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The effects of entrepreneurial resources on the allocation of entrepreneurial effort in Gauteng SMME Sector

Alice Khantso Mampuru

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

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ABSTRACT

Past research looked at the contribution of the small business sector in economic development. Some literature suggested that the performance of this sector continued to face challenges that are attributable to SMME characteristics such as demographic profiles of individual entrepreneurs. Trivial research has focused on contextual issues affecting the SMMEs sector of South Africa. This research, therefore, took a closer look at the effects of entrepreneurial resources (context) on the allocation of entrepreneurial effort in an attempt to understand how these variables applied in South Africa's SMMEs sector. Using a quantitative approach, the study collected data from a sample of 206 SMME operators. Through empirical scrutiny, this study found that demographic profiles of entrepreneurs had a significant role in explaining the variance in the allocations of entrepreneurial effort. Taken with internal entrepreneurial resources, a modest yet significant variance was explained in the allocation of entrepreneurial effort. Empirical results, however, rejected the hypothesis that external resources negatively influenced the allocation of entrepreneurial effort. While a positive yet insignificant amount of variance in value creation could be explained by external entrepreneurial resources, a strong and significant variation in value appropriation was found to be associated with external resources. The study further found that resource combinations had a positive effect on the allocation of entrepreneurial effort. Policymakers can benefit significantly from this research in their efforts to formulate a policy that is indigenous to specific contexts. Practitioners can use the insights gained from this research to elucidate and measure entrepreneurial outcomes. This could improve the processes and mechanisms used in entrepreneurship ecosystem development. This study makes a unique and significant contribution to the ongoing debate about the role of context in the allocations of entrepreneurial effort. It further appreciates the significant contribution of Baumol's Theory of Entrepreneurship allocations in explaining the phenomenon, making a unique contribution to the vast knowledge about contextual influences on the allocations of entrepreneurial effort.

Keywords: Entrepreneurship allocations, emerging markets, context, Value-based entrepreneurship

DECLARATION

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



Alice Khantso Mampuru

Signed at: Springs ----------

On the 31st ----------Day of March ----------2020.

DEDICATION

More than 7 billion people in the world were counted and you were counted once. And since you left, no one is counted in your space. The void of my loss still cuts deep in my soul. Your memories have been my dwelling place. Mere mortal you were. Aren't we all? But while I still live, before my life is swept away into the sleep of death, I will grow; like grass in the morning, that springs up new and withered by evening. And if my strength endures, I will rise again and continue. Bless your spirit grandmother, Kemelo Bernice Matsoso. I walk in your wisdom every day. All my efforts are in honour of your teachings.

I dedicate my efforts to my children, my son Kgothalo Mampuru, and my daughters, Itumeleng and Tlotliso Mampuru, my husband Thabo Mothobi Mampuru and my entire family and extended family, all my brothers and sisters, nieces and nephews. To all of you who have walked with me until this day, thank you.

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I wish to thank my organization and its leadership, Gauteng Enterprise Propeller, for their support. To my fellow entrepreneurs and small business managers, all of you ignited my desire to undertake this study. Thank you for always responding to my many surveys. If you had not, I would have not been able to achieve the milestones of my course and this research. I am richer with knowledge and wisdom today than I was yesterday because of you.

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LIST OF ACRONYMS

ANOVA	Analysis of variance
B-BBEE	Broad-Based Black Economic Empowerment
BER	Bureau of Economic Research
Dti	Department of Trade and Industries
DV	Dependent Variable
ED	Enterprise Development
EFA	Exploratory Factor Analysis
EMs	Emerging Markets
GDP	Gross Domestic Product
GEM	Global Entrepreneurship Monitor
GEP	Gauteng Enterprise Propeller
IDC	Industrial Development Corporation
IV	Independent Variable
KMO	Kaiser-Meyer-Olkin
MANCOVA	Multivariate Analysis of Covariance
NEF	National Empowerment Fund
NYDA	National Youth Development Agency
PAF	Principal Axis Factoring
RBD	Resource Based Theory
RDT	Resource Dependency Theory
SA	South Africa
SEDA	Small Enterprise Development Agency
SEFA	Small Enterprise Financing Agency
SMME	Small, Micro and Medium Enterprises
SPSS	Statistical Package for Social Sciences
StatsSA	Statistics South Africa
TIPS	Trade and Industrial Policy Strategies
VBE	Value-Based Entrepreneurship
VC	Venture Capital
VIF	Variance Inflation Factor

1.1 CHAPTER 1. INTRODUCTION

Chapter 1 outlines purpose of this study and its theoretical foundations, the context in which it is conducted as well as the problem statement. Based on the problem statement, pertinent questions are asked to establish the basis for investigation. The objectives of this research are also presented here. Scales of scientific measurements are defined by conceptual operationalization of terms and lastly, the report presents the study's practical implications and contributions.

1.2 Purpose of the study

This quantitative research investigated the effects of entrepreneurial resources on the allocations of entrepreneurial effort in Gauteng's SMME sector. Past research focused on the role of SMMEs in economic growth and the factors that affected their performance (Meyer, 2015; Botha et al., 2015). In an endeavour to gain insight into the SMME sector performance factors, this research took a closer look into the small business sector in Gauteng province of South Africa. Building on Baumol's Theory of Entrepreneurial Allocations (Baumol, 1990), this report highlights some of the prominent factors that contribute to the performance of the SMME sector in SA.

With entrepreneurship increasingly enjoying global recognition as an independent discipline due to its contributions to economic growth across the world's established economies, emerging markets (hereafter "EMs") can learn some valuable lessons from appreciating entrepreneurship and shaping the environment within which it can thrive.

1.3 Theoretical background to the study

Coalesced with Resource Dependency Theory (RDT) which outlines the relationships between firms and environments (Drees & Heugens, 2013), this research built on Baumol's theory of entrepreneurial allocations which categorized entrepreneurship among productive, unproductive and destructive (Baumol, 1990). Aeeni et al., (2018) extended this theory by taking into consideration the role of individual factors resulting from institutional contexts. They posited that some recent research has challenged Baumol's typology, arguing that institutions could not direct entrepreneurship autonomously, but individual factors such as talents, intentions, or perceptions played a critical role in directing entrepreneurship towards a particular allocation (Aeeni et al., 2018 p.34).

1.3.1 Baumol's Theory of Entrepreneurial Allocations

Baumol (1990) previously suggested that declines in economic growth are often associated with failure in entrepreneurship. He argued that while entrepreneurship is good for economic growth, it can be deterrent in certain contexts. He further proposed that the proceeds of entrepreneurship vary significantly as a result of individual factors associated with entrepreneurial effort. Such individual factors that antecede entrepreneurial effort were influenced by the "rules of the game", that is, the reward structures which society offered to economic agents such as entrepreneurs (Baumol, 1990; Urban, 2016).

Following a systematic review of Baumol's typology, Aeeni et al., (2018) argued that it was problematic to assume that individual factors such as entrepreneurs' goals, for instance, are outcomes of institutional influences alone. By their heterogeneous nature, entrepreneurs' goals, which were observed in their behavioural traits and cognitive characteristics such as talents and psychological capabilities, preceded their entrepreneurial decisions. Therefore, depending on these individual factors, entrepreneurs could become advocates of institutional change, wherein, they deliberately investigate institutional voids for exploitation and rent-seeking.

The theory of entrepreneurial allocations therefore promises to enhance our understanding of the relationship between entrepreneurial resources (which are operationalized into internal and external resources), and their effects thereof, on the allocation of entrepreneurial effort (which is operationalized into Value-Based Entrepreneurship) in South Africa's SMME sector.

1.3.2 Resource Dependence Theory

Resource Dependence Theory (RDT) has been used to assess firms and environments (Drees & Heugens, 2013). According to Drees and Heugens (2013), RDT suggests that organizations do not exist in a vacuum. This means that organizations are agents, which affect and are affected by other agents in their respective operating areas. Therefore, interdependencies would exist between agents to succeed. For example, organizational interdependencies exist to leverage vital resources to optimize enterprise performance. In their meta-analysis, Drees and Heugens (2013) found varying results. Firstly, they found that resource dependencies led to inter-organizational arrangement formations between organizations. Secondly, they found that these arrangements provided sovereignty and legitimacy. However, while sovereignty mediated inter-organizational dependence and firm performance, legitimacy did not (p.1668).

In this study, the RDT and approach was used to test resource dependence at an individual level rather than at a firm level. An assumption was that there were grounds to argue that at an individual level, entrepreneurship depended on individual capabilities rather than firm capabilities (and these inherent capabilities could be viewed as resources in their own right). It argued that entrepreneurs leveraged their internal resources to exploit market opportunities and to acquire more resources for competitive advantages; this study used entrepreneurial behaviour, lobbying and resource dependence as variables for measuring internal resources. For example, opportunity-seeking behaviour could be viewed as an internal resource that entrepreneurs possess. Entrepreneurs' resourcefulness

which could be seen in their ability to lobby and acquire necessary resources for their ventures could also be seen as a resource. When such resources have been accessed, the entrepreneurs' ability to create dependencies could also be seen as a resource.

Entrepreneurs also leverage their external resources (social capital, government policy, and incentives); the study here argued that entrepreneurs behave in indigenous ways when they use their internal resources to acquire, exploit, manipulate and create other resources that are core to their venture performance. For example, by appreciating the importance of social capital, entrepreneurs use their abilities to lobby such social capital to leverage and optimize their firm performance to the extent of creating interdependencies. The context of government policy and availability of incentive structures exposes entrepreneurs to such opportunities as government support and entrepreneurs use techniques such as building and strengthening their social capital to evaluate, manipulate and exploit such opportunities (Urbig, Weitzel, Rosenkranz, & Witteloostuijn, 2012), thereby creating new opportunities that are path-dependent (Alvarez & Busenitz, 2001).

The operationalization of internal resources into entrepreneurial behaviour, lobbying, and resource dependence followed this logic and led to another argument about the relationship between internal and external resources, as well as their interactions and effects. This study argued that there is an interdependent relationship between internal and external resources and that these interdependencies had an effect on the performance of entrepreneurship, i.e. the allocation of entrepreneurial effort. It further argued that there is an interaction and effect on the two constructs which caused variation in the allocations of entrepreneurial effort.

1.4 Context of the study

Contrasting with established economies, the nature of EMs is characterized by low levels of economic development accompanied by trade liberalization and rapid institutional change (Marcotte, 2014). Marcotte (2014) further referred to legal, political and financial institutions as some of the contexts that can enable or constrain entrepreneurship. Smallbone, Welter, and Ateljevic (2014) also argued the importance of context. Zoogah, Peng, and Woldu (2015) later pointed out that institutions and resources also provide important insights on how such building blocks support organizational effectiveness of African enterprises. Other studies such as Fish et al., (2017), Gao, Zuzul, Jones, & Khanna, (2017); and Urban, (2016) referred to other contexts as "institutional voids". These voids can result in productive venture performance when entrepreneurs endeavour to mitigate them, yet detrimental, resulting into unproductive and destructive outcomes when entrepreneurs exploit them for personal rent and wealth (Aeeni et al., 2018; Fish, Parris, & Troilo, 2017).

Observably, context gives rise to various entrepreneurship off-springs, ranging from institutional arrangements (Fish, Parris, & Troilo, 2017) to the different types and rate of entrepreneurial activity at different levels, from the country level to cross country (Stenholm, Acs, & Wuebker, 2013), from shaping policy for market functioning, to a substratum for enduring academic inquiry in the face of continuous economic failure. Landstrom, Harirchi, and Astrom (2012) for instance have explored the knowledge base of entrepreneurship to identify the most prominent knowledge producers and analyze their work in terms of how it links to multiple disciplines such as management and economics (Cornelius, Landstrom, & Persson, 2006; Landstrom, Harirchi, & Astrom, 2012)

This research, however, placed its focus on two factors that contribute towards shaping entrepreneurship in South Africa. Firstly, it focused on entrepreneurial resources (Internal and External) and secondly, the allocation of entrepreneurial effort. This study introduced an entrepreneurial concept of Value-Based

Entrepreneurship (VBE) to better understand the allocations of entrepreneurial effort in the Gauteng SMME sector of South Africa.

Baumol (1990) had previously argued that the productive contributions of entrepreneurship vary significantly across various contexts due to their allocations between productive, unproductive and destructive entrepreneurship. As a result, researchers have worked towards building knowledge around entrepreneurship to establish frameworks around which to build the entrepreneurship discipline for future endeavours. To this age, entrepreneurship continues to emerge as a captivating discipline, providing abundant opportunities for upcoming researchers, particularly in EMs. Though there is growing literature around entrepreneurship in EMs, some scholars still argue that there is limited coverage on contextual influences such as availability or scarcity of resources (Smallbone, Welter, & Ateljevic, 2014) and that, this becomes a limitation in terms of contribution in the mainstream theories of entrepreneurship (Abbasi, W., Wang, & Abbasi, D., 2017; Marcotte, 2014; Welter & Smallbone, 2011).

The fall of apartheid and the rise of democracy in South Africa represented a new dawn for a country whose citizens had envisioned. Democracy gave hope to the majority of previously marginalized, and much more, a rise in expectations of poverty alleviation and equality, as such, an appreciation of the role of entrepreneurship in economic development. The new dispensation, post-apartheid, saw among many developments, the appreciation, and prioritization of SMMEs in the development of the country's economy. However, SMMEs continue to face significant challenges and Botha et al., (2015), in their study on functional and enterprising competencies posited that the alarming rate at which SMMEs are failing is an indication of limitations of these entities to create long term sustainable employment.

Post-apartheid, the South African government took a stance to support the small business sector due to its potential to create more jobs and sustainable economic development. Entrenched in broad economic framework across various institutions,

the government signifies the important role of SMMEs. It is within this context that the government and the private sector are jointly resolute towards building mechanisms by which to support the small business sector.

This research examined the effects of entrepreneurial resources on the allocations of entrepreneurial efforts in the SMME sector in the Gauteng province of South Africa to highlight key factors that contributed to the performance of the sector. Aeeni et al., (2018) provided alternative outcomes of entrepreneurial allocations. Productive allocations included value creation while unproductive and destructive allocations included value appropriation and value destruction among other outcomes. This research, therefore, introduced the concept of value-based entrepreneurship which adopted the definition of value-creation as a unit of analysis. Inversely, when value is not created, or when it is destructed or lost, entrepreneurship would be deemed unproductive or destructive.

As a country recovering from prior conflict, South Africa naturally adopts entrepreneurship to build social welfare due to its positive outcomes. Determinants of entrepreneurial success are however embedded in the actual entrepreneurial process rather than entrepreneurial inputs. What is implied here is that the outcomes of entrepreneurship activity, which is the creation of value, in this case, is not a consequence of resources, but rather the entrepreneurs' actions upon such resources. In other words, it is argued that endogenous growth is not only about "what resources" but "how such resources" are acted upon to produce outcomes. Given the heterogeneity of entrepreneurs and entrepreneurship (Aeeni, Motavaseli, Sakhdari, & Dehkordi, 2018) and the variety of their allocations (Baumol, 1990), as well as the degree to which rules are embedded in institutions, the performance of entrepreneurship is bound to produce varied results (Alvarez & Barney, 2013) particularly in contexts like South Africa.

South Africa's historical development from apartheid to democracy provided challenges and opportunities. Politically, the government emphasized nation-building and socio-economic change among other things. Institutionally, the

regulative, normative and cognitive institutions rewarded entrepreneurship and consequent formation of new ventures and SMMEs in pursuit of wealth creation and prestige (Urban, 2016). South Africa pronounced its first democratically elected president in 1994 following actions that led to negotiations for a new dawn of democracy. Nelson Mandela pronounced the “South African Dream”, the “ideal” of a democratic and free society (South African History Online, 2011).

Schumpeter (1934, p.4) suggested the following definition for democracy: "that institutional arrangement for arriving at political decisions which realized the common good by making the people itself decide issues through the election of individuals who are to assemble to carry out its will”. It holds that there exists a common good in democracy, which informs policy (Schumpeter, 1934). In this very context of entrepreneurship, democracy, and policy, the government accounts for the development of policy that supports entrepreneurship in South Africa. Policy development however incorporates alternative stakeholder contributions such as business, academia and community based organizations that represent the broader society’s views.

1.5 Problem Statement

Aeeni et al., (2018) suggested the importance of conducting a deeper analysis of the effects of entrepreneurship allocations on the performance of an economy, and the 'mechanisms underlying this relationship' (p. 35). The scholars further added that due to the diversity in the allocations of entrepreneurial efforts across institutional contexts, different types of entrepreneurial activities occur within a given context, thus the need to assess factors that contributed to these variations. Aeeni et al., (2018) highlighted the existence of unproductive entrepreneurship within a developed institutional framework and suggested that a deeper analysis of this enigma is crucial owing to the heterogeneity of entrepreneurial capabilities. In this study, the investigation endeavours to examine such capabilities, which are operationalized into entrepreneurial resources, in terms of their effects on the direction (allocations) of entrepreneurial effort, which is operationalized into value-

based entrepreneurship, a concept introduced in this study and which adopted the definition of value – creation, in Gauteng's small business sector. Aeeni et al., (2018) further emphasized that the differences in talent, intentions, and perceptions of entrepreneurs towards what they deemed a market opportunity and how to evaluate, manipulate and exploit such opportunities while creating new opportunities had a potential to lead to success and sustainable competitive advantage. They posited that such entrepreneurial characteristics are possible factors that influenced the allocation of entrepreneurial effort regardless of institutional quality (p.35). It is crucial, therefore, they argued, to conduct a deeper analysis at an individual level to examine how these characteristics impact on the allocation of entrepreneurial efforts. In doing this, demographic variables such as gender should be considered (Aeeni et al., 2018). A comparison of individual and institutional factors is necessary for understanding if and what variations exist in the allocations of entrepreneurial effort by women versus men.

Results from GEM indicated that South African small businesses still fall short in multiple ways regarding performance despite the country's perceived strong economic policy framework and institutional environment (Herrington, Kew, & Mwanga, 2016). This harms the country's economy given the expenditure on resources meant to support them. Perhaps analyzing the effects of entrepreneurial resources on the allocation of entrepreneurial effort within the small business sector can assist in solving this problem.

1.6 Research questions and aims

The purpose of the study was to analyze the effects of entrepreneurial resources on the allocations of entrepreneurial effort in Gauteng's small business sector. The study introduced an entrepreneurial concept of value-based entrepreneurship, which followed the definition of value creation as a unit of analysis, to examine the extent to which entrepreneurs allocated their effort to create value. In addressing this problem, the following questions and sub-questions were asked:

1. To what extent do the entrepreneurs' demographic characteristics affect their allocation of entrepreneurial effort in Gauteng SMME sector?
2. To what extent do entrepreneurial resources affect the allocation of entrepreneurial effort in Gauteng SMME sector?
   a) To what extent do internal entrepreneurial resources affect the allocation of entrepreneurial effort in Gauteng SMME sector?
   b) To what extent do external entrepreneurial resources affect the allocation of entrepreneurial effort in Gauteng SMME sector?
3. To what extent does the interaction between external and internal resources affect the allocation of entrepreneurial effort in Gauteng SMME sector?

This study's aims were to:

1. Examine the extent to which entrepreneurs' demographic characteristics affect the allocation of entrepreneurial effort in Gauteng SMME sector?
2. Examine the extent to entrepreneurial resources affects the allocation of entrepreneurial effort in Gauteng SMME sector?

a) Examine the extent to which internal entrepreneurial resources affect the allocation of entrepreneurial effort in Gauteng SMME sector?
b) Examine the extent to which external entrepreneurial resources affect the allocation of entrepreneurial effort in Gauteng SMME sector?

3. Examine the extent to which the interaction of internal and external resources affects the allocation of entrepreneurial effort in Gauteng's SMME sector?

1.7 Significance of the study

Past research paid attention to the role of institutions in entrepreneurship (Minniti, 2008; Rosenbusch, Brinckmann, & Muller, 2013; Sautet, 2013; Sobel, 2008; Urban, 2016). Institutional scholars suggest that "rules of the game" provide interesting thematic contexts such as social configurations (Urban, 2011; Gedajlovic, Honig, Moore, Payne, & Wright, 2013), institutional inefficiencies (compound voids) (Fish, Parris , & Troilo, 2017; Gao, Zuzul, Jones, & Khanna, 2017), policy contexts (Minniti, 2008), entrepreneurial resource bases (Zoogah, Peng, & Woldu, 2015), corruption

(Boudreaux, Nikolaev, & Holcombe, 2017) and entrepreneurial behaviour (Urbig, Weitzel, Rosenkranz, & Witteloostuijn, 2012; Weitzel, Urbig , Desai, Sanders, & Acs, 2010; Welter & Smallbone, 2011).

Much of these research strands, however, pay trivial attention to the role of individual factors in the allocation of entrepreneurial effort in terms of firm level value creation and market level value appropriation dichotomy. While research acknowledges that entrepreneurship is good for economic growth, it can be deterrent in specific contexts (Baumol, 1990) as a result of individual factors associated with entrepreneurial effort.

The effects of entrepreneurial resources on the allocation of entrepreneurial effort within South Africa's SMME sector remains unexplained, especially the role of internal entrepreneurial resources such as entrepreneurs' demographics and cognitions. Further, it is not understood what the role of external entrepreneurial resources is on how entrepreneurs allocate their efforts. The primary objective of this research was to investigate these.

This research was founded on Baumol's theory of entrepreneurial allocations. This theory, extended by Aeeni et al., (2018), appreciated the role of individual factors resulting from institutional contexts. The context under investigation in this research was entrepreneurial resources which institutions such as regulatory (through policy and government support) and normative institutions (politics and social capital) offered to entrepreneurs. The cognitive characteristics were assessed in terms of their role in how entrepreneurs allocate their effort based on external factors. Entrepreneurial resources were operationalized into internal and external resources, and the allocation of entrepreneurial effort was operationalized into value-based entrepreneurship.

This study indicates some practical implications. Whereas entrepreneurial resources remain significant for economic development and entrepreneurship and SMME development in particular, policy makers need to be aware of the various

effects of entrepreneurial resources on the performance of the economy in a certain contexts, i.e. entrepreneurship that creates value. Policymakers can draw some valuable insights from this research in their efforts towards a policy that influences entrepreneurship supply in South Africa. By focusing on contextual issues, this study has the potential to contribute to existing literature that supports policy formulation that is indigenous to specific contexts, thereby potentially contributing significantly to the mainstream theories of entrepreneurship that focus on EMs, and African context in particular. Entrepreneurship practitioners can use our insights to elucidate and measure entrepreneurial outcomes based on context. This could improve the processes, mechanisms and models used in SA's entrepreneurship ecosystem development. Lastly, this research has the potential to contribute significantly to entrepreneurship practice in South Africa and possibly, other EMs.

1.8 Delimitations of the study

The scope of this research is limited to South Africa. Central to it, was the effects of entrepreneurial resources on the allocation of entrepreneurial effort. By entrepreneurial resources, this study referred to entrepreneurial cognitions that were operationalized into internal resources, normative and regulative factors that were operationalized into external resources as well as the integration of internal and external resources. Internal resources were complemented by the demographic characteristics of participants which were also used to control the data.

This research appreciated that the concept of entrepreneurial cognitions remained a broad subject matter and is covered in a vast number of entrepreneurship theories such as the theory of human capital and self-efficacy for examples. This study, however, focused on three dimensions of entrepreneurial cognitions which are entrepreneurial behaviour (opportunity recognition and problem-solving), lobbying (interpersonal relationship formation) and resource dependence (exploitation of opportunities/resources). The complementary factors (demographic profiles) were limited to gender, educational attainment and number of years spent in business.

This research referred to some institutional theoretical concepts, it was however grounded in the theory of entrepreneurial allocations as theorized by Baumol (1990) to delineate productive allocation of entrepreneurial effort from unproductive efforts. Even though in his article Baumol (1990) did not delineate between unproductive and destructive allocations, this study adopted Aeeni et al.,'s (2018) classifications of productive, unproductive and destructive allocations. Unproductive allocation was, therefore, limited to value appropriation. Value destruction was delimited from this study.

1.9 Conceptual definition of terms

The terminology used in this study was derived from literature about entrepreneurial resources and the allocation of entrepreneurial efforts. These included 'entrepreneurial resources', 'internal resources' and 'external resources'. Other key terms were taken from Baumol's (1990) article on entrepreneurship allocations which underpinned this study. These terms are productive, unproductive and destructive entrepreneurship. VBE is a new concept introduced to measure value creation or inversely, value appropriation.

This report uses the terms "SMME" and "entrepreneur" interchangeably; not to suggest that they bear the same meaning but rather, to appreciate that in part, entrepreneurial efforts can result in new venture creation. The scales of venturing can vary in either size, type or level of activity. While not all SMMEs are entrepreneurial, individuals can be entrepreneurial in their ability to exploit opportunities at their disposal and set up small business ventures to increase their wealth. To support this position, this report built on the scholarly views on entrepreneurship and how different schools of thought have defined it. For example, Coase (2011, 2013) viewed entrepreneurship as a process involving new venture creation, market development, product development, innovation and risk-taking (Coase & Wang, 2011; Terjesen & Wang, 2013).

1.9.1 Entrepreneurial Resources – Internal and external resources

In EMs, institutions do not only determine the rules of the game that enable entrepreneurship but also compensate their cost by allocating necessary resources that facilitate entrepreneurial activity (Urban, 2016). Alvarez and Busenitz (2001) extended the boundaries of the Resource-Based Theory (RBT) to include the cognitive abilities of entrepreneurs (Alvarez & Busenitz, 2001). Aeeni et al., (2018) also highlight entrepreneurs' capabilities, preferences, and goals as some of the factors that affect their choices and decisions. Zoogah et al., (2015) posited that resources ranged from human resources to management capabilities. They further added that other forms of resources such as financial resources were essential for establishing functional ventures. In addition to these, the normative environment also offered other forms of capital, such as social capital that facilitates entrepreneurial activity (Alvarez & Barney, 2013).

Based on these conceptual views, this research adopted the following definition for entrepreneurial resources: any form of capital that include both external resources offered by the regulatory and normative environments (i.e. government regulations, social capital, and incentive structures) as well as internal resources that are embedded in entrepreneurs' capabilities (i.e. entrepreneurial behaviour such as opportunity-seeking behaviour, entrepreneurs' ability to lobby necessary resources for their venture performance, as well as resource dependence) that enable them to carry out their intended ventures.

1.9.2 Baumol's typology of entrepreneurial allocations

Schumpeterian views of entrepreneurship that considered entrepreneurship as a productive force were cited in a vast literature. This position was enhanced by Baumol (1990) when he provided insights on various paths to which entrepreneurship can be allocated depending on the rules of the game and the entrepreneur's inherent capabilities (Kalantaridis, 2014). Baumol's typology

categorized entrepreneurial activity among three allocations which are defined in the next section.

1.8.2.1 Productive entrepreneurship

Productive entrepreneurship results in innovation and the creation of new products and services. Coyne, Sobel, and Dove (2010) viewed productive entrepreneurship as an innovative process that continually reallocates resources efficiently to increase production.

1.8.2.2 Unproductive entrepreneurship

On the contrary, unproductive and destructive entrepreneurship exhibit predatory characteristics (Coyne , Sobel, & Dove, 2010). These characteristics were previously observed in some developing and transitioning economies (Mehlum, Moene, & Torvic, 2003). Coyne et al., (2010) built on these observations and argued that both producers and predators come from the same pool of entrepreneurs, a premise which confirmed Baumol's (1990) hypothesis which was supported by various scholars about the question of why other entrepreneurs succeed while others fail in the same economy. These debates have led to scholars gaining interest in analysing the models which unproductive and destructive entrepreneurship followed (Coyne et al., 2010; Desai et al., 2013; Fish et al., 2017; Gao et al., 2017; Kalantaridis, 2014; Mehlum, Moene, & Torvic, 2003; Urbig et al., 2012; Weitzel et al., 2010). This perhaps was, in part, because Baumol (1990), did not explicitly delineate between unproductive and destructive entrepreneurship in the article. Nonetheless, due to similarities in the outcomes of unproductive and destructive entrepreneurship, the two were used interchangeably (Fish, Parris, & Troilo, 2017).

However, recent scholars have sought to distinguish the two typologies, suggesting that while both are not good for the economy, destructive entrepreneurship tends to result in the worst outcomes. Aeeni et al., (2018) adopted Baumol's definition of

unproductivity which stated that "an entrepreneur's endeavours to pursue his/her interests through participation in political processes such as rent-seeking or lobbying" followed unproductive and destructive paths of entrepreneurship. They further posited that unproductive and destructive entrepreneurship referred to entrepreneurs attempting to influence inefficient institutions for rent-seeking. Such activities at worst lead to corruption and organized crime. This study therefore also adopted Baumol's definition of unproductive and destructive entrepreneurship (Aeeni et al., 2018). Unproductive entrepreneurship refers to entrepreneurs' attempts to influence inefficient institutions for rest-seeking while destructive entrepreneurship refers to corruption and organized crime.

1.9.3 Allocation of entrepreneurial effort - Value-based entrepreneurship

Value is an outcome of entrepreneurship with a long-lasting effect of production on the economy such as the introduction of new products in the market, new ways/processes of organizing production and development of new markets, etc, notwithstanding the important role that human capital plays in the production process (Terjesen & Wang , 2013). Sirmon, Hitt, and Ireland (2007) posited that value creation followed a process of evaluating, manipulating and appropriately deploying resources within the firm's environment (Sirmon, Hitt, & Ireland, 2007). Value-based entrepreneurship, therefore, for the purpose of this study adopted the definition of value creation and was operationalized into a process of evaluating, manipulating and appropriately deploying resources within the firm's environment to create a long-lasting effect on the economy.

1.10 Report structure

The report is structured as follows: Chapter 1 outlined the theoretical background of the study, the context in which it was conducted as well as the problem statement. Based on the problem identified, pertinent questions were asked to establish the basis for investigation, the purpose and aims of this research were also presented in the first chapter. Delimitations of the study were discussed and the study

assumptions presented. The scales of scientific measurements were defined by conceptual operationalization of terms and lastly, this study's practical implications and contributions thereof, were outlined.

Chapter 2 provides a critical review of literature about the subjects under investigation to formulate alternative hypotheses for testing. A conceptual framework for this research is also presented in Chapter 2.

Chapter 3 describes the methodology that was followed to address the hypotheses raised in chapter 2. The research paradigm and design, as well as sample and sampling methods, are discussed in this chapter. The research instrument used is described, including the procedure for data collection, analysis, and interpretation.

Chapter 4 presents the results obtained from the scientific analysis of data.

Chapter 5 provides a critical discussion of the results presented in chapter 4 concerning literature and how the empirical findings of this research frame with findings from previous research.

The report closes out with Chapter 6 which concludes by providing a summary of findings, implications, and recommendations. The limitations of this study are shared, with suggestions for future research.

CHAPTER 2. LITERATURE REVIEW

2.1 Introduction

This chapter provides a review of the literature about the constructs identified. Hypotheses formulation follows an evaluation of these constructs to answer the research questions identified in chapter one. A conceptual model is also presented in this chapter to outline relationships between constructs. The chosen constructs for this study are Entrepreneurial Resources (internal and external), which are the IVs (independent variables), and allocation of entrepreneurial effort, that is, Value-Based Entrepreneurship, the DV (dependent variable).

The discussion begins with a critical review of literature about entrepreneurship allocations as previously theorized by Baumol, (1990) and cited in vast literature from various perspectives and syntheses (Aeeni, Motavaseli, Sakhdari, & Dehkordi, 2018; Bowen & Clercq, 2008; Fish, Parris, & Troilo, 2017; Urban, 2016). The literature review provides for hypotheses formulation for empirical testing. Measures used in the study are defined. The ultimate goal is to understand the allocations of entrepreneurial effort in Gauteng SMME sector. These allocations are productive, unproductive, and destructive entrepreneurship. This study uses the concept of value-based entrepreneurship as a central unit of analysis to assess the extent to which SMMEs allocate effort towards value creation. Value creation is a productive outcome of entrepreneurship (Aeeni, Motavaseli, Sakhdari, & Dehkordi, 2018). This study measures the extent to which SMMEs allocate their efforts to create value. Inversely, entrepreneurship is unproductive and, at worst, destructive if the allocation of entrepreneurial effort does not create value. The report presents the conceptual model for this study, and the last section of this chapter outlines the relationships between variables.

2.2 Literature background

This research is founded on Baumol's theory of entrepreneurial allocations. This theory, extended by Aeeni et al., (2018), appreciated the role of individual factors resulting from institutional contexts. The operationalization of these factors is internal and external resources, and the allocation of entrepreneurial effort is value-based entrepreneurship.

Aeeni et al., (2018) offered a systematic review of Baumol's typology and suggested that it is problematic to assume that individual factors such as entrepreneurs' goals, for instance, are outcomes of institutional influences alone. They posited that, by their heterogeneous nature, entrepreneurs' goals, seen in their behavioural traits and cognitive characteristics such as talents and psychological capabilities, preceded their entrepreneurial decisions. Therefore, depending on these individual factors, entrepreneurs could become advocates of institutional change, wherein, they deliberately investigate institutional voids for exploitation and rent-seeking.

Zoogah et al., (2015) view institutions and resources as significant building blocks for organizational effectiveness particularly for African enterprises. As such, this theory has potential to highlight the effects of entrepreneurial resources (internal and external) on the allocation of entrepreneurial effort (Value-Based Entrepreneurship) in South Africa's SMME sector. Baumol's theory was used in conjunction with Resource Dependence Theory (RDT). RDT is often used to assess firms and environments (Drees & Heugens, 2013). This study measured resource dependence at an individual rather than a firm-level given its context.

2.2.1 Entrepreneurial Allocations – Baumol's typology

Entrepreneurial allocations were theorized by William J. Baumol in the 1990s and cited in vast literature about entrepreneurship and management research over the past two decades (Aeeni et al., 2018; Fish et al., 2017; Russell, 2008; Urban, 2016; Utz, Diemo, Sameeksha, Mark, & Zoltan, 2010). This theory is still relevant today,

particularly considering that entrepreneurship is increasingly enjoying global recognition as an independent discipline and due to the contributions it has made in entrepreneurship studies across the globe. He argued that the productive contributions of entrepreneurship varied significantly across different contexts due to their allocations between productive, unproductive, and destructive (Baumol, 1990). If the institutional environment compensates productivity, entrepreneurs will allocate their effort productively (Boettke & Piano, 2016). On the contrary, entrepreneurs with the ability to recognize opportunities that could offer higher returns quicker, also respond accordingly to those opportunities, and their allocation of effort towards opportunity exploitation lies more heavily on the payoffs associated with the opportunity rather than morality of their actions. In these instances, the outcomes may be unproductive at best, and destructive at worst.

2.2.2 Internal entrepreneurial resources

Internal entrepreneurial resources were measured using three dimensions. These are entrepreneurial behaviour, lobbying, and resource dependence. These are discussed in the next section.

2.2.2.1 Entrepreneurial behaviour

The questions around issues of entrepreneurial behaviour have been central to entrepreneurship for decades. Previous research in entrepreneurial behaviours was concerned with understanding how entrepreneurs discover and exploit opportunities that result in venture creation and economic progress (Bird, Schjoedt, & Baum, 2012). Since the publication of Baumol's seminal article on entrepreneurship allocations (Baumol, 1990), researchers and practitioners have paid attention to the role of individual factors on economic performance (Aeeni, Motavaseli, Sakhdari, & Dehkordi, 2018). Research on the phenomenon of entrepreneurial behaviour has contributed significantly in the entrepreneurship discourse. Some scholars, however, posited that context played a significant role as a determining factor of entrepreneurial behaviour (Autio, Kenney, Mustar, Siegel, & Wright, 2014). This

view confirmed prior empirical findings about the role of context on entrepreneurial behaviour, such as the extent of institutional embeddedness and entrepreneurial behaviour (Welter & Smallbone, 2011).

In their study on contextual influences on entrepreneurial innovation, Autio et al., (2014) questioned the role of context on entrepreneurial innovation. Appreciating that innovation is a critical behavioural dimension in entrepreneurship literature, these scholars argued that the real issue around entrepreneurial innovation is not whether or not entrepreneurs innovate since prior theoretical and empirical data demonstrated that not all entrepreneurs are innovative, but under what conditions they innovate. In other words, different behavioural traits appear in different contexts. Urban (2016) investigated the influence of the institutional environment on venture innovation performance. The investigation confirmed the importance of such contextualization when studying institutional influences in such contexts as EMs. The empirical findings pointed towards the importance of conducting further research in contexts like South Africa due to its significance on policy reforms and national culture as it relates to entrepreneurship.

This study built on this notion and argued that context, which is entrepreneurial resources, in this case, had a vital role to play on the outcomes of entrepreneurship. Autio et al., (2014) emphasized the importance of this theme of research across different contexts and, more importantly, considering its effects at a micro-level. This assessment had the potential to provide an understanding of the role of behaviour (context) on the extent and variety (allocations – Baumol's typology) of entrepreneurial activity (entrepreneurial effort) in South Africa.

The literature further acknowledged that context regulates action, and action determines consequences (Autio, Kenney, Mustar, Siegel, & Wright, 2014). Autio et al., (2014) distinguished between effects on what they called entry behaviours and post-entry behaviours. According to Autio et al., (2018, p.1100), entry behaviour refers to "situations where individuals initiate entrepreneurial pursuits such as new

venture creation." Post-entry behaviours refer to "the goal-setting of those behaviours."

Based on the context of this study, the availability or scarcity of resources determines the entrepreneurs' choices and decision making. Micro-level factors such as individual abilities, access to specific resources as well as social circumstances, dictate how entrepreneurs behave. Urban (2011) highlighted the empirical context (social capital configurations) that distinguished between necessity-driven and opportunity-driven entrepreneurial behaviour. In South Africa, entrepreneurial behaviour that results from contextual influences such as abject poverty (Alvarez & Barney, 2013) determines entrepreneurial action. Entrepreneurial action, in turn, follows necessity rather than opportunity influences.

2.2.2.2 Lobbying

The literature further suggested that since entrepreneurship occurs in social contexts, the embeddedness of entrepreneurial activity in social contexts (Welter & Smallbone, 2011) allowed interactions and social norms (such as a social trust) that inform entrepreneurial behaviour in such contexts (Fish, Parris, & Troilo, 2017). Autio et al., (2014) identified institutional and policy contexts and argued that it is crucial to distinguish between formal and informal institutions. Informal institutions range from social norms to social interactions. Entrepreneurs, due to their heterogeneous nature, respond appropriately to societal influences within which they operate (Urban, 2011). In other words, entrepreneurs' actions are, to some degree, based on their utility and societal norms. Post-entry behaviours may arise. Such behaviours that follow entry behaviour refer to those entrepreneurial actions that bring about survival, success, and competitive advantage post founding of a new enterprise.

Through their engagement with other agents in their microeconomic spheres, entrepreneurs lobby or mobilize and coordinate resources and capabilities in their market environments, which they deem necessary for their survival and success

(Alvarez & Barney, 2013; Autio et al., 2014). However, Sobel (2008) argued that it required some form of investment into lobbying to secure government resources by entrepreneurs (Sobel, 2008), and some entrepreneurs, depending on their interests, get involved in political lobbying to gain access to specific resources such as information resources and financial resources (Aeeni et al., 2018; Sobel, 2008).

2.2.2.3 Resource Dependence

Considering the institutional transition in EMs, allocation of resources, particularly by the government, is crucial for the functioning of the economy (Urban, 2016). However, based on entrepreneurs' profiles in EMs such as SA, where issues such as skills and other enterprising competencies remain a fundamental shortcoming (Botha, Van Vuuren, & Kunene, 2015), the relationship between government and entrepreneurs is to some degree mediated by the formation of public-private partnerships. In instances where direct interactions exist between government and entrepreneurs, accessible resources are in the form of development finance and other forms of incentives for enterprise development. In such instances, mechanisms regulating the relationships between government and entrepreneurs have the potential to move from formal to informal (Urbig, Weitzel, Rosenkranz, & Witteloostuijn, 2012). As previously suggested by Sobel (2008), the transfer of resources from government to entrepreneurs is zero-sum in the sense that the transactions are a win-lose type of arrangement (Sobel, 2008). In other words, government, through taxes, for instance (Sobel, 2008), accounts for entrepreneurial resources such as incentives. Therefore, the entrepreneurs gain value from incentive structures at a loss from the taxpayer, declaring such activities zero-sum and unproductive (Aeeni, Motavaseli, Sakhdari, & Dehkordi, 2018).

In the context of entrepreneurship, the discovery of new resources is path-dependent (Alvarez & Busenitz, 2001). According to Alvarez and Busenitz (2001), the internal capabilities of an enterprise may depend on past discoveries, meaning that, to survive amid environmental influences, enterprises depend on past experiences to create new ones. This study, therefore, argued that entrepreneurs

develop sets of resource capabilities from their interactions with the environment, whether the environment is regulative, normative, or cognitive. The combinations of resource discoveries and capability development may result in long term interdependencies between internal and external resources. However, due to market dynamics and innovations, enterprises are forced to innovate to become sustainable continuously, or otherwise, they would not survive. Drees & Heugens (2013) conducted a meta-analysis on resource dependence and found that organizations respond to resource dependencies through inter-organizational arrangements. Empirical evidence presented different results of formal and informal arrangements associated with interdependent relationship formations among economic agents such as entrepreneurs and, to some extends, wage employees (Urbig, Weitzel, Rosenkranz, & Witteloostuijn, 2012).

2.2.3 External entrepreneurial resources

External entrepreneurial resources were also measured using three dimensions. These are social capital, government policy, and incentive structures. They are discussed in the next section.

2.2.3.1 Social capital

Several scholars point out that entrepreneurship occurs in social contexts (Gedajlovic, Honig, Moore, Payne, & Wright, 2013). These contexts stretch from personal to institutional networks (Urban, 2011). Urban (2011) noted in his study on social capital configurations, that social capital played a significant role in competitive advantage. It allowed entrepreneurs access to specific resources which they would otherwise struggle to acquire if they were not connected to and identified with specific individuals. Empirical findings pointed out that, to a significant degree, individuals with similar interests tent to associate with each other (Urban, 2011). Based on social embeddedness and the strength of network ties, people's intentions and behaviour informed their actions. This study built on this premise to investigate the effects of social capital on how SMMEs allocate their effort. Thai and Ekaterina

(2014) emphasized that whereas internal entrepreneurial resources, i.e. the cognitive characteristics of entrepreneurs such as personal traits, preferences, and risk-reward profiles, influenced entrepreneurial activity at a micro-level environment, these variables were influenced by the social embeddedness of entrepreneurship in the national culture.

2.2.3.2 Government policy

Due to its generally positive influence on the economy, entrepreneurship is considered by many economies in the development of policy that facilitates endogenous economic growth (Autio, Kenney, Mustar, Siegel, & Wright, 2014). Formal institutions are responsible for shaping policy that facilitates entrepreneurial activity (Minniti, 2008). In South Africa, such policy includes The White Paper on National Strategy for the Development and Promotion of Small Business, National Development Plan, Broad-Based Black Economic Empowerment (B-BBEE), and other local municipal policies for local economic development that promote preferential procurement from SMMEs. Other initiatives include institutional arrangements for enterprise development (ED), which encourages the private sector to get involved through the establishment of ED programs, small business incubators, and accelerators (Frohlicher & Pothering, 2013) and venture capital (VC) initiatives.

Whereas theoretical and empirical evidence demonstrated a positive relationship between VC investment and firm performance in funded firms (Rosenbusch, Brinckmann, & Muller, 2013), other forms of financing exist which SMMEs and entrepreneurs find more attractive as they do not exert pressure for yielding returns. The following section on incentive structures provides a detailed discussion on this. In other economies such as China, government initiatives include university-based initiatives such as the development of science parks that provide support for enterprise start-ups (Zou & Wanxia, 2014).

2.2.3.3 Incentive Structures

Vast research exists on the relationship between entrepreneurship and finance, and empirical findings often point towards increased entrepreneurship success when finance is made available for entrepreneurial endeavours (Rosenbusch, Brinckmann, & Muller, 2013). Research further argued that financial resources provided by formal institutions are more attractive to entrepreneurs than those from the informal institutions (Thai & Ekaterina, 2014). Even though these institutional scholars mainly looked at institutional asymmetries between formal and informal contexts (Thai & Ekaterina, 2014), Aeeni, et al., (2018) still argued that this theme of research scantily focused on these contexts and emphasized that they have a particular role to play in allocating entrepreneurship towards a particular path. It is necessary, therefore, they argued, to investigate both contexts to provide a decent explanation of the outcomes of entrepreneurship in both contexts to understand the allocations of entrepreneurship as theorized by Baumol (1990). They pointed out that a gap in research existed that paid adequate attention to the relationship between formal and informal institutions to determine what factors influence entrepreneurial choices between formal and informal activities.

In EMs such as China, some empirical findings pointed towards predatory activities in the formal economy wherein entrepreneurs exploit institutional voids for personal rents (Fish, Parris, & Troilo, 2017). Perhaps this is owing to inefficient institutions and inadequate quality monitoring systems. Aeeni et al., (2018) and Autio et al., (2014) indicated the importance of researching such neglected contexts as factor-driven economies to investigate how institutional conditions like resource bases in efficiency-driven versus inefficient economies affect the allocation of entrepreneurial effort. Some research found that unproductive entrepreneurial activities such as rent-seeking were rive in institutions that are efficient while productive entrepreneurship is low in institutions that are efficient and have stable institutional contexts (Aeeni, Motavaseli, Sakhdari, & Dehkordi, 2018).

In South Africa, the government and the private sector jointly provide the financial resources in the form of development funding and enterprise development incentives. From the government, institutions such as the Small Enterprise Finance Agency (SEFA), Small Enterprise Development Agency (SEDA), National Youth Empowerment Agency (NYDA), Industrial Development Corporation (IDC), and National Empowerment Fund (NEF) are some of the institutions responsible for development funding and enterprise incentives. The private sector participation includes incubators, accelerators, enterprise development, and other enterprise support networks. The Broad-Based Black Economic Empowerment (B-BBEE) also provides a policy framework that facilitates the empowerment of small businesses in South Africa. This study focused on the programs of government that support the participation of SMMEs in the economy.

2.2.4 Allocation of entrepreneurial effort - Value-Based Entrepreneurship

In his interview with Siri and Ning (Terjesen & Wang , 2013), Ronald Coarse shared his views on entrepreneurship. He suggested that entrepreneurship is a vital source of endogenous change in the economy and outlined the importance of investigating the structures of production and other policy questions. Coase and Wang (2011) previously explored the creative role of entrepreneurship in the economy and pointed out that production was central to entrepreneurship and economic performance (Coase & Wang , 2011). The results of the meta-analysis of the Baumol's Theory of Entrepreneurial Allocations (Aeeni, Motavaseli, Sakhdari, & Dehkordi, 2018) were in accordance when they found that, of the sampled articles for their analysis, production came out as a prominent variable used to measure productive entrepreneurship. Coase and Wang (2011) viewed entrepreneurship as a process involving new venture creation, market development, product development, innovation, and risk-taking (Terjesen & Wang , 2013). They further warned that though all these activities were novel, it could not be known in advance what their outcomes would be. While some of these endeavours succeeded, others failed. The views were in line with Baumol's (1990) views that entrepreneurship was not always productive. Coase and Wang (2013) further suggested that it was the

actions of entrepreneurs that are dictated by the logic of choice that could distinguish entrepreneurs from non-entrepreneurs (those who merely follow the logic of choice), which on another account coincided with the alternative deportment, i.e., unproductive and destructive entrepreneurship. Also, this view was in support of the assumption made earlier that there was a relationship between internal and external resources.

However, Baumol's views perhaps require further interrogation to delineate entrepreneurship from acts of complacency and crime to separate welfare creating and noble actions of entrepreneurship from wealth-destroying activities which have been viewed under the same lenses of entrepreneurship since the founding of Baumolian Theory. Such interrogation is likely to enhance its contributions to the mainstream of entrepreneurship for the future. Besides, this could also influence policy development for entrepreneurship supply, which has often resulted in unintended consequences of low economic performance.

Value is an outcome of entrepreneurship with a long-lasting effect on the productivity of an economy such as production, introduction of new products in the market, new ways/processes of organizing production and development of new markets, notwithstanding the critical role that human capital plays in the production process (Terjesen & Wang , 2013). Sirmon, Hitt, and Ireland (2007) further posited that value creation followed a process of evaluating, manipulating, and appropriately deploying resources within the firm's environment (Sirmon, Hitt, & Ireland, 2007). Sobel (2008) appreciated the work of Baumol and suggested that in instances where entrepreneurship activity created net gains, such activities were regarded positive-sum. They, however, suggested that government actions that transferred wealth, regulated, subsidized, or protected the industry from competition were zero-sum (Sobel, 2008). Value-based entrepreneurship is therefore operationalized into a process of evaluating, manipulating, and appropriately deploying resources within the firm's environment to create a long-lasting effect of production on the economy.

2.3 Entrepreneurial resources and the allocation of entrepreneurial effort

In EMs where resources are constrained (Welter & Smallbone, 2011; Zoogah, Peng, & Woldu, 2015), institutions determine the allocation of resources that facilitate entrepreneurial activity that creates value (Urban, 2016). In other words, the environment (regulatory and normative: government policy, social capital, and incentive structures) compensates entrepreneurial activity through alternative mechanisms such as property rights, legitimacy, and incentives. Zoogah et al., (2015) further add that resources such as financial resources are essential for establishing functional ventures. As a result, African economies establish mechanisms by which to provide capital resources. These are external resources.

Alvarez and Busenitz (2001) extended the boundaries of the Resource-Based Theory to include the cognitive abilities of entrepreneurs (cognitive environment: entrepreneurial behaviour, lobbying, and resource dependence). Zoogah et al., (2015) also posited that resources ranged from human resources to management capabilities. Though there is still an ongoing debate on the role of education in entrepreneurship, this study appreciated that, in part, entrepreneurial cognitive abilities are gained through structured learning and exposure to business activity. Both education and experience significantly contribute to the success of business ventures. Entrepreneurs' education attainment and level of exposure were therefore complimentary to the other inherent capabilities of entrepreneurs.

The normative environment which offers resources such as social capital that facilitate entrepreneurship activity (Alvarez & Barney, 2013; Urban, 2016) followed the network theories of entrepreneurship. Some scholars argued that entrepreneurs invest their efforts in building strong network ties vs. weak ties (Venter, 2015). Given the fact that entrepreneurs are not homogenous, other scholars further argued the differences in entrepreneurs' goals. Urbig et al., (2012), for instance, suggested that some entrepreneurs' goals are in line with social returns, and these entrepreneurs engaged in socially productive activities while others who seek to maximize their private returns may allocate their effort towards rent-seeking, creating wealth and

prestige. Aeeni et al.,s' (2018) views on entrepreneurs' cognitive abilities, preferences, and goals are per Thai and Ekaterina, (2014) and Zoogah et al., (2015) when they highlight some of the factors that affected entrepreneurs' choices and decisions.

To gain a deeper understanding of the nexus between entrepreneurial resources and the allocation of entrepreneurial effort within Gauteng's SMME sector, this study further built on recent work by Fish, Parris, and Troilo, (2017), which explained how private enterprises exploit institutional voids to establish themselves and thrive. Urbig et al., (2012) previously investigated why talented entrepreneurs invested in risky opportunities and found that while their allocations of effort resulted in private wealth, their activities were not only limited to private ventures but extended to involve those in wage employment. Their activities seemed parasitical to consumers and society at large such as the rise in private venturing and unproductive entrepreneurship in China (Fish, Parris, & Troilo, 2017). In South Africa, there is an observation of the rise in enterprise development, which does not converge into positive economic development.

Entrepreneurs leverage their social capital and create natural interdependencies. Empirical evidence demonstrates that such arrangements are harmful to an economy (Champeyrache, 2018). Other scholars studied the nexus between political networking and venture performance and found that ventures which invested in political ties were likely to perform better than those that did not (Boudreaux, Nikolaev, & Holcombe, 2017). This finding is in line with Sautet's (2013) observations of productive entrepreneurship and little corresponding economic growth in EMs. Entrepreneurship that involves crime and politics is detrimental to the economy and society (Champeyrache, 2018).

When entrepreneurs gain access to or can create resources such as social capital through bargaining and political involvement (lobbying), an entrepreneurial opportunity exists. When entrepreneurs exploit such resources in a socially beneficial manner, they create value; if not, value is lost (Alvarez & Busenitz, 2001).

Given the extant research around the role of individual factors, the cognitive abilities of entrepreneurs to recognize opportunities where others do not is a core competence and is valuable for venture performance. Based on this background, the following hypotheses are derived.

H1 – Entrepreneurs' demographic profiles have is a significant positive effect on their allocation of entrepreneurial effort in Gauteng SMME sector.
H2 – Entrepreneurial resources have a significant positive effect on the allocation of entrepreneurial effort in Gauteng SMME sector.

2.3.1 Internal Resources and the allocation of entrepreneurial effort

The performance of an enterprise is its ability to combine its resources to create value (Garnsey, 1998), an outcome that is considered a significant outcome of productive entrepreneurship (Aeeni et al., 2018). Entrepreneurs combine a variety of techniques such as lobbying to mobilize external resources such as social capital and government incentives (which result from the regulatory environment) to pursue entrepreneurial opportunities. These resource combinations are particularly crucial in high resource-constrained environments in which SMMEs find themselves (Sirmon, Hitt, & Ireland, 2007; Weitzel et al., 2010; Welter & Smallbone, 2011). Several scholars distinguished entrepreneurs from non-entrepreneurs through their behavioural attributes and characteristics (Aeeni et al., 2018; Alvarez & Barney, 2013; Alvarez & Busenitz, 2001; Botha et al., 2015; Bowen & Clercq, 2008; Urbig et al., 2012; Weitzel et al., 2010). Quite often, scholars highlight that entrepreneurs' actions are creative and indigenous. In other words, entrepreneurs behave and act differently depending on their individual goals.

For instance, Urbig, et al., (2012) found that those entrepreneurs who consider entrepreneurship as a future occupation follow productive entrepreneurship while others who are entrepreneurially talented, due to their private interests in wealth, power and prestige, invest in unproductive and destructive opportunities. In other words, based on their interests, entrepreneurs' resourcefulness and talent

determine how they behave towards opportunity exploitation. In some instances, entrepreneurs engage in lobbying and political involvement (Aeeni, Motavaseli, Sakhdari, & Dehkordi, 2018), wherein they allocate their efforts towards building strong network ties and interdependencies that are sometimes informal. Urbig et al., (2012), in their study on entrepreneurial intent and externalities, posited that formal and informal institutions had the potential to delineate different groups of entrepreneurs by the activities in which they engage. Entrepreneurial behaviour and lobbying can lead to the formation of interdependencies between participants in an economy to leverage critical resources for building successful enterprises. If the institutional environment compensates productivity, entrepreneurs appropriately allocate effort towards productivity (Boettke & Piano, 2016).

On the contrary, entrepreneurs with the ability to recognize opportunities that could offer higher returns quicker, respond accordingly to those opportunities and their allocation of effort towards opportunity exploitation lies more heavily on the payoffs associated with the opportunity rather than the morality of their actions. Citing Hobsbawm (1969, p.40), Baumol (1990) postulated that private enterprises are biased towards profit rather than innovation, meaning, whereas innovation automatically proceeds productive entrepreneurship, profit does not.

Institutional theories confirm that institutions are necessary for the functioning of the economy. Such institutions have been categorized into formal (codified in law) and informal (social norms, culture, values, and beliefs that guide society) (Urban, 2016; Fish et al., 2017). In the context of entrepreneurial resources, whereas institutions provide external resources, internal resources are inherent in entrepreneurs' characteristics. Fish et al., (2017) confirm prior researchers' work on the nexus between formal and informal institutions. They suggested that such relationships are complicated, reinforcing, and dynamic (Urbig, Weitzel, Rosenkranz, & Witteloostuijn, 2012). They further posited that the rules at play in these relations directed how people interact with each other. In these instances, the outcomes may be unproductive at best, and destructive at worst. Urbig, Weitzel, Rosenkranz, and Witteloostuijn's (2012) argument that where society compensates for higher returns,

people were likely to engage in unproductive and destructive entrepreneurship than productive entrepreneurship therefore holds.

Fish et al., (2017) compared vertical and horizontal expropriation of rents. They posited that while vertical expropriation occurred between enterprises and government, horizontal expropriation occurred among enterprises and entrepreneurs.

Studies on the theories of social capital suggested that entrepreneurship occurred in social contexts (Gedajlovic, Honig, Moore, Payne, & Wright, 2013). They defined social capital as the value embedded in the social relationships of individuals or collectives. They built on previous scholarly work that has defined social capital as the total of actual and potential resources embedded within, available through, and derived from the network of relationships (Gedajlovic et al., p.456, 2013). Studies around social capital and entrepreneurship nexus provided models for explaining the role of social capital in entrepreneurship. They further synthesized its theoretical underpinnings around the strength of ties, nature of networks, and other characteristics. A grounding principle of ties is social trust. According to Fish et al., (2017), trust plays a significant role in economic transactions. They, however, cautioned of vulnerability and risk due to their dependency on the performance of the other economic participant. For instance, as with vertical expropriation of resources, in EMs, the government carries the risk and allocates resources with trust that SMMEs will produce much-needed jobs and alleviate poverty. At the same time, the government is vulnerable in that it depends entirely on the performance of those SMMEs to achieve its objectives of job creation and poverty alleviation. The challenge is, however, the trustworthiness of SMMEs to achieve the expected outcomes given their shortcomings (Botha, Van Vuuren, & Kunene, 2015).

Given the dispositions around entrepreneurial behaviour, particularly in resource-constrained environments (Aeeni et al., 2018; Alvarez & Barney, 2013; Boettke & Piano, 2016; Boudreaux et al., 2017; Champeyrache, 2018; Desai et al., 2013), social capital and entrepreneurship relationships tent to be complicated. Vast

research has looked at such complexities and models that exist in building entrepreneurship theories post-Baumolian Theory (Boettke & Piano, 2016; Boudreaux et al., 2017; Champeyrache, 2018). Multiple findings direct the argument of this research towards the role of individual factors in the performance of entrepreneurship in these contexts.

The following hypothesis is, therefore derived:
H2a – Internal entrepreneurial resources have a significant positive effect on the allocation of entrepreneurial effort in the Gauteng SMME sector.

2.3.2 External resources and the allocation of entrepreneurial effort

As previously stated, the external environment (regulative and normative) compensates entrepreneurship and provides legitimacy. However, external resources do not act upon themselves to create value. It is the actions of entrepreneurs (internal/cognitive environment) that give effect to external resources and convert them into valuable outcomes. When entrepreneurs creatively use their internal resources to act on external resources in a socially and environmentally innovative manner to achieve positive economic outcomes through their ventures, their effort will be recognized as productively allocated. In other words, when entrepreneurs allocate their effort in socially productive labour, they will allocate the external resources productively.

The productive outcomes of entrepreneurship result in the creation of value and often referred to as organizational performance in the vast scholarly literature (Rosenbusch, Brinckmann, & Muller, 2013) and (Johnson et al., 2014). Rosenbusch et al., (2013) cited that organizational performance is a multidimensional construct. Its dimensions may be financial, such as profitability, return on investment, or stock market success, or can be non-financial, such as market growth, customer satisfaction, and networks (Zoogah et al., 2015). When the firm does not achieve these measures, it is inefficient.

Aeeni et al., (2018) also provided various outcomes of productivity; at a firm level, productive outcomes include value creation, positive-sum return, individual and social return (autonomy); and production (creation of products and services), opportunity discovery and exploitation, new combination of factors (innovation), high growth entrepreneurship (scale), formal activity and market entrepreneurship at individual level.

However, an opposing deportment is that entrepreneurs, depending on their internal resources, can also pursue rent-seeking opportunities offered by the external environment. They do this by exploiting the external resources in a way that increases their wealth rather than societal and economic development (Sautet, 2013). This allocation of effort is recognized as unproductively allocated. Even though Baumol (1990) did not explicitly delineate between unproductive and destructive allocations (Boettke & Piano, 2016; Desai, Acs, & Weitzel, 2013), both unproductive and destructive activities bear similar outcomes. However, Aeeni et al., (2018) offered separate measures for the two constructs, which demonstrated the differences, particularly on the degrees of their effects. Whereas unproductive outcomes include value expropriation/appropriation/redistribution, zero-sum return, individual interest (selfish behaviour) at firm level; and engagement in political process, rent-seeking, lobbying, informal activity and political entrepreneurship at individual level, destructive entrepreneurship can give rise to outcomes such as value destruction and negative-sum returns at firm level; and political entrepreneurship, illegal activities, and corruption at individual level.

In the study on destructive entrepreneurship and cost of mafia to the legal economy (Champeyrache, 2018), the author argued that in a market where voids are compound, and the market lacked intermediaries that could mitigate the gap between buyers and sellers in EMs, legal enterprises are established and act as such intermediaries. This phenomenon appeared in countries such as China (Fish, Parris, & Troilo, 2017) and other EMs (Gao, Zuzul, Jones, & Khanna, 2017). Third parties mediated the transactions between buyers and sellers in such instances, and these legal entities could reallocate capital resources accessed through this

type of transactions in a destructive way that did not benefit either party between the buyer and the seller (Champeyrache, 2018), which are government and SMMEs in the case of this research. Following the vertical expropriation of rents, these contexts, yield undesired outcomes.

This study further draws attention to informalities vs. formalities about the formation of networks (through activities such as lobbying, political involvement, and resource dependence) that facilitate the appropriation of value in the SMME sector. Resulting from contextual influences such as abject poverty (resource constraints) (Alvarez & Barney, 2013) and institutional voids (Fish, Parris, & Troilo, 2017) which escalated transaction costs, the economic agents could move from formal contractual institutional arrangements to social trust. Such arrangements seem to be rive in the SMME sector of Gauteng and South Africa owing to the findings of Botha et al., (2015) about the shortfalls in the enterprising competencies of SMMEs. This observation followed Urbig et al.,'s (2012) findings, which pointed towards people's willingness to exploit destructive opportunities in EMs both in private ventures and wage employment. Given the regulatory environment that provides a guiding framework for transacting between government and economic agents, activities that do not align to such a framework result in corruption and crime and are eminent.

Based on the factors at play, considering that such external resources do not act upon themselves but are acted upon by these groups of formal (private ventures) and informal entrepreneurs (wage employees) in a way that fulfils their objectives, it is hypothesized that:

H2b – External entrepreneurial resources have a negative effect on the allocation of entrepreneurial effort in the SMMEs sector of Gauteng.

2.4 Internal Resources and External Resources

Alvarez and Busenitz (2001) previously highlighted the importance of understanding how entrepreneurial actions, that is, the creation and combining of resources to create new heterogeneous resources could enhance the Resource-Based Theory. They posited that when entrepreneurs combined resources to create new resources that offered them and their ventures a differentiated competitive advantage, venture performance would increase. Aeeni et al., 2018 investigated this and extended Baumol's typology to include entrepreneurial actions.

Zoogah et al., (2015) also posited that resources ranged from human resources to management capabilities. Aeeni et al., (2018)' views on entrepreneurs' cognitive abilities, preferences, and goals corresponded with Zoogah et al., (2015) when they highlighted some of the factors that affected entrepreneurs' choices and decisions. Given the fact that entrepreneurs are not homogenous, other scholars have argued that different entrepreneurs have different goals. Urbig et al., (2012), for instance, suggested that some entrepreneurs' goals align with social returns, and these entrepreneurs engage in socially productive activities while others who seek to maximize their private returns may allocate their effort towards unproductive and destructive activities.

It is therefore worth investigating the nexus between internal and external resources and how their combination and interactions affect the entrepreneurial allocations of effort and how entrepreneurial outcomes, in this case: value, are directed or redirected. This is to a higher degree based on the appreciation that external resources require to be acted upon to produce other heterogeneous resources that create value. This study further appreciated and built on recent work by Fish, Parris, and Troilo (2017), which explained how private enterprises exploited institutional voids to build capital (social capital and information capital) for their ventures. Urbig et al., (2012) previously investigated why talented entrepreneurs invested in risky opportunities and found that while their allocations of effort result in private wealth,

their activities are not only limited to private ventures but extend to involve those in wage employment.

Entrepreneurs leverage their social capital and create formal and informal interdependencies, which can lead to corruption and crime (Champeyrache, 2018). Other scholars studied the nexus between political networking and venture performance and found that ventures which invested in political ties were likely to perform better than those that did not (Boudreaux, Nikolaev, & Holcombe, 2017). This finding is in line with Sautet's (2013) observations of productive entrepreneurship and little corresponding economic growth in EMs. Entrepreneurship that involves crime and politics is detrimental to the economy and society (Champeyrache, 2018).

On the other hand, the allocations of external resources influence new venture formation as entrepreneurs seek to exploit these resources. Therefore, arguably, due to their nature, entrepreneurs use their internal resources to exploit external resources. Equally, external resources influence the demand for entrepreneurship and influence entrepreneurs to respond to external resources at their disposal by exploiting them for rents and wealth. Note that, the initial hypothesis of this study assumed that entrepreneurial resources are a combination of internal and external resources and that the combination of these factors positively influences entrepreneurial outcomes. Ordinarily, when the factors that make up entrepreneurial resources are separated, it would be expected that their effects individually would be the same, which in the case at hand would be a positive effect on the outcome factor. However, the discussion on the case at hand suggested that the combination of the two factors is not the same as it would be if taken separately. Therefore, building towards this second hypothesis, this study assumed that there is an interaction between internal and external resources; and that this interaction positively influences the allocation of entrepreneurial effort. Therefore, the following hypothesis was derived:

H3 – The interaction between internal and external entrepreneurial resources has a significant positive effect on the allocation of entrepreneurial effort in the Gauteng SMMEs sector.

Table 1: Summary of theories about Resources and Allocation of Entrepreneurial Effort

Author(s)	Entrepreneurship phenomenon	Locus of Entrepreneurship phenomenon	Relationship between Resources and Value-Based entrepreneurship
(Baumol, 1990)	Entrepreneurship: Productive, Unproductive and Destructive	Allocations of entrepreneurship	Institutional environment does not only provide regulative protection and legitimacy of entrepreneurship but also facilitates the cost of action through resource allocations. Resource allocations which compensate entrepreneurial action influence the direction of entrepreneurship endeavours across various allocations

Author(s)	Entrepreneurship phenomenon	Locus of Entrepreneurship phenomenon	Relationship between Resources and Value-Based entrepreneurship
(Drees & Heugens, 2013)	Synthesizing and Extending Resource Dependency Theory: A Meta-Analysis	The relationship between firms and the environment within which they exist. RDT leads to inter-organizational arrangements to mitigate resource constraints and the legitimacy of firms. RTD defines contextual influences. This theory will be used to understand the relationship between the identified types of resources.	The relationship between resource optimization, inter-organizational / interpersonal relationships and value-based entrepreneurship
(Zoogah, Peng, & Woldu, 2015)	Institutions, Resources, and organizational effectiveness	The role of institutions and resources for organizational effectiveness of African firms	The role of government institutions and incentive structures as resources for entrepreneurship development and their impact on SMME productivity.
(Sautet, Local and Systemic Entrepreneurship: Solving the Puzzle of Entrepreneurship and Economic Development, 2013)	Local and Systemic Entrepreneurship and Economic Development	Focus on regional and social contexts and rethinking the way entrepreneurship is promoted to influence supply.	An evaluation of the impact of entrepreneurship on economic development as a primary outcome of the institutional environment for enhancing entrepreneurial contribution

Author(s)	Entrepreneurship phenomenon	Locus of Entrepreneurship phenomenon	Relationship between Resources and Value-Based entrepreneurship
(Aeeni, Motavaseli, Sakhdari, & Dehkordi, 2018)	Extension of the Theory of entrepreneurial allocations.	The role of institutions and of individual factors that influence entrepreneurial activities; entrepreneurial action, institutional change and allocations influencing economic performance	Institutional arrangements and institutional change as descendants of entrepreneurial actions.
(Smallbone, Welter, & Ateljevic, 2014)	The importance of contexts	Entrepreneurship is heterogeneous and varies according to the context within which it occurs	Contextual entrepreneurship such as emerging market economies where government plays a major role in the development of entrepreneurship
(Sirmon, Hitt, & Ireland, 2007)	Value creation	Managing firm resources to create value	Analyzing how firms allocate resources to create value and become sustainable

2.5 Conceptual framework of hypotheses

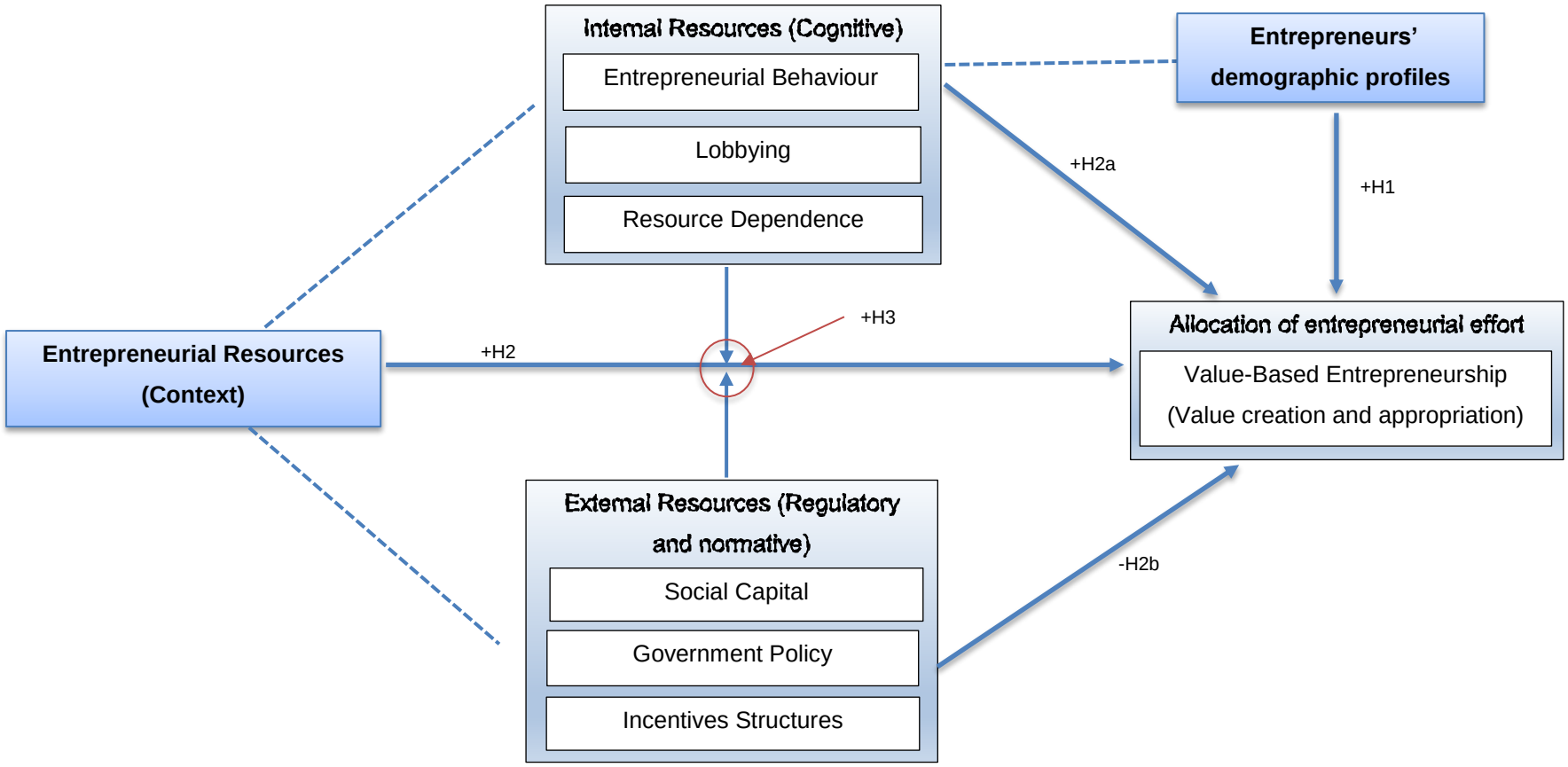


Figure 1 Source: This is the study's conceptual model developed from the reviewed literature

2.6 Conclusion of the Literature Review

This literature review provides a theoretical foundation and justification for this study as well as its parameters. Entrepreneurship is a crucial phenomenon for economic growth. The government provides a policy that shapes the regulatory and institutional environments that enable and facilitate entrepreneurship. The normative environment also makes a significant contribution to entrepreneurship. It is, however, essential to understand the kind of policies and norms that are more conducive to productive entrepreneurship. The theory of allocations provides an insightful analysis of how entrepreneurship performs in particular contexts. By using the concept of value-based entrepreneurship as a central focus of productive entrepreneurship, the literature discussions provided herein set a substratum for analyzing the performance of entrepreneurship in the Gauteng SMMEs sector.

Applying the theory of entrepreneurial allocations in this context helps to understand how SMMEs play a role in the country's economy. Whereas the government and the private sector combine efforts to support entrepreneurship through alternative mechanisms and resource allocations, entrepreneurs have an essential role to play as actors in the value creation process. Their allocations of entrepreneurial effort (cognitions) is one of the determinants of entrepreneurship outcomes and the ultimate performance of an economy.

CHAPTER 3. RESEARCH METHODOLOGY

3.1 Introduction

This section provides a discussion of the methodology applied during the research process. The process employed a quantitative method. Proceeding from the first two chapters which identified the research problem and outlined the problem statement that informed the decision to undertake this study, and having established objectives, research questions, and hypotheses, this chapter discusses and justifies the methodology employed to accomplish its objectives and answer the research questions. The chapter starts with outlining the research methodology, research paradigm, and the research process. Then the research design is discussed followed by data collection and sampling strategies. The instrument/s used both for collection and analysis of data are also discussed in terms of their validity and reliability.

3.2 Research Methodology/Paradigm

Following a post-positivist paradigm, this research considered a quantitative approach and deductive reasoning. Quantitative research and deductive theories have been cited as the most common methods in business and management research. Post positivism approach is deemed most suitable in social science studies as it takes into account human experiences, reasoning and interpretations as new sources of understanding new phenomena, leading to new discoveries and new knowledge creation. In addition, this approach to research allows for contextualization of the settings under which an investigation is conducted (Fox, 2008).This approach to research builds on what is already known about the domain for intended research (Bryman, et al., 2014). It also ensures objectivity and generalizations when analysing data (Galawe, 2017).

3.3 Research Design

The choice of a research design for this study was anchored around feasibility and practicality due to limitations of time and resources. The design of the study followed a cross-sectional approach and online self-administered surveys. Saunders et al., (2009) confirmed the appropriateness of the survey method for several reasons; surveys are associated with quantitative and deductive approaches to research; Surveys are highly economical and they allow easy comparison of variables. Also, data collected using a survey can be used to suggest possible reasons for relationships between variables and produce models of these relationships (Saunders et al., 2009).

3.4 Population

Bryman et al., (2014) referred to a population as a broad community from which a sample can be drawn. Gauteng SMME sector consists of an estimated 6000 SMMEs registered on the database of Gauteng Enterprise Propeller (GEP), an agency of Gauteng Provincial Government. Even though GEP may not necessarily have all SMMEs registered on its database, the database has the potential to provide an appropriate estimate due to its coverage of SMMEs across Gauteng.

3.5 Sampling Frame

The sampling frame for this study was Entrepreneurs / SMMEs that were start-up and those that were existing. They must have met the criteria of SMME as defined by the National Strategy for the Development and Promotion of Small Business. The definition of SMME, according to the White Paper on National Strategy for the Development and Promotion of Small Business in South Africa, is broad and required further stratification (The Dti, 2004).This sample frame included any SMME who had been in business for less than a year, this category of SMMEs constituted start-up SMMEs. Businesses which had been in existence for over a year constituted existing SMMEs.

3.6 The sample

A sample is defined as a segment of the entire population. A good sample according to Bryman et al., (2014) is one that represents the entire population from which it is drawn, allows minimal bias and error since it is acknowledged that bias and error cannot be eliminated, and one that can be generalized. This study followed a basic random sampling. Though this method has some disadvantages such as sampling errors through chance (Bryman, et al., 2014), it has multiple benefits. It is unbiased, easy to administer and ensures a reasonable representation of the entire population (Bryman, et al., 2014). The study drew its sample from a population of SMMEs in the province of Gauteng. The sample was a random sample of 300 SMMEs. This sample size was calculated using Saunders et al., (2009)'s sampling fraction, which is one-twentieth of the total population. Due to the level of diversity in the population, the sample is likely to be varied (Bryman, et al., 2014). This study intended to obtain 300 responses. Participation in the survey was voluntary, and there was no incentives offered for participation. The objective and importance of the research was clearly articulated to the respondents to motivate them to participate. When people understand the importance of something, it is often natural for them to get involved.

Table 2: Sampling of respondents

Description of respondent type	Number to be sampled
SMME Owner / Manager	300

3.7 The research instrument

The survey instrument was developed from past theory and empirical findings which followed the main constructs under investigation. This was done to minimize the technical challenges that could arise from factor loading. It also allowed for this research to be repeated in other settings. The study ensured that the participants'

informed consent was obtained. The instrument contained 6 items about demographics. The selection of demographic variables was based on the problem identified and the investigation at hand.

Internal resources were measured by 10 items. This study adopted a combination of entrepreneurial self-efficacy measures by Urbig et al., (2012) and political networking measures (Su, Xie, & Wang, 2015). External resources were measured using 9 items. The choice of construct dimensions was based on what Bowen and Clercq (2008) identified as factors that could affect how entrepreneurs behave: 1) the financial systems, 2) the skills development and control systems, 3) the state and 4) dominant conventions governing trust and authority relations.

A 5-point item about the integration of internal and external resources was used. The questions asked were based on how individuals made choices that lead to success. The consideration here was that the combination of internal and external resources lead to the creation of unique resources which are heterogeneous and set the enterprise apart from its competitors. Such resources that are unique are key for competitive advantage (Johnson, Whittington, Schoeles, Angwin, & Regner, 2014). They should be rare and not easily copied due to their level of complexity.

The items used measured the perceptions of entrepreneurs on the role of social capital and individual preferences between managerial and political networks. The extent of preferences between the types of networks entrepreneurs allocate effort to cultivate assisted in understanding the productive (unproductive) role of politics. This also provided critical insights about the positive (negative) role of political entrepreneurship.

The last block contained items about the allocation of entrepreneurial effort (DV), measured by 9 points. These items were used to test how entrepreneurs allocated their resources to produce entrepreneurial outcomes that were valuable to the economy. The following entrepreneurial concepts/outcomes were used as measures for VBS: opportunity versus necessity driven entrepreneurship,

innovation / product development, increased sales, increased affordability to pay salaries and business collaborations.

Table 3: Measures used in the study

Construct	Literature sources	Dimensions	Comment on Instrument
Internal Resources (IV) External Resources (IV) Measured on 7-point Likert scale: '1= Strongly disagree' to 7 = 'Strongly agree'	(Aeeni, Motavaseli, Sakhdari, & Dehkordi, 2018) (Alvarez & Barney, 2013) (Alvarez & Busenitz, 2001) (Fish, Parris , & Troilo, 2017) (Garnsey, 1998) (Mehlum, Moene, & Torvic, 2003) (Urbig, Weitzel, Rosenkranz, & Witteloostuijn, 2012) (Weitzel, Urbig , Desai, Sanders, & Acs, 2010) (Welter & Smallbone, 2011) (Zoogah, Peng, & Woldu, 2015)	<u>Internal resources</u> 1. Entrepreneurial behaviour 2. Lobbying 3. Resource dependence <u>External resources</u> 1. Incentives 2. Social Capital 3. Government policy	Exploratory factor analysis (EFA) will be used to test validity and reliability Coefficient alpha will be used across all dimensions
Allocation of entrepreneurial effort (DV) Measured on 7-point Likert scale: '1= Strongly disagree' to 7 = 'Strongly agree'	(Boettke & Piano, 2016) (Boudreaux, Nikolaev, & Holcombe, 2017) (Bowen & Clercq, 2008) (Champeyrache, 2018) (Coyne , Sobel, & Dove, 2010) (Desai, Acs, & Weitzel, 2013) (Djula, Josip, & Ilija, 2017) (Drees & Heugens, 2013) (Fish, Parris, & Troilo, Compound Voids and Unproductive Entrepreneurship: The Rise of the English Fever in China, 2017) (Gao, Zuzul, Jones, & Khanna, 2017) (Kalantaridis, 2014)	<u>Allocation of Entrepreneurial effort</u> 1. Value-based entrepreneurship (Value creation, value appropriation)	Exploratory factor analysis (EFA) will be used to test validity and reliability Coefficient alpha will be used across all dimensions

3.8 Procedure for data collection

The instrument was self-administered online using qualtrics software. Other alternative mechanisms were also employed, such as the use of manual survey distribution, cold emailing and social media (Facebook, WhatsApp, and LinkedIn). The manual surveys were distributed to a group of 25 entrepreneurs who attended a business workshop facilitated by the Gauteng Enterprise Propeller and were all returned. This study further took to visit small businesses around the City of Ekurhuleni and City of Johannesburg and issued 32 surveys, of which 29 were returned and 3 were returned uncompleted and business managers cited limitations of time to complete the survey. A few of the manual surveys had missing answers but were usable as the answered questions covered the greater proportions of both IV and DV questions. After screening and cleaning the data, 206 responses were valid and used for analysis.

3.9 Data analysis and interpretation

To summarise and describe the characteristics of the data collected, the study used descriptive statistics. Items from previous research by other scholars that have been discussed in the literature review chapter were used to maintain validity and reliability of the scores for this study. This approach had advantages, for example, it saved time and ensured that this research could be repeated in other contexts (Golafshani, 2003). Pearson's correlation test was done to test the significance and skewness of the relationships between constructs. To investigate the relationships between constructs that were identified, the Statistical Package for Social Sciences (SPSS) was used with the assistance from a Statistician. Simple and multiple regression were used to determine the effects of entrepreneurial resources (IV) on the allocations of entrepreneurial effort (DV). Figure 2 illustrates the data analysis followed for this research.

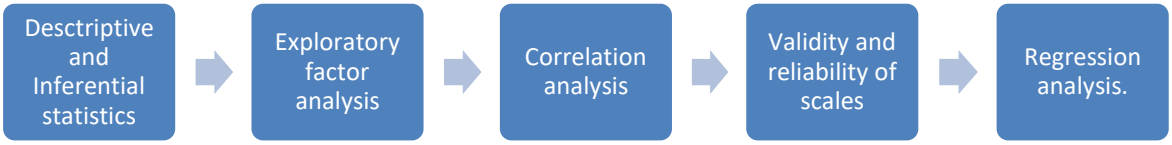


Figure 2 – Data analysis process Adopted from (Bryman, et al., 2014)

3.9.1 Exploratory Factor Analysis

Exploratory Factor Analysis is a statistical technique often used in establishing a factor structure for analysis in quantitative research. MacCallum, Widaman, Zhang, and Hong (1999) argued that factor solutions that are adequately stable do not only depend on the sample size. They suggested that in fact an adequate sample size depends on a number of aspects pertaining to a particular study such as variable communalities and factor over determination. To argue this proposition, these authors provided theoretical and mathematical frameworks as the basis for understanding and predicting effects of sample size in factor analysis. They found that rules of thumb regarding sample size may not always be adequate. For example, the N:p ratio, where N represents the sample size and p represents the number of variables in a scale, recommendation from rules of thumb pertaining to sample size was found to be inadequate to achieve a good factor recovery (Hogarty, Hines, Kromrey, Ferron, & Mumford, 2005). Researchers therefore need to consider other factors such as communalities and factor over determination (MacCallum, Widaman, Zhang, & Hong, 1999) while applying the rules of thumb in factor solutions.

3.9.2 Validity and reliability of research

According to Field (2013), validity refers to properties of research measures that ensured that the measures actually represented what they purported to measure. Reliability answers the question of whether or not measures consistently reflect changes in what it purports to measure. That is, whether the measures could be interpreted consistently in different contexts (Galawe, 2017). The scale consisted of 33 items excluding demographics. All items were tested for validity and reliability.

3.9.2 External validity

External reliability refers to the extent to which the results of an instrument can be applied in different situations and can be generalized to a broader population. It was conducted to ensure that this research could be repeated in other contexts or other environments (Field, 2013; Galawe, 2017).

3.9.3 Internal validity

Internal validity refers to the extent to which the instrument actually measured what it set out to measure. It was conducted to ensure that the effects of the investigation are due solely to the conditions that the research was conducted (Golafshani, 2003).

3.9.4 Reliability

Reliability answers the question of whether or not measures consistently reflect changes in what it purports to measure. That is, whether the measures can be interpreted consistently in different contexts. It was done so that the consistency and stability of data are maintained throughout the duration of research (Golafshani, 2003).

3.10 Ethical Considerations

Bryman et al., (2014) and Saunders et al., (2009) emphasized the importance of observing codes of ethics when conducting research. The researcher therefore had the responsibility to abide by the rules of research practice. The first step in this study was to obtain ethical clearance before the study could commence. The researcher took to ensure maximum objectivity during the course of this study. Plagiarism is an important aspect as it is tantamount to intellectual property theft. The researcher therefore took to acknowledge all sources used and sign the declaration on ownership of research work conducted and its originality.

Other important considerations included:

- Obtaining consent of participants before conducting study.
- Ensuring that the intended study poses no harm (intended or unintended) to participants.
- Ensuring that there was no invasion of respondents' privacy.
- Ensuring that confidentiality and anonymity were maintained.
- Ensuring no misrepresentation that could lead to deception.

3.11 Conclusion

This chapter outlined the overall methodology used in this study. A quantitative method was used. The study adopted a post positivist and exploratory cross sectional approach. The study extracted its sample from an estimated 6000 SMME population. Using a self-administered survey, this research was randomly shared with a sample of 300 SMMEs in Gauteng. Based on the responses obtained, an analysis was conducted to draw conclusions in answering the research questions of this study.

CHAPTER 4. PRESENTATION OF RESULTS

4.1 Introduction

Chapter 4 presents the results obtained from the statistical bivariate and regression analyses of the study. It begins with the discussion of the data quality and screening, followed by demographic profile of respondents, their enterprises and environment where they operate. Descriptive statistics are used to describe data characteristics such as central tendencies and variability of data. Exploratory factor analysis explains the constructs that were extracted and is followed by reliability testing as well as validity of measures. Results from correlation analysis and common method bias are presented, followed by multiple regression analyses of hypothesised relationships and effects.

4.2 Data quality and screening

Data analysis was performed with the assistance from a statistician using the Statistical Package for Social Sciences (SPSS). To describe and summarise the data, descriptive statistics and Pearson's correlation coefficient were used to test for strength and skewness of the relationship between variables. Analysis of variance (ANOVA) was used to compare variation within and between variables. Simple and multiple regression analyses were used to explain the relationships and strength of relationships between the predictor variables and the outcome variables.

Prior to conducting the analysis, the data had to be screened to ensure that it was of acceptable quality. The data was screened for discrepancies such as missing values and these were addressed. One of the requirements for participation was that participants be a SMME owner/manager/entrepreneur. They should manage a small business in Gauteng province across its five municipalities and meet the criteria of SMME by definition as stated in the White paper for Promotion of Small Businesses in South Africa. Data was screened and 21 responses stated that they

were not a SMME owner/manager/entrepreneur and were therefore disqualified. The final data set consisted of 206 responses. In the final data set, it was noted that some of the scales were not properly coded. Variables were correctly coded in cases where codes were not correct. Incorrect values were replaced with average value of all variable responses. Missing values were random across the data set and the expected maximization algorithm was used to address missing values (Saunders, Lewis, & Thornhill, 2009).

4.3 Demographic profile of respondents

This sub-sections presents the demographic profiles of respondents. It starts with presenting the characteristics of the sample data followed by representations of responses per demographic scale. Scales include gender, education attainment, racial classification, business location and time spend in business.

4.3.1 Sample characteristics

The sample was made up of SMME owner/managers/entrepreneurs. Respondents were required to be managing a start-up SMME or an established one. Since start-up firms were not excluded from participation, the business age could have been less than a year or older than 20 year. The qualifying respondents were those that met the SMME criteria by definition. They were required to be operating their small business in Gauteng Province across 5 municipalities. Based on the objectives of this study, a comparison of individual and institutional factors was necessary for understanding if there are variations in the allocations of entrepreneurial effort by women versus men. In addition, country level analysis which makes use of variables such as level of education and racial classification were used to understand how these structural factors impact on the allocations of entrepreneurial effort.

4.3.2 SMME owner by gender

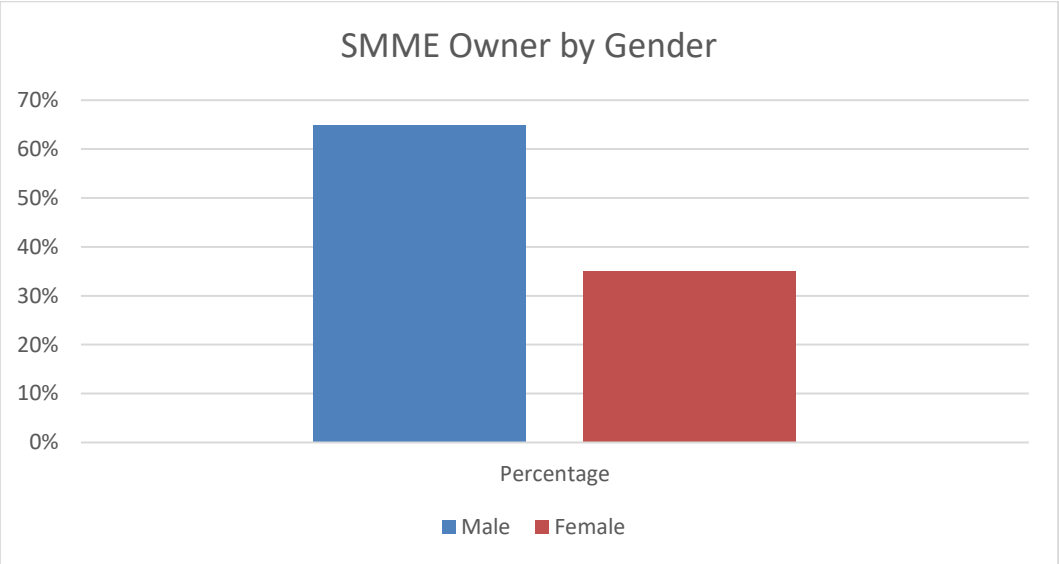


Figure 3: Distribution of SMMEs by gender
(Source: Primary data)

A higher percentage (65%) of SMMEs were owned/managed by male rather than female person. As suggested by Aeeni et al., (2018) this comparison was important in understanding how the different genders allocate their entrepreneurial effort. The variances in the allocations of entrepreneurial effort by men versus women could help explain the factors involved in the choices and reasons by different genders to pursue entrepreneurship over other career options in either individual or institutional contexts. The above figure represents the distribution of SMMEs according to their gender.

4.3.3 SMME Owner by education attainment

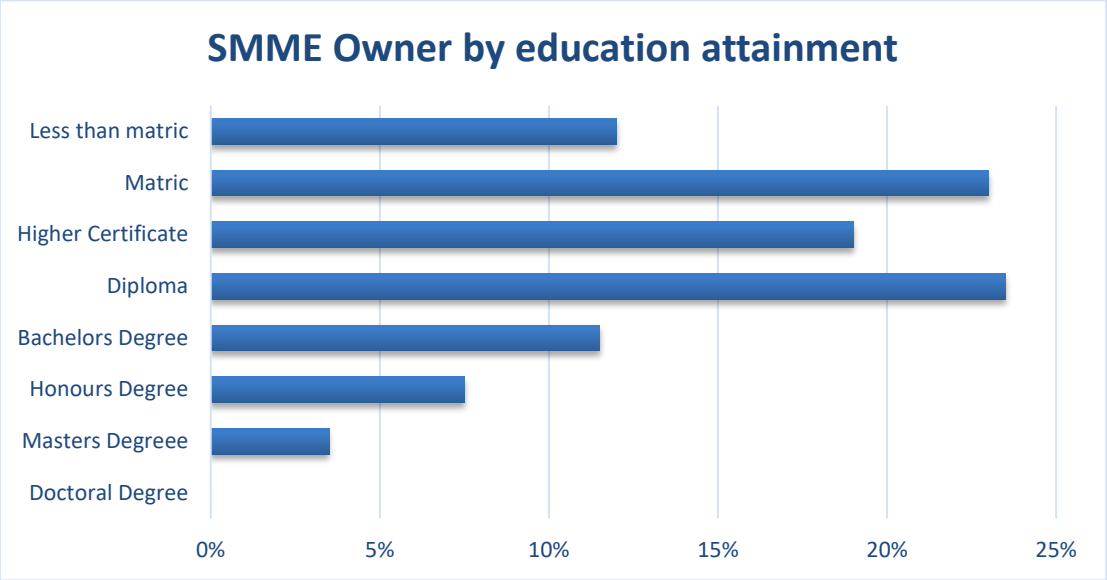


Figure 4: Distribution of SMMEs by education attainment
(Source: Primary data)

The above figure is a representation of SMMEs according to their level of education attainment. About 12% of the sampled population indicated that they had not attained matric level of basic education. 23% indicated that they had completed matric. Respondents who had studied beyond matric had either attained a Higher Certificate or a Diploma, making up 19% and 24% respectively. Those who had attained a Bachelor's Degree made up 12% while 8% and 4% of the respondents held a post graduate qualification, i.e. honours degree and master's degree respectively. None of the respondents had graduated at Doctoral level.

Level of education and racial classifications satisfied the country-level analysis that paints a picture about the role of institutional context (entrepreneurial resources) for South African SMME sector performance, not just as an EM but that which faced liberalization and conflict related to racial classifications among other things. Such factors are important in analysing the organizational effectiveness of African enterprises from the institutional point of view (Zoogah, Peng, & Woldu, 2015). These variables were deemed appropriate at this time where South Africa is recovering from such historical dynamics. The assumption was that, given the

historical institutional context and SA's transitioning into a democratic society, structural deficiencies such as education and race have a potential to explain the variances in the allocation of entrepreneurial effort across different environmental conditions regardless of institutional quality (Autio et al., 2014; Bowen and Clercq, 2008; Desai et al., 2013; Djula, Josip, & Ilija, 2017).

4.3.4 SMME Owner by population/ethnic group

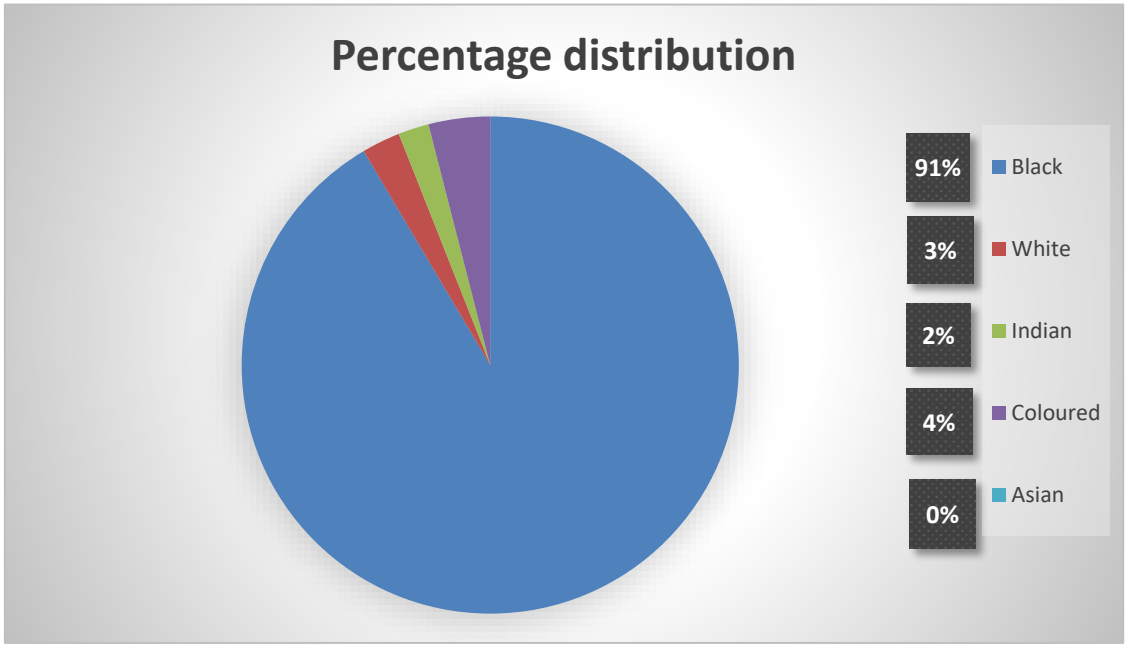


Figure 5: Distribution of SMMEs by ethnicity
(Source: Primary data)

The greater percentage of SMMEs were black at 91%. The remaining 9% explained distribution among coloured community at 4%, white at 4% and Indian at 2%. The above figure represents the statistics by racial classification.

4.3.5 SMME by municipal location

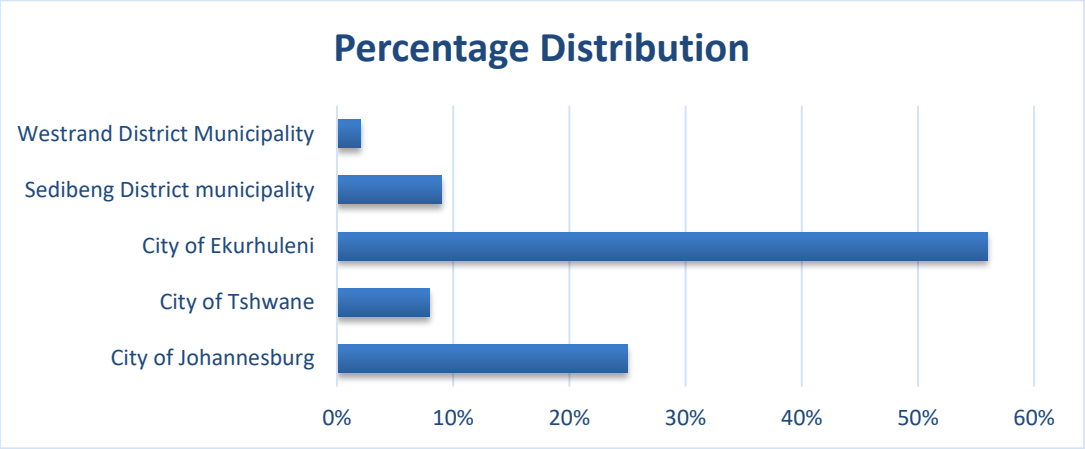


Figure 6: Distribution of SMMEs by location

(Source: Primary data)

The majority (56%) of respondents were located in the City of Ekurhuleni followed by City of Johannesburg at 25%. The remaining 19% were located in the City of Tshwane (8%), Sedibeng District Municipality (9%) and Westrand District Municipality at 2%. The figure above represents SMME distribution by location.

4.3.6 SMME by time spend in business

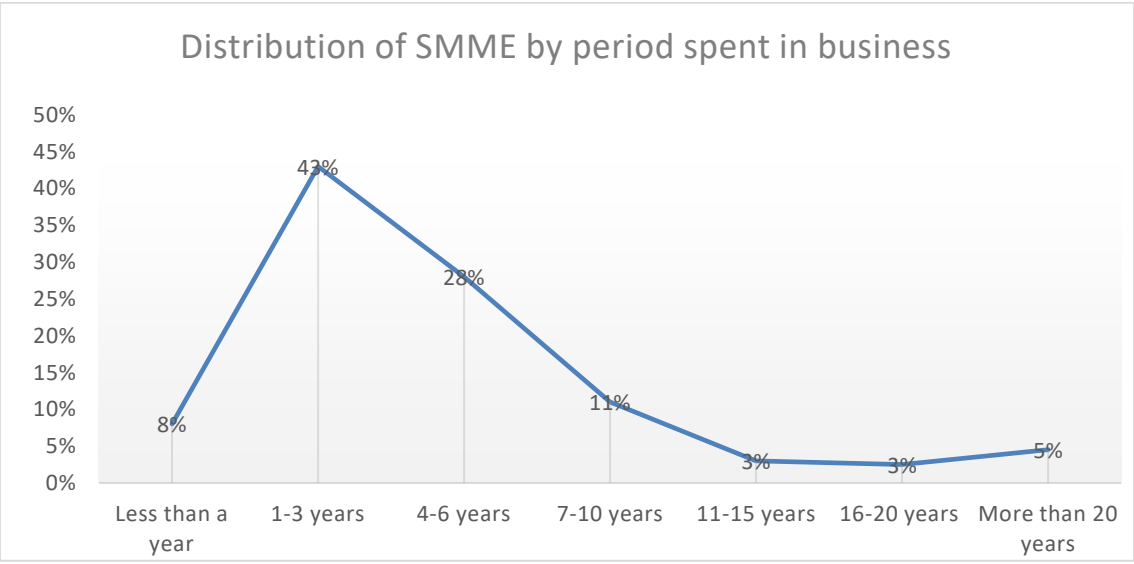


Figure 7: Distribution of SMMEs by period spend in business

(Source: Primary data)

The number of new ventures (less than a year old) accounted for 8% of the sampled population. SMMEs that survived for up to 3 years accounted for 43%. SMMEs which survived up to 6 years represented 28% of the sample and 11% were those that survived up to 10 years. SMMEs that lived beyond 10 years up to 20 years accounted for 3% of the sample while SMMEs who have survived 20 years and more accounted for 5% of the sample. The above figure explains.

4.4 Exploratory Factor Analysis

The rules of thumb were considered to determine an adequate sample size, this was combined with communality checks as well as factor over determination checks. This was done prior to the factor extraction to ensure suitability of the sample response data for factor analysis. (Hogarty, Hines, Kromrey, Ferron, & Mumford, 2005; MacCallum, Widaman, Zhang, & Hong, 1999).

4.4.1 Sampling adequacy

KMO measure of sampling adequacy and Bartlett's tests of sphericity are statistical techniques used to measure the adequacy of sample data and statistical significance in correlations matrices for items in a construct (Galawe, 2017). KMO and Bartlett's test of sphericity indicated that reliable factors could be obtained from the sample data. KMO scored 0.765, which indicated 77% adequacy of sample supported by <0.001 score for Bartlett's test of sphericity. Table 4 represents scales pertaining to sample adequacy based on 206 responses for a 33-item scale (N:p ratio = 6:1) after the items were correlated.

Table 4: Sampling adequacy and correlation significance

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0,765
Bartlett's Test of Sphericity	Approx. Chi-Square	1406,451
	df	210
	Sig.	0,000

(Source: Primary data)

4.4.2 Factor Extraction Method

The initial conceptual model consisted of four constructs namely internal resources, external resources, entrepreneurial resources (integration of internal and external resources) and value-based entrepreneurship (the allocation of entrepreneurial effort). Principal Axis Factoring (PAF) was used to extract the number of factors from the 33 item scale. The primary objective of extraction was to reduce items into factors. Obligue Rotation with Promax was used to rotate the items in order to optimise the factor structure. Not all factors extracted were in line with what literature suggested. Eight factors were extracted. Five of eight factors were valid with a total number of ≥ 3 items per factor (Hogarty, Hines, Kromrey, Ferron, & Mumford, 2005) and eigenvalue that is >1. Factor loadings of ≥.40 were considered significant. This meant that the four factor structure was invalid. Five factor structure was valid and adopted for further analysis. This means that the analysis was based on the empirical framework rather than the theoretical one. These factors are presented using a scree plot in figure 8.

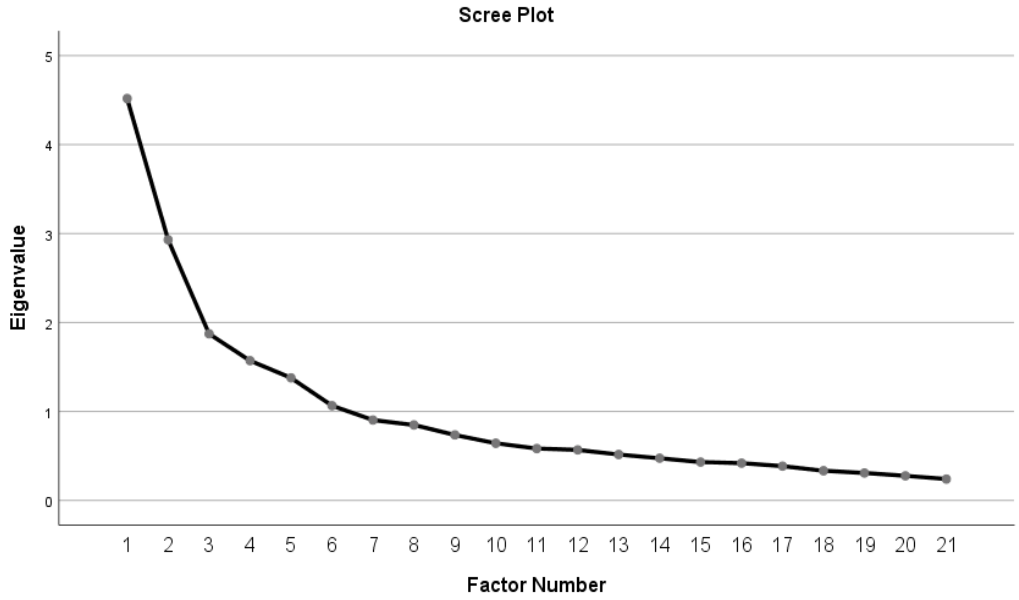


Figure 8 – Scree Plot for loaded factors

(Source: Primary data)

4.4.3 Total Variance Explained

The factor pattern matrix was analysed together with total variance of scales. The cumulative percentage >63% explained the variance in the data set. While no specific threshold has been adopted for all applications (Hair, Black , Babin, & Anderson, 2014), social science studies do not often provide precise information. Therefore, researchers may consider solutions that account for 60% or greater, of the total variance (Hair, et al., 2014). During the iterations, those items which failed to load successfully were removed to maintain a valid factor structure. The total variance explained is presented next in a table.

Table 5: Total variance explained

Total Variance Explained

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	4,518	21,512	21,512	4,031	19,195	19,195	3,280
2	2,930	13,954	35,466	2,423	11,539	30,734	2,228
3	1,873	8,918	44,384	1,341	6,388	37,122	2,842
4	1,570	7,478	51,862	1,027	4,891	42,013	2,622
5	1,378	6,560	58,422	0,926	4,408	46,421	1,667
6	1,065	5,073	63,496				
7	0,903	4,302	67,798				
8	0,848	4,039	71,837				
9	0,736	3,506	75,343				
10	0,643	3,060	78,403				
11	0,583	2,777	81,180				
12	0,568	2,704	83,883				
13	0,516	2,459	86,342				
14	0,474	2,259	88,601				
15	0,431	2,053	90,654				
16	0,419	1,994	92,649				
17	0,385	1,834	94,483				
18	0,334	1,588	96,071				
19	0,309	1,469	97,540				
20	0,277	1,317	98,857				
21	0,240	1,143	100,000				

Extraction method: Principal Axis Factoring

When factors are correlated, sums of squared loadings cannot be added to obtain a total variance.

(Source: Primary data)

4.4.4 Interpretation

Table 6 represents items that loaded successfully and formed meaningful constructs. Items diverged and converged successfully in line with reviewed literature. Items and factors were appropriately labelled according to the theoretical and conceptual background of the study.

Table 6: Construct pattern metrics

Pattern Matrix						Construct Names
	Factor					
	1	2	3	4	5	
Perceived Role of Government network ties	0,820					External Resources
Government Network ties	0,740					
Interpersonal relationship formation with officials of government	0,702					
Political Networking	0,587					
Availability of government resources which encourage new venture formation	0,415					
Increase in Sales		0,815				Value Creation
Increased Affordability to pay salaries		0,722				
Product Development (Innovation)		0,663				
Business Collaborations for innovation (Inter-organizational arrangement formation)		0,562				
Perceived Role of Politics			0,690			Entrepreneurial Resources
Lobbying			0,663			
Perceived Role of Political Networking			0,634			
Perceived Role of Networking			0,547			
Business Collaborations for government support (Inter-organizational arrangement formation)				0,907		Value Appropriation
Business Collaborations for government procurement (Inter-organizational arrangement formation)				0,525		
Diverging Social Networks (Partisanship)				0,407		
Opportunity Recognition					0,792	Internal Resources
Problem Solving: Innovation					0,568	
Interpersonal Relationship Formation for Business					0,477	
Opportunity Exploitation					0,470	

Extraction method: Principal Axis Factoring
Rotation Method: Promax with Kaiser Normalization
Rotation converged in 6 iterations
(Source: Primary data)

4.5 Reliability analyses – internal consistency

Cronbach's alpha was used to test the items and factors to ensure that they were able to measure what they purported to measure. While some rules of thumb have suggested acceptable values (0.7 to 0.9) for Cronbach's alpha (Taber, 2018), the scales obtained from this current study offered a Cronbach's alpha ranging from 0.63 to 0.81 for the constructs that were successfully extracted. It is important to note that whereas rules of thumb offer thresholds for an acceptable Cronbach's alpha, scales should be assessed based on uniqueness of an assessment rather than generalised.

The scales were maximised by removing items which were either redundant, yielding a lower coefficient or items which offered a lower scale of correlation with items within a factor into which they loaded. Poor interrelatedness of items lowers the coefficient measure and therefore poorly correlated items were discarded. Generally, it is expected that items in a measuring instrument are correlated in order to offer an acceptable scale. Lower scales may be attributed to lower number of items loaded in a factor or the heterogeneity of constructs, or even a poor item correlation. In this current study, however, results from the correlation analysis confirmed significant correlations. It was therefore concluded that the factor with Cronbach's alpha of <0.7 could have been attributable to a lower number of items that made up the construct in question as well as their heterogeneity.

Literature review offered a significant discussion pertaining to the heterogeneous nature of entrepreneurs. In order to minimise/avoid construct over-determination, 4 items measuring internal resources with a Cronbach's alpha of 0.70 were considered sufficient. It should be noted that items associated with this scale indeed loaded in the same factor as expected. The scale was considered acceptable even though it can still be improved (Taber, 2018).

In order to maintain the objectives of this study and its theoretical foundation, 2 constructs which were extracted for the outcome variable were accepted and re-

labelled value creation and value appropriation. The former offered a fairly good scale of 0.78 and the later offered a moderate scale of 0.63. Both scales were accepted based on the few items that made up the second factor (value appropriation). In this instance as well, future research should consider adding more items that measure these concepts. The table 7 is a summary of scales of alpha coefficients for the study.

Table 7: Summary of scale reliability

High level factors	Constructs	Variables	No. of items	Cronbach Alpha
Institutional Context	**Entrepreneurial Resources**	Perceived Role of politics Perceived Role of political networking Perceived role of social networking Political network ties	4	0.76
❖ **Cognitive Environment**	**Internal Entrepreneurial Resources**	Problem Solving Opportunity Recognition Opportunity Exploitation Business networking	4	0.70
❖ **Normative and Regulatory environments**	**External Entrepreneurial Resources**	Government network ties Government networking Perceived Role of government networks Political Networking Political entrepreneurship	5	0.82
Allocation of Entrepreneurial Effort				
❖ **Value-Based Entrepreneurship**	**Value Creation**	Product development – innovation Increased sales Increased affordability to pay salaries Business collaborations for innovation	4	0.80
	Value Appropriation	Business collaborations for government resources Business collaborations for government procurement Business Collaborations for market opportunities	3	0.63

(Source: Primary data)

4.5.1 Inter-item correlation

Inter-item correlations were conducted to ensure that each variable measuring a construct is correlated to all other variables measuring the same construct to ensure that there is internal consistency. Some rules of thumb suggest that an acceptable scale for inter-item correlation should be ≥.30 (Hair, Black , Babin, & Anderson, 2014). Tables 8-12 represent the scales for inter-item correlation among variables measuring each factor in this study.

4.5.1.1 Factor 1 – External resources

External resources consisted of 5 variables (V1 – V5) with Cronbach's alpha of 0.817 based on standardized items measuring the external environment (i.e. institutional context) targeted at entrepreneurship in South Africa. Institutional context in this case referred to entrepreneurial resources offered by external institutions like government through policy as well as social context within which entrepreneurship occurred. The table 8 indicates inter-item correlation scores. All scales were above the recommended 0.30 (Hair, Black , Babin, & Anderson, 2014) suggesting that all items measuring external resources were correlated.

Table 8: Inter – item correction for external resources

Inter-Item Correlation Matrix					
Variables	**V1**	**V2**	**V3**	**V4**	**V5**
V1	1,000				
V2	0,533	1,000			
V3	0,544	0,642	1,000		
V4	0,498	0,522	0,455	1,000	
V5	0,350	0,381	0,344	0,452	1,000

(Source: Primary data)

4.5.1.2 Factor 2 – Value creation

Value creation which is a sub-dimension of Value-Based Entrepreneurship, a central unit of analysis which was used to measure the allocation of entrepreneurial effort among entrepreneurs in South Africa's SMME sector of Gauteng province consisted of 4 variables. The Cronbach's alpha of 0.78 based on standardized items confirmed the reliability of this scale. Table 9 consists of item scales which suggested that all variables were correlated.

Table 9: Inter – item correction for value creation

Inter-Item Correlation Matrix				
Variables	**V1**	**V2**	**V3**	**V4**
V1	1,000			
V2	0,554	1,000		
V3	0,472	0,603	1,000	
V4	0,381	0,422	0,391	1,000

(Source: Primary data)

4.5.1.3 Factor 3 – Entrepreneurial resources

Entrepreneurial resources consisted of 5 variables initially with Cronbach's alpha of 0.74 based on standardized items. The alpha was improved by removing one variable which did not score well in terms of its correction with other items. When this item was removed, the alpha score improved to 0.76 confirming a good reliability of this scale. When items were inter-correlated, all scores exceeded the recommended 0.3. Table 10 shows the scores of items for Entrepreneurial Resources.

Table 10: Inter – item correction for entrepreneurial resources

Inter-Item Correlation Matrix				
Variable	V1	V2	V3	V4
V1	1,000			
V2	0,478	1,000		
V3	0,380	0,309	1,000	
V4	0,558	0,442	0,503	1,000

(Source: Primary data)

4.5.1.4 Factor 4 – Value appropriation

Value appropriation consisted of 3 items with Cronbach's alpha of 0.64. When the items were correlated, positive correlations were obtained. Table 11 indicates the scores. Future research however should seek to improve this scores to ensure that the scale validity is improved. This can be done by adding additional items whose correlation scores exceed the recommended 0.3.

Table 11: Inter – item correction for value appropriation

Inter-Item Correlation Matrix			
Variable	**V1**	**V2**	**V3**
V1	1,000		
V2	0,564	1,000	
V3	0,403	0,127	1,000

(Source: Primary data)

4.5.1.5 Factor 5 – Internal resource

Internal resources consisted of 4 items with a Cronbach's alpha of 0.70. When the items were correlated, positive correlations were obtained. Table 12 indicates the scores. Future research however should seek to improve these scores to ensure

that the scale validity is improved. This can be done by adding more items whose correlation scores exceed the recommended minimum of 0.3.

Table 12: Inter – item correction for internal resources

Inter-Item Correlation Matrix				
Variables	**V1**	**V2**	**V3**	**V4**
V1	1,000			
V2	0,466	1,000		
V3	0,191	0,413	1,000	
V4	0,215	0,326	0,305	1,000

(Source: Primary data)

4.6 Correlation Analysis

Pearson's correlation was used to examine the relationships between constructs. Correlation can be positive at 1 or negative at -1 or there can be no correlation at 0. Correlation results revealed that there was a weak and negative correlation between entrepreneurial resources and value creation at r = -0.138, the correlation was however significant ($p < 0.05$). And the correlation between entrepreneurial resources and value appropriation was positive and moderate at r = 0.308. This correlation was also significant at $p < 0.001$.

The correlation between external resources and value creation was positive but weak at r = 0.058. The correlation was not significant with p = 0.407. However, the correlation between external resources and value appropriation was positive and moderate at 0.439. This correlation was also significant at $p <0.001$.

Value creation and value appropriation were also correlated. The correlation was positive but weak at 0.173. It was however significant at p =0.013. Internal resources had and positive correlation with both value creation at 0.195 and value appropriation at 0.168. Both these correlations were weak. They were however significant at p = 0.005 and 0.016 respectively.

It would be expected that since internal and external resources are both dimensions of entrepreneurial resources, these constructs would ordinarily be positively correlated with their “parent variable” – entrepreneurial resources. The results however revealed that taken separately and correlated with their “parent” variable, a significant ($p < 0.001$) positive correlation between external resources and the “parent” variable exists at 0.414 while a negative correlation exists between internal resources and the “parent” variable at -0.032. This correlation was also not significant at $p > 0.05$. In addition, it was also expected that internal resources and external resources would be strongly correlated since they are dimensions of the same construct. However, though a positive correlation was observed, it was weak at $r = 0.051$ but significant at $p< 0.5$. Table 13 is a summary of correlations between constructs in this study.

Table 13: Correlation analysis between constructs

Correlations						
		External Resources	Value Creation	Entrepreneurial Resources	Value appropriation	Internal Resources
External Resources	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	206				
Value Creation	Pearson Correlation	0,058	1			
	Sig. (2-tailed)	0,407				
	N	206	206			
Entrepreneurial Resources	Pearson Correlation	.414**	-.138*	1		
	Sig. (2-tailed)	0,000	0,047			
	N	206	206	206		
Value appropriation	Pearson Correlation	.439**	.173*	.308**	1	
	Sig. (2-tailed)	0,000	0,013	0,000		
	N	206	206	206	206	
Internal Resources	Pearson Correlation	0,050	.195**	-0,032	.168*	1
	Sig. (2-tailed)	0,477	0,005	0,644	0,016	
	N	206	206	206	206	206

(Source: Primary data)

Note that these are the correlation results after the outliers were removed.

(Source: Primary data)

4.7 Descriptive Statistics

Descriptive statistics made it possible to describe, compare and summarise variables numerically (Saunders, Lewis, & Thornhill, 2009). This was achieved by computing the data to test for frequency of variables. The mean was used to measure for central value and standard deviation used to measure how the data values were dispersed around the central tendency (Saunders, Lewis, & Thornhill, 2009). The summary of descriptive statistics is summarised in table 14.

Table 14: Descriptive statistics

Factor	Mean	Variance	Std. Deviation	N of Items
Entrepreneurial Resources (Interaction of Internal + External)	4,93	2,197	1,482	4
Internal Resources	6,08	0,648	0,804	4
External Resources	3,77	2,536	1,592	5
Value-Based Entrepreneurship 1 – Value Creation	4,56	1,959	1,399	4
Value-Based Entrepreneurship 2 – Value Appropriation	4,63	1,948	1,395	3

(Source: Primary data)

4.8 Statistical assumptions

The nature of this study required multivariate techniques to ensure a thorough understanding, evaluation and interpretation of the characteristics and relationships in the data. The regression assumptions included multicollinearity tests, spotting outliers, normality tests, and independence of errors, autocorrelation and linearity tests.

4.8.1 Multicollinearity

Two approaches were used to measure multicollinearity, 1) tolerance and 2) variance inflation factor (VIF). Some literature suggests that level of tolerance should be high indicating that multicollinearity is not significant (Hair, Black , Babin, & Anderson, 2014). VIF is just the inverse of tolerance. According to Hair et al., (2014), tolerance of 1.0 means there is no collinearity, which is an ideal situation. Field (2013) suggested that correlations above .80 or .90 are unacceptable. If this is the case, the regression is likely to result is unreliable results (Galawe, 2017). The tolerance levels of the independent variables in this study were ranging between 0,825 and 0.994, values that are significantly close to 1.0, and above the acceptable minimum scale, and VIF values were ranging from 1.0 to 1.2. These values were far below the acceptable threshold of 10 (Field, 2013; Galawe, 2017). Multicollinearity

was therefore not a concern. The next tables 15 and 16 present coefficients for multicollinearity.

Table 15

Summary of coefficients for multicollinearity: Tolerance and VIF – Value Creation

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	3,065	0,802		3,820	0,000	1,483	4,647		
	External Resources	0,110	0,066	0,125	1,674	0,096	-0,020	0,240	0,825	1,212
	Entrepreneurial Resources	-0,174	0,071	-0,184	-2,464	0,015	-0,313	-0,035	0,826	1,211
	Internal Resources	0,319	0,118	0,183	2,690	0,008	0,085	0,552	0,994	1,006

Dependent Variable: Value Creation
(Source: Primary data)

Table 16

Summary of coefficients for multicollinearity: Tolerance and VIF - Value Appropriation

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	1,036	0,724		1,430	0,154	-0,392	2,465		
	External Resources	0,319	0,059	0,364	5,383	0,000	0,202	0,436	0,825	1,212
	Entrepreneurial Resources	0,153	0,064	0,162	2,398	0,017	0,027	0,278	0,826	1,211
	Internal Resources	0,269	0,107	0,155	2,517	0,013	0,058	0,480	0,994	1,006

Dependent Variable: Value Appropriation

(Source: Primary data)

4.8.2 Outliers

The next step involved identifying outliers and addressing them. A whisker box plot was used to determine and address any outliers that could potentially affect the analysis and results. Three potential outliers were observed. These could negatively influence the regression analysis (Field, 2013). They were addressed using Turkey outlier labelling rule which determines the lower and upper boundaries to establish the threshold for outliers (Galawe, 2017). After outliers were addressed, the data was tested again to confirm that outliers were addressed. Figure 9 represents the whisker plot after outliers were addressed.

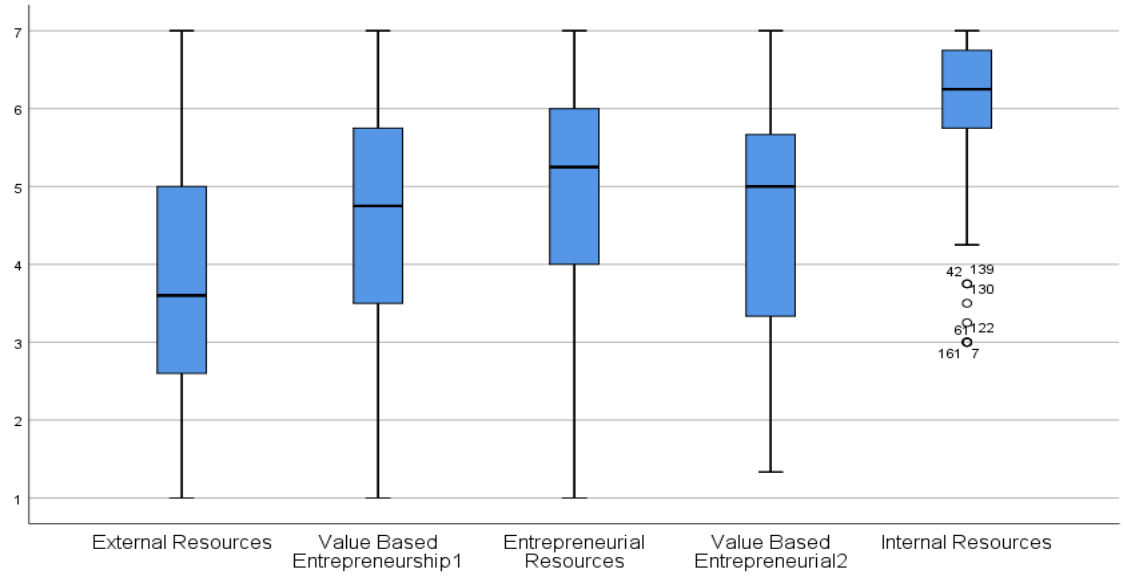


Figure 9 – Whisker box plot after the outliers were addressed
(Source: Primary data)

4.8.3 Normality and independent errors

Normality tests were conducted and the scales of distributions (skewness and Kurtosis) were observed to examine if data was normally distributed. For a normally distributed data, both skewness and kurtosis values are =0 (Hair, et al., 2014). The distribution scales in this study denoted negative skews, however the average scale for skewness was -0.56 with average standard error of 0.169 and therefore

considered to be statistically insignificant. This is based on the rule of thumb on a sample size greater than 200 cases. It is suggested that effects of non-normality may be negligible for samples greater than 200 (Hair, et al., 2014). The average scale for Kurtosis was 0.29 with average standard error of 0.337, this was also considered statistically insignificant. The distribution was therefore considered fairly normal for analysis. Table 17 presents descriptive statistics for normality and independent errors. Figures 10 and 11 represent normality plots. Data values can be observed to be closely attached to the straight line indicating fairly normal plots.

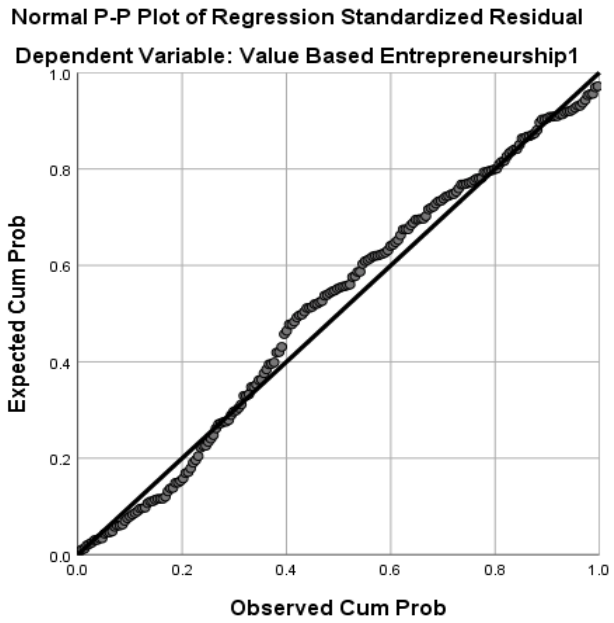


Figure 10: Normality P-Plot of regression standardised residual

(Source: Primary data)

Note: Value Based Entrepreneurship 1 = Value Creation

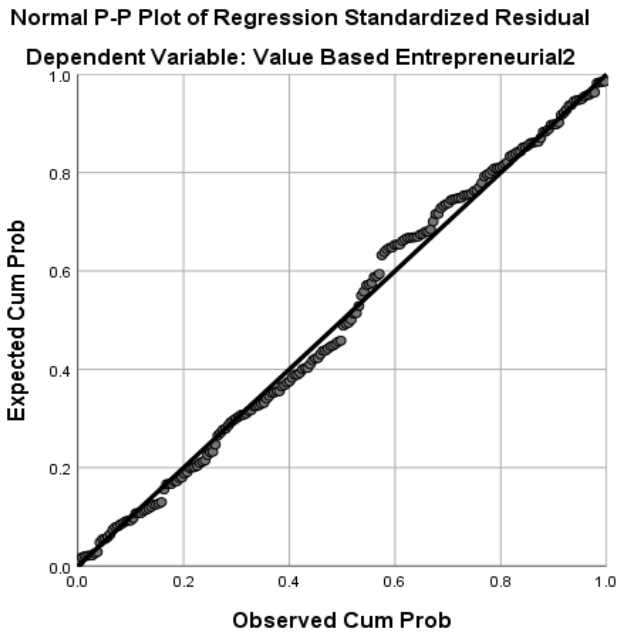


Figure 11: Normality P-Plot of regression standardised residual

(Source: Primary data)

Note: Value Based Entrepreneurship = Value Appropriation

Table 17: Summary of descriptive statistics for normality testing: skewness and kurtosis

Descriptive Statistics

	N	Range	Minimum	Maximum	Sum	Mean		Std. Deviation	Variance	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
External Resources	206	6,00	1,00	7,00	776,00	3,7670	0,11096	1,59257	2,536	0,190	0,169	-0,818	0,337
Value Creation	206	6,00	1,00	7,00	939,50	4,5607	0,09752	1,39968	1,959	-0,341	0,169	-0,666	0,337
Entrepreneurial Resources	206	6,00	1,00	7,00	1016,50	4,9345	0,10327	1,48220	2,197	-0,720	0,169	-0,209	0,337
Value appropriation	206	5,67	1,33	7,00	954,00	4,6311	0,09724	1,39563	1,948	-0,077	0,169	-1,055	0,337
Internal Resources	206	4,00	3,00	7,00	1253,50	6,0850	0,05607	0,80475	0,648	-1,842	0,169	4,197	0,337
Valid N (list wise)	206												

(Source: Primary data)

4.8.4 Homoscedasticity

The assumption of homoscedasticity suggests that there is a dependence between variables in a regression model (Hair, Black , Babin, & Anderson, 2014). This means that the independent variables and the dependent variables are interdependent. Given this, it is assumed that the variance of the independent variable is constant with the dependent variable across the entire regression line (Field, 2013). Levene's Test for equality of variances was performed and the following results obtained. All p values were not significant (p>.05), and the assumption is therefore not violated (Field, 2013).

Table 18 – summary of coefficients for homoscedasticity – Levene's test

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
External Resources	Equal variances assumed	3,201	0,075	0,489	204	0,625	0,10874	0,22233	-0,32963	0,54710
	Equal variances not assumed			0,489	201,877	0,625	0,10874	0,22233	-0,32965	0,54713
Value Creation	Equal variances assumed	1,314	0,253	-1,802	204	0,073	-0,34951	0,19398	-0,73198	0,03295
	Equal variances not assumed			-1,802	203,584	0,073	-0,34951	0,19398	-0,73198	0,03295
Entrepreneurial Resources	Equal variances assumed	0,173	0,678	0,070	204	0,944	0,01456	0,20704	-0,39365	0,42278
	Equal variances not assumed			0,070	203,768	0,944	0,01456	0,20704	-0,39366	0,42278
Value Appropriation	Equal variances assumed	0,049	0,826	-0,831	204	0,407	-0,16181	0,19462	-0,54554	0,22192
	Equal variances not assumed			-0,831	204,000	0,407	-0,16181	0,19462	-0,54554	0,22192
Internal Resources	Equal variances assumed	2,811	0,095	1,476	204	0,141	0,16505	0,11182	-0,05542	0,38552
	Equal variances not assumed			1,476	196,862	0,142	0,16505	0,11182	-0,05547	0,38556

(Source: Primary data)

4.8.5 Autocorrelation

In autocorrelation, the assumption is that the observed errors need to be independent (Field, 2013). The assumption of autocorrelation was tested using Durbin – Watson test. The results in tables 19 and 20 suggest that there is a positive correlation between residuals at 1.87. When the scale for autocorrelation is 2, it means there is an absence of correlated error. This assumption was not violated as 1.9 is close enough to 2 (Durbin-Watson = 1.9, which is close to 2).

Table 19 – Model summary for autocorrelation – Durbin Watson scale

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.262[a]	0,069	0,055	1,36085	1,875

a. Predictors: (Constant), Internal Resources, Entrepreneurial Resources, External Resources

b. Dependent Variable: Value Creation

(Source: Primary data)

Table 20 – Model summary for autocorrelation – Durbin Watson scale

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.486[a]	0,236	0,225	1,22878	1,869

a. Predictors: (Constant), Internal Resources, Entrepreneurial Resources, External Resources

b. Dependent Variable: Value Appropriation

(Source: Primary data)

4.8.6 Linearity and residuals

The final assumption that was tested was linearity of the relationships between variables. This was important to ensure that there was linearity between independent and dependent variables used in this study (Galawe, 2017). Variables met the assumption of linearity. All correlations were >0.3. Figures 12 and 13 are scatter plots representing linearity tests obtained from the analysis.

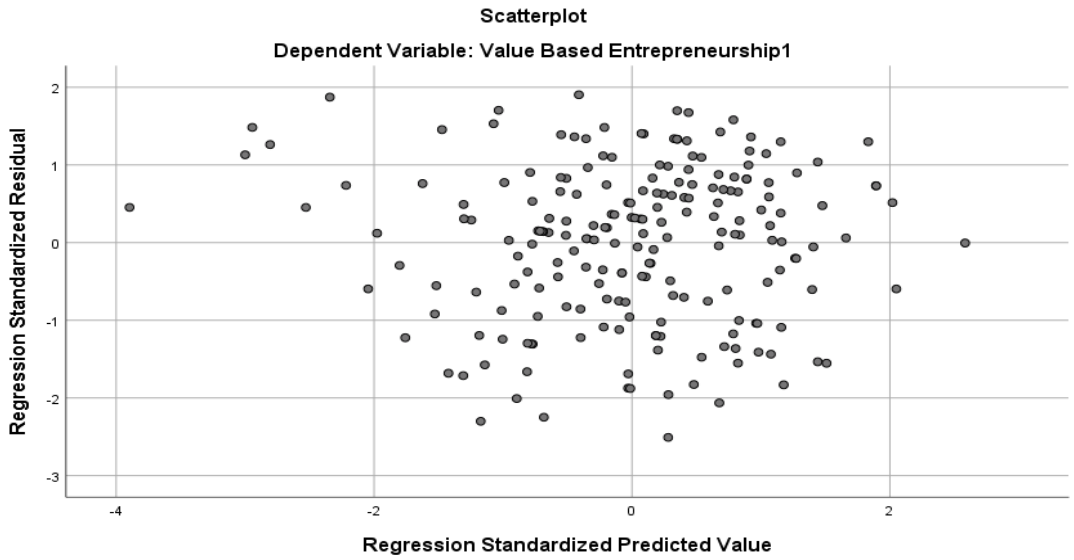


Figure 12 – Scatter plot for linearity results – Value creation
(Source: Primary data)

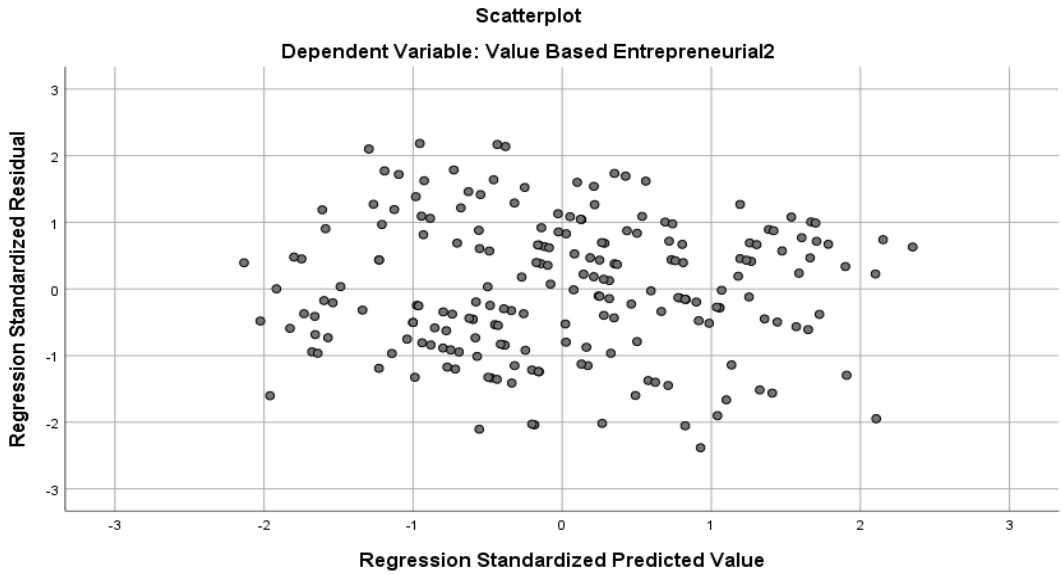


Figure 13: Scatter plot for linearity results – Value appropriation
(Source: Primary data)

4.9 Common method bias using Harman's single factor test

Harman's single factor was used to examine whether common method variance was a concern. All items were loaded using EFA unrotated factor solution to determine if any of the factors accounted for the majority of variance in the variables. If a single factor emerged or one general factor accounted for the majority of the covariance among the measures, then it would be concluded that a substantial amount of common method variance was present (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Principal Component Analysis was used to constrain the observed variables into one factor. The results indicated that the total variance for a single factor explained less than 50% of the total variance. Common method bias was therefore not a concern.

4.10 Hypotheses tests results from multiple regression

The study employed multiple regression analysis to test hypothesized relationships and effects. Correlation analysis was used to assess the direction of relationships between variables, i.e. whether the relationships were positive or negative; the strength or weakness of relationships as well as their significance. The primary objective of this study was to answer the questions about the effects of entrepreneurial resources and the allocation of entrepreneurial effort in Gauteng's SMME sector. The problem statement in this study noted the importance of conducting an analysis on the role of entrepreneurs' demographic variables such as gender to understand if there are variations in the allocation of entrepreneurial effort by men versus women (Aeeni, et al., 2018). This study included in its analysis the individual level variables to examine how demographic profiles of entrepreneurs and entrepreneurial cognitions influenced the allocation of entrepreneurial efforts. In doing so, this investigation considered gender, education attainment and time spent in business to examine the extent to which these variables contributed to how entrepreneurs allocated their effort towards value creating activities.

Gender, education attainment and the number of years spent in business were used as controls. Entrepreneurial cognitions (internal resources), external factor determinants (external resources) such as political networking and government support, and the integration of both internal and external resources were added to the regression model to

examine their significance and power in explaining the hypothesised relationships and effects. Lastly, the regression was conducted with the exclusion of control variables to examine the differences in the variations when data was not controlled.

The discussions below outline the results obtained from multiple regression analysis to explain any variance that occurred in the allocation of entrepreneurial allocations predicted by gender, education attainment and number of years spent in business. Multiple regression was further employed with these variables as controls to explain the variance that occurred in the allocation of entrepreneurial effort predicted by internal resources, external resources and the integration of the two when data was controlled and when it was not controlled. Based on the results, the study made a determination of whether or not the hypothesized relationships and effects were supported by empirical findings from the analyses or not. The study concludes with a comparison between the differences in the level of variation when data is controlled and when it is not.

4.11 Results pertaining to hypotheses (and sub hypotheses) 1 and 2

H1 – Entrepreneurs' demographic profiles have is a significant positive effect on the allocation of entrepreneurial effort.
H2 – Entrepreneurial resources have a significant positive effect on the allocation of entrepreneurial effort in the Gauteng SMME sector.
H2a – Internal entrepreneurial resources have a significant positive effect on the allocation of entrepreneurial effort in the Gauteng SMME sector.
H2a – External entrepreneurial resources have a negative effect on the allocation of entrepreneurial effort in the Gauteng SMME sector.

The number of years in business, level of education and gender were regressed against the allocation of entrepreneurial effort. The allocation of entrepreneurial effort consisted of two dimensions, value creation and value appropriation. Results obtained from multiple regression are presented below to explain the degree of variance in value creation and value appropriation (the allocation of entrepreneurial effort). Model 1 in table 21 and table 24 represent the results of these tests. Another regression was conducted with the number of years in business, level of education and gender as controls to examine the

degree of variance in the allocations of entrepreneurial efforts explained by internal resources, external resources and the integration of the two to test its predictive capability. Model 2 in tables 21 and 24 represent the results of these tests.

Value Creation

Model 1 revealed that the number of years in business, level of education and gender accounted for 10% ($r^2 = 0.10$) variance in value creation. Taken together with internal resources, external resources and the integration of internal and external resources (entrepreneurial resources), model 2 explained an increase from 10% to 15% ($r^2 = 0.15$) of variance in value creation. The following table represents the combined model summary of variance explained by the demographic data (number of years in business, level of education and gender) and internal resources, external resources and the integration of internal and external resources and their effect in value creation.

Table 21 – Regression model – Value Creation

Model Summary[c]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.320[a]	0,102	0,089	1,31829
2	.393[b]	0,154	0,129	1,28913

a. Predictors: (Constant), Years in Business, Level of Education, Gender

b. Predictors: (Constant), Years in Business, Level of Education, Gender, Entrepreneurial Resources, Internal Resources, External Resources

c. Dependent Variable: Value Creation

(Source: Primary data)

ANOVA – Analysis of Variance

The ANOVA tests confirmed that the overall regression model was significant. The demographic variables (gender, education level and the number of years in business) accounted for a significant amount of variance *($p < 0.001$)* in value creation. Taken together with internal resources, external resources and their integration, i.e. entrepreneurial resources, a significant amount of variance *($p < 0.001$)* was still observed.

The overall regression model was statistically significant, *F (3, 200) = 7.6 and F (6, 197) = 6.0, p < 0.001 and r² = 0.10 and 0.15* respectively. The table 22 explains.

Table 22: ANOVA – Value Creation

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	39,526	3	13,175	7,581	.000[b]
	Residual	347,578	200	1,738		
	Total	387,104	203			
2	Regression	59,719	6	9,953	5,989	.000[c]
	Residual	327,385	197	1,662		
	Total	387,104	203			

a. Dependent Variable: Value Creation

b. Predictors: (Constant), Years in Business, Level of Education, Gender

c. Predictors: (Constant), Years in Business, Level of Education, Gender, Entrepreneurial Resources, Internal Resources, External Resources

(Source: Primary data)

Coefficients

The table of coefficients below represents the results for individual variables in terms of their predictive ability and statistical significance taken alone. The results suggest that gender was statistically insignificant (*p > 0.228)* in explaining the amount of variance in value creation while level of education was statistically significant (*p = 0.003).* The number of years spend in business predicted significant amount of unique variance in value creation with a significance value of *p < 0.001.* Internal resources, integration of internal and external resources (Entrepreneurial resources) and external resources did not predict any significant amount of variance in value creation (*p =0.023), (p = 0.021) and (p = 0.110)* respectively.

The beta coefficient results suggest that when the level of education is increased by one unit measure, a decrease in value creation occurs by 0.18 measure (β = 0.18). However, an increase in the number of years spent in business indicated an increase in value creation (β = 0.23). An increase in internal resources denoted an increase in value creation (β = 0.15). The beta coefficient for external resources also denoted an increase

in value creation (β = 0.12) when external resources increased by a unit. The combined effect of entrepreneurial resources however denoted a decrease in value creation (β = 0.17).

Table 23: Summary of coefficients – value creation

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B	
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
1	(Constant)	5,215	0,470		11,087	0,000	4,288	6,143
	Gender	-0,230	0,190	-0,081	-1,209	0,228	-0,604	0,145
	Level of Education	-0,176	0,058	-0,204	-3,039	0,003	-0,289	-0,062
	Years in Business	0,235	0,066	0,240	3,575	0,000	0,105	0,365
2	(Constant)	3,927	0,949		4,140	0,000	2,056	5,798
	Gender	-0,227	0,186	-0,080	-1,221	0,223	-0,593	0,139
	Level of Education	-0,158	0,058	-0,184	-2,730	0,007	-0,273	-0,044
	Years in Business	0,228	0,064	0,233	3,542	0,000	0,101	0,355
	Internal Resources	0,262	0,115	0,153	2,286	0,023	0,036	0,488
	Entrepreneurial Resources	-0,157	0,067	-0,169	-2,329	0,021	-0,289	-0,024
	External Resources	0,102	0,063	0,117	1,605	0,110	-0,023	0,227

a. Dependent Variable: Value Creation

(Source: Primary data)

Value appropriation

Model 1 in table 24 revealed that the number of years in business, level of education and gender accounted for 2.2% *($r^2 = 0.022$)* variance in value appropriation. Taken together with internal resources, external resources and the integration of internal and external resources (entrepreneurial resources), the model explained an increase from 2.2% to 26% (*$r^2 = 0.260$)* of variance in value appropriation. The following table represents the model summary of variance explained by the demographic data (number of years in

business, level of education and gender) and internal resources, external resources and the integration of internal and external resources and their effect in value appropriation.

Table 24 – Regression model – Value appropriation

Model Summary[c]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.148[a]	0,022	0,007	1,39714
2	.510[b]	0,260	0,238	1,22426

a. Predictors: (Constant), Years in Business, Level of Education, Gender

b. Predictors: (Constant), Years in Business, Level of Education, Gender, Entrepreneurial Resources, Internal Resources, External Resources

c. Dependent Variable: Value appropriation

(Source: Primary data)

Analysis of variance – ANOVA

The ANOVA tests confirmed that the number of years in business, level of education and gender were not significant in explaining value appropriation. The regression model when these variables were regressed with value appropriation were insignificant with p-value of 0.217, F (3,200) = 1.5 when R^2 = 0.022. However, taken together with internal resources, external resources and their integration, i.e. entrepreneurial resources, and regressed with value appropriation, significant amount of variance ($p < 0.001$) could be explained. Whereas the results suggested that demographic variables of entrepreneurs could not explain any significant variance in value appropriation taken separately, a significant variance was explained when the variables were regressed together with internal resources, external resources and their integration. The overall regression model therefore was statistically significant with $F (6, 197) = 11.56$, $p < 0.001$ and $R^2 = 0.26$. The ANOVA results are presented in table 25.

Table 25: ANOVA – Value appropriation

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8,755	3	2,918	1,495	.217[b]
	Residual	390,402	200	1,952		
	Total	399,156	203			
2	Regression	103,888	6	17,315	11,552	.000[c]
	Residual	295,268	197	1,499		
	Total	399,156	203			

a. Dependent Variable: Value Appropriation

b. Predictors: (Constant), Years in Business, Level of Education, Gender

c. Predictors: (Constant), Years in Business, Level of Education, Gender, Entrepreneurial Resources, Internal Resources, External Resources

(Source: Primary data)

Coefficients

The table of coefficients below represents the results for individual variables in terms of their predictive capability and statistical significance. The results suggest that gender, level of education and years spend in business were statistically insignificant: (*p* = 0.269*)*, (*p = 0.459)* and (*p = 0.094)* respectively in explaining the amount of variance in value appropriation. Internal resources and its integration with external resources also failed to explain any significant amount of variance (*p = 0.009 and p =0.016 respectively).* External resources however taken alone could account for a significant amount of variance in value appropriation *(p < 0.001)*. The beta coefficient results suggested that when level of education is increased by a measure, value appropriation increased by

β = 0.50. An increase in the number of years in business predicted a β = 0.11 increase in value appropriation. An increase in internal resources predicted an increase in value appropriation by β = 0.17. An increase in resource combination also predicted an increase in value appropriation by β = 0.14. A much higher prediction was observed in value appropriation by β = 0.36 for a measure increase in external resources.

Table 26: Summary of coefficients – value appropriation

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B	
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
1	(Constant)	4,340	0,499		8,706	0,000	3,357	5,323
	Gender	-0,223	0,201	-0,078	-1,108	0,269	-0,620	0,174
	Level of Education	0,045	0,061	0,052	0,742	0,459	-0,075	0,166
	Years in Business	0,117	0,070	0,118	1,682	0,094	-0,020	0,255
2	(Constant)	0,643	0,901		0,714	0,476	-1,134	2,420
	Gender	-0,210	0,176	-0,073	-1,192	0,235	-0,558	0,138
	Level of Education	0,041	0,055	0,046	0,737	0,462	-0,068	0,149
	Years in Business	0,114	0,061	0,114	1,859	0,065	-0,007	0,234
	Internal Resources	0,287	0,109	0,166	2,640	0,009	0,073	0,502
	Entrepreneurial Resources	0,155	0,064	0,164	2,425	0,016	0,029	0,281
	External Resources	0,319	0,060	0,361	5,298	0,000	0,200	0,438

a. Dependent Variable: Value appropriation

(Source: Primary data)

Variance explained without control variables

The control variables (gender, level of education and number of years in business) were removed from the regression models to examine their statistical significance in terms of the amount of variance explained by internal resources, external resources and their integration (entrepreneurial resources) when data was not controlled.

Value Creation

The results below suggest that internal resources, external resources and their integration accounted for 7% (R^2= 0.069) of variance in value creation.

Table 27: Model summary – value creation

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.262[a]	0,069	0,055	1,36085

a. Predictors: (Constant), Entrepreneurial Resources, Internal Resources, External Resources
b. Dependent Variable: Value Creation

(Source: Primary data)

Table 28: ANOVA – Value creation

The ANOVA tests results below suggest that the model is statistically significant with *p = 0.002, F (3,202) = 5.*

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	27,529	3	9,176	4,955	.002[b]
	Residual	374,087	202	1,852		
	Total	401,617	205			

a. Dependent Variable: Value Creation

b. Predictors: (Constant), Entrepreneurial Resources, Internal Resources, External Resources

(Source: Primary data)

Coefficients

The table of coefficients represents the results from individual variables in terms of their statistical significance. The results are presented in the table 29. They suggest that internal resources and its integration with external resources (Entrepreneurial resources) predicted significant amounts of variance in value creation with *p-values 0.008* and *0.015* respectively. External resources taken alone did not explain any significant variance (*p = 0.096)* in value creation.

Table 29: Summary of coefficients – value creation

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.	95.0% Confidence Interval for B Lower Bound	95.0% Confidence Interval for B Upper Bound
1	(Constant)	3,065	0,802		3,820	0,000	1,483	4,647
	Internal Resources	0,319	0,118	0,183	2,690	0,008	0,085	0,552
	External Resources	0,110	0,066	0,125	1,674	0,096	-0,020	0,240
	Entrepreneurial Resources	-0,174	0,071	-0,184	-2,464	0,015	-0,313	-0,035

a. Dependent Variable: Value Creation

(Source: Primary data)

Value appropriation

The results below suggest that internal resources, external resources and their integration accounted for about 24% (R^2 = 0.24) of variance in value appropriation.

Table 30: Model summary – Value appropriation

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.486[a]	0,236	0,225	1,22878

a. Predictors: (Constant), Entrepreneurial Resources, Internal Resources, External Resources

b. Dependent Variable: Value appropriation

(Source: Primary data)

The ANOVA results below suggest that the model is statistically significant with *p < 0.001, F (3, 202) = 20.8 and* R^2*=0.24.*

Table 31: ANOVA – Value appropriation

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	94,295	3	31,432	20,817	.000[b]
	Residual	304,999	202	1,510		
	Total	399,294	205			

a. Dependent Variable: Value Appropriation

b. Predictors: (Constant), Entrepreneurial Resources, Internal Resources, External Resources

(Source: Primary data)

The table of coefficients below represents the results from individual variables in terms of their statistical significance. The results suggest that internal resources and its integration with external resources (Entrepreneurial resources) predicted significant amounts of variance in value appropriation with *p-values 0.013* and *0.017* respectively. External resources taken alone could explain a significant and unique variance (*p < 0.001)* in value appropriation that could not be explained by internal resources and their integration with external resources (entrepreneurial resources).

Table 32: Summary of coefficients – value appropriation

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B	
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
1	(Constant)	1,036	0,724		1,430	0,154	-0,392	2,465
	Internal Resources	0,269	0,107	0,155	2,517	0,013	0,058	0,480
	External Resources	0,319	0,059	0,364	5,383	0,000	0,202	0,436
	Entrepreneurial Resources	0,153	0,064	0,162	2,398	0,017	0,027	0,278

a. Dependent Variable: Value Appropriation

(Source: Primary data)

4.12 Summary of the results

Results pertaining to Hypothesis 1

This study noted the importance of conducting an analysis on the role of entrepreneurs' demographic variables such as gender to understand if there were variations in the allocation of entrepreneurial effort by men versus women (Aeeni, et al., 2018). This study included in its analysis the individual level variables to examine how demographic profiles of entrepreneurs influenced the allocation of entrepreneurial efforts. In doing so, this investigation considered gender, education attainment and time spent in business to examine the extent to which these variables contributed to how entrepreneurs allocated their effort towards value creating activities.

The empirical results revealed that demographic profiles of entrepreneurs had a positive and significant effect on value creation. Same however could not explain any variance in value appropriation. This finding assists in understanding and appreciating the role of education and experience in venture success. It contributes significantly to the ongoing debate about the role of education and experience for successful entrepreneurship. H1 was therefore supported.

Results pertaining to Hypothesis 2

The empirical results of this study revealed that, taken together, entrepreneurial resources (internal and external resources) accounted for about 10% of variance in value creation when data was not controlled (by gender, level of education and years spent in business). The variation increased to 15% of when data was controlled. The regression model was statistically significant. The results further revealed that entrepreneurial resources accounted for about 2.2% of variance in value appropriation when data was not controlled (by gender, level of education and years spent in business). The variation increased to 26% when data was controlled. The regression model was statistically significant. These results confirmed that entrepreneurial resources had a significant positive effect on the allocation of entrepreneurial effort in Gauteng's SMME sector.

These results are in line with the second hypothesis of this study. The hypothesis was therefore supported.

Results pertaining to Hypothesis 2a

Taken separately, internal entrepreneurial resources could explain a significant amount of variance in value creation. Internal entrepreneurial resources also explained a significant amount of variance in value appropriation. These results confirmed the first sub-hypothesis that internal entrepreneurial resources had a positive effect on the allocation of entrepreneurial effort in Gauteng's SMME sector.

Results pertaining to Hypothesis 2b

Taken separately, external entrepreneurial resources could not account for any significant amount of variance in value creation. However, when regressed against value appropriation, external entrepreneurial resources could account for a unique variance that was significant. The variance explained by external resources in value appropriation could not be explained by either internal resources or its combination with external resources. These results rejected the second sub-hypothesis that external resources had a negative effect on the allocation of entrepreneurial effort in Gauteng's SMME sector.

Results pertaining to Hypothesis 3

H3 - The interaction between internal and external entrepreneurial resources has a significant positive effect on the allocation of entrepreneurial effort in the Gauteng SMMEs sector

Some rules of thumb suggested that when an analysis involves two or more independent variables, interactions should be examined before drawing conclusions about their effects (Hair, Black , Babin, & Anderson, 2014). A conjoint methodology such as Multivariate Analysis of Covariance (MANCOVA) would be required to conduct this test.

The correlation results pertaining to internal and external results was positive. This compromised the ability of the models for testing their interaction and effects. To avoid redundancy, the two variables were integrated (additive) into one variable and its effect tested. The effect supported hypothesis 2 of this study. Hypothesis 3 was therefore not supported by this study.

4.13 Conclusion

This study made a distinctive discovery during the factoring process, certain items converged to form an additional outcome which was not catered for in the initial conceptual model. This construct was termed value appropriation. Therefore, the allocations of entrepreneurial effort had two sub-dimensions instead of one. This was in line with the theoretical underpinning of this study and the properties of the items which formed this additional factor. This means that the allocation of entrepreneurial effort, which was operationalised into value based entrepreneurship, could be distinguished between value creation, which is a productive allocation, and value appropriation, which is an unproductive allocation based on reviewed literature. The results confirmed that taken together, internal and external resources (entrepreneurial resources) could account for a significant amounts of variance in value creation and value appropriation.

The overall results obtained from the multiple regression confirmed the hypothesised relationships between entrepreneurial resources and the allocation of entrepreneurial effort and their effects thereof in Gauteng small business sector. The research hypothesised that entrepreneurial resources had a significant positive effect on the allocation of entrepreneurial effort in the Gauteng SMME sector, this was supported through empirical testing. While research acknowledged the importance of entrepreneurial resources offered by the external environment, it argued that entrepreneurial cognitive determinants at an individual level had a significant role to play in how entrepreneurial effort was allocated. This hypothesis was also confirmed through empirical testing. It was further hypothesized that taken alone, the external resources could not account for variance in the allocation of entrepreneurial resources. The research centred its argument on the fact that the external entrepreneurial resources needed to be acted upon by entrepreneurs if they were to account any meaningful entrepreneurial

outcomes. This hypothesis was however rejected. Empirical results suggested that external entrepreneurial resources had a role to play in how entrepreneurial effort is allocated. The effect of external resources on the allocations of entrepreneurial effort was positive, however, while it was weak and insignificant for value creation, it was strong and significantly unique for value appropriation. Taken separately, while the resource combinations were significantly associated with value appropriation, and while taken separately, internal resources also accounted for a significant variance in value appropriation, external resources accounted for a significant and unique variance in value appropriation that could not be explained by either internal resources or resource combinations.

CHAPTER 5. DISCUSSION OF THE RESULTS

This chapter provides a critical discussion of the results presented in chapter 4 concerning literature and how the empirical findings of this research frame with findings from previous research.

5.1 Introduction

Much of the literature on entrepreneurship has paid particular focus on the contexts within which entrepreneurship thrives or is constrained (Autio et al., 2014; Bowen & Clercq, 2008), including the Global Entrepreneurship Monitor (GEM), Trade and Industrial Policy Strategies (TIPS) and the Bureau of Economic Research (BER) reports to mention a few institutions that have investigated South Africa's small business outlook. Other research strands have investigated the role of institutional policy that facilitates entrepreneurship such as Minniti (2008) in the study on the role of government policy on entrepreneurial activity. Urban (2016) presented empirical evidence on the influence of the institutional environment on venture innovation performance in South Africa. In his study, Urban paid particular focus to regulatory, normative and cognitive institutional environments and their roles as determinants of venture innovation. Autio et al., (2014) provided an analysis of the role of context in stimulating entrepreneurial activity. Such contexts range from entrepreneurial behaviour, social interactions, institutional policy and organizational capability contexts.

In this study, an investigation of how entrepreneurial resources influenced the allocation of entrepreneurial effort within South Africa's SMME sector, with specific focus to Gauteng province was conducted to gain some insights into how small business owners and managers allocate entrepreneurial resources towards value creating efforts. This chapter provides a discussion on the findings of this investigation. It begins by discussing the results pertaining to the demographic characteristics of respondents to provide some perspectives on how demographic characteristics play a role as determinants of how entrepreneurs allocate their effort towards value-based entrepreneurship. This is followed by the discussions on the findings pertaining to the research questions that were asked in chapter 1 and the hypothesised relationships and effects that were involved in

entrepreneurs' decisions to allocate their efforts towards a particular path over another in a given context. The chapter then concludes the discussion by summarising the key issues and key insights obtained from this investigation. The structure of this chapter will address each research question asked prior to establish if and how each research question was answered by the findings of this investigation.

Research Question 1 – To what extent do the entrepreneurs' demographic characteristics affect the allocation of entrepreneurial effort in Gauteng's SMME sector?

5.2 The role of demographic profile in entrepreneurship allocations

Aeeni et al., (2018) emphasised that differences in talents, intensions and perceptions of entrepreneurs towards entrepreneurship had potential to influence the allocation of entrepreneurial effort towards particular activities regardless of institutional quality (p.35). They further noted the importance of conducting an analysis on the role of entrepreneurs' demographic variables such as gender to understand if there are variations in the allocation of entrepreneurial effort by men versus women.

This study conducted an analysis at an individual level to examine how demographic characteristics of entrepreneurs and entrepreneurial cognitions influenced the allocation of entrepreneurial efforts. In doing so, this investigation considered gender, education attainment and time spent in business to examine the extent to which these variables contributed to how entrepreneurs allocate their effort towards value-based entrepreneurship.

Taken together, the findings of this investigation suggested that entrepreneurs' demographic characteristics had a significant role to play in explaining the variation in the allocation of entrepreneurial effort. The empirical evidence from individual demographic analysis suggested that while the level of education accounted for a significant amount of variance in value creation, the number of years spend in business accounted for a unique variance that was significant in value creation that could not be explained by education.

However, the results suggested that gender was not of any significance in how entrepreneurs allocated their effort towards value creation.

Surprising enough to note, the results from beta coefficients suggested that an increase in levels of education indicated a decrease in value creation. Literature argued that entrepreneurs with higher cognitive abilities are more informed and inclined towards opportunity recognition (Stenholm, Acs, & Wuebker, 2013). While it is acknowledged that entrepreneurship is associated with risk, it would make sense for entrepreneurs with higher cognitive abilities therefore to better understand and appreciate the perceptions associated with it. In EMs, risk perceptions influence entrepreneurial activity (Stenholm, Acs, & Wuebker, 2013). Appreciating that uncertainty increases risk, in a necessity driven economy such as South Africa, (Urban, 2011), entrepreneurs would seek stability and security. As people's level of education increases and individuals become more competitive in the labour market, it can be understandable for entrepreneurs to move towards those opportunities that can offer stability and security. Their choices to consider employment over entrepreneurship can explain the reduction in the allocation of entrepreneurial activity towards value creation for entrepreneurs with a higher level of education attainment.

This finding partially answers the question about the role of demographic characteristics in the allocation of entrepreneurial effort and significantly contributes to the theory of entrepreneurial behaviour, related processes and the importance of context. It also provides a bedrock for further research on the role of demographic profiles of entrepreneurs in the allocation of entrepreneurial effort in EMs. Future research can consider a deeper analysis on the role of entrepreneurs' demographic profiles, especially the role of education in the allocation of entrepreneurial effort in emerging and transitioning economies. Future studies can also considers comparative studies between individual and institutional roles in entrepreneurship allocations.

On the contrary, entrepreneurs' demographic characteristics could not explain any significant amount of variation in the allocation of entrepreneurship towards value appropriation. In other words, the variance in value appropriation was not associated with gender, education attainment or the number of years spend in business. Contrasted with

the role of demographics which this study found through empirical testing to have a significant contribution towards value creation, this finding suggests an existence of rent seeking behaviour at an individual level of analysis (Aeeni, et al., 2018) that takes advantage of institutional voids (Fish, et al., 2017; Gao, et al., 2017) to protect the status quo rather than making an effort to create economic value. This finding does not support the view that education is positively associated with high growth entrepreneurship (Bowen & Clercq, 2008) and therefore creates some ambiguity about who actually appropriates value that government and high growth activity entrepreneurs including corporate business create. It becomes necessary to conduct a county level analysis on the role of human capital, with particular focus on education and experience, in value appropriation to understand the issues surrounding value creation and value appropriation in the practical perspective of entrepreneurship.

This finding further opens up a debate about South Africa's institutional policy and the productivity of entrepreneurship, particularly about firm-level value creation and market-level value appropriation dichotomy. Much so because, institutions such as GEM have ranked South Africa's economic policy among the best globally, and yet unproductive entrepreneurship is observed in that midst. It would be interesting to find out the reasons for the occurrence of unproductive entrepreneurship within developed policy framework such as that of South Africa. This is in line with Aeeni et al.,'s (2018) findings about the mechanisms and processes underlying productive entrepreneurship in underperforming institutions and unproductive/destructive entrepreneurship in developed institutional framework.

These findings contribute significantly towards enhancing the understanding of entrepreneurial behaviours, perceptions and intentions in entrepreneurship. Building on Baumol's (1990) theory of entrepreneurial allocations, the empirical evidence obtained from this study revealed that entrepreneurs do not always pursue productive paths but unproductive paths based on their individual profiles. The findings of this study resonate with Aeeni et al., (2018), pertaining to the role of institutions and the role of individual factors in entrepreneurship. This study further supports the extension of Baumolian Theory of entrepreneurship allocations to take into account the role of individual factors in institutional change. This study contributes partly towards bridging the current gap in

the level of analysis (Aeeni, Motavaseli, Sakhdari, & Dehkordi, 2018) of the entrepreneurship allocations at individual level by accounting for demographic variables of entrepreneurs in conjunction with the cognitive, regulative and normative contributions (Urban, 2016) in how entrepreneurs allocate their efforts. It further contributes partly towards the improved understanding of the role of context (Autio et al., 2014).

These findings taken together enhance our understanding about the reasons for people to choose employment paths over entrepreneurship. In the context of SA, employment seems more attractive compared to entrepreneurship. Policy makers can use these to inform policy that enhances entrepreneurship as an alternative career path rather than just a system for redistributive justice. Such policy reform can potentially reduce dependency, political entrepreneurship and corruption, thereby improving the contribution of entrepreneurial activity in economic development.

Research Question 2 - To what extent do entrepreneurial resources affect the allocation of entrepreneurial effort in the Gauteng SMME sector?

5.3 Entrepreneurial resource combinations

Some research found that regulatory and normative institutional arrangements had a positive influence on venture performance in South Africa (Urban, 2016). In other EMs such as China, political networking had a negative moderating effect on the positive relationship between entrepreneurial orientation and venture performance (Su, Xie, & Wang, 2015).

In South Africa, where entrepreneurial resources are limited (Botha, et al., 2015; Welter & Smallbone, 2011; Zoogah, Peng, & Woldu, 2015), a combination of activities are observed. Institutional context explains a significant contribution of individual level determinants and entrepreneurial cognitions (Urban, 2016) in how entrepreneurs allocate their efforts towards productive and unproductive paths. The perceived roles of the external institutional environment also explains a significant contribution of country level determinants of entrepreneurship.

The political environment and government institutions are significant contributors in shaping an ecosystem that facilitates entrepreneurial activity. This is so for many EMs around the world (Boudreaux, Nikolaev, & Holcombe, 2017; Champeyrache, 2018; Fish, Parris, & Troilo, 2017). Due to limitations resulting from the emergence of South Africa's economy, government established institutional reforms that support and facilitate trade. In such instance, government controls certain resources; and entrepreneurs and market agents depend on those resources for market functioning (Zoogah, Peng, & Woldu, 2015). Given the economic challenges South Africa is faced with, government resources deplete, creating scarcity in entrepreneurship resources. This challenge, met by limitations in the enterprising competencies of entrepreneurs and SMMEs (Botha, et al., 2015), an observed dependency on those resources to survive becomes more prominent, increasing the need to interact with government more extensively to acquire resources.

Entrepreneurs and SMMEs resort to combinations of strategies such as political networking and government networking to compensate for their shortcomings. These activities are made possible by particular internal capabilities (Urbig et al., 2012). The empirical evidence gained from this investigation suggested differences in entrepreneurs' profiles (Urban, 2011); including their level of education, the number of years spent in business and other cognitive abilities (internal resources), explaining the variance in the allocations of entrepreneurial effort. The integration of internal and external resources, that is, the combination of entrepreneurs' cognitive abilities and the perceived roles of government and political environments, indicated a decrease in value creation and an increase in value appropriation. The results about the effects of entrepreneurial resources on the allocations of entrepreneurial effort answers the question about the extent to which entrepreneurs productively (unproductively) allocate their efforts when it reveals that resource combinations are positively associated with both value creation and value appropriation.

Research Sub-question 2 a) - To what extent do internal entrepreneurial resources affect the allocation of entrepreneurial effort in the Gauteng SMME sector?

5.4 The Internal environment – entrepreneurial cognitions

The cognitive aspects of entrepreneurs have proven to contribute significantly in shaping entrepreneurship theory and practice particularly in South Africa (Urban, 2016). Entrepreneurial activity is to some degree influenced by perceptions of what opportunities the environment has to offer (Autio et al., 2014). Entrepreneurs are left to decide on what action to take based on such perceptions in the midst of uncertainty. In EMs, especially in Africa where government controls certain resources (Zoogah, Peng, & Woldu, 2015), entrepreneurs act on the basis of what they perceive as opportunities (Stenholm et al., 2013; Urbig et al., 2012). As Autio et al., (2014) argued, the opportunity seeking process in which entrepreneurs engage when mobilizing resources uses heuristics to make judgement about what opportunities and how to exploit them. The cognitive environment factors were analysed together with individual demographics to examine the extent to which variations in the allocation of entrepreneurial effort occurred as a result of individual behaviours towards value-based entrepreneurial activity.

The results suggested that internal resources (cognitive environment) were able to explain a significant amount of variance in the allocation of effort towards value creation taken separately. Internal resources, however, could not explain the variation in value appropriation though the relationship between the two constructs was positive and significant.

This finding aligns with prior literature about individual level (Urbig, Weitzel, Rosenkranz, & Witteloostuijn, 2012; Weitzel, Urbig , Desai, Sanders, & Acs, 2010; Welter & Smallbone, 2011) and country level entrepreneurship determinants (Djula, Josip, & Ilija, 2017; Fish, Parris , & Troilo, 2017; Luiz & Mariotti, 2011; Marcotte, 2014; Sautet, 2013; Smallbone, Welter, & Ateljevic, 2014; Stenholm, Acs, & Wuebker, 2013) by analysing three distinct institutional contexts associated with the allocation of entrepreneurial effort when it reveals that internal resources are positively associated with the allocations of

entrepreneurial effort. Policy makers can use these insights to craft policy that does not merely increase the demand for entrepreneurship but influence its supply. The supply of entrepreneurship should focus on the individual entrepreneurs as determinants of entrepreneurial activity.

The perceived roles of politics and political networking as well as the perceived roles of government support and government networking were also considered as key factors in entrepreneurship allocations. These factors constituted what the study operationalised into external resources. A comparison was drawn between individual level determinants and the perceived roles of politics and political networking as well as perceived roles of government support and government networking to understand the extent to which allocations of entrepreneurial effort varied between individual and institutional roles. The study found that, cognitive capabilities were associated with value creation while institutional compensations towards entrepreneurship were associated with value appropriation. These findings helps in the understanding of the actual opportunity perceptions towards external resource acquisitions versus innovation and production. These findings contributes towards bridging the gap in the understanding of institutional roles in firm level value-creation versus market level value-appropriation.

Research Sub-question 2 b) - To what extent do external entrepreneurial resources affect the allocation of entrepreneurial effort in the Gauteng SMME sector?

5.5 The external environment and the allocation of entrepreneurial effort

Literature argued that entrepreneurs, depending on their internal resources, can pursue rent-seeking opportunities offered by the external environment (Aeeni, et al., 2018). They do this by exploiting the external resources in a way that increases their wealth rather than societal and economic development (Sautet, 2013). This allocation of effort is recognized as unproductively allocated.

This study found that external resources were positively associated with value creation even though the relationship was weak and insignificant. However, external resources accounted for a strong and significant amount of variance in value appropriation.

Literature suggested that in EMs, unproductive entrepreneurship was rive (Champeyrache, 2018; Gao, Zuzul, Jones, & Khanna, 2017). The findings about the role of external resources on the allocations of entrepreneurial effort study draws attention to political and government networking and entrepreneurs engagements when they lobby much needed resources. Resulting from contextual influences such as abject poverty (Alvarez & Barney, 2013) and institutional voids (Fish, Parris , & Troilo, 2017) entrepreneurs become involved in rent seeking behaviour to appropriate value. This finding aligns to Urbig et al.,'s (2012) findings about entrepreneurs' willingness exploit destructive opportunities in EMs both in private ventures and wage employment. This finding further aligns to Sobel's (2008) measures of unproductive entrepreneurship (political entrepreneurship) given the regulatory environment that provides a guiding framework for transacting which is zero-sum (Aeeni et al., 2018).

This finding helps to untangle what Sautet (2013) termed a puzzle of entrepreneurship and economic development. While this finding rejects the hypothesis that external resources have a negative effect on the allocation of entrepreneurial resources, it helps to clarify the issues about firm-level value creation, which is productive, versus market-level value appropriation, which is unproductive. The fact that external resources account for a unique variance in value appropriation opens up an interesting debate and research opportunities that will look into processes and models of unproductive entrepreneurship in South Africa's SMME sector.

Research Question 3 - To what extent does the interaction between external and internal resources affect the allocation of entrepreneurial effort in the Gauteng SMME sector?

5.6 Interactions and main effects

The study argued that there was an interaction between internal and external entrepreneurial resources which had a positive effect on the allocation of entrepreneurial effort. Results from correlation analysis however revealed a positive relationship. This finding meant that the interactions and effects could not be tested. The variables were integrated instead and were found to have a positive effect on the allocations of

entrepreneurial effort, thereby aligning with hypothesis 2 of the study. Perhaps future research can look at the level of analysis, methodologies and scales to relook at the possible interactions and possible effects. This study failed to achieve this objective based on its limitations. However, based on the variations in value creation versus value appropriation resulting from internal versus external resources, the questions about their main effects remains unanswered.

5.7 Conclusion

This study focused on the role of entrepreneurial demographics, internal resources and external resources as well as their combinations to examine their effects on the allocations of entrepreneurial effort. In support of the basis that informed this investigation, the study centred itself on the theory of entrepreneurial allocations (Baumol, 1990) to gain a better understanding of the occurrence of unproductive entrepreneurship in the small business sector of South Africa. The central argument of this study was around the role of entrepreneurial resources in the allocation of entrepreneurial effort. Entrepreneurial resources consisted of internal resources, that is, the demographic and cognitive factors influencing the allocation of effort towards value creation vs value appropriation. External resources considered the perceptions of entrepreneurs on the roles of politics, political networking and government connections. This study went beyond examining the role of internal resources on value creation. It also examined the role of internal resources on value appropriation. The evaluation of external resources on value creation vs value appropriation revealed the simultaneous role of internal and external resources in entrepreneurial activity in the context of an EM. This study makes a unique contribution by uncovering unproductive entrepreneurship resulting from the role of individual factors in context of institutional contributions. This study does not reject any findings of productive entrepreneurship resulting from external influences. It however enriches the entrepreneurial perspectives and theories that suggest that the existence of external resources targeted at entrepreneurship, particularly controlled by government, are universally good. This study challenges such status quo through empirical testing and suggests that the contributions of the external environment vary significantly based of people's intentions, behaviours, interests and competencies.

CHAPTER 6. CONCLUSIONS & RECOMMENDATIONS

6.1 Introduction

This chapter concludes this study and its findings. It outlines its implications on entrepreneurship and economic policy, theory and practice. It closes out by stating the limitations in this study and proposing some opportunities for future research.

6.2 Conclusions of the study

The role of entrepreneurship in economic development remains significant particularly for EMs (Kalantaridis, 2014). As South Africa continues to prioritize entrepreneurship and the role of government in the development of the country's economy (Urban, 2011), it is important to understand and appreciate that the success of entrepreneurship is a three-legged stool. Entrepreneurs should bear equal responsibility as government and corporate sector in the economic development process (Frohlicher & Pothering, 2013). Appreciating and addressing the eminent challenges that entrepreneurs continue to face, this study suggested that individual factors play a major role in directing and redirecting entrepreneurs' efforts (Aeeni et al., 2018; Autio et al., 2014) yet they are often ignored in the institutional development process (Aeeni et al., 2018).

This study found a mixture of results from its investigation. At a glance, internal resources explained a significant amount of variance in entrepreneurial outcomes. External resources and the combinations of resources also explained the differences in the effects on allocations of effort. However, a deeper analysis that focused on each factor individually, the study found that the roles of alternative factors offered different outcomes.

It is important therefore to appreciate that not all people in the market economy are imbued with entrepreneurial success (Coase & Wang , 2011). There is a variety of factors at play, such as the need to survive poverty challenges (Alvarez & Barney, 2013). People therefore get involved in rent seeking behaviours to mitigate their socio economic status (Aeeni et al., 2018; Boudreaux et al., 2017; Desai et al., 2013). Government should therefore consider elucidation and measurement of cognitive coefficients as factors to consider in the allocation of capital resources (education capital and financial capital) targeted at facilitating entrepreneurial activity in the small business sector of the country's economy. It is also important to analyse the adverse effects of external factors on the productivity of entrepreneurship.

This research makes a unique contribution in the theory of entrepreneurship in South Africa. It confirms that determinants of entrepreneurial success are not embedded in entrepreneurial inputs alone but rather in the actual entrepreneurial process. The outcomes of entrepreneurship are not a result of external resources, but rather the entrepreneurs' actions upon such resources. Its findings supports the notion that entrepreneurial success in not only about "what resources" but also "how such resources" are acted upon.

6.3 Implications and Recommendations

The study indicates some practical implications. While this study acknowledged that entrepreneurial resources are significant for economic development and entrepreneurship and SMME development in particular, policymakers should be aware of the various effects of entrepreneurial resources on the performance of the economy in certain contexts. In the context of this study, empirical evidence suggests that entrepreneurial resources are not only good for value creating activity but also accounts for value appropriation. Policymakers should consider mechanisms and processes for effective selection of entrepreneurs whose interests are aligned to those of government, that is, entrepreneurs whose

interest is to create value in the economy. Policy makers can do this by creating policy that does not only hold government and corporate accountable for economic failure but entrepreneurs too. This can be achieved by elucidating and measuring entrepreneurial outcomes based on inputs and process.

By focusing on contextual issues, this study contributes to existing literature that supports policy formulation that is indigenous to specific contexts, thereby contributing significantly to the mainstream theories of entrepreneurship that focuses on EMs, and African context in particular. It extends the debate in entrepreneurship for EMs in terms of process and modelling that fits the various contexts in EMs.

This research further contributes significantly to entrepreneurship practice in South Africa. Practitioners can use the insights gained from this research in their different fields of practice, whether be it advisory, consulting or development. Entrepreneurs can also benefit from this research by understanding that they have a significant role in shaping the future of entrepreneurship in South Africa.

6.4 Limitations of study

This study had its own limitations. It noted a modest but significant finding on the reliability of a scale measuring value appropriation. This factor scored low on Cronbach's alpha, perhaps due to the limited review of literature on value appropriation and a few number of variables that successfully loaded on this factor, yielding a low score.

This study was to be conducted within a specified period. Availability of sufficient time to ensure robustness, error free study and further investigation of factors surfacing from the analysis of this study's results posed a limitation. Much of this research's findings raised more questions about the factors at play in the allocation of effort by SMMEs in South Africa. It would have been great to spend

more time to investigate other underlying issues that affected entrepreneurship productivity. Availability of sufficient resources also posed a substantial limitation in terms of data collection. A sampled population is significantly varied, it was important therefore to ensure that data was normally distributed and that a bigger sample size for analysis was obtained. This was however not the case. Though adequate, the sample size used in the analysis of the results could have yielded better results based on the population size.

6.5 Suggestions for future research

In South Africa, the extent to which rules are embedded in institutions remains a concern in terms of how mechanisms and processes aimed at building a conducive environment for entrepreneurship development can better explain the occurrence of unproductive entrepreneurship given the country's institutional framework (Aeeni et al., 2018). The context of South Africa's entrepreneurship ecosystem and availability or lack of capital resources (human capital and financial capital) aimed at facilitating entrepreneurship is filled with ambiguity. Future research can consider a deeper analysis of the contributing effects of human and social capital on the allocation of entrepreneurial effort in SA's small business sector.

South Africa continues to face challenges of unproductive entrepreneurship resulting from perceptions of institutional roles. Little evidence is available to explain the negative contributions of external factors in small business development. Future research can consider elucidation and measurement of entrepreneurs' role in economic development and their implications. This has potential to improve the status quo by ensuring that entrepreneurs are equally accountable in the economic development process.

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APPENDIX A - COMBINED LETTER OF INTRODUCTION AND INFORMED CONSENT

Dear Entrepreneur

My Name is Alice Mampuru, a student at the University of the Witwatersrand, studying towards a Master of Management in Entrepreneurship and New Venture Creation degree. In partial fulfillment of the requirements for the degree, I am required to collect data, analyze it and report the findings and suggest recommendations on the findings of my analysis. The research is concerned with the "***Effects of Entrepreneurial Resources on the Allocation of Entrepreneurial Effort in Gauteng SMME Sector.*** It is for this purpose that I hereby request your participation in a survey.

The survey should take you no more than 15 **minutes** to complete. Please be assured that your responses will be confidential and this is voluntary participation. You have the right to withdraw at any point in the survey, for any reason, and without any prejudice. You are welcome to contact my research supervisor for further information on this survey. Should you wish to do so, please e-mail Dr. McEdward Murimbika at mcedward.murimbika@wits.ac.za. Alternatively, you may contact me directly for further clarity about this research at 1717608@students.wits.ac.za.

Yours faithfully
Alice Mampuru

https://wits.eu.qualtrics.com/jfe/form/SV_3WNRnY79lNw59hr

APPENDIX B – RESEARCH INSTRUMENT

1. Informed Consent	I consent, begin the study	I do not consent, I do not wish to participate in the study						
Demographic Data 2. Are you a SMME owner-manager?	Yes	No						
3. Please indicate your gender.	Male	Female	Other					
4. Please indicate your highest level of education	Doctoral Degree	Master's Degree	Honors Degree	Bachelor's Degree	Diploma	Higher Certificate	Matric	Less than matric
5. Please indicate the ethnic group to which you belong	Black	White	Indian	Colored	Asian	Other		
6. Please indicate your business location by municipality	City of Johannesburg	City of Tshwane	City of Ekurhuleni	Sedibeng District Municipality	West Rand District			
7. Please indicate in number of years the duration that your business has existed	Less than a year	1 – 3 years	4 – 6 years	7 – 10 years	11 – 15 years	16 – 20 years	More than 20 years	
The following set of statements are used to measure entrepreneurs' characteristics referred to as Internal Resources **On a scale of 1 to 7, where 1 means you strongly disagree and 7 means you strongly agree, please indicate the extent to which you agree or disagree with these statements.**	Strongly disagree	Disagree	Somewhat disagree	Neither disagree nor agree	Somewhat agree	Agree	Strongly agree	
1. I can solve complex problems if I try hard enough.	1	2	3	4	5	6	7	
2. I can identify opportunities in my immediate environment.	1	2	3	4	5	6	7	

3.	I display enthusiasm for acquiring new business opportunities	1	2	3	4	5	6	7
4.	When I come across someone who opposes me, I can find means to convince them swiftly to get what I want.	1	2	3	4	5	6	7
5.	In my immediate environment, politics play a role in how businesses operate	1	2	3	4	5	6	7
6.	In my immediate environment, it is hard to acquire business opportunities without affiliation to some political movement.	1	2	3	4	5	6	7
7.	I affiliate to some form of collective movement that can help my business to succeed	1	2	3	4	5	6	7
8.	I build mutual relationships with other business owners in the market where I operate	1	2	3	4	5	6	7
9.	I build mutual relationships with officials of government to access business opportunities	1	2	3	4	5	6	7
10.	Government support is very critical for the success of my business	1	2	3	4	5	6	7
The following set of statements are used to measure support mechanisms which include government regulation such as B-BBEE, financial resources such as government incentives, and preferential procurement opportunities and managerial networks. These are referred to as External Resources **On a scale of 1 to 7, where 1 means you strongly disagree and 7 means you strongly agree, please indicate the extent to which you agree or disagree with these statements.**								
1.	I am aware of the incentives provided by government institutions for small businesses like mine.	1	2	3	4	5	6	7
2.	I have attempted to access incentives from the government for my business in the past three years	1	2	3	4	5	6	7
3.	I have acquired incentives from government in the past three years	1	2	3	4	5	6	7
4.	I have obtained an opportunity to supply my entity's products and services to the government in the past three years.	1	2	3	4	5	6	7
5.	My relationships with officials of government departments are important for enabling my business to access opportunities of government	1	2	3	4	5	6	7
6.	I invest valuable resources to build mutual relationships with other business owners in the market where I operate	1	2	3	4	5	6	7
7.	I invest valuable resources to build mutual relationships with officials of government							
8.	The regulations for accessing business support are cumbersome for small businesses like mine	1	2	3	4	5	6	7
9.	The regulations for accessing business support should be reduced for small businesses like mine	1	2	3	4	5	6	7
Internal and External Resource interactions. **The following questions are based on how individuals make choices that lead to success**		Strongly disagree	Disagree	Somewhat disagree	Neither disagree nor agree	Somewhat agree	Agree	Strongly agree
1.	Owing to the nature of the environment in which I operate my business, who you know is more important than what you know.	1	2	3	4	5	6	7

2.	When it comes to networking, I have a strong preference to connect with like-minded entrepreneurs	1	2	3	4	5	6	7
3.	I prefer spending time building relationships with people of different ideas from mine because they show me a different perspective	1	2	3	4	5	6	7
4.	Considering the dynamics in the local market, political connections play a significant role in business success	1	2	3	4	5	6	7
5.	I devote significant time cultivating connections with political leaders in my community	1	2	3	4	5	6	7
Value-Based Entrepreneurship - value creation follows a process of evaluating, manipulating and appropriately deploying resources in the market **Please answer the following questions to indicate the extent to which they apply to your business on a scale of 1 to 7, where 1 means you "Strongly disagree" and 7 means "Strongly agree"**								
1.	I started a business because of the opportunities that exist in the market.	1	2	3	4	5	6	7
2.	I started a business because of the availability of government support in my country	1	2	3	4	5	6	7
3.	I started a business because of the lack of access to employment in my country	1	2	3	4	5	6	7
4.	My business has developed new products and services in the market over the past three years	1	2	3	4	5	6	7
5.	My business has increased its sales from new products and services in the past three years	1	2	3	4	5	6	7
6.	My business has increased affordability to pay salaries to the employees over the past three years	1	2	3	4	5	6	7
7.	My business engages in collaborations with other businesses in the market to create new products and services	1	2	3	4	5	6	7
8.	My business has engaged in collaborations with other businesses in the market to pursue government support for small businesses	1	2	3	4	5	6	7
9.	My business has engaged in collaborations with other businesses in the market to pursue government procurement opportunities such as tenders	1	2	3	4	5	6	7

APPENDIX C – CONSISTENCY MATRIX

Effects of Entrepreneurial Resources on the Allocations of Entrepreneurial Effort in Gauteng SMME Sector							
Sub-problem/Aims	**Literature Review**	**Research questions**	**Hypotheses or Propositions**	**Variables (Independent & Dependent)**	**Source of data**	**Type of data**	**Analysis**
To examine the extent to which entrepreneurs' demographic characteristics affect their allocation of entrepreneurial effort in Gauteng's SMME sector	1. Aeeni, Z. et al., (2018)	To what extend do entrepreneurs' demographic characteristics affect their allocation of entrepreneurial effort in Gauteng SMME sector?	**H1** - Entrepreneurs' demographic characteristics have a significant positive effect on their allocation of entrepreneurial effort in Gauteng SMME sector	**IV – Entrepreneurs' demographic characteristics** **DV – Allocation of Entrepreneurial Effort**	**Survey**	**Ordinal**	Descriptive stats Reliability analysis Factor analysis Correlation Regression
To examine the extent to which entrepreneurial resources affect the allocation of entrepreneurial effort in the Gauteng SMME sector.	1. Baumol, W. (1990) 2. Aeeni, Z. et al., (2018) 3. (Zoogah, Peng, & Woldu, 2015)	To what extent do entrepreneurial resources affect the allocation of entrepreneurial effort in Gauteng SMME sector?	**H2 -** Entrepreneurial resources have a significant positive effect on the allocation of entrepreneurial effort in Gauteng SMME sector.	**IV – Entrepreneurial Resources** **DV – Allocation of Entrepreneurial Effort**	**Survey**	**Ordinal**	Descriptive stats Reliability analysis Factor analysis Correlation Regression
	1. Baumol, W. (1990) 2. Aeeni, Z. et al., (2017) 3. (Zoogah, Peng, & Woldu, 2015)	To what extent do internal entrepreneurial resources affect the allocation of entrepreneurial effort in Gauteng SMME sector?	**H2a** - Internal entrepreneurial resources have a significant positive effect on the allocation of entrepreneurial effort in Gauteng SMME sector	IV= Internal Entrepreneurial Resources DV= Allocation of Entrepreneurial Effort	Survey Survey	Ordinal Ordinal	Descriptive stats Reliability analysis Factor analysis Correlation Regression
	1. Baumol, W. (1990) 2. Aeeni, Z. et al., (2017) 3. (Zoogah, Peng, & Woldu, 2015)	To what extent do external entrepreneurial resources affect the allocation of entrepreneurial effort in Gauteng SMME sector?	**H2b** - External entrepreneurial resources have a negative effect on the allocation of entrepreneurial effort in Gauteng SMME sector.	IV – External Entrepreneurial Resources DV – Allocation of Entrepreneurial Effort	Survey	Ordinal	Descriptive stats Reliability analysis Factor analysis Correlation Regression
To examine the extent to which the interaction between internal and external entrepreneurial resources affect the allocation of entrepreneurial effort in Gauteng SMME sector.	(Weitzel, et al., 2010) (Boettke & Piano, 2016) (Champeyrache, 2018) (Desai, Acs, & Weitzel, 2013)	To what extend does the interaction between internal and external entrepreneurial resources affect the allocation of entrepreneurial effort in Gauteng SMME sector?	**H3** - The interaction between internal and external entrepreneurial resources has a significant positive effect on the allocation of entrepreneurial effort in Gauteng SMMEs sector.	IV= Internal-External Resource interaction DV= Allocation of Entrepreneurial Effort	Survey	Ordinal	Descriptive stats Reliability analysis Factor analysis Correlation Regression

APPENDIX D - ETHICS CLEARANCE CERTIFICATE

Graduate School of Business Administration
University of the Witwatersrand, Johannesburg

Wits Business School

Wits Business School Ethics Committee
Constituted under the University Human Research Ethics Committee (Non-Medical)

Ethics Clearance Certificate

Ethics protocol number: WBS/BA1717608/641
This certificate is only valid with a legitimate ethics protocol number and signed by the Researcher (below)

This certificate is only valid if accompanied by formal permission from the relevant stakeholder(s).

Project title	The Effects of Entrepreneurial Resources on the Allocation of Entrepreneurial Effort in Gauteng SMME Sector
Investigator / Researcher	Mrs. Alice Mampuru
Nature of Project	MM (Entrepr & New Venture Creation)
Decision of the Committee	Approved unconditionally
Issue Date of Certificate	2019/11/20
Expiry date	Date of submission of the project report
Chairperson	Prof Anthony Stacey +27 11 717 3587 +27 82 880 4531 anthony.stacey@wits.ac.za

Declaration by Researcher

One copy must be signed by the Researcher and returned to the Chairperson of the Wits Business School Ethics Committee.

I fully understand the conditions under which I am authorized to carry out the abovementioned research and I guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I undertake to resubmit the protocol to the Committee.

Signature

20th November 2019
Date: