common path and use a modified version that incorporates attitudes, perceived control, and firm support as a moderator, to predict intrapreneurial behaviour directly.

This chapter renders a conclusion to the study by summarising its findings in terms of how the research questions were answered by the study, highlighting the implications, both theoretical and practical, emanating from the findings, as well as providing recommendations to the identified stakeholders. Limitations to the study are identified and recommendations made for future studies in the field that would shed more light and encourage a more robust analysis on the subject addressed in this study.

6.2 Conclusions of the study

Based on Nielson et al.'s (1985) argument that most of the intrapreneurship research studies that were conducted in developed countries mainly considered intrapreneurship in the context of large established corporations, and Antoncic and Hisrich's (2001) suggestion that intrapreneurship could be important not only for large corporations but also for small and medium-sized enterprises (SMEs), this study's main objective was to empirically examine the effects of ATI and PBC on employee intrapreneurial behaviour in South African SMMEs. Furthermore, the study sought to examine the role of a firm's support in moderating the effects that ATI and PBC have on intrapreneurial behaviour. In view of the objectives stated above, this study investigated the relationship between ATI and IB, and that between PBC and IB.

The results of the regression analysis on attitude towards intrapreneurship and itrapreneurial behaviour show that a positive relationship exists, albeit rather moderate. The hypothesis was accepted, which means that the more positive the attitude of the employees, the greater the level of intrapreneurial behaviour in South African SMMEs. The research also revealed that an employee's attitude towards intrapreneurship is the least effective determinant of intrapreneurial behaviour. This is inconsistent with Scharrer and Stuberauch's (2018) research which found that attitude towards intrapreneurship recorded the highest correlation coefficient compared to the other antecedents of itrapreneurial intention, and therefore had the strongest relationship with intrapreneurial

intentions. What the existing literature did not indicate was the fact that attitude towards intrapreneurship had a better correlation with intention than with the actual behaviour, which is what this study will contribute to the knowledge base on this topic.

The hypothesis relating to the relationship between PBC and IB was supported by the results of this study. Intrapreneurial behaviour is, overwhelmingly, positively influenced by PBC.The result is suggesting that an increase in perceived behavioural control of the employees in South African SMMEs will bring about a significant increase in intrapreneurial behaviour. From Scharrer and Stubenrauch's (2018) findings, perceived control does not have any direct influence on intrapreneurial intention. While the finding from Scharrer and Stubenrauch's (2018) study appears to be opposing this study's finding, it essentially supports it, albeit latently, because the two are measuring two different constructs – behaviour and intention, respectively. As this study found, PBC has a positive influence on intrapreneurial behaviour, yet again, as Scharrer and Stubenrauch (2018) found, PBC does not have any influence on intrapreneurial intention. The two studies are in agreement as we can conclude that PBC does not have an influence on intrapreneurial intention, but on intrapreneurial behaviour. What this study contributes is that PBC has a significant influence on intrapreneurial behaviour in SMMEs, which the existing literature did not advance.

Multiple regression analysis outcomes prove that firm support, as a construct, influences the relationship between attitude towards intrapreneurship and intrapreneurial behaviour positively. The original hypothesis relating to this

moderating effect was accepted. This study, therefore, allows us to conclude that if South African SMMEs employees are given support by their firms for corporate entrepreneurship, their attitude towards intrapreneurship will become more positive, and they will start to act more intrapreneurially. This result on the moderating role of firm support will contribute to the knowledge base in the context of South African SMMEs.

Based on the theory of reciprocity (Falk & Fischbacher, 2001), reciprocal behaviour is driven as a response to kindness, which facilitates moderation of outcomes by certain behaviours. Hypothesis 4, in this study, relating to the moderating effect of a firm's support on the relationship between PBC and IBwas supported by the results of the multiple regression analysis, observed through an increase of R^2 value from 0.664 to 0.676 (an increase of 0.012). The null hypothesis is rejected in favour of the alternative, which affirms that firm support does indeed moderate the relationship between PBC and IB. The result suggests that if SMMEs in South Africa give support to their employees for itrapreneurship, the employees' perceived control will become stronger, leading to them acting more entrepreneurially to the benefit of the company.

All the four hypotheses in this study were supported by the results of the statistical analysis, thereby, giving them the much needed empirical credence. The next section provides the implications and recommendations on the significance of the findings of this study.

6.3 Implications and recommendations

While intrapreneurship studies have been conducted in developed economies with large corporations, this study prepared ground for the studies to be conducted in emerging economies around the world, in order for the individual organisations to find ways of gaining competitive advantage over their competitors. The empirical findings of this study are aimed at providing clarity and understanding of how ATI and PBC affect intrapreneurial behaviour, as well as how that will impact South African SMMEs. The analyses of the results, in this study, support the previous studies' findings that established the relationships that exist between ATI and PBC, and intrapreneurial behaviour. The study, further, gives credence to the role that firm support plays in moderating the relationships that ATI and PBC have with intrapreneurial behaviour, which in one or more ways, corroborates the theory of reciprocity (Falk & Fischbacher, 2001).

This study shows that there are important implications that can be directed to multiple stakeholders. Galawe (2017) identified the economic passivity in South African SMMEs, as hindering growth in the SMME sector and, as a result, rendering the sector dysfunctional. Covid-19 also brought about so much more need for corporate entrepreneurship, as more businesses could collapse if they fail to innovate and adapt. Considering the high rate of unemployment in the country, it was assumed that an increase in the survival rate of SMEs, in all likelihood, would create employment opportunities (Willemse, 2018).

This research study focused on the two essential antecedents (ATI and PBC) of intrapreneurial behaviour, which significantly affect innovation and

adaptation of organisations. “Innovative ideas increase the ability of organisations to respond to opportunities and develop competitive advantages” (ALmasri & Ahmad, 2020, p. 1015). In this context, this study addressed employee intrapreneurial behaviour through its links with ATI, PBC, as well as a firm’s support.

6.3.1 Intrapreneurial behaviour

It is recommended that SMMEs in South Africa incorporate intrapreneurship in their daily business, across all levels of the firm. Intrapreneurial behaviour is defined in terms of innovative, proactive, and risk-taking behaviours, which requires employees of South African SMMEs to behave as such in order to improve the results of their companies. Some important implications of intrpreneurial behaviour for SMMEs will include: managers and founders should allow employees to experiment by introducing new products or new ways of doing things; as intrapreneurial behaviour comes with risks, organisations need to acknowledge any losses passed on to them through the risk-taking behaviours of employees; and employees should be allowed to pursue new opportunities. Since organisations themselves can be inhibitors or facilitators of intrapreneurial behaviour, it is recommended that organisations facilitate this kind of behaviour amongst employees by giving them permission to act intrapreneurially, and supporting them in recognising intrapreneurship. Another implication for the SMMEs that do not encourage and facilitate intrapreneurial behaviour amongst the employees is that they will “suffer at the hands of those who do”.

6.3.2 Attitude towards intrapreneurship

Attitude towards intrapreneurship has a positive influence on intrapreneurial behaviour. “A firm can increase the level of intrapreneurship through individual attitudes of their workforce” (Scharrer & Stubenrauch, 2018, p. 46). This implies that, for the growth of their companies managers and founders should be careful when recruiting people so that they employ the right individuals with positive attitudes for intrapreneurship onto their companies. Organisations need to have recruitment teams that are well-trained to assess attitudes of prospective employees using instruments that probe both affective attitudes and cognitive attitudes.

6.3.3 Perceived behavioural control

Perceived behavioural control correlated strongly with intrapreneurial behaviour, which suggests that it is the most influencial of all the antecedents of intrapreneurial behaviour. Perceived behavioural control is key to intrapreneurial behaviour, as it involves one’s confidence in one’s ability to perform particular behaviours. PBC also reflects that the execution of IB is entirely up to the employees themselves. It is recommended that organisations encourage employees to have confidence in their own abilities, so that they can pursue and execute their own ideas for the benefit of the company.

6.3.4 Moderating role of firm support

A firm's support has been found, in this study, to moderate the relationships between ATI and PBC, and intrapreneurial behaviour successfully. It may involve factors such as managerial support, incentive system, organisational structure, and organisational culture. Theory of reciprocity (Falk & Fischbacher, 2001) encourages people to reward kind actions by others. One important implication of the moderating role of a firm's support hinges around the reward system of a company. Behaviour that is rewarded in general continues up to its limit of diminishing marginal utility (Cook & Rice, 2006). It is recommended that managers and founders of SMMEs in South Africa need to consider the value of supplying appropriate acknowledgement for the initiatives of employees in order for them not to take their cutting-edge ideas somewhere else or make use of those noble ideas for themselves.Behaviour that has been rewarded on such occasions in the past will be performed in similar situations (Cook & Rice, 2006).

6.4 Limitations of the study

This study did not go as smoothly as it was planned to happen. Aspects of the study that presented themselves as limitations related to time, sampling, sample size, lack of interest, methodology, and analysis. Had it not been for these limitations, the study could have ideally addressed the main problem and had all the objectives achieved. The identified limitations included the following:

- The time spent on the research was little – as a result of administrative delays the study was carried out over a short period of time.
- The sampling was not executed as planned; the study initially aimed to have a sample that consisted of employees in a single specific industry, but ended up including employees from different industries and sectors.

The sample size targeted was not kept; A lower sample than the initial target of 200+ (

- **Table 2**) was used in this study, which may reduce the generalisability of the outcomes.
- There was a general lack of interest on the part of employees, with some of them expecting incentives.
- The online method of collecting data made it impossible for some employees of SMMEs to take part in the survey, citing a lack of technological capacity.
- The SPSS software used for the data analysis in this study was constrained to give the ideal outcomes which could be achieved with better softwares.

Nonetheless, the results in this study were robust enough to answer the research question.

6.5 Suggestions for Further Research

Further research studies on the achievement of intrapreneurial behaviour in SMMEs are recommended to improve on the findings of this study. Future study efforts should consider using the original version of TPB, which includes the subjective norms of employees, to illuminate the topic for SMMEs. As this study was quantitative, future study efforts may want to use a qualitative form of study to get deeper insights on the impacts of ATI and PBC on intrapreneurial behaviour in SMMEs. To increase the robustness of the outcomes, future studies should consider using better softwares for their data analysis. Finally future research studies should consider measuring the actual firm support using a different instrument in a qualitative study for a single specific industry.

7. REFERENCES

Aaltio, I., Menzel, H., & Ulijn, J. (2006). On the Way to Creativity: Engineers as intrapreneurs in Organizations

Ahmed, T., Klobas, J.E., &Ramayah, T. (2019). Personality Traits, Demographic Factors and Entrepreneurial Intentions: Improved Understanding from a Moderated Mediation Study. Entrepreneurship Research Journal, 11(4), pp. 20170062

Ajzen, I. (1991). The theory of planned behavior. Organizational Behavior and Human Decision Processes, 50, 179-211

Alvarez,S.A.,&Busenitz,L.W.(2001).Theentrepreneurshipofresource-basedtheory. JournalofManagement,755-775

Antoncic, B., &Hisrich, R.D. (2001). Intrapreneurship: Construct Refinement and Cross-cultural Validation. Journal of Business Venturing, 16, 495-527

Aygun, M., Ic, S., &Kiziloglu, M. (2010). Intrapreneurship in Small and Medium-Sized Enterprises. 2nd International Symposium on Sustainable Development.

Badoiu, G., Segarra-Cipres, M., &Escrig-Tena, A.B. (2020). Understanding Employees' Intrapreneurial Behaviour: A Case Study. Personnel Review, 49(8), pp. 1677-1694

Barney, J. (1991). Firm resources and sustained competitive advantage. Journal of Management,17(1), 99-120.

Barney, J., Wright, M., &Ketchen, D.J., Jr. (2001). Theresource-basedviewofthefirm:Tenyearsafter1991. JournalofManagement,27, 625–641

Baumane-Vitolina, I. (2013). Theoretical framework for using resource based view in the analysis of SME innovations. European Scientific Journal,1, 174-182

Berzin, S., Pitt-Catsouphes, M., & Gaitan-Rossi, P. (2016). Innovation and sustainability: an exploratory study of intrapreneurship among human service organizations. Human Service Organizations, Management Leadership & Governance, 40(5), 540-552

Bokaba, J. (2016). Internal sources of competitive advantage of South African SMMEs in the IT industry. Master dissertation, University of the Witwatersrand, Johannesburg.

Carrier, C. (1996). Intrapreneurship in Small Business: An Exploratory Study. Entrepreneurship Theory and Practice, 21(1), 5-20

Christos, C. (2017). The effect of motivations for ecological responsiveness on intrapreneurship in South Africa. Master dissertation, University of the Witwatersrand, Johannesburg,

Coetzee, R. (2017) Corporate entrepreneurial behaviour, organisational architecture and the entrepreneurial process. Master dissertation, University of the Witwatersrand, Johannesburg.

Cook, K. & Rice, E. (2006). Handbook of Social Psychology. New York: Springer US.

Cooper, D. & Schindler, P.S. (2014). Business Research Methods. 12th Edition. New York: McGraw-Hill

De Jong, Jeroen P. J., Parker, Sharon K., Wennekers, Sander and Wu, Chia-Huei (2015) Entrepreneurial behavior in organizations: Does job design matter?Entrepreneurship Theory and Practice, 39(4), 981-995

Durkan,T. (2005). EntrepreneurialbehaviouramongstlargercompaniesintheNewZealandRetailSector– An Investigationinto The ValueofCorporateEntrepreneurship. UnitecNewZealand.

Esposito De Falco, S., & Renzi, A. (2020). Benefit Corporations and Corporate Social Intrapreneurship. Entrepreneurship Research Journal, 10(4), 1-6

Falk, &Fischbacher, . (2001). A Theory of Reciprocity. CESifo Working Paper No 457.

Field, A. (2018). Discovering Statistics Using IBM SPSS Statistics, 5th Edition. London: SAGE

Galawe, N.J. (2017) Endogenous and exogenous risk factors in the success of South African small-medium enterprises. PhD thesis, University of the Witwatersrand, Johannesburg.

Garzon, M.A. (2005). The Intrapreneur Innovation: Led by Medium and Small Size Companies' Managers. Univ. Empresa, Bogota (Colombia), 1(8), pp. 31-55

Glinyanova, M., Bouncken, R.B., Tiberius, V., Ballester, A.C. (2021). Five decades of corporate entrepreneurship research: measuring and mapping the field. International Entrepreneurship and Management Journal, pp. 1731-1757

Hill, M. E. (2003).The development of an instrument. Master dissertation, Rhodes University, Grahamstown.

Hughes, M. & Mustafa, M.J. (2016). Antecedents of Corporate Entrepreneurship in SMEs: Evidence from an emerging economy. Journal of Small Business Management,55, 115-140

Kavese, K. (2021). Performance and Developments of SMMEs in the Eastern Cape: Statistical Quarterly Update, 3Q2020

Kurtako, D., Morris, M., &Covin, J. (2011). Corporate Innovation and Entrepreneurship. 3rd Edition. Boston: Cengage Southwestern

Luiz, J. (2002). Small Business Development in South Africa. Master dissertation, University of the Witwatersrand, Johannesburg.

MacDonald, S., &Headlam, N. (2014). Research Methods Handbook, Introductory Guide to Research Methods for Social Research. Manchester: Centre for Local Economic Strategies

Madu, U.O. (2011). The impact of compensation practices on intrapreneurial behaviour. Master dissertation, University of the Witwatersrand, Johannesburg.

Mafini, C., Pooe, D.R.I., & Loury-Okoumbu, V.W. (2016). Interrogating antecedents to SME supplier performance in a developing country. Southern African Business Review, 20(1), 259-285

Miller, D. (1988). Relating Porter's business strategies to environment andstructure: Analysis and performance implications. Academy ofManagement Journal, 31(2), pp. 280-308.

Mustafa, M., Gavin, F., &Hughes, M. (2018) Contextual determinants of Employee Entrepreneurial Behaviour in Support of Corporate.Entrepreneurship. Journal of Enterprising Culture,26(3), 285–326

Neessen, Petra C. M., Marjolein C. J. Caniëls, Bart Vos, & Jeroen P. de Jong. (2019). The intrapreneurial employee: Toward an integrated model of intrapreneurship and research agenda. International Entrepreneurship and Management Journal,15(2), 545–571

Nielsen, R.P., Peters, M.P., &Hisrich, R.D. (1985). Intrapreneurship strategy for internal markets: Corporate, non-profit and government institution cases. Strategic Management Journal, 6(1), 81-89

OECD Council Ministerial Level Meeting. (2017).

Qualtrics (2018). (Computer programme). Seattle, Washington: Qualtrics.

Rankhumishe, E.M., & Letsoalo, M.E. (2019), Owners' perspective of factors associated with performance of Small, Medium and Micro Enterprises. International Journal of Entrepreneuship, 23(3), pp. 1 – 17

Republic of South Africa. (1995). White Paper on National Strategy for the Development and Promotion of Small Business in South Africa. Notice 213 of 1995. Pretoria, Government Printer.

Republic of South Africa. (1996). National Small Business Act, Number 102. Government Gazette Number 17612. Pretoria, Government Printer.

Rigtering,J.P.Coen,&UtzWeitzel.(2013).Workcontextandemployeebehaviourasantecedentsfor intrapreneurship.InternationalEntrepreneurshipandManagementJournal, 9(3), 337-360

Sakhdari, K. (2016). Corporate Entrepreneurship: A Review and Future Research Agenda. Technology Innovation Management Review, 6(8): 5-18

Scharrer, J., & Stubenrauch, L.T. (2018). The 'Making' of an Intrapreneur. Master thesis, Halmstad University, Halmstad.

Schindler, P. (2019). Business Research Methods. 13th Edition. New York: McGraw-Hill

SEDA. (2020). SMME Quarterly Update: 3rd Quarter 2020

Sigauke, K. (2020). Employing the theory of planned behaviour to determine pharmacists' entrepreneurial intentions in South Africa. Master dissertation, University of the Witwatersrand, Johannesburg.

SME South Africa. (2018).

SPSS. (n.d.). (Computer programme). Armonk, NY: IBM.

STATS SA. (2020). SMMEs Q4

Tembe, F. (2018) Business incubators and SMMEs performance in South Africa. Master dissertation, University of the Witwatersrand, Johannesburg.

TIPS. (2020). Small Business by the Numbers.

Urban, B. (2010). Antecedents of entrepreneurship, with a focus on culture in an emerging country context. Problems and Perspectives in Management, 8(1-1)

Urban, B. (2009). Opportunity recognition: delineating the process andmotivators for serial entrepreneurs: analysis of survey data. SouthAfrican Journal of Economic and Management Sciences, 12(4), pp. 513-532.

Urban, B., & Wood, E. (2015). The importance of opportunity recognitionbehaviour and motivators of employees when engaged in corporateentrepreneurship. Journal of Business Economics and Management,16(5), pp. 980-994.

Urban, B., & Wood, E. (2015). The innovating firm as corporate entrepreneurship. European Journal of Innovation Management, 20(4), pp. 534-556

Urban, B., Barreria, J., & Nkosi, B. T. (2012). Linking corporateentrepreneurship and culture to firm performance in the South AfricanICT sector. Journal of Contemporary Management, 9(1), pp. 300-323.

Vamvaka, V., Stoforos, C., Palaskas, T., &Botsaris, C. (2020). Attitudetoward entrepreneurship, perceived behavioural

control,andentrepreneurialintention:dimensionality,structuralrelationships,andgender differences. Journal of Innovation and Entrepreneurship, 9(1), 5

Velicer, W. F., Eaton, C. A., & Fava, J. L. (2000). Construct explication through factor or component analysis: A review and evaluation of alternative procedures for determining the number of factors or components. In R. D. Goffin& E. Helmes (Eds.), Problems and solutions in human assessment: Honoring Douglas N. Jackson at seventy (pp. 41–71)

Venter, R. & Urban, B. (2015). Entrepreneurship Theory in Practice (3rd ed.). South Africa: Oxford Southern Africa

Watkins, M.W. (2018). Exploratory Factor Analysis: A Guide to Best Practice. Journal of Black Psychology, 44(3), pp. 219-246

Wiklund, J. (1999). The sustainability of the entrepreneurial orientationperformancerelationship. Entrepreneurship Theory and Practice, 24(1),pp. 37-48.

Wiklund, J., & Shepherd, D. (2005). Entrepreneurial orientation and smallbusiness performance: A configurational approach. Journal of BusinessVenturing, 20(1), pp. 71-91

Willemse, A. (2018). The moderating effect of mentorship on enterprise development in South Africa. Master dissertation. University of the Witwatersrand, Johannesburg.

Wood, E. A. (2012). Perceptions of opportunity recognition behaviour in theSouth African financial sector. Master dissertation. University of the Witwatersrand, Johannesburg.

Zeebaree, M. R. Y., &Siron, R. B. (2017). The impact of entrepreneurialorientation on competitive advantage moderated by financing support inSMEs. International Review of Management and Marketing, 7(1), pp. 43-52

APPENDIX A: Consistency matrix

The effect of organizational support, attitudinal and behavioural requirements on employee intrapreneurial behaviour						
Actual Aims of research	**Literature review**	**Hypotheses or Propositions or Research questions**	**Variables**	**Source of data**	**Type of data**	**Analysis**
To investigate the effect of attitude towards intrapreneurship of the South African SMMEs employees on intrapreneurial behaviour.	Ajzen (1991) Scharrer and Stubenrauch (2018) Vamvaka et al. (2020)	**Hypothesis 1** Attitude towards intrapreneurship has a positive effect on intrapreneurial behavior in South African SMMEs.	IV1: Attitude towards intrapreneurship DV1: Intrapreneurial behaviour	Questionnaire questions that will provide the data	Ordinal	Statistical: Descriptive as well as inferential
To investigate the effect of perceived behavioural control of South African SMMEs employees on intrapreneurial behaviour.	Ajzen (1991) Scharrer and Stubenrauch (2018) Vamvaka et al. (2020)	**Hypothesis 2** Perceived behavioural control has a positive effect on intrapreneurial behavior in South African SMMEs.	IV2: Perceived behavioural control DV2: Intrapreneurial behaviour	Questionnaire questions that will provide the data	Ordinal	Statistical: Descriptive as well as inferential
To investigate the moderating role of a firm's support on the effect of attitude towards intrapreneurship on intrapreneurial behaviour.l.	Badoiu et al. (2020) Durkan (2005)	**Hypothesis 3** The effect of attitude towards intrapreneurship on intrapreneurial behavior is positively moderated by a firm's support.	IV3: Firm's support DV3: Effect of attitude towards intrapreneurship on intrapreneurial behaviour	Questionnaire questions that will provide the data	Ordinal	Statistical: Descriptive as well as inferential
To investigate the moderating role of a firm's support on the effect of perceived behavioural control on intrapreneurial behaviour.	Badoiu et al. (2020) Durkan (2005)	**Hypothesis 4** The effect of perceived behavioural control on intrapreneurial behaviour is positively moderated by a firm's support.	IV4: Firm's support DV4: Effect of perceived behavioural control on intrapreneurial behaviour	Questionnaire questions that will provide the data	Ordinal	Statistical: Descriptive as well as inferential
KEYWORDS: Attitude towards intrapreneurship; Firm support; employee intrapreneurial behaviour; SMEs; entrepreneurial process; intrapreneurial intention; perceived behavioural control						

APPENDIX B: Research Instrument

Research Instrument - Employee Intrapreneurial Behaviour

Start of Block: Welcome

Q1 Welcome to the survey.

End of Block: Welcome

Start of Block: Informed consent

Q2 Below is the informed consent agreement for this study. Please review the text below and click "I agree to participate" to continue.

Q3

Dear Sir/Madam

My name is PhutiRamolobeng and I am a Master of Management in Entrepreneurship and New Venture Creation student at the University of the Witwatersrand, Johannesburg. As part of the requirements for my degree, I am required to undertake a research project. I am conducting this research under the supervision of Dr.McEdwardMurimbika and ethical clearance to conduct this study has been obtained

by the University of the Witwatersrand.

The title of my study is “Employee attitudinal and behavioural requirements for entrepreneurial behaviour of in South African SMMEs". The purpose of this research study is to investigate the effect of attitude towards intrapreneurship and perceived behavioural control on intrapreneurial behaviour of employees in South African SMMEs.

If you are employed by a South African small or medium-sized enterprise, I would like to invite you to participate in this research by answering an online questionnaire. This questionnaire will require you to answer multiple choice type of questions in relation to employee intrapreneurial behaviour.. The questionnaire is expected to take approximately 15 minutes. You can choose to withdraw at any time if you wish to do so and there will be no negative consequences. Choosing to participate in the project is completely voluntary; you will not receive any direct benefits, nor will you be disadvantaged in any way whether you decide to participate or not. There are no direct benefits or foreseeable risks associated with participating in this study. The questionnaire will be completely confidential and anonymous as I will not be asking for your name or any identifying information.

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. The data collected from this research project will be stored in password protected computer and will be kept for 3 years. 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 hrecnon-medical@wits.ac.za Yours sincerelyPhutiRamolobeng

Researcher:PhutiRamolobeng, 2509915@students.wits.ac.za

Supervisor: Dr McEdwardMurimbika, mcedward.murimbika@wits.ac.za

Q4 I agree to participate.

- ○ Yes (1)
- ○ No (2)

Skip To: End of Survey If I agree to participate. = No

End of Block: Informed consent

Start of Block: Demographic data

Q5 What is your age?

- ○ 18 - 25 (1)
- ○ 26 - 35 (2)
- ○ 36 - 45 (3)
- ○ 46 - 55 (4)
- ○ 56 - 65 (5)
- ○ 66 - 75 (6)
- ○ 76 + (7)

Q6 What is your gender?

- ○ Male (1)
- ○ Female (2)
- ○ Non-binary / third gender (3)
- ○ Prefer not to say (4)

Q7 What is your level of education?

- ○ No schooling (1)
- ○ Less than high school (2)
- ○ High school graduate (3)
- ○ College graduate (4)
- ○ Graduate (5)
- ○ Post graduate degree (6)
- ○ Professional degree (7)

Q8 How long have you been with the company?

- ○ Less than 1 year (1)
- ○ 2 - 5 years (2)
- ○ 6 - 10 years (3)
- ○ 11 - 15 years (4)
- ○ 16 - 20 years (5)
- ○ 21 - 25 years (6)
- ○ 26 + (7)

End of Block: Demographic data

Start of Block: Attitude, perceived behavioural control, firm support, and intrapreneurial behav

Q9 Please indicate how much you agree or disagree with the following statements by choosing one option in each line.

End of Block: Attitude, perceived behavioural control, firm support, and intrapreneurial behav

Start of Block: Attitude towards intrapreneurship

Q10 If I had the opportunity and resources, I would like to pursue an innovative project for my firm.

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

Q11 In my workplace, I look for independence and responsibility.

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

Q12 Creating something new for my company entails great satisfaction.

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

End of Block: Attitude towards intrapreneurship

Start of Block: Perceived behavioural control

Q13 Pursuing and executing an own idea for my company would mean overcoming my obstacles.

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

Q14 I have skills and capabilities to succeed in developing new ideas that can enhance the company's future.

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

Q15 I am confident that I would succeed if I could be assigned a project to lead in my company.

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

Q16 I am certain that I can initiate a project for my company and keep it viable.

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

Q17 I can control the creation process of a new project in my company.

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

Q18 The events outside my control which could prevent me from improving my company's performance through innovation are very few.

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

Q19 I would have complete control over the situation.

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

End of Block: Perceived behavioural control

Start of Block: Intrapreneurial behaviour

Q20 I display an enthusiasm for acquiring skills.

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

Q21 I quickly change course of action when results aren't being achieved.

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

Q22 I take the initiative for my own ideas.

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

Q23 I think about my work in new and stimulating ways.

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

Q24 I find ways to improve our products and services.

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

Q25 I show support for the good ideas of others.

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

Q26 I boldly move ahead with a promising new approach when others might be more cautious.

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

Q27 I get people to rally together to meet a challenge.

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

Q28 I devote a great deal of effort to selling my ideas.

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

Q29 I use opportunities quickly in order to attain my goals.

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

Q30 I search for a solution immediately whenever something goes wrong.

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

Q31 I actively attack pressing organizational problems.

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

End of Block: Intrapreneurial behaviour

Start of Block: Firm's support

Q32 Employees are given support for self-initiated and unofficial activity that is to the benefit of the organisation.

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

Q33 The organisation has systems that offer financial and non-financial rewards for entrepreneurial behaviour.

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

Q34 Employees are rewarded for taking calculated risks.

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

Q35 Employees receive recognition from the organisation for innovative ideas and suggestions.

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

End of Block: Firm's support