SMALL BUSINESS OWNERS' PRACTICE OF EFFECTUATION IN TOWNSHIPS IN RELATION TO BUSINESS GROWTH

Mr Michael Nyoni

Student no: 17309515

(c) +27 (0)84 222 2666

(e) michaeln@twasa.co.za

PhD in Business Management

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at the

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Supervisor: Dr M.N. Moos

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MICHAEL NYONI
STUDENT NUMBER: 17309515
DATE: 17 February 2021

ABSTRACT

SMALL BUSINESS OWNERS' PRACTICE OF EFFECTUATION IN TOWNSHIPS IN RELATION TO BUSINESS GROWTH

by

Michael Nyoni

Supervisor:	Dr Menisha N. Moos
Department:	Business Management
Degree:	PhD in Entrepreneurship

Small businesses contribute towards the Gross Domestic Product (GDP) (Sambo & Chiloane-Tsoka, 2015:189). Small businesses' contribution to South Africa's (SA) GDP was estimated at 45 % which is one of the lowest in the world (Mxunyelwa & Vallabh, 2017:2). The SA GDP for the third quarter of 2019 decreased by 0.6 % (Statistics South Africa (SSA), 2019:2). In this current global economic hardship, large companies in South Africa are retrenching employees (Akintola, Gwelo, Labonté & Appadu, 2016:309). Large-sized companies are struggling to make profits sufficient to retain existing employees, let alone to create new jobs by recruiting additional employees. There is a high failure rate of SMMEs (small, medium and micro enterprises) with most failing in the first five years of operating (Nikolić, Jovanović, Nikolić, Mihajlović & Schulte, 2019:1). This shows that entrepreneurs are still struggling to start and grow their business ventures. As per the Global Entrepreneurship Monitor (GEM) report, the creation of new business ventures or SMMEs in South Africa is one of the lowest worldwide as measured by total early-stage entrepreneurial activity (TEA) (Mahadea & Kaseeram, 2018:3). The TEA is measured by the percent of working-age population (18 to 64 years) both about to start an entrepreneurial activity, and who have started a business venture for a maximum of three-and-a-half years (42 months) (Herrington, Kew & Mwanga, 2017:22). The TEA rate for South Africa has declined whilst in comparison the TEA rate for the African region as a whole is 2.5 times greater than the South African TEA rate (Herrington *et al.,* 2017:6). The business start-ups are a challenge as seen by the TEA activity. The extant or traditional approach for

entrepreneurial development and support is based on the causation theory approach (Ladd, 2016:205; Roach, Ryman & Makani, 2016:215).

With this in mind, the purpose of this study investigated if effectuation decision logic is applied by non-expert township small business owners. If this decision logic is practised, the study investigated the relationship between effectuation and effectuation constructs (experimentation, affordable loss, flexibility and pre-commitments) with business growth of non-expert township-owned small business ventures. Business growth was measured using assets, sales and number of employees as indicators. Moderating effects of the industries that these business ventures operate in were also considered, if any. Effectuation theory is a decision-making logic that starts with means at hand to determine the outcome (business venture) that can be achieved by the means (Sarasvathy, 2001:245). This decision logic was found in 27 expert entrepreneurs with resource constraints based in the United States of America (USA). The entrepreneur starts by assessing resources or means they have at hand to determine what business they can start.

This study was unique as the sample size was larger (728) than the sample size (27 expert business owners and 37 MBA students) used by Sarasvathy in their (2001) seminal research. Pilot testing with 30 respondents was done in Honeydew township on the 13th of February 2020. The sample for this study consisted of non-experts and it was conducted in three townships of Alexandra, Honeydew and Soweto in Gauteng Province, South Africa. After obtaining ethical clearance, data were collected from 728 township small business owners during 10-16 March 2020. This was done via a structured questionnaire using administered data collection methods to accommodate the lower literacy levels in the townships. Both descriptive and inferential statistics have been applied in the study to investigate the research objectives. Factor analysis was used to test and confirm that the instrument used during pilot testing had internal reliability prior to collecting data from the 728 respondents. Descriptive statistical findings are that most respondents were made up of 691 (94.9 %) respondents who owned one business. There were 262 (36 %) youth aged 18 to 34 years, 412 (56.6 %) were male, 555 (76.2 %) did not have a high school qualification and 605 (83.1 %) operated in the retail industry. Inferential statistics using structural equation modelling (SEM) indicated that only effectuation (all four constructs combined), experimentation

and flexibility had a statistically significant relationship with business growth (assets and sales). However, business growth (employees) did not have a statistically significant relationship with effectuation or any of the four effectuation constructs. The industries the township small business owners operate in do not have a moderating effect on the relationship between effectuation and effectuation constructs with business growth.

This study made a significant contribution to the body of knowledge on effectuation and township small business growth. The findings made is that most non-expert township small business owners practised flexibility and most did not practise pre-commitments and affordable loss. In conclusion, the theoretical contribution of the study is that non-expert township small business owners who practised effectuation, experimentation and flexibility resulted in their businesses' growth. Practical and policy contribution is that effectuation may be considered as an alternative entrepreneurial approach with supporting township small business owners who are challenged with resource constraints and limited to prepare a business plan. Finally, retail, services and manufacturing industries are not moderating variables in this relationship.

Key words: Effectuation, Business growth, Township small business, Non-expert business owner

DEDICATION

First and foremost, I thank my parents for their love and support throughout my life. Without them I would not be here to achieve my PhD qualification.

My mother for the work ethic of constantly working tirelessly even when it is difficult to do so and my dad for the academic side, he exemplified to me.

I love you both.

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ABBREVIATIONS, ACRONYMS AND GLOSSARY

ANOVA	Analysis of Variance
CIPC	Companies and Intellectual Property Commission
CSF(s)	Critical success factor(s)
DF	Degrees of Freedom
DTI	Department of Trade and Industry
EU	European Union
FFF	Family, Friends or Fools
GDP	Gross Domestic Product Per Person
GDP	Gross Domestic Product
GEM	The Global Entrepreneurship Monitor 2017 Report
GEM	Global Entrepreneurship Monitor
GEP	Gauteng Enterprise Propeller
IFF	Intelligent Fast Failure
NEF	National Empowerment Fund
NEF	National Empowerment Fund
NYDA	National Youth Development Agency
NYDA	National Youth Development Agency
SA	South Africa
SA	South Africa / South African
SEDA	Small Enterprise Development Agency
SEDA	Small Enterprise Development Agency
SEFA	Small Enterprise Finance Agency

SEFA	Small Enterprise Finance Agency
SME(s)	Small and Medium Enterprise(s)
SMME(s)	Small Medium and Micro Enterprise(s)
SMMEs	Small, Medium and Micro Enterprise(s)
SPSS	Statistical Package for the Social Sciences
SSA	Statistics South Africa
TEA	Total Early-Stage Entrepreneurial Activity
TEA	Total early-stage Entrepreneurial Activity
UK	United Kingdom (of Great Britain)
USA	United States of America
VRINE	Value, rare, inimitable, non-substitutable and exploitable

CHAPTER 1:

INTRODUCTION AND BACKGROUND TO THE STUDY

1.1 GENERAL OVERVIEW

South Africa (SA) is an emerging economy that is in an unpredictable and unstable environment due to the rapidly changing customer needs and new threats (du Toit, 2017:16-17). Emerging economies, such as South Africa, have high resource or means constraints such as lack of or limited attributes, knowledge, networks and financial resources (Lingelbach, Sriram, Mersha & Saffu (2015:6-7) by entrepreneurs pursuing to start and/grow their businesses. This presents a challenge for township entrepreneurs requiring these resources to start and grow their new business ventures. These resource constraints faced by entrepreneurs are even higher amongst black people as compared with other races such as Whites, Indians and Coloureds in South Africa due to increased poverty amongst black people (Maseko, Viljoen & Muzindutsi, 2015:161; Burger, van der Walt & Yu, 2017:13). Poverty-stricken black people predominantly populate the townships (Ward & Shackleton, 2016:90).

Entrepreneurship is proven to contribute towards economic growth or increased Gross Domestic Product (GDP) and job creation (Adusei, 2016:209; Mashau & Houghton, 2015:601). Entrepreneurship creates small-, medium- and micro-enterprises (SMMEs) and is an important tool in the creation of jobs and to grow the economy (Zwane & Nyide, 2017:347). The Global Entrepreneurship Monitor (GEM) 2017 Report defined nascent entrepreneurs and new business owners as running their business venture for less than 42 months and established business owners for more than 42 months (Herrington *et al.,* 2017:17). Nascent and established business owners make use of different entrepreneurial approaches to start and grow their business ventures.

Effectuation theory underpinned this study and is an alternate emergent entrepreneurship approach compared to the traditional causation theory entrepreneurship approach. Effectuation is a decision-making logic that starts with

means at hand to determine the outcome (business venture) that can be achieved by the means (Sarasvathy, 2001:245). This effectuation is a decision-making process used by expert entrepreneurs in unstable environments whilst the causation approach is a decision-making process based on a predictable and stable environment (Arend, Sarooghi & Burkemper, 2015:5; Lingelbach *et al.,* 2015:6). Effectuation theory has been tested on nascent entrepreneurs; however, these nascent entrepreneurs were entrepreneurship university students pursuing undergraduate and post-graduate studies in a simulated business environment (Agogué, Lundqvist & Middleton, 2015:7). Nascent entrepreneurs in the high-tech industry from a real business environment have also been tested on the use of an effectual approach (Arend *et al.,* 2015:12).

The focus of this perceptual study was on investigating the existence and practice or application of effectuation theory, if any, on non-expert township entrepreneurs (nascent entrepreneurs, new business owners and established business owners) with limited resources, based in the townships, in a real business environment. Based on the literature read, a study like this does not appear to have been done to date. Effectuation and its effect on the business growth of small business ventures run by township entrepreneurs were tested by the four effectuation dimensions or principles. According to Lingelbach *et al.* (2015:10) these principles are:

- experimentation
- affordable loss
- flexibility, and
- pre-commitments.

For purposes of this study, effectuation and effectuation principles were tested (experimentation, affordable loss, flexibility and pre-commitments). Furthermore, the research was confined to non-expert township entrepreneurs operating in the following Gauteng townships:

- Alexandra township
- Honeydew township, and
- Soweto township.

The study was limited to the above townships because of accessibility, relative distance from the researcher and budgetary limitations. The study investigated

business growth of small business ventures owned by non-expert township entrepreneurs with limited resources. The remainder of Chapter 1 provided the background to the study, problem statement, research objectives, literature review, research methodology, significance of the study, limitations of the study and an outline of this document.

1.2 BACKGROUND

SMMEs contribute towards the Gross Domestic Product (GDP) (Sambo & Chiloane-Tsoka, 2015:189). The SMMEs contribution to GDP in South Africa was estimated at 45 % and this is one of the lowest in the world (Mxunyelwa & Vallabh, 2017:2). The SA GDP for the third quarter 2019 decreased by 0.6 % (Statistics South Africa, 2019:2). In this current global economic hardship, large companies in South Africa are retrenching employees (Akintola *et al.* 2016:309). Large-sized companies are struggling to make profits sufficient to retain existing employees, let alone to create new jobs by recruiting additional employees. There is a high failure rate of SMMEs with most failing in the first five years of operating (Nikolić *et al.*, 2019:1). This shows that entrepreneurs are still struggling to start and grow their business ventures.

As per the GEM report, the creation of new business ventures or SMMEs in South Africa is one of the lowest worldwide as measured by total early-stage entrepreneurial activity (TEA) (Mahadea & Kaseeram, 2018:3). The TEA is measured by the percentage of working-age population (aged between 18 and 64 years) both about to start an entrepreneurial activity, and who have started a business venture for a maximum of three-and-a-half years (42 months) (Herrington *et al.,* 2017:22). The TEA rate for South Africa has declined whilst, in comparison, the TEA rate for the Africa region as a whole is 2.5 times greater than the South African TEA rate (Herrington *et al.,* 2017:6). Business start-ups are a challenge as seen by the TEA activity. The extant or traditional approach for entrepreneurial development and support is based on the causation theory approach (Ladd, 2016:205; Roach, Ryman & Makani, 2016:215).

The sample frame of the perceptual study was township small business owners and it was worthwhile to discuss the township economy within which they operated in. The

township economy is defined as any services and/or products that are produced, distributed and/or consumed by the township community and these include but are not limited to stokvels (informal saving clubs), burial societies, street traders and spaza shops (Manyaka-Boshielo, 2019:3). It is predominantly informal in nature (unregistered business ventures) and characterised by survivalist business owners.

Causation theory starts with the outcome or effect as a given and then the entrepreneur seeks the means to achieve the outcome or effect (Sarasvathy, 2001:245). Small business owners would first define the outcome by drawing up a business plan and then it is followed by the small business owner sourcing the resources required to achieve the outcome. Government initiatives to aid entrepreneurial development and support of entrepreneurship through funding have and are being implemented through agencies such as the National Youth Development Agency (NYDA), National Empowerment Fund (NEF), Small Enterprise Finance Agency (SEFA) and Small Enterprise Development Agency (SEDA) (Mary, Ngozi & Simon, 2015:133; Oseifuah & Manda, 2017:127; Mpiti & Rambe, 2016:437). Despite these government initiatives based on traditional causation approaches, small business owners still face challenges of accessing resources they need to start and grow their businesses such as finance, acquiring business licences or permits and an adequately educated workforce, amongst others (Madi, 2017:41). These government initiatives have been implemented in townships such as the planned incubation hub for Diepsloot (a Johannesburg township) entrepreneurs to address the skills shortage (Chiloane-Tsoka & Mmako, 2014:380).

Business growth of small business ventures can be measured by the growth of turnover (sales or revenue), profit and number of employees in the business (Döckel & Ligthelm, 2015:54; Anderson, Chandy & Zia, 2016:4). The small business ventures in the township that were investigated operate in different industries. The different industries that these small business ventures are operating in could act as moderating variables when investigating their business growth that is linked to effectuation. The three industries are service, retail and manufacturing. In the study, the moderator of industry may affect the relationship between the two variables which are effectuation and business growth. Critical success factors (CSFs) differ across different industries

(Mrasi, Mason & Jere, 2018:33) and these differing critical success factors affect the business growth differently. Customer service may be a CSF in the service industry whilst in the manufacturing industry, the final product may be the CSF. Hence a CSF that affects business growth in one industry may not necessarily apply in another industry, thereby possibly making industry type a moderating variable in the relationship between effectuation and business growth. For purposes of the study, retail, service and manufacturing industry will be investigated as moderating variables for the relationship between effectuation practice and business growth.

1.3 DEFINITION OF KEY TERMS

1.3.1 Small business

Small businesses are independently owned business ventures that do not primarily focus on business growth, not dominant in the industry and tend not to be innovative (Nieman & Nieuwenhuizen, 2014:10).

1.3.2 Entrepreneur

An entrepreneur is an individual that realises a business opportunity, gathers the necessary resources, starts a business and grows it (Schaper, 2016:9).

1.3.3 Effectuation theory

Effectuation theory is a decision-making logic that starts with means at hand to determine the outcome (business venture) that can be achieved by the means (Sarasvathy, 2001:245). The entrepreneur starts by assessing resources or means they have at hand to determine what business they can start. Sarasvathy (2001:245) explained this in an example of a chef given ingredients and then allowed to determine the meal they will cook based on the ingredients available.

1.3.4 Causation theory

Causation theory starts with the outcome or effect as a given and then the entrepreneur seeks the means to achieve the outcome or effect. An example given by

Sarasvathy (2001:245) was the chef who starts by deciding on the meal to cook and then seeks the ingredients to make the meal.

1.3.5 Non-expert and expert entrepreneurs

Non-expert entrepreneurs are entrepreneurs that have limited or no experience in entrepreneurship (St-Jean, Radu-Lefebvre & Mathieu, 2018:13). Expert entrepreneurs have > 15 years' experience in running businesses and have run > 1 business (Dew, Read, Sarasvathy & Wiltbank, 2009:288).

1.3.6 Entrepreneurship

Entrepreneurship is the creation of a new business and business is defined as an activity that generates a profit, hence entrepreneurship is about having a profitable business venture (Adusei, 2016:201).

1.3.7 Business growth

Business growth can be measured in terms of an increase in production volumes, sales, number of employees, raw materials consumed, power consumed, assets, profits, profit margins and market share (Gielnik, Zacher & Schmitt, 2017:6). However, the two strongest determinants of business growth or performance are increases in sales and employees (Yeboah, 2015:6).

1.3.8 Township

The township is defined as lacking in urban infrastructure, poor standards of living, lacking in economic opportunities and/or places of stagnation (Huysamen, Barnett & Fraser, 2020:3) for the communities that reside or running a business there. These were predominantly built for blacks during apartheid and they were situated away from the developed urban areas.

1.4 PROBLEM STATEMENT

There is high unemployment and poverty in South Africa, especially in the townships where the average household income is below ZAR 2,000.00 per month (Davies,

Schneider, Nyatsanza & Lund, 2016:12). The creation of jobs has been linked with entrepreneurship (Otchia, 2019:908) including township entrepreneurship (Urban & Ndou, 2019:2).Township entrepreneurship activity is limited in the township economy (Van Rensburg, Telukdarie & Dhamija, 2019:4) but higher activities of entrepreneurship (increased TEA) are therefore one of the tools that can be used to create jobs. The core research problem is whether effectuation by township small business owners that are still struggling to start and grow their business ventures could assist in the business start-up and/growth of these business ventures. The predominant reason for this problem is due to the lack of resources (human, skills and finance) required by these business ventures (Bvuma & Marnewick, 2020:3) despite the numerous government initiatives to promote and support small business ventures. The causation theory approach is currently in use to promote entrepreneurship where non-expert entrepreneurs are required to draw up a business plan so that they can be considered for funding (Dutta, Gwebu, & Wang, 2015:530; Brinckmann & Kim, 2015:158). Non-expert entrepreneurs in the township lack the skill to draw up business plans as required to source funding, which results in failure to access funding (Malgas, 2019:370).

1.5 RESEARCH OBJECTIVES

This study proposed the practice of the emergent effectuation theory approach as a possible way of resolving the current problem of non-expert entrepreneurs who are struggling to start and/or grow their small business ventures. The study's purpose investigated how the application of effectuation and/or effectuation principles contribute towards the business growth of small business, if any. The effectuation theory was based on expert or experienced entrepreneurs (Arend *et al.*, 2015:12; Laskovaia, Shirokova & Morris, 2017:712). This study however investigated effectuation with non-expert township entrepreneurs and the effect on the business growth of their small businesses. Hence, the new contributions made by this study were guided by the following.

Primary research objective:
- To determine the nature of the relationship, if any, between effectuation and business growth.

Secondary research objective:

- The relationships with business growth, if any, to the four effectuation constructs which are experimentation, affordable loss, flexibility and pre-commitments.

1.6   OVERVIEW OF LITERATURE

1.6.1   Township environment, entrepreneurship and job creation

Preisendoerfer, Bitz and Bezuidenhout (2014:167) described the average South African township as being affected by severe poverty, crime, overcrowding, unemployment, backyard shacks, illegal electrical connections and poor sanitation. These are some of the additional elements that the small business owner needs to overcome whilst pursuing the goal of starting and growing a viable business. This township environment puts the non-expert township entrepreneur at a disadvantage, as it becomes an additional hurdle that the entrepreneur needs to overcome. The residents of these townships are the consumers of the services or products by the small business owner; however, they have a lower spending power since these consumers are poverty-stricken. Crime contributes to an unsafe environment to run a business with regards to holding larger inventory, safeguarding business assets and safe keeping of cash in the event that customers prefer or can only pay using cash. Overcrowding results in limited physical space for residents and small business owners and at times this can be a health hazard if the entrepreneur is involved in the selling of food.

Charman, Petersen, Piper, Liedeman and Legg (2017:50) in their research of township key sectors or industries classified these as consisting of health services (inclusive of traditional healers), street trade, spaza shops, micro-manufacturers, haircare, educare (child minding / nursery) and liquor retail. Basardien, Parker, Bayat, Friedrich and Appoles (2014:46) stated that they are manufacturing, trading and vending (street trade) industries in the township. Fourie and Kerr (2015:23) found in their study that trade (wholesale and retail) comprised the majority of 56.9 % whilst agriculture was the lowest at 1.1 % and the other industries in the township were transport and communication, manufacturing, construction and financial services. For purposes of this study, the business ventures were grouped into retail (spazas, street traders and

related), service (salons, nurseries, repair shops and related) and micro-manufacturers (gate manufacturers, carpenters and related). The study grouped the data to investigate the moderating effects of these different industries, if any, on the relationship between effectuation and business growth.

Different industries have different critical success factors (Mrasi *et al.,* 2018:33; Lampadarios, 2016:68) and their presence result in the business being successful (Knol, Slomp, Schouteten & Lauche, 2018:3956). Within the retail industry, one of the critical success factors is managing sources of income (Mabhungu & van der Poll, 2017:153) and this factor may not be a critical success factor in another industry such as the service industry. This means that based on the industry that the entrepreneur's business venture is operating in (retail, service or micro-manufacturer), the critical success factors will differ. The service industry was found to have a higher average business growth rate than for the manufacturing industry when both sales and employee numbers were used as business growth indicators (Segarra & Teruel, 2014:809). In this study, success or performance of township business ventures were defined by using business growth indicators of sales, assets and employment numbers. Due to the different success factors that exist across different industries, the industry may be a moderating variable that affects the relationship between the effectuation constructs and business growth of the business venture.

Table 1.1: Definition of SMMEs

Size		Examples	Number of Employees	Annual Turnover (ZAR)	Gross Assets, Excluding Fixed Property (ZAR)
Micro		Hawkers, vendors and subsistence farmers.	< 5 employees.	< ZAR 200 000.	< ZAR 100 000.
Very small		Operating in the formal market with access to technology.	< 10 to 20 employees, depending on industry.	< ZAR 500 000 to ZAR 6 000 000, depending on industry.	< ZAR 500 000 to ZAR 2 000 000, depending on industry.
Small		Generally, are more established than very small enterprises and exhibit more complex business practices.	< 50 employees.	< ZAR 3 000 000 to ZAR 32 000 000, depending on industry.	< ZAR1 000 000 to ZAR 6 000 000, depending on industry.
Medium		Enterprises are often characterised by the decentralisation of power to an additional management layer.	< 100 to 200 employees, depending on industry.	< ZAR 5 000 000 to ZAR 64 000 000, depending on industry.	< ZAR 5 000 000 to ZAR 23 000 000, depending on industry.
Source: Adapted from National Small Business Act (RSA26/2003) and (RSA102/1996).					

Table 1.1 gives a definition of the business ventures that fall under the SMME definition as per the National Small Business Amendment Act (26/2003) and National Small Business Act (102/1996). Based on Table 1.1, the study believes most small business owners in the township were probably falling in the category of micro, very small or small, based on gross asset value, turnover and number of employees.

Entrepreneurship is the start-up and/or business growth of SMMEs. Entrepreneurship has contributed to 20 % of job creation in the United States of America (USA), however most of these start-ups fail, thereby reducing the gains made in job creation (Decker, Haltiwanger, Jarmin & Miranda, 2014:3-4; Stuetzer, Audretsch, Obschonka, Gosling, Rentfrow & Potter, 2017:3). Entrepreneurship has been proposed as the solution that will assist emerging economies such as South Africa to create jobs and eradicate poverty (Meyer, 2014:75). Adusei (2016:201) defined entrepreneurship as the creation of a new business and business is defined as an activity that generates a profit, hence entrepreneurship is about having a profitable business venture. An entrepreneur is defined as someone with vision, adaptability, persuasion, confidentiality, competitiveness, risk-taking, honesty, perseverance, discipline, organisation altruism, weighting, work, job satisfaction, commitment and self-motivation (Imaginário, Cristo, Jesus & Morais, 2016:102). An entrepreneur innovates and grows their business into a large business venture (Schaper, 2016:10). Entrepreneurs are involved in exploration of the environment to exploit the opportunities via innovation (Volery, Mueller & von Siemens, 2015:17). Entrepreneurship has also been linked to contributing towards economic growth and job creation in developing economies such as in South Africa (Adusei, 2016:209; Mashau & Houghton, 2015:601). Entrepreneurship in the township should then create jobs for the entrepreneur and other people as they grow their business. Phillips, Moos and Nieman (2014:85) stated that entrepreneurship leads to new business ventures (SMMEs) and these new business ventures lead to the creation of new jobs.
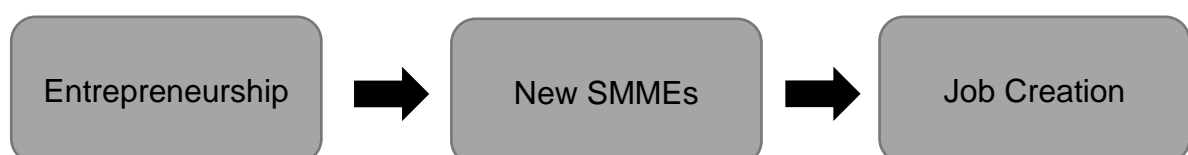
Source: Adapted from Phillips *et al.* (2014:85)

Figure 1.1: Job creation process

Creation of businesses in the form of SMMEs is important as South African SMMEs in the past contributed 52 % to 57 % of the GDP, they made up 91 % of formal businesses and provided about 61 % of employment (Oseifuah & Manda, 2017:126). This makes the examination on entrepreneurship extremely important to ensure that more small business ventures are started and grow as this would equate to more jobs in the economy. Most township business ventures are based at home (Mkwanazi & Mbohwa, 2016). In the United Kingdom, home based businesses have seen a significant growth and represent a higher proportion of businesses (Daniel, Di Domenico & Sharma, 2015:799). It should then be no surprise that the South African government has focused on SMME support. From 2006, government initiatives via the Department of Trade and Industry (DTI) to support SMMEs also started to include the townships, as previously the focus was only on the formal sector that predominantly operates outside the township (Rogerson, 2016:174). This function by the DTI to support SMMEs was taken over by Department of Small Business Development since 2014 (Skinner & Haysom, 2016:13).

1.6.2 Non-expert (nascent and established) and expert entrepreneurs

For purposes of this study, the "non-expert entrepreneur" consists of a "nascent entrepreneur", "new owner" and "business owner of an established business".

Non-Expert Entrepreneur

Nascent & New Business Owner	Established Business Owner	Expert Entrepreneur + Run Multiple Businesses
0-3.5 Years	+3.5-15 Years	+15 Years
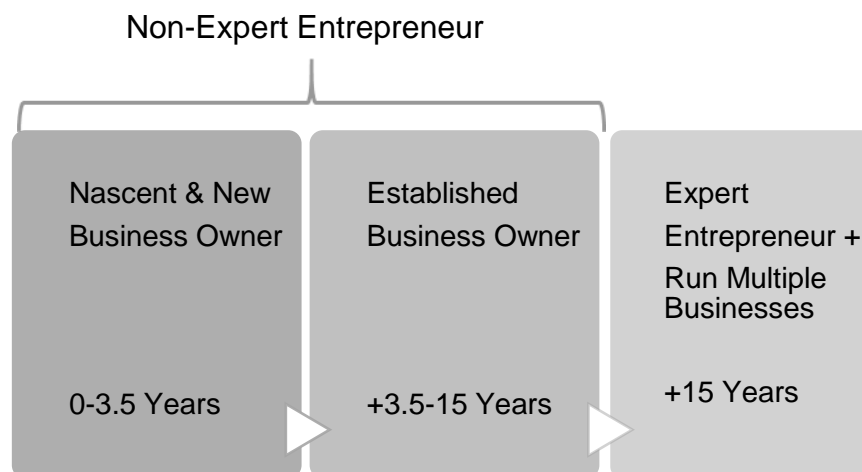
Source: Adapted from Herrington *et al*. (2017:17) and Dew *et al*. (2009:288)

Figure 1.2:   Entrepreneur levels

The nascent entrepreneur ranges from an entrepreneur that has intent to start a business all the way to an entrepreneur that is running their venture but with limited experience. Nascent entrepreneurs are defined by GEM as being business start-ups and owner-managers running their business for three-and-a-half years (42 months) or less (Herrington *et al.*, 2017:17). This study considered zero to 42 months as a guideline to define a nascent entrepreneur. This period of 42 months would need to be full-time on the business as opposed to running it as a side business on weekends or other part-time options. A business owner of an established business is one who has run a business that has paid the owner a salary for more than 42 months (Herrington *et al.*, 2017:17). Ayala and Manzano (2014:128), in their study, defined an established business as employing between 10 and 50 employees and their definition was the same as the one used by GEM. For the purposes of the present study:

- The established business will be older than 42 months but less than 15 years.
- The non-expert entrepreneurs fall in the category of small business owners.

The effectuation theory was founded on the basis of expert entrepreneurs operating in conditions of uncertainty (Alsos, Clausen, Mauer & Solvoll, 2016:340). These entrepreneurs were experts because they had more than 15 years' experience, had run two or more different businesses and had proven performance that was superior (Dew *et al.,* 2009:288). The difference between the expert and non-expert (nascent, new and established) entrepreneur is based on who has more experience in running business ventures (+15 years) and the number of business ventures run (two or more). In the study, the expert entrepreneur used the effectual decision logic whilst the non-expert entrepreneur used a predictive (causal) decision logic.

1.7   ENTREPRENEURSHIP IN THE TOWNSHIP

The township environment presents challenges for the township entrepreneur to start and grow their business ventures. Lack of good infrastructure, presence of informal settlements, high school-dropout rates and high levels of substance abuse are challenges that face the township (Manyaka-Boshielo, 2017:3). Despite existing government support initiatives for entrepreneurs (financial and non-financial), most township entrepreneurs are not aware of these initiatives and/or cannot access these

initiatives (Gwija, Eresia-Eke & Iwu, 2014:66). Entrepreneurs in the South African township close their business ventures due to failure to outcompete new entrants such as the Somalis opening up spaza shops or township liquor stores failing to comply with legal requirements (Hartnack & Liedeman, 2017:3-4). Township businesses stock the same products with other stores to sell to the same customers, resulting in lack of differentiation to gain a competitive advantage (Anderson *et al.,* 2016:10). Township entrepreneurs do not partner together to grow their business ventures but preferred to work with entrepreneurs from outside the township (Koens & Thomas, 2015:13). White-owned retailers in township malls and white-owned tourist operators operating in the townships are a barrier to the business growth of township entrepreneurs as they have better skills, access to market and finance (Chili & Mabaso, 2016:203). Most residents in the township do not have title deeds to their properties and therefore cannot use their homes to raise capital to start new business ventures (Herrington *et al.*, 2017:53). All these challenges stated above hinder the start-up and business growth of township business ventures.

1.8   CAUSATION THEORY AND EFFECTUATION THEORY

The term "means" is used when examining effectuation and causation. Means of the entrepreneur refers to who they are, what they know and who they know (Welter, Mauer & Wuebker, 2016:7). To start a business, human resources, financial resources, organisational resources, physical resources and social resources are required (Kellermanns, Walter, Crook, Kemmerer & Narayanan, 2016:29). For purposes of this study, these terms were defined with reference to effectuation: "**Who they are**" refers to elements such as, financial resources, physical resources, background, demographics, financial situation and any other elements that describe who they are as this affects what business concepts they can consider. "**What they know**" refers to information resource elements such as academic qualifications, work experience, business experience, exposure to certain industries or markets and any other areas that the entrepreneur is knowledgeable about. "**Who they know**" refers to the people the entrepreneur knows within their social, business, family and any other networks that include friends, family, colleagues, classmates and so on (human resources). These means are likely to differ between an expert entrepreneur as

compared to the means of a nascent entrepreneur with limited internal resources (Davidsson & Gordon, 2016:8).

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                        ┌─────────────┐
                        │    Means    │
                        └─────────────┘
              ╱               │               ╲
             ╱                │                ╲
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│    Who I am       │ │   What I know     │ │   Who I know      │
│   (Physical &     │ │   (Information    │ │    (Human         │
│    Financial      │ │    Resources)     │ │    Resources)     │
│    Resources      │ │                   │ │                   │
└──────────────────┘ └──────────────────┘ └──────────────────┘
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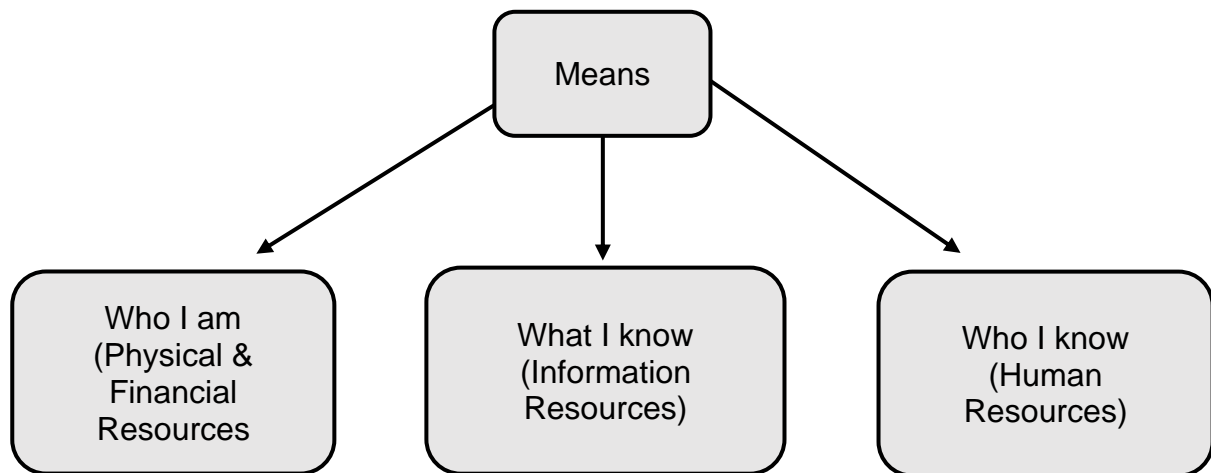
Source: Adapted from Welter, Mauer and Wuebker (2016:7)

Figure 1.3:   Means defined

The means of the small business owner in the township consists of who they are, what they know and who they know. In a study in the townships of Tembisa and Ivory Park, most small business owners who owned salons were found to have Matric or at least some secondary schooling (Charman *et al.*, 2017:9). Langa and Imizamo Yethu township-born small business owners with established business networks, social networks and greater financial resources are more successful in their business ventures (Koens & Thomas, 2015:15).

1.8.1   Causation theory

Causation theory seeks to explain the entrepreneurial process of how a business venture is created. This process is said to be predictive, linear, prescriptive and can be planned by following the linear process of identifying the opportunity, concept development, evaluation and refinement of the opportunity, acquisition of resources and then commencement of the business (Qureshi, Sheikh & Israr, 2016:622). Causation has a strong focus on techniques of planning and a predictive approach to exploit predictions or existing knowledge (Berends, Jelinek, Reymen & Stultiëns, 2014:9). Based on the traditional causation theory, small business owners are

required to draw up a business plan by government agencies or potential business partners or funders regarding the opportunity the non-expert entrepreneur has identified. The assumption is that these business opportunities are not affected by other factors such as the means (exogenous) (Daniel *et al.,* 2015:802). Current support initiatives for non-expert entrepreneurs are based on the traditional causation theory approach as opposed to considering the emergent effectuation theory approach (Roach *et al.,* 2016:215). These government support initiatives include assistance with access to funding, access to markets and business support services (Tustin, 2015:86). The causation approach is based on a predictable business environment whilst the real business environment that small business owners operate in is unpredictable and unstable (du Toit, 2017:16). Agogué *et al.* (2015:3) added that causation theory functions on the following principles:

- Establish a goal and exert efforts to achieve the goal.
- Seek the optimal opportunities towards achieving the goal. Surprises or slight changes from the goal are to be prevented.
- Engage in contractual relationships that ensure achievement of the goal.
- Predict the future to control it.

The causation approach hence has the limitation of being viable specifically in a stable environment, as opposed to the current unpredictable environment that small business owners operate in today. The other limitation with the causation approach for the small business owner, is accessing the resources to make the business plan a reality.

1.8.2 Effectuation theory

The study proposed that the effectuation principles of experimentation, affordable loss, flexibility and pre-commitments are independent variables that affect the dependent variable of business growth. The study further proposed that the industry the small business owner operates in could be a moderating variable that affected the relationship between effectuation and business growth as per Figure 1.4.

Effectuation principles when adopted by the small business owner had either a positive or negative effect on business growth. The industry the business operates in may affect this relationship between effectuation principles and business growth.

Welter *et al.* (2016:6) stated that effectuation theory came about because the behaviours of some entrepreneurs in the real world showed a decision-making that was different to the theory proposed in causation. Effectuation theory proposes that the future cannot be predicted whilst causation theory states that the future can be predicted (Sugheir & Neupert, 2017:119). The effectuation theory by Sarasvathy (2001) was based on the behaviours of 27 expert entrepreneurs in the USA in the late 1990s to show how a resource poor expert entrepreneur behaves to create a market using their limited means (Arend *et al.*, 2015:2). The effectuation principles when combined, manage the risk of an unpredictable and uncertain future for a business venture (Hes, Sulaiman, Chávez, Mintah & Salman, 2017:39). The four effectuation principles were explored below.
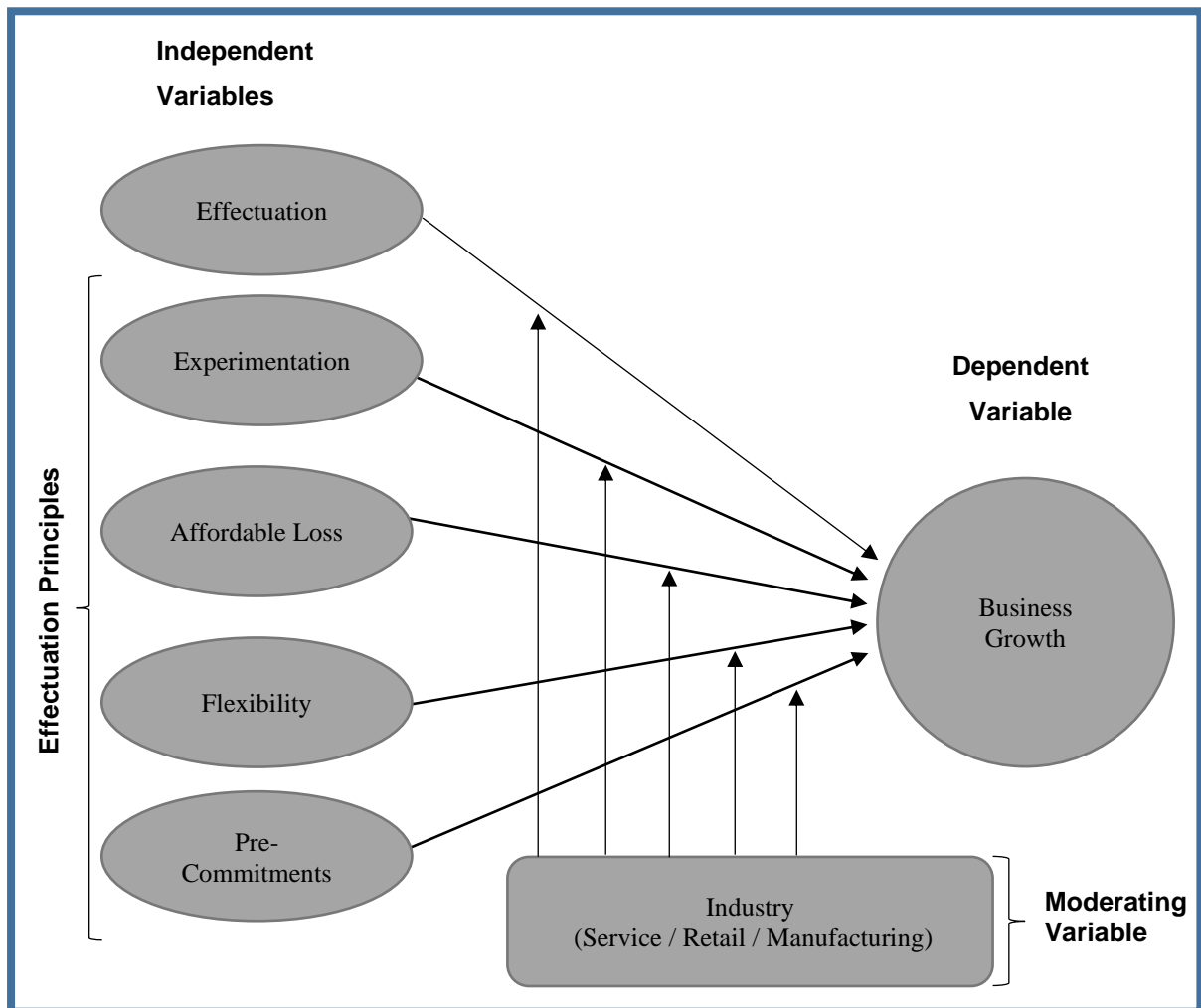
Source: Adapted from Lingelbach *et al.* (2015:10)

Figure 1.4:   Effectuation and business growth

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1. **Experimentation** with different models becomes a continuous search till a business model that is viable is found by the entrepreneur (Reymen, Berends, Oudehand & Stultiens, 2016:597). A viable business model is one that ensures that a business does not fail (McDonald & Eisenhardt, 2014:41). Experimentation is when the effectual entrepreneur instead of first determining the outcome or objective, assesses the means they have at hand and then based on existing means, considers the outcomes or objectives that can be achieved with the means. Effectual entrepreneurs do not try to predict the future regarding markets but they create the market or endogenous opportunities. Qureshi *et al.* (2016:624) called the experimentation principle the intelligent fast failure (IFF) as these experiments quickly indicates if the business concept or model would work or not over a shorter duration of time. This would minimise the negative effects to the business as the entrepreneur can move on and explore alternative business models.

2. **Affordable loss** is when the effectual entrepreneur does not focus on maximum returns or the profits that they would make but rather focus on acceptable or maximum affordable loss (Deligianni, Voudouris & Lioukas, 2017:5). This means the small business owner determines the loss they are prepared to absorb or accept in their business venture. A causal approach would focus more on the return that they expect to make back on the time and money investment made in the business venture. Daniel *et al.* (2015:800) further expanded the definition of affordable loss to also include social loss in terms of risking social status to self if the business venture fails. Ladd (2016:207) also adds that the affordable loss is not merely money but also consists of time and effort that the effectual entrepreneur is prepared to lose in the venture should it fail.

   Affordable loss logic was practised by non-expert entrepreneurs in impoverished communities in Kenya with the goal that it would result in reasonable gains or marginal positive returns in their small business ventures (George, Kotha, Parikh, Alnuaimi & Bahaj, 2016:1129). These entrepreneurs could not afford to lose all the little they had as this could lead to starvation, so they invested what they could afford to lose. Affordable loss concept could

imply smaller investments which could imply smaller growth (reasonable gains) in assets, sales and employee numbers. Affordable loss carries the risk for an impoverished non-expert township entrepreneur to focus on a survival point of continued operation as opposed to an aspirational point of growth.

3. **Flexibility** is where the effectual entrepreneur embraces surprises, accepts and leverages contingencies in their business venture (Eyana, Masurel & Paas, 2017). The entrepreneur in the traditional predictive approach does not want surprises (Agogué *et al.*, 2015:3), as they prefer to work with minimum risk or ideally seek a stable environment in which predictions made at the beginning do not change. Causation approach predicts the future to control it. The effectual entrepreneurs are flexible to emergent opportunities (Yamakawa, McKone-Sweet, Hunt & Greenberg, 2016:24) to take advantage of these as their business ventures evolve to exploit these opportunities. In effectuation there is a goal that is set based on means and this goal can be changed based on the uncertain environment that may change (Pfeffer & Khan, 2018:28). This change or uncertainty in the business environment is not frowned upon but rather welcomed and the entrepreneur sees it as an opportunity. Flexibility positively contributes to the performance of early-stage business ventures (Laskovaia *et al., 2017*:713). Flexibility would allow the non-expert township entrepreneur to adapt their business model or concept based on the emergent opportunities or threats in the business environment they operate in.

4. **Pre-commitments** are where the effectual entrepreneur is not a lone ranger that pursues opportunities alone but rather seeks partnerships or strategic alliances to create synergies, maximise the efforts or minimise the losses (affordable loss concept) (Smolka, Verheul, Burmeister‑Lamp & Heugens, 2016:7). More experienced entrepreneurs (expert entrepreneurs) have a greater tendency to form pre-commitments prior to starting a new business venture (Poh, Aziz & Rosdi, 2017:64). Pre-commitments or partnering connects to the means elements of "who I know". The effectual entrepreneur does not seek these pre-commitments after determining the business venture to pursue based on their own means. Effectual entrepreneurs start with these pre-

commitments and then together with these strategic partners, determine the business venture to be pursued (Günzel-Jensen & Rask, 2015). These pre-commitments reduce the affordable loss element as more people carry the risk (Hes *et al.*, 2017:39). These pre-commitments are formed from the entrepreneurs' networks of stakeholders such as suppliers, customers and potential investors. Pre-commitments from a supplier example was when Richard Branson was loaned a plane from Boeing with an option to return it in a year if the business failed (Engel, Kaandorp & Elfring, 2015).

In addition to effectuation and causation, there are additional theories or approaches that an entrepreneur may use to start their business. Bricolage, similar to effectuation, is about making do with what is at hand (Servantie & Rispal, 2018:312) however, it is a resourcing behaviour and not a decision-making logic (effectuation). Franchising is another approach in which an entrepreneur (franchisee) pays to adopt a successful and proven existing model, brand and intellectual property from an existing company (franchisor) (Farooq, Liu, Ahmad, Fu & Awan, 2019:582). Businesses such as McDonald's and KFC are started via franchising were the entrepreneur pays a licence fee and monthly royalties in exchange for access to own and operate an identical business model with all the branding and products. For purposes of this study, the focus will be on effectuation. Causation will be discussed where relevant as effectuation and causation are two theories that seem to be opposites at face value.

1.8.3   Effectuation vs causation

Effectuation theory and causation theory may be misconstrued as opposite and different options that an entrepreneur needs to select as they may be perceived to be mutually exclusive. This however is not always the case as these approaches can be complimentary in a business venture but at different phases of the business venture (Ernst, 2016:5). Effectuation may be practised by the entrepreneur at the start-up phase of the business and as the business venture enters into a business growth phase, the causation approach may be used (Lemos & Andreassi, 2015:39). The causation approach may be applied later on in the innovation trajectory as the business enters the business growth phase whilst effectuation is applied earlier on

(Berends *et al.,* 2014:4). Both effectuation and causation approaches can co-exist but be applied at different stages in the life of the business.

Jiang and Rüling (2017:3) compared the effectuation theory and causation theory as per Table 1.2 based on the four principles of effectuation. Effectuation compared with causation is about control of an unpredictable future, focusing on how much the entrepreneur is prepared to lose, exploiting contingencies as they happen and partnering to reduce the affordable loss.

Table 1.2: Effectuation versus causation

Principle		Effectuation	Causation
Experimentation		Control of an unpredictable future as belief is that the future is unpredictable.	There is prediction of the future as the belief is that the future is predictable.
Affordable loss		How much of a loss the entrepreneur is prepared to make in the business venture.	Expected return that the entrepreneur will make from the business venture.
Flexibility		Exploit contingencies as they present themselves – "lemonade principle" that "when life gives you lemons, make lemonade."	Exploitation of pre-existing knowledge of the business environment and do not embrace surprises as they occur.
Pre-commitments		Strategic alliances or partnering to also further reduce the affordable loss.	Competitor analysis is the strong focus.
Source: Adapted from Jiang & Rüling (2017:3)			

1.9   BUSINESS GROWTH

Almost all entrepreneurs have a goal to make more profit and to grow their business ventures (Iwu, Gwija, Tengeh, Cupido & Mason, 2016:32). South Africa is classified as an emerging economy and it has resource constraints (Lingelbach *et al.,* 2015:7) that negatively affects non-expert township entrepreneurs in starting and growing their small business ventures. The high failure rate of small businesses within the first five years (Nikolić *et al.,* 2019:1) indicates that entrepreneurs are still struggling to start and grow their business ventures. Financial or non-financial indicators may be used to measure the business growth. Use of financial indicators to measure business growth are more objective and eliminate respondent bias as compared with the use of non-financial indicators (Gerschewski & Xiao, 2015:11). For purposes of the study, business growth was measured using financial and non-financial indicators. Sales and profit are financial indicators that can be used to measure business success (Phillips *et al.,* 2014:86). Eshima and Anderson (2017:771) made use of sales (revenue) growth and assets growth as financial indicators of measuring business growth. Tehseen and Ramayah (2015:54) stated that researchers prefer to use profit and sales as financial indicators of business growth in a business venture as successful business ventures need both profit and sales to remain viable.

Business growth or performance can be measured in terms of an increase in production volumes, sales, employees, raw materials consumed, power consumed, assets, profits, profit margins and market share, however, the two strongest determinants of business growth or performance are increases in sales and employees (Yeboah, 2015:6). Sales and employment are the most used business growth indicators (Segarra & Teruel, 2014:810; Gerba & Viswanadham, 2016:533). For purposes of this study, growth in assets, sales and employees was used as an indicator of business growth.

1.10   RESEARCH METHODOLOGY

The research design used in this study was based on the research onion by Saunders, Lewis and Thornbill (2009:109) illustrated in Figure 1.5.
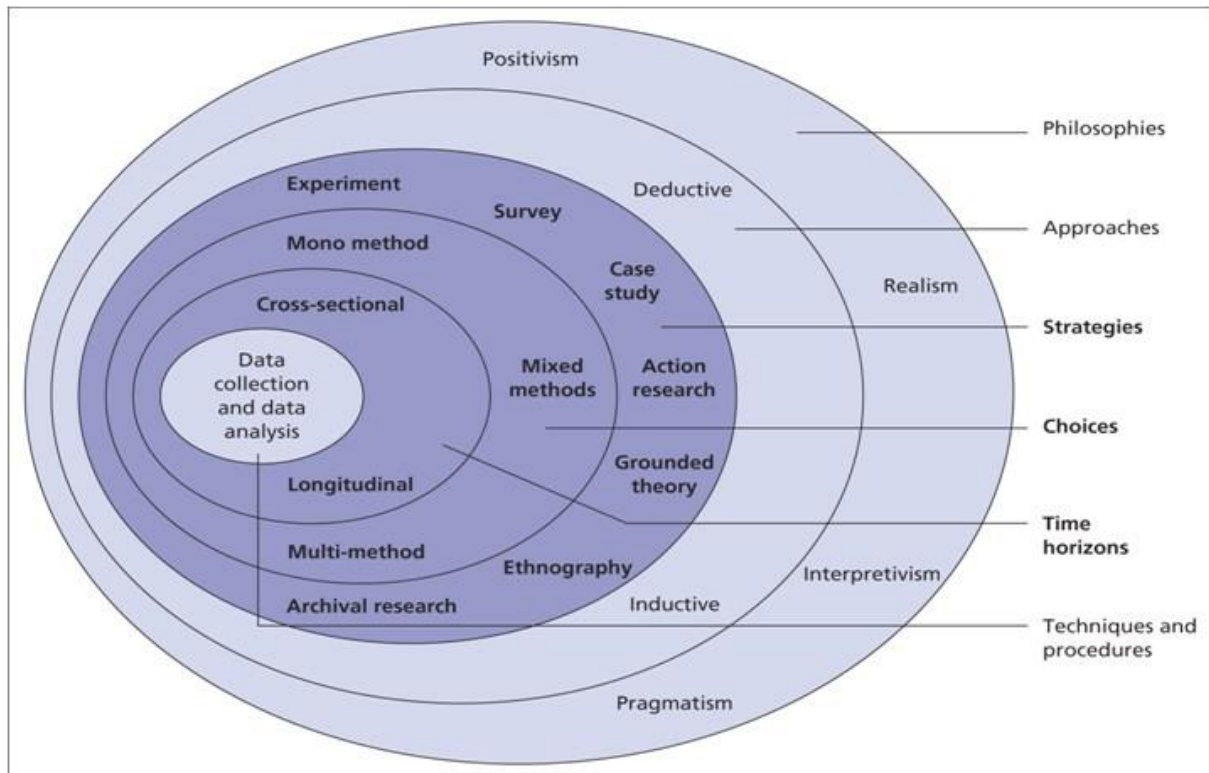
Figure 1.5:   Research onion

Research design based on the research onion commenced from describing the philosophy of the study and work its way inwards till the techniques and procedures of the study.

1.10.1 Research philosophy

In this study, the research philosophy was positivism because it is based on observable and quantifiable data (Antwi & Hamza, 2015:218). This study was empirical, based on the ability to provide evidence (Taylor, Bogdan & DeVault, 2017:12). At the end of the study, the hypotheses made was either supported or not by the data collected in the field.

1.10.2 Research approach

The deductive approach was used in this study. The deductive approach is based on expecting an outcome (hypothesis) and testing if this outcome is true based on

collected data (Rahi, 2017:2). The study ensured that the researcher and data collectors did not affect the outcome of the study by not leading or influencing responses of the respondents. Data validity relates to trustworthiness and accuracy of the findings, instrument and data (Bernard, 2017:53). The study ensured the instrument used ensured validity by making use of an existing questionnaire that had passed tests for validity in previous studies.

1.10.3 Research strategy

The research strategy used in the study was a survey. A survey allowed the collection of large quantities of questionnaires from the population to come up with overall patterns (Rowley, 2014:4-5). This strategy was ideal for the study as the target was that 800 questionnaires were collected to ensure there was sufficient data with limited errors or spoilage for the study. The study collected data from non-expert township entrepreneurs in the townships of Alexandra, Honeydew and Soweto. The questionnaire used in this study includes a five-point Likert scale that contained close-ended questions requiring answers that were quantified and analysed.

1.10.4 Research choice

The mono method choice was the quantitative methodology. This study used quantitative methodology because of the large volumes of quantitative or numerical data, the questionnaire having closed-ended questions and the need to test hypotheses or testing theories (Basias & Pollalis, 2018:92). This choice was ideal for this study as per the following statements that followed. This study used empirical and systematic investigation which was ideal for large volumes of data that were be collected, and it was easier to compare these findings as they were   quantified. This approach tested hypotheses by processing and analysing the data collected that was quantifiable.

1.10.5 Time horizons

Cross-sectional time horizon was used for this study. It is also called snap shot approach and this study was concerned with the findings at a specific point in time as opposed to over a period (Taylor *et al*., 2017:137). The advantage of using this time

horizon is that it is relatively inexpensive and it is easier to convince the sample to partake of the study as it is generally a once off activity for them. This time horizon was suitable for the study as it measured the current situation with reference to the relationship between effectuation and business growth.

1.10.6 Techniques and procedures

The study used the non-probability sampling approach of purposive sampling together with snowballing sampling to collect data in the townships of Alexandra, Honeydew and Soweto. Purposive or judgemental sampling is a non-probability approach where the researcher selects the respondents in the study based on set criteria regarding who qualifies to be a respondent (Etikan, Musa & Alkassim, 2016b:2). Snowballing sampling consists of respondents referring other respondents that qualify as respondents (Etikan, Alkassim & Abubakar, 2016a:55). The specific requirements that need to be met by the respondents in this research frame was that of being a non-expert township entrepreneur with a business venture operating from start-up to 15 years. The sample size targeted data collection from 800 respondents from the population. The study made use of existing tested questionnaires relating to effectuation theory and/or business growth. A questionnaire had been found that was used previously in testing the presence of effectuation and/or causation (Chandler, DeTienne, McKelvie & Mumford, 2011:382). The questionnaire was adapted to this study's problem to generate the questionnaire for this study.

Data collection using a structured questionnaire was used. The questionnaires were self-administered and the data collectors assisted in clarifying where required to minimise the risk of a question being misunderstood or ambiguity that was unintentional by the respondents (Brace, 2018:24). This data collection was done in the township areas where non-expert entrepreneurs are operating such as shopping centres, businesses centres, streets and homes. These included but were not limited to street traders, panel beaters, spazas, salons and internet cafes based in the townships. This method is more costly and time consuming but response rates are higher compared to emailing questionnaires. This method was however used for two main reasons which is that the response rate is higher (Lupu & Michelitch, 2017:6)

and the study researcher had no access to a database of township entrepreneurs. Disadvantage of this method may be that data collectors may be exposed to existing criminal elements in the township (Preisendoerfer *et al.,* 2014:167). Another disadvantage may be the suspicion that information collected may be handed over to South African Revenue Service (SARS) as South Africa is vulnerable to tax evasion by SMMEs (Kira, 2017:253). Ethical clearance, discussed later, remedied this possible disadvantage in the study.

A team of at least three data collectors was recruited and trained by the researcher on how to safely, correctly, accurately and ethically approach respondents to collect this data in the townships. The instrument was first pretested (pilot test) to ensure that the questions or statements on the questionnaire were understood and interpreted by the respondents as initially intended by the researcher (Hilton, 2017:2). Pretesting was done by collecting data using the instrument from 20-30 respondents. Respondents were asked to think out aloud whilst responding or asking them probing questions. Based on the findings, the instrument was either updated and pretested or left unchanged if valid.

Errors made by the data collectors was a real risk when the questionnaire was administered by them. Data collector attributes such as age, gender and ethnicity can affect the responses or participation of the respondents in the survey (Lupu & Michelitch, 2017:7). The study had data collectors with different genders (co-gender) and multilingual data collectors who speak at least English, Zulu and Sotho (co-ethnic) to minimise this error. The languages selected were the common languages in the townships being surveyed at the time of writing the research proposal.

At times, a data collector may falsify details of the respondents so that the respondents qualify to be part of the study. They might even skip some questions to quickly complete their target quota for the day and complete these questions later by themselves (Lupu & Michelitch, 2017:8). The study reduced this risk by addressing these temptations upfront with the data collectors and emphasising the importance of this research finding to the economy. This should hopefully appeal to their conscious to do right or do less wrong.

Once the data are collected, the questionnaire were checked that all questions were completed in full and then the information captured onto a computer program. Data analysis was done by using (SPSS) version IBM SPSS (Statistical Package for the Social Sciences) STATISTICS version 26 and IBM SPSS AMOS version 26 computer program to describe and explore the data (Rowley, 2014:24). In the study, SPSS was used for chi-square tests, regression coefficient, mean, standard deviation and other inferential statistical tests.

1.11 EFFECTUATION AND BUSINESS GROWTH

A study of SMMEs in the retail sector who had support from a sponsor organisation, implied that business growth was more likely to happen with entrepreneurs that applied effectual as opposed to causal decision making in their business ventures (Le Roux & Pretorius, 2015:101).

Welter and Kim (2018:24) stated that experimentation practised by effectual entrepreneurs would result in their business ventures performing well, especially in an uncertain environment that is difficult to predict. Business venture performance in the study refers to growth in assets, sales and employees. Experimentation with various practices and strategies, therefore leads to additional business growth opportunities for a business (Omri, & Ayadi-Frikha, 2014:365). Businesses that engage in experimentation would result in new products and services which lead to business growth of the business (Altinay, Madanoglu, De Vita, Arasli & Ekinci, 2016:9). Experimentation with business models was seen by Khanagha, Volberda and Oshri (2014:325) as an alternative strategy that facilitated business growth. Experimentation increases the ability of the business to cope with changes in the market and competition, thereby improving business growth (Guo, Suo & Ahlstrom, 2016).

When township non-expert entrepreneurs focus on survival, they become risk averse and focus on affordable loss as opposed to business growth or gains (Wennberg, Delmar & McKelvie, 2016:9). As stated earlier, most township entrepreneurs are survivalist and they may reduce business risk by focusing on reducing losses that can

occur in the pursuit of business growth. In a resource constrained country such as South Africa, affordable loss led to survival and/or business growth of the business (Eyana *et al.,* 2017). The study believes the affordable loss may lead the non-expert entrepreneur to quit too early in the interest of limiting their loss and business growth may not be achieved.

Vedanthachari and Baldock (2015:2) stated that flexibility is strategic as it creates competitiveness due to the ability to assess changes and adapt to these changes through the flexible use of resources (means). A business ventures' success in the ever-changing business environment is dependent on the ability for it to adapt as the changes occur (Ivanov, 2017:6). Better customer value is provided by a business that adapts to changes to obtain customer loyalty and long-term competitive advantage (Prommarat, Pratoom & Muenthaisong, 2017:74). Customer loyalty and competitive advantage against competitors led to an improved business performance. Innovative products and services from strategic flexibility of the business led to improved business performance (Dibrell, Craig & Neubaum, 2014:7). Li, Zhou, Zhang, Chen and Tian (2018:11) stated that strategic flexibility resulted in organisational performance and sustainable competitive advantage. Flexibility therefore should improve the likelihood of the business venture to succeed.

Pre-commitments contribute towards the performance of a business venture (Urban & Heydenrych, 2015:133). Pre-commitments in terms of partnerships with stakeholders such as customers and suppliers increased the means available (Deligianni *et al.*, 2017:3). Additional partners in the business equate to more resources in the form of funding, physical resources and/or ideas to make the business more successful. More means available should translate to better business growth or performance of the business venture. Pre-commitments from self-selected stakeholders reduces the risk of losses as this risk is shared with more partners (De Villiers Scheepers, Boshoff & Oostenbrink, 2018:26). Pre-commitments with high status partners provided a non-expert entrepreneur's business with legitimacy in the market (Günzel-Jensen & Rask, 2015). Legitimacy of the business increases its competitiveness which in turn contributes positively towards business growth. An example of how pre-commitments has led to business growth was when British

Petroleum (BP) partnered with International Finance Corporation (IFC) and other investors to expand into Southern African countries (Lingelbach *et al.*, 2015:12).

1.12 SIGNIFICANCE OF THE STUDY

This study's findings and recommendations contributed new knowledge towards the effectuation theory of non-expert entrepreneurs' small business in the township. The study was academically valuable as effectuation theory was based on the expert entrepreneur but this study first tested the presence of effectual practise by non-expert township entrepreneurs. The study further investigated the nexus between the four effectuation constructs (principles) and business growth of small business ventures run by these non-expert township entrepreneurs. The study finally investigated the moderating variable of industry with regards to business growth based on the effectuation constructs. Additional contributions to the effectuation theory made the theory worth considering when looking at how to grow the township business ventures of non-expert entrepreneurs.

The effectual approach could be beneficial as an entrepreneurial approach for non-expert township entrepreneurs. The resource constraints faced by township entrepreneurs could be minimised or eliminated whilst they start and grow their small business ventures as this is a means based approach. The environment these non-expert township entrepreneurs operate in is also unpredictable and unstable (du Toit, 2017:16), therefore suggesting that effectuation might be an appropriate approach worth investigating as it is based on unpredictable environments. Township entrepreneurship can be a solution to the creation of jobs once the relationship between the effectuation principles and business growth is understood.

The other possible benefit of effectuation if found to be existent, would be the removal of the barrier to the non-expert township entrepreneur of having to know how to write up a business plan to request funding. Based on the research findings, these may contribute to improving on the government support provided to grow non-expert township entrepreneurs by agencies such as NYDA, NEF, SEDA and SEFA.

1.13 LIMITATIONS

The disadvantage of the non-probability sampling approach (purposive and snow balling) used in the study did not give each member of the population an equal probability of selection, as it is subjective to selection by the researcher or data collector (Yang & Banamah, 2014). The study was conducted in the townships in Gauteng province and this may limit the study in understanding how township small business owners in other provinces may have respondent as the challenges and/or opportunities may differ in the different provinces. Hence, the research outcome cannot be inferred to the entire population of non-expert township entrepreneurs in South Africa (Etikan *et al.*, 2016a:55). The time horizon used in the study was cross-sectional thereby the study did not track the changes in decision logic, if any, across a time range by the respondents.

1.14 STRUCTURE OF THE DOCUMENT

The chapters in the study were outlined as detailed in Table 1.3:

Table 1.3: Outline of chapters

Chapter	Title	Description
1	**Introduction**	Background, problem statement, research objectives, significance of study and chapters outline
2	**Entrepreneurship, township small business owners and business growth**	Definition, theories of entrepreneurship, creation and business growth of small business, government support initiatives to promote small business creation, job creation by new small businesses, township small business owners and environment, challenges faced by township non-expert entrepreneurs
3	**Effectuation theory or approach**	Definition, constructs or principles, expert entrepreneurs and non-expert entrepreneurs

4	**Relationship between effectuation and business growth**	Discussions on the relationships of all four effectuation constructs, business growth and industry as a co-variant variable
5	**Research design and methodology**	Philosophy, approach, strategy, choice, horizons, techniques and procedures
6	**Research findings**	Empirical data collection, analysis and interpretation of results
7	**Conclusions and recommendations**	Conclusions, limitations of the study and recommendations for future study
Source: Author's own compilation.		

CHAPTER 2:
ENTREPRENEURSHIP, TOWNSHIP SMALL BUSINESS OWNERS AND BUSINESS GROWTH

2.1   INTRODUCTION

"Entrepreneur" and "small business owner" terms are at times used interchangeably but do these have different meanings? The term "small business" was defined from a South African context and also an international context. Most of these small businesses are still struggling to survive or grow (Nikolić, *et al.,* 2019:1). However, the surviving small business ventures grow or stabilise over time (Gielnik *et al.,* 2017:4) and it is worthwhile to investigate why this is the case. Different approaches such as resource-based view, theories, effectuation theory and dichotomies such as necessity based (survivalist) versus opportunity-based entrepreneurship amongst other approaches, theories and dichotomies were mentioned by different authors (Hoskisson, Gambeta, Green & Li, 2018:3; Fairlie & Fossen, 2018:2; Van der Zwan, Thurik, Verheul & Hessels, 2016:274).

Is there a difference in challenges faced by a township small business owner and an urban small business owner that operates in the central business district? It may be important to understand the differences to prevent the mistake of addressing their different businesses' growth challenges as one in the study. When a business' performance is investigated, it is important to understand in the study how the business performance is accurately measured to prevent subjective measures. As the business goes through different stages of an organisational lifecycle, it is good to explore if different decision-making logics apply at the different stages of a business venture. For the small businesses that struggle or fail to grow, it is important to understand the constraints and barriers to business growth with reference to individual, environmental and institutional barriers that affect the small business owner in the township.

2.2 ENTREPRENEUR AND ENTREPRENEURSHIP

2.2.1 Entrepreneur versus small business owner

Entrepreneurs have been classified as those individuals that innovate (Planko, Cramer, Hekkert & Chappin, 2017:615) and also those that do not innovate in starting their business ventures as per the following authors. Firstly, relating to the non-innovative or replicating business owners, as per Welter, Baker, Audretsch and Gartner (2017:7), they defined entrepreneurship as the formation of an organisation for a number of reasons not limited to reasons that are monetary, societal or growth. An entrepreneur is someone that creates a profitable business (Adusei, 2016:201). Bujor and Avasilcai (2016:25) defined an entrepreneur as an individual who creates a new business and they become the founder of that business. The first definitions of an entrepreneur include a small business owner who may not be innovative but rather replicates an existing business.

Relating to the second definitions, the innovative business owners as per Kuratko (2016:3) defined entrepreneurship as not just creating a new venture but being innovative and pushing the new idea till an innovative process, idea or product is implemented. An entrepreneur is defined as an individual with vision, adaptability, persuasion, confidentiality, competitiveness, risk-taking, honesty, perseverance, discipline, organisation altruism, weighting, work, job satisfaction, commitment and self-motivation (Imaginário, Cristo, Jesus & Morais, 2016:102). An entrepreneur is also defined as an individual that innovates and grows their small business into a large business venture (Schaper, 2016:10). Entrepreneurs are involved in exploration of the environment to exploit the opportunities via innovation (Lyver & Lu, 2018:16). Schumpeter in the 1930s also defined the entrepreneur as being innovative as opposed to "following the crowd" and this concept was coined the Schumpetarian entrepreneur (Cantner, Goethner & Silbereisen, 2017:9). The Schumpetarian and similar definitions of an entrepreneur would probably disqualify a business owner who imitates another business as an entrepreneur. Volery and Mazzarol (2015:378) examined the differences between the innovative entrepreneur and the replicating "entrepreneur" as per Table 2.1.

Table 2.1: Entrepreneur versus small business owner

	Entrepreneur	**Small Business Owner**
Definition of the field	The process whereby an individual discovers, evaluates and exploits a business opportunity.	The administration of a small, independent business venture.
Firm size	Small, medium or large.	Small to medium.
Potential for growth	**Significant**: targets a large, global market.	**Limited**: targets a local or regional market.
Innovation	**Significant**: usually based on a new product, a new way of producing it or a new business model.	**Limited**: although a small business might be new to a locality, it usually delivers an established product or service.
Key individual and strategic objectives	**The entrepreneur**: an individual who established and manages a business for the principal purpose of profit and business growth.	**The small business owner-manager**: an individual who manages a business for the principal purpose of furthering personal goals.
Source: Adapted from Volery and Mazzarol (2015:378).		

From Table 2.1, the innovative entrepreneur has high levels of innovation and their principal purpose is profit and business growth whilst the small business owner who replicates is less likely to be innovative and their principal purpose is to further personal goals. Entrepreneurs are focused on scaling up their start up business ventures whilst the small business owner is content with the business staying small. Both the entrepreneur and small business owner have a similarity in that they own or manage a small business.

A small business owner may be innovative and business growth may occur whilst running the small business. An entrepreneur, however, needs to be innovative and have a focus on business growth (Cilliers & Strydom, 2016:242) and profits. For purposes of the study, the investigation was based on the small business owner to prevent excluding other business owners in the township who may not be innovative. The study predominantly used the term "small business owner" as small business owners can also include entrepreneurs as some small business owners can be entrepreneurial (innovative with business growth focus). The term entrepreneur may exclude some small business owners as some small business owners may not be innovative. So, what are the different approaches, considerations or theories that a small business may use in starting their business venture?

2.2.2 Dichotomies, approaches and theories of entrepreneurship

Entrepreneurship is defined as risking the investment of time, resources and effort without certainty of a return or profit but with a goal of achieving a return or profit (Venkataraman, 2019:124). Entrepreneurship has also been defined as when an individual sacrifices a salaried job in exchange to the risk of owning a business venture (Burton, Sørensen & Dobrev, 2016:243). A full-time self-employed individual or an employed individual also running their own business or having a significant share in the business (> 30 %) is another definition of entrepreneurship (Markussen & Røed, 2017:366). Entrepreneurship has theories, approaches and dichotomies such as effectuation, causation, opportunity versus necessity-based, formal versus informal, innovator versus replicator, growth-oriented versus lifestyle and entrepreneur versus small business owner/proprietor (Welter *et al.*, 2017:4). Some of these theories, approaches and dichotomies of entrepreneurship was briefly explored below. This allows one to gain an appreciation of the possible approaches or considerations that may be available to the township small business owner in creating and/or growing their business.

2.2.2.1 Necessity-based (survivalist) versus opportunity-based entrepreneurship

Most small business owners are necessity based as they start their business purely out of the need to survive or generate an income to sustain a living (Block, Kohn, Miller & Ullrich, 2015:38). These necessity-based small business owners do not have any other opportunities to consider such as employment (Kontolaimou, Giotopoulos & Tsakanikas, 2016:11). Necessity-based small business owners have a push motivation as they do not have much of a choice in being small business owners since negative circumstances push them in that direction (Van der Zwan *et al.,* 2016:274). These necessity-based small business owners are found mostly in populations that have lower educational levels that make it difficult to get employment, language barriers (immigrants) and facing economic hardships (Miller & Le Breton-Miller, 2017:8; Nikolaev, Boudreaux & Palich, 2018:7). The above descriptions of small business owners are similar to the descriptions of township small business owners.

Opportunity-based small business owners are pulled by opportunities that can generate a profitable business and not because they had no options (Fairlie & Fossen, 2018:2). Contrary to the statement that most entrepreneurs are necessity based (Block *et al.*, 2015:38), the GEM Report found that in South Africa most entrepreneurs are opportunity based (Herrington *et al.,* 2017:6). Alertness to opportunities is a key driver towards opportunity-based entrepreneurship (Holienka, Pilková & Jancovicová, 2016:115). With high unemployment levels in the township (Piper & Charman, 2016:333) and lower levels of education in the township (Charman *et al.*, 2017:9), one could possibly deduce that most small business owners in the township are necessity based. Low levels of education in the township make it harder to access employment and starting a business could become an option worth considering to survive. Migrant business owners operating in the township are also driven by necessity as they cannot access employment opportunities (Cobbinah & Chinyamurindi, 2018:7). Necessity based business owners were found to be older, with lower levels of education and lacking in skills (Yitshaki & Kropp, 2016:3).

2.2.2.2 Opportunity recognition and opportunity exploitation

So how does a small business owner determine what business venture to create? With small business owners that are entrepreneurial, they first recognise an opportunity in the market and then exploit the opportunity to generate a profit and/or business growth for the business (Kuckertz, Kollmann, Krell & Stöckmann, 2017:79). The small business owner recognises the opportunity through exploration which entails searching and experimentation whilst exploitation includes developing efficiencies on the recognised opportunity (Kammerlander, Burger, Fust & Fueglistaller, 2015:585). There are discussions whether opportunities are created or are in existence and are waiting for a small business owner to discover them. Small business owners need to be alert to recognise these opportunities (Maine, Soh & Dos Santos, 2015:1), thereby implying that not all small business owners recognised opportunities even if they exist in the market. Nieto and González-Álvarez (2016:508) referred to three stages of opportunities, namely: stages of existing, discovering and exploiting. Opportunity exploitation occurs when the small business owner invests their resources into the opportunity recognised to gain a competitive advantage (Ge, Sun, Chen & Gao, 2016:500). The resources that are used to explore the recognised (new) opportunities are not extra resources but rather a trade-off tends to occur. The trade-off may be where the small business owner sacrifices short-term productivity by transferring some of these resources towards an innovation which should pay off in the long-term (Goel & Jones, 2016:96) with bigger returns.

2.2.2.3 Resource-based view

The resource-based view states that a business venture gains a competitive advantage by having unique bundles of resources (Hoskisson *et al.,* 2018:3). These resources need to be valuable, rare, inimitable and non-substitutable (Nason & Wiklund, 2018:6) to ensure that this competitive advantage is sustainable. The VRINE (value, rare, inimitable, non-substitutable and exploitable) model can be used to analyse if resources in a business are of value, rare, inimitable, non-substitutable and exploitable (Liu, Zhou, Zhao & Gao, 2017:62). If resources meet the criteria in the VRINE model, competitive advantage can be sustainable. Examples of these resources include social capital from social networks, organisational process, product and process innovations and intellectual capital through experience and knowledge of

employees (Campbell & Park, 2017:2). Resources alone do not provide the competitive advantage. Capabilities are how the resources are turned into a competitive advantage by exploiting the resources using organisational processes (Khan, Yang & Waheed, 2019:286). Intellectual capital is an example of a resource but the capability is when the intellectual capital in people is exploited to come up with a competitive advantage. Resources relating to the small business owner in the township was examined later on.

2.2.2.4 Formal versus informal entrepreneurship

Formal entrepreneurship is the creation of a new business that is a registered legal entity (Adusei, 2016:204). There would be separation between the owner/s and the business as two separate entities. Tertiary and secondary education positively contribute towards formal entrepreneurship and by the business owner's higher confidence and improved intellectual capital of the owner (Jiménez, Palmero-Cámara, González-Santos, González-Bernal & Jiménez-Eguizábal, 2015:206).

Informal business ventures are not registered as a legal entity, do not keep accounting records and are not registered to pay tax (Williams & Shahid, 2016:1). An estimated two-thirds of start-ups in developing countries (like South Africa) are informal in nature and this makes them lack legitimacy compared with registered business ventures (Williams, Martinez–Perez & Kedir, 2017:774). When an economy develops and there are more opportunities to be employed with a decent salary, less informal entrepreneurship occurs from predominantly necessity based small business owners (Omri, 2020:281). The informal sector is predominantly run by poorly educated entrepreneurs running small firms with a lower productivity level (Fu, Mohnen & Zanello, 2018:3). Street vendors, backyard mechanics and manufacturers that are not registered would fall under the informal business venture and they were investigated in the study. The study included these small business owners that operate in the township.

2.2.2.5 Growth-oriented versus lifestyle

Growth-orientated business owners, also classified as opportunity based, has a clear goal to grow the business, reinvest profits and recruit additional employees

(Afutu-Kotey, Gough & Owusu, 2017:3-4). The purpose of the small business owner is to create a business venture that grows and generates profit. Business growth of the township small business ventures was measured in the study and a relationship of this business growth with effectuation investigated, if any.

Lifestyle small business owners rarely have a goal of business growth for their business and rarely employ additional employees besides themselves (Masurel & Snellenberg, 2017:3). Their main goals are those of pursuing a hobby or having the freedom of owning their own time without the pressures of a boss and not that of business growth (Webb, Khoury, Hitt, Marano, Ramiller, Shymko, Taylor & Tierney, 2019:23). An example would be a passionate cyclist who starts a cycle tours business venture in the township that allows them to cycle around the township without the main goal of growing the business but rather sustaining their lifestyle through the business.

2.2.2.6 Schumpeterian and Kirznerian entrepreneurship

Schumpeterian entrepreneurship relates to the creation of something new, in other words, an entrepreneur is innovative (Leyden & Link, 2015:4). Innovation from product development and research would be an example of the creation of something new. Schumpeter believed in "creative destruction" by the small business owner as a process that disturbs the current way of doing things which results in new products, new markets and new processes (Nunes, 2016:2). Uber is a good example of Schumpeterian entrepreneurship that has disrupted the traditional taxi business by an innovative way via a computer application that brings more convenience for the passenger (Henama & Sifolo, 2017:7).

Kirznerian entrepreneurship is all about discovering an existing opportunity and exploiting it (Foss & Klein, 2015:4). Sales and marketing functions in a business is an example of discovering and exploiting an existing opportunity (Keyhani, Lévesque & Madhok, 2015). A small business owner that sits at their business premises without going out to the market to sell their product may miss out on existing clients that may have a need for their product. Kirznerian entrepreneurs need to be alert to recognise existing opportunities (Yang & Andersson, 2018:458), otherwise they would miss out on these existing opportunities. Small business owners in the township that sell their

products via street trading, spaza shops or door-to-door sales would be an example of Kirznerian entrepreneurship. Necessity-based small business owners fall under the category of Kirnerian entrepreneurship (Lyalkov, Carmona, Congregado, Millán, & Millán, 2019:3) It is possible to deduce that most township small business owners fall under the Kirznerian group unless they create new products, new services or new processes.

2.2.2.7 Causation theory

With causation, a business opportunity is recognised, then developed and evaluated by writing up a business plan prior to looking at the resources or means at hand that the small business owner has (Dutta *et al.*, 2015:530). Causation starts with the desired outcome or effect as a given and then sources the resources to make the outcome happen (Mishra & Zachary, 2015:7). Causation is a decision-making process that is rational that comprises of opportunity recognition, evaluation and exploitation of the opportunity (Servantie & Rispal, 2018:310). Causation is a dichotomy to effectuation as effectuation starts with the means to decide the effect or outcome whilst causation starts with the effect and outcome and sources the means. Having mentioned the dichotomous relationship, causation and effectuation are not mutually exclusive opposites as they can co-exist in entrepreneurship (Laine & Galkina, 2017:906). In applying the causation logic, a small business owner's goal is to predict an uncertain future with a focus on expected return whilst trying to reduce unexpected contingencies (Engel, van Burg, Kleijn & Khapova, 2017:124). This is the current approach that government agencies provide small business owners' support. Effectuation that was investigated in the study, had a different approach that seems opposite to that of causation.

2.2.2.8   Effectuation theory

Effectuation unlike causation, starts by considering the means or resources of the small business owner to consider what business venture they may start (Galkina & Chetty, 2015:649). Using the example of preparing the meal, with effectuation the existing ingredients determined what meal would be cooked (Sarasvathy, 2001:245). Effectuation principles were analysed in more detail in Chapter 3.

Having explored a number of different dichotomies, approaches and theories of entrepreneurship above (necessity based versus opportunity-based entrepreneurship, opportunity recognition and opportunity exploitation, resource-based view, formal versus informal entrepreneurship, growth-oriented versus lifestyle, causation theory, effectuation theory, Schumpeterian and Kirznerian entrepreneurship), all these are related to the formation and/or running of a business venture. The small business owner may be innovative in coming up with a new product, service or processes; or may simply replicate an existing business. The small business owner's purpose or reasons for the venture may differ such as seeking business growth, profit or lifestyle amongst other reasons. For purposes of this research, the focus was on small business owners that were running business ventures in the townships for not more than 15 years. Considering business ventures not older than 15 years ensured that the study is based on non-expert business owners in the township as per expert entrepreneur definition (Dew *et al.,* 2009:288). The term small business owner encompassed both the Kirznerian and Schumpeterian entrepreneur as both types may exist in the small business owner. Some of these small business ventures who may have experienced business growth, even if this was never the goal from the onset, was investigated on the nexus between business growth and effectuation.

2.3   SMALL BUSINESSES

Small business ventures are defined as being mostly run by the owner without employees (Spence, 2016:46). These small businesses operate at a small scale with less technological advancement and tend to service the local market with their products or services (Yu, Lu, Wang & Song, 2017:11). In Africa, business ventures with fewer than 20 employees are mostly defined as small businesses (Page & Söderbom, 2015:45). As can be seen from the definitions above, small business ventures are defined differently and the study determined a definition that is for the purpose of the study to ensure the research is specific to township small businesses. The definition was analysed and determined later on in the study.

2.3.1 Small business defined – national and international

In South Africa, as per the National Small Business Act (26/2003) and (102/1996), an SMME is defined as:

- Ranging from street hawkers to an established business that has a management structure.
- Employing not more than 200 employees.
- Annual revenue not exceeding ZAR 64 M.
- Gross assets excluding fixed assets to a value not exceeding ZAR 23 M.

Table 2.2: Definition of SME or small business

Country or Region or Institution	SME or small business definition
European Union Countries	Less than 50 employees, annual turnover less than GBP 10 million or balance sheet value less than GBP 10 million.
World Bank	Less than 50 employees, total assets less than USD 3 million or annual sales less than USD 3 million.
Australia, Canada, Japan, Korea and New Zealand	10 to 49 employees
Mexico	11 to 50 employees
Turkey	20 to 49 employees
United States of America	10 to 99 employees and annual revenue of less than USD 7.5 million
Source: Adapted from Berisha and Shiroka Pula (2015:19-20) and Kalak and Hudson (2016:6).	

As can be seen from Table 2.2, different countries and institutions use different quantifiable criteria for defining a small business. The USA define small businesses or SMEs based on the number of employees and revenue whilst the European Union and World Bank also includes value of assets in their classifications. From an African

perspective, Kenya defines SMEs as businesses that are lawfully registered, employ up to 150 employees and annual revenue less than 100 million Kenyan Shillings (Mwaniki & Ondiek, 2018:3). Rwanda defines SMEs as businesses that have employees not more than 100, revenue less than 75 million Rwandan Franc and net capital investment value in the business less than 75 million Rwandan Franc (Gamba, 2019:3). There is a similarity in the South African definition and international definitions when it comes to the number of employees in small businesses but there are differences when it comes to values of assets and revenues, even if converted to the same currency for comparison purposes. This may be due to currency or economic level performance (first world versus second world versus third world differences) in the different countries or regions.

2.3.2 Importance of small businesses in general

The creation of a small business results in self-employment by the small business owner and this reduces unemployment (Cueto, Mayor & Suárez, 2015:1231). Small business owners contribute towards the growth of an economy and the reduction in poverty (Afolabi, 2015:53). The USA realised that small businesses would be the ones to drive competitiveness and innovation as compared to large businesses (Jing, Qinghua & Landström, 2015:864). The creation of small businesses in China between 1990 and 2010 halved unemployment (Si, Yu, Wu, Chen, Chen & Su, 2015:120). Small businesses contributed towards job creation and opportunities for suppliers as seen in a study of microbreweries in the UK (Danson, Galloway, Cabras & Beatty, 2015:16). European Union (EU) countries realised that small businesses contribute towards innovation, job creation, wealth generation and opening up of new markets (McCann & Ortega-Argilés, 2016:539). Australia, despite experiencing a drop in the number of new businesses, appreciates that small businesses contribute in the creation of jobs (Bakhtiari, 2019:139). Different countries outside of South Africa have seen the benefits of small businesses to job creation, innovation, wealth generation, opportunities for suppliers and opening new markets.

2.3.3 Importance of small business in South Africa

Most gross job creation is generated by small business ventures in developing countries (Li & Rama, 2015:5) and South Africa is classified as a developing country (Israel & Wynberg, 2019:405). The South African government sees small business owners as the solution to economic growth and reduction of unemployment (Chinomona & Maziriri, 2015:835). Small business ventures contribute towards the creation of jobs (Saleem, 2017:24). Shrinking opportunities for jobs in large business ventures have forced government to focus on small business ventures in both formal and informal sectors (Ayandibu & Houghton, 2017:53). It is, however, younger firms (nascent) rather than small firms (established) that create new jobs in the market (Block, Fisch & Van Praag, 2017:62; Adelino, Ma & Robinson, 2017:2). The focus, therefore, needs to be more on the nascent small business owner as it is in some of these small businesses where accelerated productivity and job creation happens (Li & Rama, 2015:4). Small businesses create jobs when the economy is growing and are less affected when the economy is contracting or facing lower growth (Anyadike-Danes, Hart & Du, 2015:14), hence their importance in job creation and poverty alleviation in South Africa.

2.3.4 Small businesses and their operating environment: urban, rural and townships

Urban business operating environment in a CBD allows a business to have access to business space and market, affordable rental space and close proximity to public transport networks and employees (Gregory & Rogerson, 2018:8). The urban inner cities, like Johannesburg, have local and foreign migrants trading as street hawkers (Moyo, Nicolau & Gumbo, 2016:341). Protests are common in the inner-city including confrontations due to evictions of vacant buildings and removal of street traders from the designated business districts (Turok, 2016:220). In the urban business environment, infrastructure is less of a challenge but informal trading is controlled to designated areas as a challenge.

The rural business operating environment is challenged by poor infrastructure in the form of poor transport networks, remoteness and limited access or non-existence of schools, healthcare, banks, telecommunications, electricity and internet (Lekhanya, 2016:112). Lack of access to finance is more prevalent in the rural business

environment due to lack of collateral and perceived high risk by financial institutions (Oseifuah & Manda, 2017:127). There is high unemployment and high levels of poverty in the rural environment (Makhitha, 2017:3). Township operating environment were examined in detail later in Chapter 2.4.7.2 as that is the environment that the study was conducted in.

Table 2.3: Township versus urban small business owners

Township small business owner	Urban small business owner	Author/s
Their local customers are township residents with limited access to skills, internet access is costly to them with access predominantly through internet cafes.	Their customers include white middle-class with higher skills and easier access to internet to read up on the small business owner's offering online via their website or other online technologies.	Hikido (2018:2592)
Limited trading premises for township small business owners.	Urban small business owner has access to qualified workers, good transport network and good communication infrastructure.	Njoroge and Bett (2018:125); Crecente-Romero *et al.* (2016:5159)
Small business owner has lower skills, lower educational limited access to finance.	Small business owner is highly skilled, has a better education level and has access to finance and other resources required to run a business	Lloyd (2018)
Township small business owner is faced with a challenging environment that has xenophobic-driven looting of shops, crime, gangs and violence. It is, however, cheaper to start and grow a business in the township due to low overheads.	Protests due to forced evictions of people in vacant buildings and removal of street traders from the designated business districts are common in the inner city.	Tengeh (2016:208-209); Turok (2016:220)
Poor financial management of their business venture.	White-owned businesses are more likely to be bigger as they have more access to finance.	Moos and Sambo (2018:22); Makina, Fanta, Mutsonziwa, Khumalo and Maposa (2015:14)

Source: Adapted from Hikido (2018:2592), Njoroge and Bett (2018:125), Crecente-Romero et al. (2016:5159), Lloyd (2018), Turok (2016:220), Tengeh (2016:208-209), Makina et al. (2015:14), and Moos and Sambo (2018:22).

2.3.5 Township versus urban small business owner

Table 2.3 compared the difference between a township and an urban (non-township) small business owner to understand the challenges or barriers faced by township small business owners compared with their counterparts in an urban environment. As can be seen from Table 2.3, the township small business owner is faced with different challenges than the urban small business owner such as poor financial management, limited trading spaces and poor educational levels of the township small business owner. In contrast, both the urban and township small business owners face a hostile business that is characterised by xenophobic driven looting (township) and protests due to evictions in unoccupied buildings (urban). Despite these challenges or environments that the township small business owner faces, the study looked at the creation and business growth of these small businesses.

2.4   BUSINESS CREATION AND BUSINESS GROWTH

Effectuation is a decision-making logic practised by a business owner in starting and/or growing a business. The relationship between business growth and effectuation is the main focus of the study and hence the reason that creation and business growth of the small business was examined below. Effectuation could be a possible solution to assist small business owners who cannot access funding to finance their plan to start and/or grow their business.

2.4.1   Business creation

Before a small business may be created, there needs to be an intent to be entrepreneurial by the (latent small business owner) potential small business owner (Malebana & Swanepoel, 2015:90). According to the GEM Report, entrepreneurial intention is measured by the percentage to population (18 to 64 years) of latent small business owners who want to start a business in the next three years and this figure has dropped from 15.4 % in 2013 to 10.1 % in 2015 (Herrington *et al.,* 2017:7, 21). When a latent small business owner intends to start a business, it is after this intention has occurred that a behaviour towards creating the small business can happen. In addition to the challenge of low numbers of latent small business owners with intent to create new business ventures, Pedchenko, Strilec, Kolisnyk, Dykha and Frolov

(2018:167-8) stated that there is the lack of financing of these businesses by institutions due to the perceived high risk of new ventures as they have no collateral.

The existence of an opportunity does not necessarily mean a small business owner recognised and exploited it. Opportunity creation or discovery is based on the knowledge and skills of the small business owner (Becker, Knyphausen–Aufseß, & Brem, 2015:156). An alert latent small business owner would then recognise and find ways to exploit an opportunity (Kuckertz *et al.,* 2017:79). If the business venture is formal, the small business owner would have it registered or apply for any relevant licences or accreditations in order to commence their business. At some point in the creation of the small business, capital would be required, be it a small or large amount. Paschen (2017:179) stated that the traditional way that small business ventures raise capital to start a business is through family, friends or fools (FFF). Other forms of funding may be from banks through a loan or angel investors who buy equity in the small business venture (Crick & Crick, 2018:4). For township small business owners living in a high poverty and high unemployment environment (Piper & Charman, 2016:333) limits their access to funds through friends or family who live in the same environment as they too would be affected by poverty and high unemployment.

2.4.2 Concept of growth / business growth

For business growth to happen, the small business owner needs to explore and find the opportunities. After finding the opportunities, these opportunities need to be exploited profitably. Small business owners of growth-oriented business ventures were found to be ambidextrous in applying both exploration and exploitation of opportunities (Volery *et al.,* 2015:18) to grow their business.

2.4.3 Types of business growth

A small business can grow in a number of ways and there are two main types, organic business growth and mergers and acquisitions. **Organic business growth** is internal growth which can happen thorough the development of new or existing markets or development of new or existing products to increase sales (Achtenhagen, Brunninge & Melin, 2017a:459). Organic business growth is slower compared with other business

growth types but it is cheaper to implement as it is about exploiting existing resources to increase sales and/or profits (Epuran, Dovleac, Ivasciuc & Tescașiu, 2015:930). Organic growth is frequently used by small business ventures (Daunfeldt, Johansson & Halvarsson, 2015:54). Organic business growth would be easier to implement for small business owners in the township to achieve business growth. The other type of business growth is **external** or **acquired** business **growth** and involves mergers and acquisitions where two or more companies become one to increase economies of scale, market share, diversification, geographical expansion and operating margins (Reddy & Huang, 2016:2). A merger is when two or more companies join to become one whilst an acquisition is when one company purchases another company (Anderibom & Obute, 2015:98). Mergers and acquisitions are common in larger business ventures (Burghardt & Helm, 2015:898). Since the study is based on business growth of small business ventures in the township, this business growth was probably organic or internal business growth. The resource-based view explored earlier, if applied to the small businesses in the township with limited resources, limited their business growth opportunities.

2.4.4   Measurement of business growth / indicators of business growth

Non-financial or **Financial Indicators** may be used to measure business growth. **Non-financial** indicators are subjective and may include measuring customer satisfaction, product quality, employee satisfaction and innovation amongst other measures (Vij & Bedi, 2016:607). The disadvantage of **non-financial indicators** is that they are subject to bias from the respondent when conducting quantitative research such as for this study. Hence **Financial Indicators** were used in the study.

Use of **Financial Indicators** to measure business growth are more objective and eliminate respondent bias in comparison with the use of **Non-financial Indicators** (Gerschewski & Xiao, 2015:11). Business growth can be measured by indicators of **Sales, Employee Numbers, Asset Value, Profitability, Company Value, Return on Assets** and **Market Value** amongst other indicators (Gielnik *et al,* 2017:6). Sales, profit and employee numbers are financial indicators that can be used to measure business success (Phillips *et al.,* 2014:86). Eshima and Anderson (2017:771) made use of sales (revenue) growth and assets growth as financial indicators of measuring

business growth. Tehseen and Ramayah (2015:54) stated that researchers prefer to use profit and sales as financial indicators of business growth in a venture as successful business ventures need both profit and sales to remain viable. Business growth can be measured in terms of an increase in production volumes, sales, employees, raw materials consumed, power consumed, assets, profits, profit margins and market share, however, the two strongest determinants of business growth or performance are increases in sales and employees (Yeboah, 2015:6). Sales and employment are the most used business growth indicators (Segarra & Teruel, 2014:810; Gerba & Viswanadham, 2016:533).

For purposes of this research the business growth indicators used were sales, employee numbers and asset value. These financial indicators were easier for a township small business owner to measure to determine if these business growth indicators in their small business increased, decreased or remained the same as opposed to non-financial indicators. These indicators are quantitative in nature and do not require complex calculations or an external organisation or person to measure. The small business owner is hands on and would be able to measure these indicators.

2.4.5 Lifecycle stages of small businesses

Hänninen, Jokela, Saarela and Muhos (2017:229) stated that early business growth stages in small (micro) business ventures were split in the following four stages of growth through:

- market exploration and commercialisation
- market acceptance
- profitability and renewal, and
- diversification.

Organisational lifecycles have been defined with different number of stages. At these different stages of the business ventures' lifecycle, different decision making would apply (Amir & Auzair, 2017:14). It is important to understand these stages as the study was based on effectuation, which is a decision-making logic.

Table 2.4: Organisational lifecycle of small business

Stage	Description
Genesis	Entrepreneurial intention exists from the latent small business owner but the business is not yet formed. Also called courtship and initial test & prototype stage
Existence	Business is formed and there is a product or service being produced or offered for sale to a selected target market. Also called start-up, foundation, infancy and birth stage.
Survival	Breakeven point is reached and business growth is either seen here or the small business owner is content to remain as a survivalist. The small business is now profitable.
Formalisation	In the event that the small business owner is not a survivalist small business owner, the business now has a professional management structure as opposed to only having the owner-manager running the business. Also called the growth stage.
Re-adaptation	Also called the maturity stage and here the business has a divisional or departmental structure in place.
Stability	No further business growth can be achieved. The business growth curve plateaus and the goal is to maintain the ongoing profit.
Decline	The business growth obtained starts to decline and the business heads towards making losses or already loss making.

Source: Adapted from Albuquerque, Escrivão Filho, Nagano and Junior (2016:6-10)

Another view is that small businesses pass through five stages of business growth namely: inception, survival, business growth, expansion and maturity (Yeboah, 2015:7). Andriani, Suryadi, Samadhi and Siswanto (2016:31) postulated four stages in the organisation lifecycle. These were entrepreneurial, business growth, expansion and collaboration. Organisation lifecycle of a small business follows the stages of entrepreneurial intent, formation, establishment and then the business can grow or stagnate or decline (Dissanayake, 2016:43-44). Albuquerque, Escrivão Filho, Nagano and Junior (2016:6-10) stated stages of an organisational lifecycle as per Table 2.4.

Table 2.4 has similarities to some stages contained in the organisational lifecycles of Yeboah (2015:7), Andriani *et al.* (2016:31) and Dissanayake (2016:43-44). Since most township small businesses are survivalists (Iwu *et al.,* 2016:20), it may be deduced that the township small business owner may need to formalise or re-adapt their business if they want to grow it. The survivalist business owner, even though they do not grow, may also face decline to a point where survival is no longer present when the business is making losses. This would therefore leave no money available for the small business owner to survive on.

2.4.6 Determinants of business growth

There are numerous factors that determine small business growth. These factors can be grouped as individual (the small business owner), organisational and environmental factors (Sarwoko & Frisdiantara, 2016:36).

2.4.6.1 *Individual factors*

A small business owner's vision or intention is a good predictor of business growth for the small business venture (Yamakawa, Peng & Deeds, 2015:8). If the vision of the owner is to create a business that sustained their lifestyle, they would not focus on growing their business. The small business owner's educational background and/or qualifications, managerial and marketing skills affect the small business growth (Bouazza, Ardjouman & Abada, 2015:104). Strategies implemented for the business were dependent on these managerial and marketing skills or lack of them. Saxena and Maru (2016:110) stated that if the risk-taking propensity, need for achievement and self-efficacy (ability to acquire and implement required means or resources) by the business owner was high, so was the likelihood of business growth.

2.4.6.2 *Organisational factors*

Business development is linked to business growth since business development includes organisational functions such as developing business opportunities, scanning the industry developments and competitors, generating sales, sourcing financing, managing talent and developing structures (Achtenhagen, Ekberg & Melander, 2017b:20). Small business ventures that recruit educated professionals into management or senior roles to fulfil these organisational functions positively impacted

the business growth of a small business (Gidehag & Lodefalk, 2016:4). These key employees add more intellectual property to the business which increases the ability to make sound business decisions that are beneficial for the business growth. Organisational business growth determinants were found to include business training by government and procurement of business goods or services by the community (Radipere, 2015:212). Training of these small business employees to implement these functions efficiently positively affected business growth (Alasadi & Al Sabbagh, 2015:24). Employees in a small business are an asset to the business and one of the ways to invest in this asset is to train them so that they can do their work better and contribute towards business growth. Proper financial management by keeping financial records of business transactions was seen as a predictor of business growth in small business ventures (Karadag, 2015:29). Presence of these human resources based on the resource-based view and VRINE model can determine if sustainable business growth can be achieved by the small business or not.

Cowling, Ledger and Zhang (2015:6) stated that there are three common organisational characteristics linked to small business growth (Table 2.5):

Table 2.5: Organisational characteristics linked to small business growth

Industry sector	Age	Size
High growth are businesses services and manufacturing.	Younger business ventures at start-up are concerned more about survival than growth till they are past the survival stage where they may pursue growth.	Size of the business may affect business growth as it is an indication of availability of resources, ability to exploit economies of scales and quality of the small business owner or team
Source: Adapted from Cowling *et al.* (2015:6).		

Organisational characteristics such as industry sector, age and size affected the business growth of the business venture as stated in Table 2.5. Township small businesses whose characteristics predominantly are younger businesses that are small and focused on survival of their business may miss business growth opportunities or not focus on business growth.

Table 2.6:   Studies that have accepted and rejected Gibrat's Law

Rejected	Reason/s for rejection	Accepted	Reason/s for acceptance
Almus & Nerlinger (2000), Becchetti & Trovato (2002), Pagano & Schivardi (2003), Oliveira & Fortunato (2003), Harris & Trainor (2005), Oliveira & Fortunato (2006), Piergiovanni (2010), Mukhopadhyay & Amirkhalkhali (2010) and Megaravalli & Sampagnaro (2017)	Younger businesses grow faster and mature companies have slower business growth after reaching maturity.	Fariñas & Moreno (2000) and Fujiwara, Di Guilmi, Aoyama, Gallegati & Souma (2004)	Evidence that is conclusive that the size of a business affects business growth was not found.
Source: Adapted from Enrique *et al.* (2018:37-38).			

Gibrat's Law has a different view point that organic business growth is not dependent on the size of the business venture (Adams, Andersson, Hardwick & Lindmark, 2014:4). Calculation of business growth using Gibrat's Law eliminates the size of the business venture as a business growth determinant (del Mar Miralles-Quirós, Miralles-Quirós & Daza-Izquierdo, 2017:1665), thereby allowing a study to measure business growth irrespective of the size of the business. Most studies reject Gibrat's Law and show that small business ventures grow faster than large ones as they have more flexibility and are risk averse (Hedija, 2017:49).

Studies on Gibrat's Law have either confirmed the law or rejected it as per Table 2.6 (Enrique, Estefanía & Jesús, 2018:37). Gibrat's Law that business growth is not dependent on size has be proven to be true in some studies and not true in other studies as per Table 2.6. Using Gibrat's Law, the study deduced that the size of the small businesses in the township should not be a determinant of business growth.

These township small businesses have the potential to grow at the same rate as bigger or smaller township businesses to be investigated.

2.4.6.3 Environmental factors

Environmental factors that determine business growth can be broken down into the macro environment, meso environment and micro environment. Lisowska (2015: 121-122) described these environments as:

- **Macro environment** consists of political, technological, economic, legal, cultural, social and international.
- **Meso environment** is the regional environment that consists of local chambers of commerce, local government, incubators, finance institutions and local communities
- **Micro environment** is the competitive environment that consists of competitors, suppliers, customers, business partners and trade unions. These entities either cooperate or compete with the business venture.

Business ventures that are able to access government support (macro and/or meso) such as financing and training are found to be more likely to achieve business growth as was seen in higher sales revenue, productivity and increased employee numbers (Saleem, 2017:25). These individual, organisational and environmental determinants of business growth were discussed below on how they can act as a barrier or constraint to business growth for township small business owners.

2.4.7 Constraints and barriers to business growth in townships

Despite the government support that is received by some small business owners, the reality is that there is a harsh economic environment that the small business owner in the township needs to deal with (Bruwer & Coetzee, 2016:202), as examined below.

2.4.7.1 Individual and personal barriers

Levels of education are low amongst the township small business owners with most having gone as far as completing high school or lower (Charman *et al.*, 2017:9). Black-owned small business ventures have owners that tend to lack the business education and training to manage their business as opposed to owners from different racial

groups (Rootman, Venter & Matabooe, 2017:2). In a study done in Cape Town townships, it was found that only up to 20 % of food vendors had gone as far as completing high school with most of them having a lower level of education (Battersby, Marshak & Mngqibisa, 2016). Small business owners are not aware of available business support services that include training and, if known, they are not accessible to these small business owners (Gwija, Eresia-Eke & Iwu, 2014:66). Small business owners cannot draw up a business plan (Makhitha, 2016:259) and business plans are required when sourcing financial and/or non-financial support. For those small business owners with access to government support, drawing up a business plan becomes a hurdle that prevents them from accessing the support fully when a business plan is required.

Most small business owners do not apply strategic management approaches such as PESTEL, balanced scorecard, Porter's five forces model and SWOT analysis (Nnamseh & Akpan, 2015:100). Use of budgets to manage costs and revenue to manage a good profit margin were seen as some of the things that small business owners did not do which increased the risk of business failure (Maduekwe & Kamala, 2016:185). For township small business owners to apply strategic management approaches and use of budgets, the challenge may be that they would first need to know these approaches. Non-existence of entrepreneurial training and low education levels plus inability to afford employing educated professionals in the business is an obstacle to the creation and growth of small businesses in the township (Lekhanya, 2015:417). Bouazza *et al.* (2015:103-105) found that some of the barriers to small business growth in developing countries are access to finance, lack of reliable electricity supply, low skilled human resources, low managerial capacity, low technological capabilities and poor marketing skills.

There is competition from migrant business owners like Somali run spaza shops with owners who have entrepreneurial skills that most local township small business owners who are survivalists do not possess (Hartnack & Liedeman, 2017:3). Entrepreneurial orientation of local business owners is lower than that of their migrant counterparts (Crush & McCordic, 2017:827) and this allows the migrant business owner to be more competitive in running their business. Innovative business owners are likely to occur where the business owner has a technical background and an

academic education (Block *et al.*, 2017:64). Most township small business owners have lower levels of education and lower business acumen (Mashau & Houghton, 2015:599). This would minimise their likelihood to be innovative. Low levels of education of the township small business owner questions their ability to apply effectual decision-making logic. In the face of competition from large malls entering the township (Dlamini & Mbhele, 2019:1378), without the innovative approach to re-invent themselves and offer new products, new services or new processes, they are at the risk of closing down.

2.4.7.2 Environmental and institutional barriers

These environmental and institutional barriers were analysed under the macro environment, meso environment and micro environment.

2.4.7.2.1 Macro environment

From 1994 to current [2020], the South African government has invested resources in supporting the creation and growth of small business ventures (Chinomona & Maziriri, 2015:840). The Department of Small Business Development was set up in 2014 to closely monitor these government agencies to ensure they support small businesses (Dzomonda & Fatoki, 2018:5). Incubation programmes funded by government also support the small business owners by providing them with mentorship, training, shared space to operate, access to finance and other support activities to assist the small business owner to survive infancy and grow (Rogerson, 2017:3). Training of previously disadvantaged small business owners has been provided by the South African government (Deborah, Wilhelmina, Oyelana & Ibrahim, 2015:37). Another government intervention has been the Expanded Public Works Enterprise Development Programme (EPWP-EDP) that facilitated access to markets, training and finance for development (Dladla & Mutambara, 2018:2).

These support initiatives or interventions by government have not yielded the creation and growth of small business ventures. The supply-side interventions by government of emphasising providing financial support to small business owners does not consider whether the business has the entrepreneurial skills or entrepreneurial orientation to manage and grow the business (Rambe & Mosweunyane, 2017:5). Some of these

government agencies do not have employees who are skilled or experienced in running a small business to successfully support the small business owner (Okeke-Uzodike, Okeke-Uzodike & Ndinda, 2018:155). Government support initiatives are in place but awareness and accessibility to them still needs to be improved. For small business owners who cannot access government support, failure to access finance from financial institutions is another institutional barrier they face (Worku, 2016:138). In the event that these small business owners can access finance from financial institutions, another obstacle is the high cost of the loans, numerous complicated forms to be completed and the requirement of collateral (Wang, 2016:175). With the township business owner having a penurious background, they most probably would not have assets to put up as collateral.

2.4.7.2.2 Meso environment

Entrepreneurial support initiatives resulted in the formation of government agencies such as SEDA, SEFA, Gauteng Economic Propeller (GEP) and NEF to create an environment that is conducive for the creation and growth of small businesses (Meyer, 2015:8). Incubation support programmes to promote small business creation have mainly been sponsored by SEDA (Lose & Tengeh, 2015:14349). Incubation consists of a business being given space, networking opportunities and business support services to assist it to grow and become independent (Masutha & Rogerson, 2015:225). Lebambo and Shambare (2017:331) stated what each mandate of these government agencies is as mentioned below:

- SEDA provides non-financial support like training and skills development, advice and mentoring,
- SEFA provides financial support regarding access to finance,
- NYDA provides support to youth (14-34) to start new business ventures and finances existing youth owned business ventures,
- NEF provides financial and non-financial support to black empowered business ventures and
- GEP provides financial support in the form of loans and non-financial support in the form of services such as training (Meyer & Landsberg, 2015:3865).

There are large malls being built in the township and this creates competition for the traditional small business ventures in the township (Dlamini & Mbhele, 2019:1378). Maponya mall is one of the biggest malls that opened in Soweto, thereby taking away some business from the small business ventures as customers patronise the mall. Migrant owned businesses use lower pricing of goods to outcompete the local business owners (Charman *et al.,* 2017:51). The migrant owned businesses can afford to lower prices as they have a social network that allows them to engage in group buying, thereby getting bulk discounts from suppliers (Iwu *et al.,* 2016:23). The townships are located farther away from the Central Business Districts (CBD) (Cant & Rabie, 2018:230) like Johannesburg CBD, Randburg CBD, and Midrand CBD for example. This poses an additional cost to the township small business owner having to travel far to buy stock, raw materials or even access certain business services that are in the CBD.

Most townships are characterised by poor infrastructure that includes dusty roads and potholes, overcrowding, an unsafe environment and poor sanitation (Wiid & Cant, 2018:210). Townships are densely populated, unemployment levels are high and often have the highest poverty levels in the country (Piper & Charman, 2016:333). There are shacks, the sharing of water taps, non-flushing toilets and it is estimated that 50 % to 60 % of the township population is unemployed and 20 % underemployed (Tiger, Knaus, Thiel, Olson & Diaz, 2018:3). Procurement of goods and services for the township small business owner by the community may be limited as the community is penurious (Preisendoerfer *et al.,* 2014:167) and this may be a challenge that limits quantities of goods or services sold. Limited space availability to operate the small business is a challenge in the township and businesses use the limited space available as opposed to the space the business requires (Myeko & Iwu, 2019:5). Crime in the township affects the spaza owner or retailers as they lose their stock to robbers and thieves (Mukwarami & Tengeh, 2017:334). The business owner then incurs additional costs of replacing stock and at times adding more security features to secure their business due to crime. Crime forces business owners to close their businesses just before sunset and some suppliers refuse to deliver in the township as they do not feel safe delivering in there (Grabrucker & Grimm, 2018:3). There are service delivery protests in the townships (Piper & Wheeler, 2016:37) and these disrupt the daily operations of the small business owner or they even become a victim from looting by

the protesters. Substance abuse and gangs, especially in Cape Town townships is rife (Christodoulou, Stokes, Bantjes, Tomlinson, Stewart, Rabie, Gordon, Mayekiso & Rotheram-Borus, 2019:8) and poses a security risk to the small business owner.

2.4.7.2.3 Micro environment

Informal small business ventures have mostly not received the government support as it is received by formal business ventures that are larger (Koens & Thomas, 2016:5). Of the small businesses that received government support, the support was inadequate and for the businesses that did not receive the support, it was because the owner was not aware of such available support (Chimucheka & Mandipaka, 2015:312). Small business owners in retail pay for their own stock transportation since they buy their stock in small quantities as the order is too small to qualify for a free delivery from the supplier (Eicker & Cilliers, 2016:3). This increases the cost of doing business for the small business owner in the township.

2.5   CHAPTER SUMMARY

The study was based on township small business owners and for purposes of this research these small business owners included micro, very small and small business owners. The small business is defined as having fewer than 50 employees, an annual turnover of < ZAR 32 M and gross assets valued < ZAR6 M. The growth of these small businesses in the township is important as it resulted in creation of jobs and thereby contribute towards the reduction of poverty. With the main focus of the study looking at the nexus between effectuation and business growth, business growth was examined. Determinants of business growth included the small business owner's vision, intent, educational background, skills, calibre of employees in the business, age and size of the business and the environment that the business is operating in. Constraints and barriers to business growth for township small business owners include low education levels of the business owner, inability to access support services, competition from migrant businesses, competition from new malls built in the township and limited access to affordable funding. These business growth barriers and constraints for the township small businesses in the macro, meso and micro environments make it challenging to start and/or grow their small businesses. For

purposes of the study, organic business growth of the township small business was measured through indicators of sales, employee numbers and assets.

CHAPTER 3:
EFFECTUATION THEORY OR APPROACH

3.1 INTRODUCTION

South Africa is an emerging economy that is difficult to predict due to the rapidly changing customer needs and new threats (du Toit, 2017:16-17) making it an uncertain environment. Uncertainty comes about from the lack of information to predict the outcome or future (Amoroso, Moncada-Paternò-Castello & Vezzani, 2017:331). This uncertainty may probably affect the decision-making logic of township small business owners due to the difficulty to plan ahead because of changes that may occur at any time. These township small business owners have varying degrees of being ambiguity (uncertainty) averse with most preferring a certain or perceived guaranteed outcome as opposed to an ambiguous outcome (Liu & Isaak, 2016:116). This may be due to but not limited to the different levels of educational, business experience, age and access to resources available to the business owner that may affect their risk appetite or lack of. With this background in mind, this chapter defined effectuation and its four principles or constructs which are experimentation, affordable loss, flexibility and pre-commitments. Definitions of effectuation included Sarasvathy (2001:245) in her seminal work with other authors such as Arend *et al.* (2015:2) plus Galkina and Lundgren-Henriksson (2017:2). The effectual process was discussed and a flow chart drawn up to explain the effectual process better. The distinction between expert and non-expert small business owners was explored since effectuation was based on expert business owners in the USA however this study was based on non-expert small business owners in the townships of South Africa. Finally, having analysed all the above, the chapter ends with looking at the possible application or practice of effectuation by township small business owners.

3.2 DEFINITION OF EFFECTUATION

Effectuation theory came about because the behaviours of some business owners in the real world showed a decision-making that was different to the theory proposed in causation (Welter *et al.*, 2016:6). The effectuation theory by Sarasvathy (2001) was based on the behaviours of 27 expert entrepreneurs in the USA in the late 1990s to

show how a resource-poor expert business owner behaves to create a market using their limited means (Arend *et al.,* 2015:2). Sarasvathy (2001:245) defined effectuation theory as a decision-making logic that starts with means at hand to determine the outcome (business venture) that can be achieved by the means. Galkina and Lundgren-Henriksson (2017:2) had a similar definition that effectuation is a decision-making logic chosen by a business owner in starting off their business venture based on considering the means first. Sarasvathy (2001) came up with the effectuation theory around 2001 which provided an alternative approach to entrepreneurship. Effectuation theory was based on the behaviour of expert business owners (Laskovaia *et al.,* 2017:712). This theory is about how a business owner can control the unpredictable future as opposed to predicting an unpredictable future (causation) (Reuber, Fischer & Coviello, 2016:538). This means the small business owner does not need to try to forecast an unpredictable future but rather be able to control the unpredictable future. Effectuation focuses on the creation of opportunities based on the means at hand as opposed to discovering existing opportunities that require resources a small business owner may not possess (Karami, Wooliscroft & McNeill, 2019:804) or acquire finance for.

Effectuation is contrasted with causation as they have both been seen as opposites of each other. It starts with means to determine an outcome and causation starts with the outcome and seeks the means to make the outcome a reality (An, Rüling, Zheng & Zhang, 2019). Effectuation and causation however have been found not to be opposite decision-making logic but rather can co-exist (Laine & Galkina, 2017:906) even though they seem opposite in their approaches to entrepreneurship. Effectuation seems to be practised at the start of a business where the environment is uncertain or harder to predict and causation is practised when the business has the experience or skills to predict the future (Sitoh, Pan & Yu, 2014:221).

Ortega, García and Santos (2017:1722) as per Figure 3.1 stated that the levels of innovation for a business was a factor determining whether causation or effectuation decision logic was applied. The higher the levels of innovation, the more the business owner was engaged in exploration for a new product or service. The more the business owner becomes innovative, the more likely they applied effectuation. As with

innovation or exploration there was a lot of uncertainty and effectual decision making was based on uncertainty.
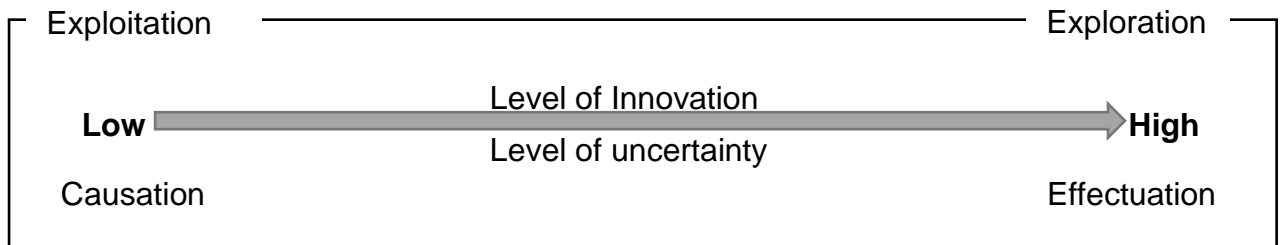
Figure 3.1:   Causation versus effectuation

Schumpetarian small business owners that have high levels of innovation (Cantner *et al.,* 2017:9) operating in an environment with high levels of uncertainty are more likely to apply effectuation decision logic. Small business owners applying effectuation, through their means would explore the environment for a viable business model (Volery *et al.,* 2015:17). A business model is the bundling of specific activities in a specific manner that satisfied the needs of the customers or market (Zilahy, 2016:65). Exploration is the experimentation that would be done by the business owner applying effectuation to seek new viable alternatives for their business (Alsos & Clausen, 2014). As an example, if customers in the township now require an affordable car wash, the small business owner needs to explore and find a business model that focuses on providing the car wash service at a lower price. With the high levels of uncertainty involved in exploration for a new business model, one could deduce that effectuation may be more ideal as a decision-making logic for the township small business owner. However, once the new business model is implemented and the level of uncertainty starts to decrease, the small business owner may tend to shift towards a causation decision logic (Jiang & Tornikoski, 2019:13).

There, however, has been criticism relating to effectuation theory based on the 3E Framework (experience, explain and establish) as per Table 3.1 by Arend *et al.* (2015:8,9). This criticism is important for the study as it pointed out some weaknesses in the effectuation theory that the study considered when carrying out the research. The three Es refer to the process of theory building which are experience, explain and

establish. "**Experience**" refers to how well the proposed theory is built on existing theory or theories (literature review). As an example, bricolage is a theory about how firms that are resource-constrained source these resources (An *et al.,* 2019) and this theory was formulated in the 1960s by Claude Lévi-Strauss. Effectuation, a theory presented in 2001, may have been built upon the bricolage theory since it also aims to explain how resource-constrained business owners acquire these unavailable resources. "**Effectuation**" however is about the decision logic whilst "**bricolage**" is concerned with sourcing the scarce resources. "**Explain**" refers to its explanation through a proposed model that looks at the relationships and causal processes of the constructs and/or units in the model. "**Establish**" refers to academics assessing the viability of the theory empirically and critically whilst practitioners assess the viability in the field. The study assessed effectuation through a literature review based on other researchers and has also proposed a model for the study based on effectuation constructs, business growth and effects of industries, if any. The study went out into the field to assess if these effectuation constructs were applied by the township small business owner, their effect on business growth and if the different industries affect business growth or the practice of effectuation.

The study appreciates the criticism on Table 3.1 and agrees that additional research is required to understand effectuation theory better as it was done only with 27 expert entrepreneurs in the USA. More comments relating to the criticism have been stated under the column "implications to this study, if any". This study contributed to the body of knowledge on effectuation as the study was done in the townships of South Africa, with non-expert small business owners and with a larger sample size. The study assessed if effectuation decision logic is applied with non-expert business owners and the effect this had on business growth, if any. It will further investigate if the different industries that these businesses are in made a difference to the practice of effectuation and its effect to business growth. This study was important since most developing countries like South Africa have non-expert small business owners that are resource constrained and their practice of effectuation may be beneficial to them and their economies.

Table 3.1:   Effectuation criticism

Stage	Criteria	Assessment issues	Recommendation	Implications to this study, if any
Experience	Built on existing literature	Some failure: lacks reference to pre-existing work on bricolage experimentation, options thinking, and risk management; thus, fails to prove novelty.	Build on existing constructs and ideas; compare and contrast with previous work; prove added value with new insights.	A sample size of 27 respondents (Arend *et al.*, 2015:2) was probably rather small for the study by Sarasvathy and the present study aimed to collect 800 questionnaires from respondents. Definition of expert business owner is a valid criticism as the study could not find other authors that supported this definition given. No justification was made why a business owner with more than 15 years' experience and running two or more businesses (Dew *et al.*, 2009:288) is an expert. The study used this definition as no alternative definition exists.
	Built on valid observation	Some failure: low N; questionable definition of an "expert"; some lab-based scenarios not aligned with findings; no comparison group in original study	Undertake more studies of the process in the field; larger N; prove robustness of "expert" definition; use a valid comparison group.	

Explain	Units: • Comprehensive • Parsimonious	Some failure: missing many important units — rivals, substitutes, institutional players, and so on.	Add missing units to be comprehensive to the focal phenomenon; add to precision of definition of units, especially outputs, like "artifacts".	Business growth was used as a unit and objective measures of sales and number of employees were used.
	Laws clear (about unit interaction)	Some failure: provision of how units interact, but not why; directionality problematic for several laws (either ambiguous functional relationship or relationship simply assumed without explanation).	Add explicit directionality to laws and explain the relationships; expand on how "minimum" levels of a unit's characteristics are generated or guaranteed in the process.	The study investigated the relationships of the effectuation constructs and business growth
	Boundaries specified: precise rules	Some failure: no precise landscape defined (to test alternatives against); no clear performance metric given; aimed at multiple levels of analysis.	Specify the competitive landscape with mathematical precision; specify focal dependent variables, sequences, outcomes, and other issues of interest.	Performance indicator used was business growth since commencement till the day data was collected about the business
	System states exist	Failure: no stable states exist.	Specify at least one interim stable state.	5-point Likert scale used to code answers and use the values for empirical testing.

Propositions consistent with model	Some failure: propositions provided are not the three required types; statements of contrast to straw man of causality provided instead.	Specify independent or stand-alone propositions (of all three types); highlight unintuitive and counterintuitive propositions.	The model (Figure 1.4) in the study was logical as it linked decision making with business growth and possible effect of industries.
Assumptions reasonable	Some failure: flaws with entrepreneur's abilities, non-predictive control, means-driven action, affordable loss, value creation, and sustainability.	Clarify or fix flaws, especially with the span of prediction, liabilities, and bounded rationality of the individuals involved	There must be a degree of predicting the future to control it via effectuation however it does not mean the future is predicted accurately. The study tested if effectuation was used in their environment.
Logic: • Causality explicit • No tautologies • Coherent	Some failure: lacking explanation of why laws among units work; syllogism (many laws are true by context); effectuation is not a single construct or process	Explain causality for the main laws; delineate what is not true by context; either find coherence in the concept or split up the process into coherent parts	Causality of the effectuation constructs such as why a business owner would use these constructs has been discussed in the study so as to better hypothesise the outcome of the study. Coherence in the model (Figure 1.4) exists.

Establish	Empirically untestable	Indeterminate: untestable because of a lack of system states and some language, yet has been tested in literature to some degree in contrast-type studies among agents.	Propose less "problematic" tests; provide falsifiable predictions (or refrain from referring to this as a theory").	Decision making logic has been tested using questions that determine if the four constructs or principles of effectuation exist when the business owner makes a decision (Chandler *et al.*, 2011:382). This was done in the study.
	Diffused in the literature	Indeterminate: tight group of authors; much of work in non-top-tier outlets; repetitive content; cited in passing.	Refrain from repetition and make progress on base; involve others; lower defensiveness in dialogues.	
	Practitioner value • Understandable • Nonobvious • Implementable	Indeterminate: some language not user friendly, some catchy; much of the description is obvious, especially to the experienced; some general prescriptions but also seemingly self-defeating (e.g., to ignore planning, rivals, and partner opportunism).	Rewrite the ideas in a straightforward way; highlight any nonobvious prescriptions and translate to field readiness; explain how real constraints (e.g., requirements for plans) can be absorbed into the process in the process in the field.	Interviewer administered questionnaire was used in the study and the data collectors were trained to enable them to clarify questions in the questionnaire and translate these to a home language suitable for the respondent to understand in the township in the event that English was a challenge for them.

Source: Adapted from Arend *et al.* (2015:8,9).

3.3   CONSTRUCTS OR PRINCIPLES OF EFFECTUATION

Sarasvathy in 2008 stated that effectuation is made up of five behavioural principles which are "**bird in the hand**" principle (means based), "**lemonade**" principle (flexibility), "**affordable loss**" principle, "**pilot in the plane**" principle (experimentation) and "**crazy quilt**" principle (pre-commitments) (Günzel-Jensen & Robinson, 2017:782). "**Bird in the hand**" principle refers to the small business owner's resources or means at hand when they start and/or grow the business (Qureshi & Mahdi, 2014:146). For purposes of the study, the study used the four constructs by Chandler *et al.* (2011) because the fifth construct by Sarasvathy (2008) of "**bird in the hand**" is part of the definition of effectuation (means based) referring to the means at hand (Prashantham, Kumar, Bhagavatula & Sarasvathy, 2019:7) and not a construct.

Table 3.2 is a comparison by different authors (Sarasvathy & Chandler *et al.,* 2011) of the common principles or constructs of effectuation to show how these principles or constructs have evolved over time.

Table 3.2:   Effectuation principles or constructs

Sarasvathy's five principles of effectuation	Chandler *et al.*'s (2011) four principles or constructs of effectuation
Bird in the hand (means based)	
Affordable loss	Affordable loss
Crazy quilt	Pre-commitments
Lemonade	Flexibility
Pilot in the plane	Experimentation
Source: Adapted from Günzel-Jensen & Robinson (2017:782) and Urban & Heydenrych (2015:127)	

Chandler *et al.* (2011) adapted the five principles from Sarasvathy's (2008) seminal work and called these principles or constructs affordable loss, pre-commitments, flexibility and experimentation (Urban & Heydenrych, 2015:127). Bocken and Antikainen (2018) stated that the "**crazy quilt**" principle referred to pre-commitments, "lemonade" principle referred to flexibility and "**pilot in the plane**" referred to experimentation. It is plausible to conclude that both Sarasvathy and Chandler *et al.* (2011) were referring to the same principles or constructs with reference to

effectuation. These four constructs make up effectuation and this study used these to ascertain if the small business owner in the township has applied the effectuation approach in their decision making and how this relates to business growth. These principles or constructs were examined in more detail below.

3.3.1 Experimentation

Experimentation is when the small business owner continuously tries out different business models till a business model that is viable is found (Reymen *et al.,* 2016:597). It is also called intelligent fast failure (IFF) as these trial-and-error experiments are done quickly to determine if the business model will be viable (Qureshi *et al.,* 2016:624). IFF allows the business owner to know quickly if they are on the right path or not without wasting too many resources or time, so experimentation is beneficial. The viability of the business model is based on the objective of the small business as the business objective may be one of survival (Iwu *et al.,* 2016:20) or business growth (Yamakawa *et al.,* 2015:8) or lifestyle (Masurel & Snellenberg, 2017:3) or a combination of these objectives explored or other objectives such as not for profit.

Experimentation facilitates the business to cope with changes in the market and competition (Guo *et al.,* 2016). Experimentation mitigates the uncertainty or unpredictability of the market or customers and therefore experimentation is continuous till a business model that is viable is found (Bocken, Miller, Weissbrod, Holgado & Evans, 2017:8). Without experimentation, a township small business owner may find their current business model being redundant in the future due to failure to adapt it with an unpredictable future with different needs from customers. Examples of new business models that came about through high-end experimentation include green value-added products, waste regeneration systems and renewable energy-based systems (Zilahy, 2016:65). Experimentation by the township small business owner at the low-end may incorporate slight changes or tweaks to the current model. Experimentation at the high end may be about the township small business owner abandoning the current business model and adopting a new business model as was the case with renewable energy-based systems. An example would be when a township small business owner changes to the use of solar energy.

It may also be feasible that the township small business owner unknowingly uses experimentation when they decide to change a business model that is not viable for their business. It is possible that the township small business owner could benefit with the practice of experimentation to cope with competition from new malls being built in the township (Dlamini & Mbhele, 2019:1378) and competition from migrant business owners (Charman *et al.,* 2017:51). This was seen in the study during data collection where street traders have also moved to operate around the malls due to high foot traffic as opposed to just being around the traditional busy areas like taxi ranks, outside schools or outside bottle stores.

3.3.2 Affordable loss

Affordable loss looks at which resources the business can afford to lose without having a detrimental effect on the business (Futterer, Schmidt & Heidenreich, 2018:67). The affordable loss principle could allow township small business owners to start and/or grow a business by risking as little resources as possible in the business (Kalinic, Sarasvathy & Forza, 2014:635). The focus is on what the small business owner can afford to lose as opposed to trying to calculate the expected return (causation) in an uncertain environment (Brettel, Bendig, Keller, Friederichsen & Rosenberg, 2014:612). Affordable loss principle could ensure that the township small business owner is able to absorb the loss in the event that the business venture fails (Urban & Heydenrych, 2015:127). This could mean that the small business owner does not put all their money into the business so that if it fails, they still have money left to pay for their day-to-day expenses such as food and shelter. Affordable loss looks at the amount of uncertainty that the township small business owner has an appetite for. Potential business ventures that exceed the budget that the small business owner can afford to lose would be excluded and alternate affordable business ventures pursued (Hinz, 2017:253). The township small business owner should still be able to continue or afford their livelihood should the business fail, hence the term "affordable" loss. Affordable loss could also apply to the business venture remaining viable when a new product line or service is introduced but fails. It is all about limiting the extent of a loss in the event that a loss occurs to the business or business owner.

At times both the causation and effectuation decision logics are present at the same time (Laine & Galkina, 2017:906) as opposed to these decision logics being an either or, or being mutually exclusive. Some small business ventures applying effectuation have encouraged their employees to seek a return but still be able to afford the loss in the event that the return does not happen as opposed to pursuing high returns without considering if the loss can be absorbed if things go wrong (Werhahn, Mauer, Flatten & Brettel, 2015:307). In this case, the expected return (causation) and affordable loss (effectuation) decision logics could both be in play at the same time by a township small business owner.

3.3.3 Flexibility

Flexibility is the ability of the business venture to adapt to a constantly changing business environment to create or maintain its competitive advantage (Fernández-Pérez, García-Morales & Pullés, 2016:296). Flexibility is where the small business owner accepts surprises, accepts and leverages contingencies in their business venture (Eyana *et al.,* 2017) as opposed to seeing contingencies negatively or trying to prevent contingencies (Stroe, Parida & Wincent, 2018:266). Flexibility allows the small business owner to take advantage of opportunities as they present themselves in the uncertain environment and thereby allows them to learn as they go (Brettel *et al.,* 2014:612). Uncertainty and the inability to predict the future is then viewed as an opportunity as opposed to a challenge. Flexibility would include the township small business owner being prepared to change products, services and internal processes, willingness for alternative approaches and adopting a transformative leadership style (Hinz, 2017:251).

Improvisation is a behaviour that is seen when quick change happens in an uncertain or unpredictable environment when time does not allow prior planning or routine responses to respond to the situation (Monllor, Pavez & Pareti, 2020:6). There would be an unplanned need to respond to an emergent situation that was unplanned for but has now presented itself. The improvisation behaviour required in the application of flexibility in the business gives the business owner an edge to manage performance in the business as there is more adaptability (Nielsen, 2015:458). Failure to improvise by the township small business owner may lead to reduced revenue or even closure

of the business. The township small business owner employing flexibility would then have an attitude of expecting the unexpected. Business plans are however intended to guide non-expert entrepreneurs in setting up their business ventures and these same business plans unfortunately remove the flexibility to adapt (Villani, Linder & Grimaldi, 2018:174). Business plans are about predicting the future as opposed to controlling the future through flexibility. Flexibility is reduced or eliminated when a non-expert small business owner partners with corporate companies to gain legitimacy (Günzel-Jensen & Rask, 2015). Partnering, an effectuation construct, in this context could become mutually exclusive with flexibility, another effectuation construct.

3.3.4 Pre-commitments

Pre-commitments is when self-selected stakeholders such as customers, suppliers and other organisations commit and/or contribute towards the success of the business venture (Smolka *et al.,* 2016:7). Pre-commitments through other stakeholders increases the means available to make the business venture worth pursuing (Mansoori & Lackéus, 2019). Pre-commitments allows the co-creation of opportunities with other stakeholders (Kerr & Coviello, 2019:2) as opposed to competitor analysis (Jiang & Ru¨ling, 2017:3). These pre-commitments are not pre-determined but rather occur through the interactions with different stakeholders where customers or suppliers may end up being partners in the business (Kalinic *et al.,* 2014:637). The goal does not determine who will be a partner but rather the partners together with the small business owner determine the goal jointly. There seems to be a preference for the expertise that these partners bring to the business as opposed to the financial contribution they can make (Cossette, 2014:481). This does not mean the new stakeholders only have shares in the business venture, but rather are involved in deciding and co-creation of the business venture to be undertaken based on the new total means at hand. Coopetition is a form of pre-commitments where suppliers, customers and/or competitors contribute in the co-creation of a business venture, product or service (Galkina & Lundgren-Henriksson, 2017:3). Competitors are considered as partners in the business as opposed to enemies that should be eliminated to ensure the survival of the business venture.

Means are what the small business owner has at their disposal and this entails what they know, who they know, what they are (Watson, McGowan & Cooper, 2016:5). Resource based view refers to resources or means that are valuable, rare, inimitable and non-substitutable (Nason & Wiklund, 2018:6) that can be a source of competitive advantage for a business. The effectual township small business owner would consider these means at hand prior to deciding on the business venture to start. Pre-commitments could contribute towards the township small business owner having access to additional resources or means that could increase the likelihood of the creation and/or growth of the business venture. More resources can be a good thing if the township small business owner knows how to use the additional resources in achieving their business goals. This leads us to resource bundling which refers to the manner in which resources are combined to create capabilities that achieve the objective of the business venture (Carnes, Chirico, Hitt, Huh & Pisano, 2017).

Stabilising resource bundling involves small improvements to current capabilities whilst pioneering resource bundling is the creation of new capabilities by integrating new resources (Lagerström, Schweizer & Jakobsson, 2019:39). Guo, Cai and Zhang (2016:465,7) discussed two types of resource bundling as stated in Table 3.3.

Table 3.3:   Stabilising resource bundling versus pioneering resource bundling

Stabilising resource bundling	Pioneering resource bundling
Associated with causation	Associated with effectuation
Optimise current resources to make minor improvements on existing capabilities	Novel way of mixing existing and/or new resources to create new capabilities
Focus is on increasing efficiency in business processes or activities	Seen more in business ventures that experiment and are flexible
Source: Adapted from Guo *et al.*, 2016:465,7	

For township small business owners using causation, the focus is more on stabilising resource bundling whereas for the township small business owner applying effectuation decision making, the focus is more on pioneering. It was probable that in the study there may be township small business owners that are seen to apply both

resource bundling methods in their businesses. Carnes *et al.* (2017) referred to an extended resource bundling that is aimed at extending the existing capabilities.

3.4   EFFECTUATION PROCESS

Effectuation looks at how markets and business ventures are formed (Kaartemo, Kowalkowski & Edvardsson, 2018) through a means-based approach. Every business owner has means at hand, even if little, and the study proposed this as the starting point in the effectuation process. "Who I know" element in the means refers to three levels and these are at a personal level or social networks level, organisational level and socio-political institutions (Galkina & Chetty, 2015:655). For the township small business owners, the organisational and/or socio-political institutions may include the likes of SEDA, SEFA, NYDA, DTI and so on. Despite having these government institutions in place, most township small business owners do not know of these institutions and their support initiatives (Gwija *et al.*, 2014:66). Their failure to know of these interventions may be due to their low levels of education (Lloyd, 2018) that limits their access to knowledge and/or the fact that townships are outside the bustling central business districts where most of these government agencies are based. Hence the "who I know" element may be limited only to the social networks of the township small business owner, thereby limiting their means at hand. Figure 3.2 shows the effectual process which starts with the means of the small business owner which determines the outcome or new product or new market or new business that can be co-created with the stakeholders or partners. In the effectual process model Figure 3.2), the township small business owner would start by understanding what their means are in terms of who they are, who they know and what they know (Welter *et al.,* 2016:7). The small business owner would partner with stakeholders that have an interest in the business venture without knowing what the goals of the business are and these pre-commitments reduce the risk as the risk is shared with the new stakeholders (Kistler & Gillig, 2015:2). Sarasvathy called this the bird in the hand principle (Prashantham *et al.,* 2019:7) but for purposes of the study, the four principles of experimentation, flexibility, affordable loss and pre-commitments by Chandler *et al.* (2011:382) will be used.
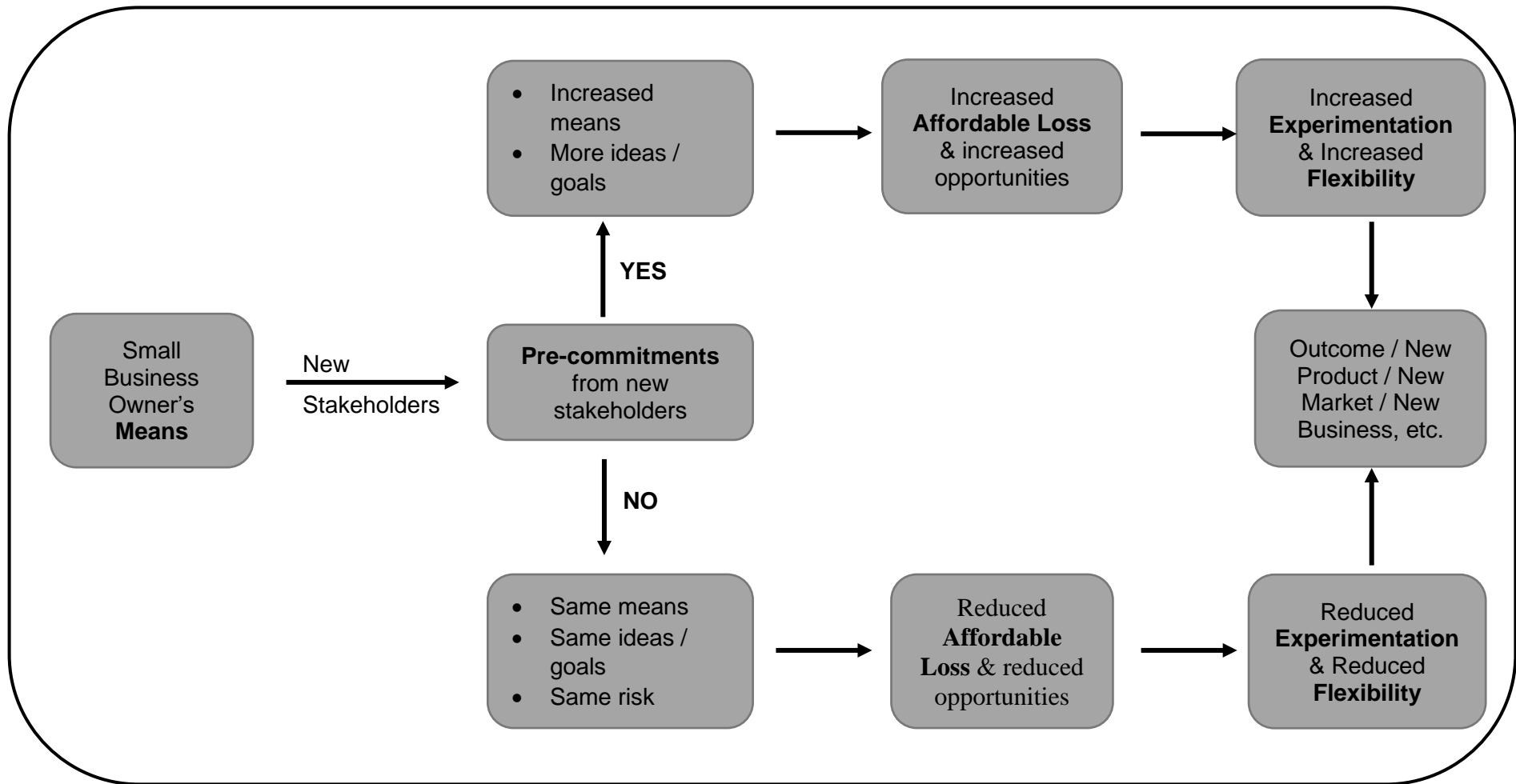
Source: Adapted from Kistler and Gillig (2015:3)

Figure 3.2:   Effectuation process

These partners would then co-create the outcome together with the township small business owner. Pre-commitments reduce risk to the small business owner by reducing uncertainty, minimise experimentation costs and flexibility is maintained (Galkina & Chetty, 2015:653). Pre-commitments reduce the risk of losses as this risk is shared with more partners (De Villiers Scheepers *et al.*, 2018:26). A township small business owner that was prepared to lose up to ZAR 5,000.00 on their own, would now have a higher amount they can lose as each new partner/s' or stakeholder/s' affordable loss amount contributes towards a higher affordable loss amount. Pre-commitments are not only about cash or asset injection. Pre-commitments with high status partners provided non-expert small business owner with legitimacy in the market (Günzel-Jensen & Rask, 2015). Legitimacy in the market reduces barriers to entry or barriers of business growth for the small business owner as the business may look more established.

3.5 EXPERT SMALL BUSINESS OWNERS

Expert small business owners have > 15 years' experience in running businesses and have run more than one business (Dew *et al.,* 2009:288). Expert small business
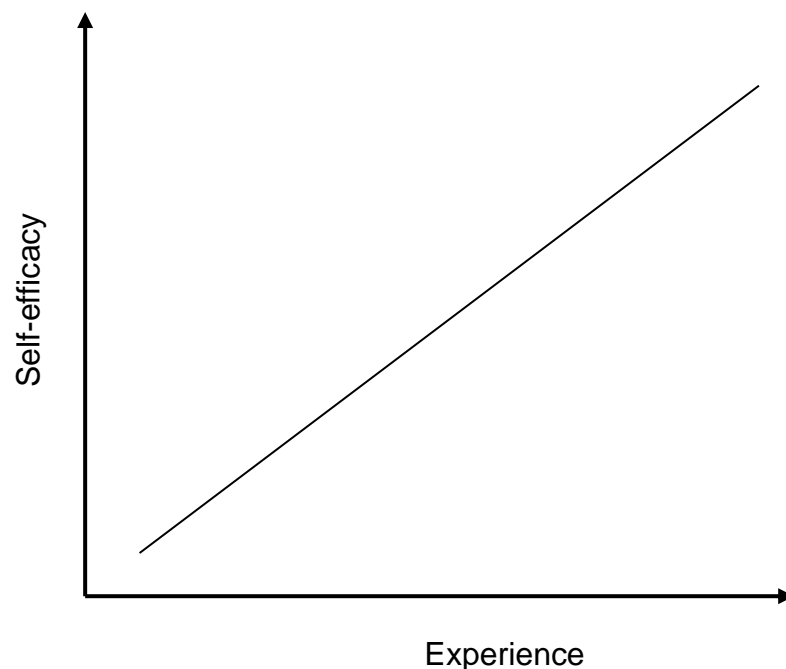
Source: Adapted from Hinz (2017:252)

Figure 3.3:   Self-efficacy of township small business owners based on experience

owners at times are termed "serial entrepreneurs" as they have owned and run at least two business ventures (Falik, Lahti & Keinonen 2016:159). The experience of the small business owner having run another business venture prior to the second or more business ventures increases their flexibility to adapt the business (Villani *et al.,* 2018:174). Experience and knowledge levels of a small business owner can be considered as their means in terms of "what I know".

Self-efficacy is the belief that a business owner has in their own ability to succeed in a business venture. The more the experience and skills a business owner has accumulated, the greater their level of self-efficacy (Hinz, 2017:252) as shown by Figure 3.3. It would be possible that expert township small business owners would have high levels of self-efficacy when it comes to entrepreneurship since they have vast experience and have run more than one business. High confidence in one's abilities exhibited high self-efficacy (Alessa, 2018:116) and this may apply with non-expert township small business owners with little or no experience but having high confidence in their abilities.

Expert small business owners use framing to redefine the frame to look for alternative or new solutions to a problem or a challenge faced by a business (Garbuio, Dong, Lin, Tschang & Lovallo, 2018:32). Means at hand could be bundled differently to come up with a solution or pre-commitments used to acquire additional or different means with the application of effectuation. Expert small business owners are able to use their vast experience to transfer their knowledge into new challenges or domains in a different business and also resist the impulse to make decisions solely on initial impressions (Toft-Kehler, Wennberg & Kim, 2014:457).

3.6   NON-EXPERT SMALL BUSINESS OWNERS

A novice or non-expert is defined as someone who is new to a field or has limited experience (Günzel-Jensen & Robinson, 2017:782) and in the study's context, it referred to the experience of creating and/or growing a business. Non-expert small business owners are defined as having limited or no experience in entrepreneurship (St-Jean, *et al.,* 2018:13). Non-expert entrepreneurs also include nascent entrepreneurs and established business owners with < 15 years' experience (Dew

et al., 2009:288). Nascent small business owners as per GEM definition, are start-ups and owner-managers running their business for three-and-a-half years (42 months) or less (Herrington *et al.*, 2017:17). Established small business owners have > 3.5 years (42 months) experience in running a business and the business employs less than 50 employees (Ayala & Manzano, 2014:128). With these definitions, it is plausible that most township small business owners fall in the category of being a non-expert small business owner as most only have run one business. The small business owner may have more than 15 years' experience only and would not be an expert. They are however required to meet both criteria of at least 15 years' experience and having run two or more business to be classified as an expert small business owner.

Non-expert small business owners cannot redefine the frame of a problem but rather work within the frame to try and find a solution (Garbuio *et al.,* 2018:32). This limits the possibilities of the number of solutions to consider and may at times even limit coming up with a solution for their business. Non-expert small business owners with low entrepreneurial self-efficacy apply more flexibility to mitigate uncertain or an unpredictable environment (Peng, Liu & Lin, 2015:565). Flexibility application was tested in the study by assessing the answers given by respondents on flexibility in the questionnaire.

3.7   PRACTICE OF EFFECTUATION BY TOWNSHIP SMALL BUSINESS OWNERS

Effectual decision-making logic allows small business owners to manage or respond to the uncertain (unpredictable) business environment that they operate in (Reymen, Andries, Berends, Mauer, Stephan & Van Burg, 2015:4). Effectuation allows the small business owner to turn the problem of uncertainty around predicting the future, into a business opportunity by exploiting contingencies (Deligianni *et al.,* 2017:3). The township small business owner practising effectuation would rather make "lemonade when given lemons" and/or experiment with different models as the uncertain environment changes to achieve business growth or survive.

Small business owners' means include the "**who I am**" component and social identity is related to this component. Social identity is about which group in society the small

business owner would want to be associated or accepted by and this becomes a motivation for the decisions they make in their business (Sieger, Gruber, Fauchart & Zellweger, 2016:6). Different business social identity types of business owners affected decisions on how they create and/or grow their business ventures (de la Cruz, Jover & Gras, 2018:91) and Table 3.4 briefly explains the three different business social identities.

One factor affecting the application of effectuation may be that a small business owner based on their different business social identity approached their decision making in the business differently. The Communitarian identity is similar to a small business owner applying social entrepreneurship. Social entrepreneurship has been defined as the creation of a business whose main goal is to serve the needs or challenges faced by society or a business whose main purpose is not one for profit (Choi & Majumdar, 2014:364).

Table 3.4: Business social identity types

Darwinian	Communitarian	Missionary
Classic business person whose aim is to build a successful strong business	This business owner is motivated by creating a service or product that helps the community	The business owner seeks innovation as a way to compete and provide better services or products
The business owner evaluates themselves against the social groups of other small business owners and competitors	Belonging or being accepted to this social group that the business owner intends helping is very important to the business owner	The business owner is motivated by the wish to promote a greater cause and pursue innovative social goals
Main objective is that of the business being profitable	Objectives of increasing market share, being profitable and sales growth are secondary	The business owner's objective is to be innovative
Source: Adapted from de la Cruz *et al.*, 2018:91		

From Table 3.4, one can deduce that the Darwinian and Communitarian have different goals in starting a business and their application of effectuation may differ. Darwinians are profit or business growth driven and effectuation constructs such as experimentation and flexibility may be applied to achieve profits or business growth. Communitarians however, may apply the same constructs of effectuation to successfully create a product or service that helps the community with profit not being the primary goal. Darwinians and Missionaries predominantly apply the causation approach whilst the Communitarians predominantly apply the effectuation approach (Alsos *et al.,* 2016). Township small business owners may probably fall under the Darwinian definition as they are a classical business that wants to realise a profit, be it as a survivalist or seeking business growth.

Small business owners' means also include the "**what I know**" component. Another factor affecting the application of effectuation might be that small business owners may interpret the same situation differently based on what they know, resulting in the application or non-application of effectuation. An example may be a business seeking business growth that comes up with an innovative business idea for the future that requires predicting the future. One small business owner may apply effectuation since the future may be hard for them to predict whilst another may apply causation as they see this as a gap in knowledge that merely requires further research to be able to predict the future (Alsos *et al.,* 2016). This therefore shows that the existence of uncertainty or inability to predict the future does not necessarily mean the township small business owner would apply effectual decision logic but what they know plays a factor too as shown in the example.

"What I know" means component also affects the entrepreneurial self-efficacy, which is the belief by a small business owner of their ability to start and/grow a business (Hinz, 2017:252). High self-efficacy resulted in the small business owner setting high business growth targets and being resilient in achieving the business growth (Miao, Qian & Ma, 2017:88). This is another factor that determines the practise or non-practise of effectuation by a small business owner. Most non-expert small business owners with low confidence probably applied causation in their decision making as they have a lower entrepreneurial self-efficacy (Engel, Dimitrova, Khapova & Elfring, 2014). Causation would be ideal for these small business owners since they would

feel safer in their decision making on the basis that they have accurately predicted the future which would remain certain whilst they implement their business plan. Township small business owners with a lower education level (Lloyd, 2018) would probably also lean towards the practice of causation as their entrepreneurial self-efficacy may be lower. This however does not imply that all non-expert small business owners used the predictive approach of causation as there were exceptions. Some non-expert small business owners have a high entrepreneurial self-efficacy even though they have little or no experience in starting a business because of their high confidence in their entrepreneurial abilities. These non-expert small business owners with high entrepreneurial self-efficacy would also consider the non-predictive approach of effectuation (Engel *et al.,* 2014) as their decision-making logic when they perceive the environment to be uncertain. Their belief that they have good entrepreneurial skills equips them to start and/or grow their business in an uncertain environment and apply the effectual constructs to navigate this unstable environment.

"Who I am" and "Who I know" means component contributes towards the resources that the small business owner has or does not have. Eric Ries in his book enitled "The Lean Start-up", he stated how effectuation was more associated with a business owner that uses a lean start up approach (Frederiksen & Brem, 2017:181). Small business owners with limited resources such as the ones in the township (Maseko *et al.,* 2015:161; Burger *et al.,* 2017:13) would fall under this category and a lean start-up approach may be considered. Since effectuation was based on resource constrained business owners (Arend *et al.,* 2015:2), it is possible that effectuation would be more fitting for township small business owners with limited resources (Maseko *et al.,* 2015:161) such as low levels of education and access to money or credit facilities (Lekhanya, 2015:417).

Pre-commitments in the form of friends and family working in the business venture becomes beneficial for ease of starting up or growing the business. It is plausible that township small business owners would apply effectuation knowingly or unknowingly by them exploiting their close social networks to create pre-commitments through the principle of Ubuntu (Koens & Thomas, 2016:10). This would allow the township small business owner having access to friends and family for pre-commitments. Effectuation is likely to happen with township small business owners since pre-commitments

happen mainly within personal networks (Servantie & Rispal, 2018:326). This is supported by Paschen (2017:179) who stated that small business ventures raise capital to start a business through family, friends or fools (FFF). Family is one of the cheapest forms of labour via pre-commitments as they may feel obligated to commit to assist you in starting your business without expecting a salary or a market related salary. These pre-commitments could however possibly limit business growth since they are mostly from personal networks. This could limit the business from accessing business networks as they may be content with the existing personal networks and could limit business growth

Affordable loss could result in the township small business owner limiting the resources that they invest in starting or growing their business. Affordable loss and the expectation of returns are not mutually exclusive and the small business owner in the township can limit their risk to loss whilst also expecting a return on the resources invested in the business to achieve business growth or a return (Werhahn *et al.,* 2015:307). This could possibly have a negative effect on the business as the small business owner may quit a bit too early in pursuing growing their business because they have reached their affordable loss point (Hinz, 2017:253). However, social networks would increase the resources available to the business as more stakeholders contribute resources to pursue business growth. The possibility of quitting a bit too early becomes reduced as more resources are available to pursue the business growth further.

Flexibility and experimentation allowed non-expert township small business owner to navigate through the uncertain environment to achieve survival and/or business growth (Peng, Liu & Lin, 2015:565) and cope with changes (Guo *et al.,* 2016). Small business owners in the township with low education levels would struggle to predict the future, however flexibility and experimentation equips them by changing their business models and trying out different ways to achieve survival and/or business growth in their business. When intelligent fast failure (IFF) (Qureshi *et al.,* 2016:624) is applied by the small business owner in the township, it gives them the opportunity to quickly experiment with a new business model or concept and abandon it in the short-term if it is not working. It allows the small business owner to minimise the effect of mistakes made by them to their business. Flexibility changed the perception of the

small business owner of seeing a challenge but rather seek an opportunity when a challenge occurs. An example would be how a retailer reacts to the corona virus outbreak (Wang, Horby, Hayden & Gao, 2020:470) by adding sanitisers and masks to sell as opposed to seeing it as a threat to their business. Flexibility may have been applied by township small business owners knowingly or unknowingly when they set up stalls outside malls (direct competitor) since malls create good foot traffic of customers for the small business owner.

Effectuation qualitative study with 19 business ventures done in the SA townships of Gauteng and Vaal, found that township small business owners who were funded by a sponsor and practised effectual decision making were more successful (le Roux & Pretorius, 2015:101). This study predicted that it would be reasonable to expect more success from effectuation in an uncertain environment where the future is ex ante. It would be difficult to plan accurately (causation) for a future that is uncertain as on execution of the plan (business plan) as the environment may have changed. Practice of effectuation through constructs or principles of experimentation and flexibility could reduce the ambiguity that exists in the business environment for the township small business owner operating in an unstable environment seeking to survive or grow.

3.8   CHAPTER SUMMARY

Effectuation is a decision-making logic that starts by considering the means of the small business owner at hand to determine the outcome that can be co-created with partners or stakeholders (Sarasvathy, 2001:245) such as customers, suppliers and/or competitors (Kalinic *et al.,* 2014:637; Galkina & Lundgren-Henriksson, 2017:3). The four principles or constructs of effectuation are experimentation, affordable loss, flexibility and pre-commitments (Urban & Heydenrych, 2015:127). These effectuation principles are different or opposite from traditional causation because effectuation is about the business surviving or achieving business growth by:

- controlling the unpredictable future (experimentation) as opposed to predicting the future (Reuber *et al.,* 2016:538),
- focusing on reducing the loss to one that the business owner can afford (affordable loss) as opposed to focusing on expected returns (Brettel *et al.,* 2014:612),

- embracing contingencies (flexibility) as opposed to eliminating or preventing contingencies (Eyana *et al.,* 2017; Stroe *et al.,* 2018:266) and

- forming partnerships with competitors and other stakeholders (pre-commitments) as opposed to competitor analysis (Kerr & Coviello, 2019:2; Jiang & Rüling, 2017:3).

Effectuation was based on expert business owners and these are defined as having ≥ 15 years' experience in running at least two business ventures (Dew *et al.,* 2009:288). In the study, non-expert small business owners in the township consisted of nascent small business owners with up to 42 months' experience and established business owners with more than 42 months' experience but less than 15 years or 15 years and more but having run one business (Herrington *et al.*, 2017:17; Ayala & Manzano, 2014:128). Effectuation used to be thought of as an opposite or mutually exclusive with causation but both can mutually co-exist as a decision logic practised by the township small business owner (Werhahn *et al.,* 2015:307). The effectual process has shown how all four constructs can be applied by a township small business owner to achieve business growth or viability in their business venture. Effectuation may possibly be practised by these small business owners as a decision logic when the business environment is uncertain (Reymen *et al.,* 2015:4), when the small business owner has a Communitarian business social identity (Also *et al.,* 2016), when the small business owner is an expert with high entrepreneurial self-efficacy (Engel *et al.,* 2014) and small business owners with limited resources that would consider a lean start-up approach (Frederiksen & Brem, 2017:181). It is possible that township small business owners are unknowingly applying some or all of the effectuation constructs when making decisions about their business ventures.

CHAPTER 4:
RELATIONSHIP BETWEEN EFFECTUATION AND BUSINESS GROWTH

4.1   INTRODUCTION

There is currently high unemployment in South Africa at 29.1 % as per third quarter of the 2019 Quarterly Labour Force Survey (SSA, 2019:1). One of the proposed solutions to this rising unemployment is the creation and business growth of small business ventures. Business growth of the township small business ventures is an important topic since these small businesses are expected to create jobs (Anyadike-Danes *et al.,* 2015:14). The existence and/or business growth of a small business may be a good start for the small business owner as this creates one job for them if they are a survivalist. The further business growth of the small business to create more jobs for other people outside of the business owner is even better. It is vital that business growth is understood in terms of how it is measured or assessed. The extant approach of creating and growing small business ventures in the township is the causation approach (Ladd, 2016:205; Roach *et al.,* 2016:215) of drawing up a business plan and then seeking funding to implement the business plan. This approach has however had its challenges and one of the challenges for small business owners is access to finance (Worku, 2016:138; Lloyd, 2018). Without access to finance, an excellent business plan may not be translated into a viable business by a township small business owner with limited means at hand. Effectuation however provides an alternative approach to causation as it starts with the means at hand to determine the business that can be created. This main theory in the perceptual study of effectuation wanted to understand the nexus between effectuation and business growth, if any. This or these findings could be an important contribution to understanding the business growth of township small business ventures.

4.2   DEFINITION OF BUSINESS GROWTH

Before defining business growth, it is worthy to look at some theories around business growth. There are a number of theories around business growth and earlier, Gibrat's

Law stated that there is no relationship between the size of a business venture and its organic business growth rate (Adams *et al.,* 2014:4). In other words, it was proposed that township small businesses' growth versus large businesses' growth is not affected by their size. Jovanovich in the 1980s, however, stated that businesses learn how to be more efficient over time which would then imply that small businesses would show more business growth as they start based on the younger age of the business (Krasniqi & Mustafa, 2016). Larger or older businesses would reach diminishing returns on their learning or experience and may grow more slowly. Gibrat's Law may hold true if all business ventures, irrespective of size, have the same resources. However, when considered on the resource-based view, businesses with more resources at hand to convert into capabilities tend to gain sustainable advantages (Liu *et al.,* 2017:62) and grow faster. Township small business ventures have less resources and, based on the resource-based view, their business growth rate is likely to be slower. Jovanovich's theory may also not hold true as younger, township small businesses may grow more slowly due to fewer resources at hand that may limit their capability to bundle resources that generate a sustainable competitive advantage. The study found it plausible to posit that age and size of a business may affect the business growth of the township business.

For business growth to occur in the business venture, the township small business owner needs to have the intent to grow the business, otherwise they were content to be a survivalist business owner (Block *et al.,* 2015:38). "Business growth" is defined as when one or more dimensions such as market share, assets, size or profitability increase with reference to the business (Koryak, Mole, Lockett, Hayton, Ucbasaran & Hodgkinson, 2015:90). Nason and Wiklund (2018:1) defined "business growth" as the increase in the size of a business between two points in time. Eshima and Anderson (2017:771) defined "business growth" as an increase in the assets and revenue of the business. Different indicators of business growth and their classifications were examined in more detail.

Having explored some theories of business growth above, how can business growth be objectively measured since business growth may be measured ambiguously or subjectively? Think of a township small business owner who starts with few assets on year one and ends up with more assets on year two. Value or number of assets has

definitely increased but does this mean the business has grown or has poor cash flow management resulted in cash being locked up in assets? The study needed to assess if business growth occurred and also needs to determine how to measure business growth for all respondents' business ventures. Business growth indicators may be financial or non-financial and the selected indicator/s should remove or reduce ambiguity in measuring business growth as shown in the scenario described above.

4.2.1 Financial indicators

Financial indicators are based on information that is obtained from financial statements such as, but not limited to, the income statement and balance sheet (Bogicevic, Domanovic & Krstic, 2016:3). As analysed in Chapter 2, most township small business owners do not keep financial statements (Williams & Shahid, 2016:1). This means the study did not request respondents to use complicated financial indicators such as "return on assets", "debt ratio" and similar ratios to determine business growth. These ratios would require them to refer back to financial statements such as the balance sheet and income statement which they seldom compile. Financial indicators to measure business growth tend to be more objective and eliminate respondent bias compared with non-financial indicators (Gerschewski & Xiao, 2015:11). These financial indicator numbers can be compared between two points in the life of the business to ascertain if there was an increase (business growth) or not in the period compared.

Sales and profit are examples of simple financial indicators that can be used to measure business performance or business growth (Phillips *et al.,* 2014:86). Tehseen and Ramayah (2015:54) stated that researchers prefer to use profit and sales as financial indicators of business growth since successful business ventures need both profit and sales to remain viable. Since township small businesses need profit and sales to be viable, these are indicators that they are most likely to monitor to determine if their business is still viable. These indicators were most likely be known and remembered by the township small business owner in terms of whether these indicators are increasing or not. Business growth has been measured in terms of an increase in production volumes, sales, employees, raw materials consumed, power consumed, assets, profits, profit margins and market share. However, the two

strongest determinants of business growth are increases in sales and employees (Yeboah, 2015:6). Sales and employee numbers are the most frequently used business growth indicators (Segarra & Teruel, 2014:810; Gerba & Viswanadham, 2016:533). Sales and employee numbers are a common financial indicator of business growth amongst other financial indicators.

Evaluation of business assets is another financial indicator that may be used to assess business growth. An increase in assets is also a good business growth indicator because businesses tend to compete by owning assets that are strategic towards creating a competitive advantage (Saeidi, Saeidi, Sofian, Saeidi, Nilashi & Mardani, 2019:2). This is the same with the resource-based view where assets that are inimitable are created or acquired by the business. Businesses in the retail and services sector tend to have more "soft" or intangible assets such as inventory and receivables / debtors as opposed to those in the manufacturing industry that have tangible assets such as machinery (Kodongo, Mokoaleli-Mokoteli & Maina, 2015:4). A street vendor in the township who carries enough and scarce inventory so that they never run out would never lose out on sales opportunities as this would be their competitive advantage. Caution must, however, be made not to use historical or cost value of the asset as opposed to the market value (Pur, Jáčová & Horák, 2015:136) as this may distort whether or not there is business growth. A township small business owner that purchased a van five years ago may mistakenly use the purchase price or the net value after deducting depreciation. Inventory of stock at market value and debtors should be included in evaluating the value of assets in a business (Osadchy, Akhmetshin, Amirova, Bochkareva, Gazizyanova & Yumashev, 2018:345) as this provided correct asset evaluation.

A township small business owner may feel the need to look successful and may be biased to make their business look good to the data collector if financial indicators are not used. Respondents in the study may have been embarrassed to admit to a poorly performing business due to pressure to provide a socially acceptable (Janssen & Kuk, 2016:6) answer but with financial indicators, this risk is reduced. If asked how many employees the business employs, it is difficult to lie as there may be a perception that the data collector on-site could easily verify the number. The study considered if non-

financial indicators can be considered to measure or assess business growth of the township small business owner.

4.2.2 Non-financial indicators

Traditionally, business growth was measured based on financial indicators but non-financial indicators are also being included. Some examples of non-financial indicators to assess business growth are quality of products and services, innovation and market share (Pham, 2020:1748). As opposed to financial indicators that are calculated from information found in financial statements (Nastasiea & Mironeasa, 2019:47), non-financial indicators are not found in financials. These non-financial indicators are subjective based on the individual/s assessing these indicators. With reference to customer service, a township small business owner may state that the levels of customer satisfaction in the business are extremely high when the business owner is the one providing the service. However, when the business now employs an additional employee, the same business owner may be more critical on assessing the level of customer service in the business. This example highlights the subjectivity of non-financial indicators.

Employee numbers is a non-financial business growth indicator as you cannot get this information from the financials of a business. Changes, if any, in employee numbers were used as a measure of positive or negative business growth in township small businesses. A township small business owner working for themselves without other employee/s has created employment for themself and therefore are an employee in the business (Best, Ribeiro & Alahmadi, 2016). For purposes of this study, employee number/s included the small business owner who works in the business plus additional employees, if any. Non-financial business growth indicators are recommended when the small business starts to grow in size (Gerba & Viswanadham, 2016:533). Non-financial measures such as quality and employee loyalty capture the long-term goals that a business requires to continue to survive or grow in the future. Financial indicators capture 12 months' business performance and have a short-term view of the business. Employee numbers as a measure of business growth were ideal in the measurement of business growth for the small businesses in the township in the study as they were easier for the owner to remember. Having said that, it does not

necessarily mean the use of financial indicators is not recommended in measuring small business growth as per the discussion that followed below.

However, using both non-financial and financial indicators to assess business growth promoted both a long-term and short-term decision approach by the small business owner (Kouki, 2015:8). This is because non-financial indicators assess the long-term sustainable effects of decisions by the small business owner whilst financial indicators assess the short-term or immediate effects (Dobrovic *et al.,* 2018:51). Gallo, Mihalčová, Timkova and Tomčíková (2018:35) explained the four perspectives in the Balanced Score Card as:

- financial perspective includes financial indicators such as revenue, expenses, net income, cash flow and asset value;
- customer perspective includes customer satisfaction, customer retention, market share and brand strength;
- learning and growth perspective includes employee satisfaction, employee turnover, employee skills and employee education; and
- internal business process includes inventory, orders, resource allocation, cycle time and quality control.

The Balanced Score Card was given by Dobrovic, Lambovska, Gallo and Timkova (2018:42) as an example of combining both financial and non-financial indicators to assess business growth as per Figure 4.1.

Figure 4.1 of the Balanced Score Card is a continual improvement tool that has four business perspectives or dimensions which are financial, internal business process, learning and growth, and customer. These four are aligned to the vision and strategy of the business venture. If all four indicators are satisfactorily attended to continually by the business, the business is mostly like to show sustainable business growth. The business may sacrifice declaring short-term profits and invest time and money in its employees through learning and growth. Someone using financial indicators only may conclude that there is no business growth in the business but in actuality the business has grown as it now has more skilled employees to support the vision and strategy of the business.

As much as the examination above points at the benefits of combining both the financial and non-financial indicators, the challenge is that the subjective non-financial indicators are difficult to measure and compare (Leković & Marić, 2015:24). The study had considered that its respondents are township small business owners and most of them have low levels of education (Mashau & Houghton, 2015:599). The study did not
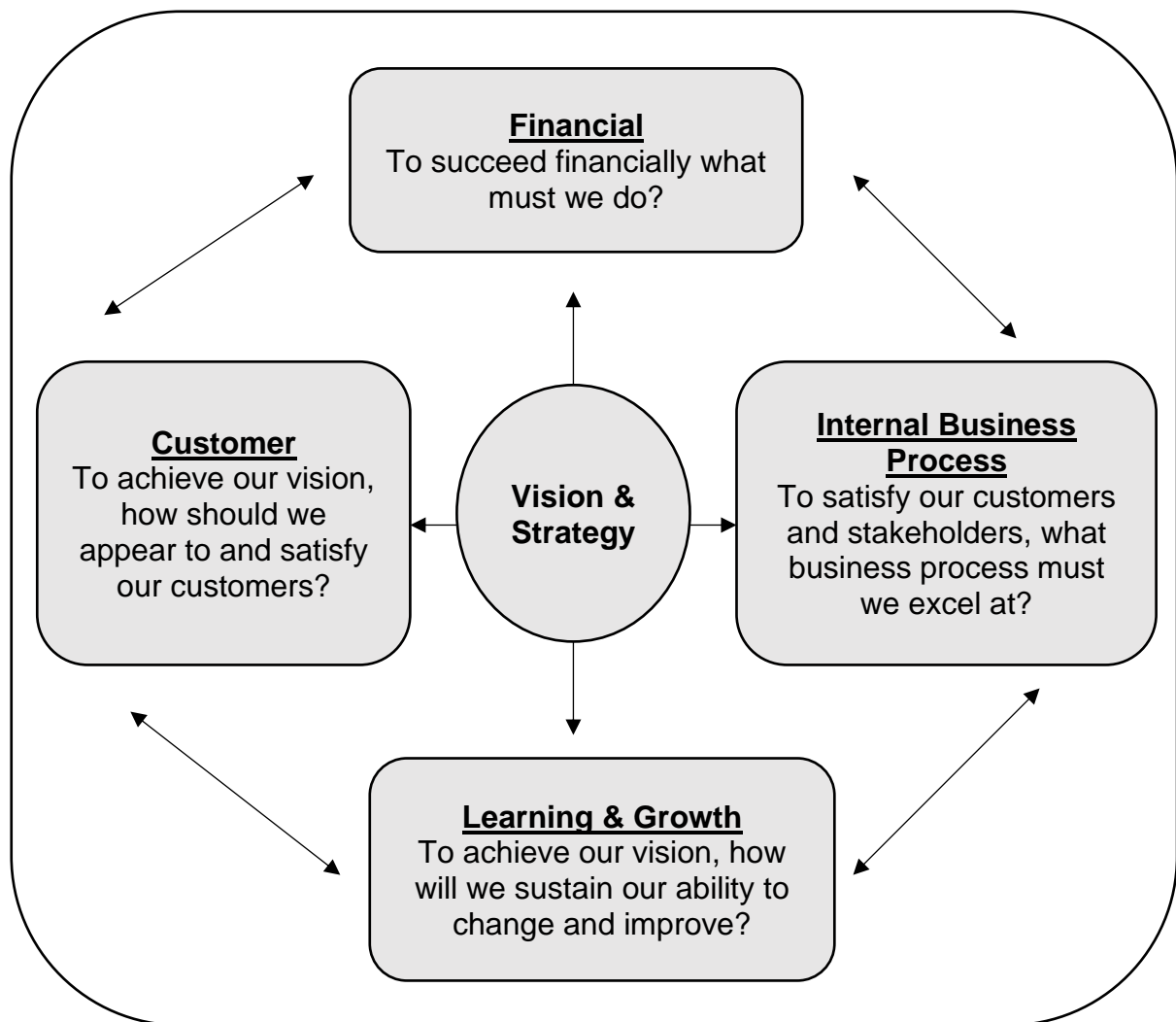
Source: Adapted from Dobrovic *et al.* (2018:42).

Figure 4.1:   Combined business growth indicator: Balanced Score Card

expecting the respondents to answer complex and subjective questions such as their businesses' market share, customer satisfaction level and employee retention levels. The study also made use of a quantitative approach which works better with financial indicators that are objective in nature. Nastasiea and Mironeasa (2019:51) explained

that due to limited resources and lower competencies of small business owners, there was a preference for the use of sales as a performance (business growth) indicator as opposed to more complex indicators such as total quality management. It is then plausible that it is easier for a township small business owner to recall if sales have increased or not or if number of employees has increased or not in determining business growth. Zorn, Esteves, Baur and Lips (2018:2) stated in their study that financial indicators work best with quantitative research, however this quantitative study used both financial and non-financial indicators of employee numbers, revenue or sales (Segarra & Teruel, 2014:810; Gerba & Viswanadham, 2016:533) and assets. The most frequently used financial indicators for business growth were in the following order of sales growth first and then assets growth (Eijdenberg, Paas & Masurel, 2017:45). For purposes of this study, business growth was measured by the indicators of sales, employees and assets.

4.3   EFFECTUATION AND BUSINESS GROWTH

Business growth is more likely to happen with small business owners that apply effectuation as opposed to causal decision making in their business ventures as these can manage uncertainty better (Brenk, Lüttgens, Diener & Piller, 2019). The decision-making logic practised (effectuation and/or causation) by the township small business owner in this uncertain environment will affect to a degree whether business growth is achieved or not. The study looked at the relationship, if any, between the individual constructs of effectuation and business growth.

4.3.1 Effectuation and business growth relationship

The primary objective of the study investigated the relationship between effectuation and business growth by non-expert township small business owners. Literature has proposed that effectuation allows the small business owner to manage the uncertainty of predicting the future, into a business opportunity by exploiting contingencies (Deligianni *et al.*, 2017:3). This advantage of exploiting contingencies when effectuation is practised should give the township small business owner the opportunity to grow their business. Having discussed the challenges of resources that the township small business owner has in starting and/or growing their business, effectuation could be the solution to this since they work with the means at hand. The

study will further discuss the individual effectuation principles but for now the study hypothesises that:

H$_1$: Effectuation positively affects the business growth of the non-expert small business owner's business venture.

4.3.2 Experimentation and business growth relationship

Experimentation by township small business owners would result in their businesses growing, especially if it is difficult to predict the future (Welter & Kim, 2018:24). Experimentation allows the small business owner to try out different business models till one that is viable in the uncertain environment is found. Experimentation leads to additional business growth opportunities for a business by using different strategies (Omri & Ayadi-Frikha, 2014:365). When a strategy applied has failed to generate business growth by offering specific products or services, either the business owner quits and closes operations or tries another different strategy. A number of township street traders tend to sell the same or similar products with their competitors. Experimentation by the township small business owner would create new products and services which will lead to business growth of the business (Altinay *et al.,* 2016:9). Experimenting with different business models was seen as an alternative strategy that facilitated business growth (Khanagha *et al.,* 2014:325). As opposed to sticking to one business model that did not result in business growth, experimenting with different business models may facilitate the possibility of finding a business model that supported business growth. A number of changes have happened in the township such as new malls and migrant business owners that have posed competition. Experimentation allows the township business to cope with such changes in the market and competition, thereby improving business growth (Guo *et al.,* 2016).

Experimentation allows a small business owner to try out different business models till one that is viable is found (Bocken *et al.,* 2017:8). This can be applied by township small business owners to improve chances of their businesses' survival and/or business growth. Experimentation may have a positive relationship with business growth if it is applied by the township small business owner. The study posited the following:

H_2: Experimentation positively affects the business growth of the non-expert small business owner's business venture.

4.3.3 Affordable loss and business growth relationship

As a recap, Futterer *et al.* (2018:67) explained affordable loss as being about the resources the business can afford to lose without the loss of these resources seriously affecting the business negatively. These resources include knowledge, networks and financial resources (Lingelbach *et al.,* 2015:6-7). Most township small business owners are survivalist as they aim to reduce business risk through focusing on reducing possible resource losses that may occur in the pursuit of business growth. Non-expert survivalist township small business owners are risk averse and focus on affordable loss as opposed to business growth or gains (Wennberg *et al.,* 2016:9). In a resource constrained country such as South Africa, affordable loss will lead to survival and/or growth of the business (Eyana *et al.*, 2017). Affordable loss allows a nascent small business owner to take a risk and not be ruined from taking that risk in the event that the business venture or activity pursued fails. It becomes a strategy that a small business owner can use to stretch their limited resources and also mitigate the risk of the negative effect of a project failing (Cai, Guo, Fei & Liu, 2017:390). If the risk was based on a project in the business such as for example, diversifying product offering, the failure of this project will not result in the business closing down. According to Roach *et al.* (2016:229), affordable loss contributes positively towards the performance (business growth) of the small business. This is in line with the intelligent fast failure (IFF) approach (Qureshi *et al.,* 2016:624). Using IFF approach, the township small business owner would "cut their losses" earlier on as opposed to spending more resources on a project, product or service that will not contribute positively towards business growth.

However, the study believed the affordable loss may lead the non-expert township small business owner to quit too early in the interest of limiting their loss and business growth may not be achieved. Consequently, the study posited the following:

H$_3$: Affordable loss negatively affects the business growth of the non-expert township small business owner's business venture, the more the business owner is resource constrained.

4.3.4 Flexibility and business growth relationship

As examined earlier, flexibility is the ability of the business venture to adapt to a constantly changing business environment to create or maintain its competitive advantage (Fernández-Pérez *et al.,* 2016:296). Flexibility creates competitiveness due to the ability to assess and adapt to these changes through the flexible use of resources (Vedanthachari & Baldock, 2015:2). A business ventures' success in the ever-changing business environment will be facilitated by its ability to adapt to the changes as they occur (Ivanov, 2017:6). Better customer value is created by a business that adapts to changes to obtain customer loyalty and long-term competitive advantage (Prommarat, Pratoom & Muenthaisong, 2017:74). Kodak's demise was partly due to its failure to adapt to the changing needs of its customers and the disruptive innovation that was happening around it as opposed to Fujifilm (Ho & Chen, 2018:14). This resulted in the decline of Kodak as they lost customers and had no competitive advantage in the market to facilitate business growth. Customer loyalty and competitive advantage against competitors will contribute positively towards business growth. Innovative products and services from strategic flexibility of the business will lead to improved business growth (Dibrell, Craig & Neubaum, 2014:7). Strategic flexibility resulted in organisational performance and sustainable competitive advantage (Li, Zhou, Zhang, Chen & Tian, 2018:11). Township small business owners may struggle to grow their business or survive if they do not quickly adapt to changes around them such as malls being built in the townships. Flexibility therefore should improve the likelihood of the township small business venture to survive and/or grow. The study hence posited the following:

H$_4$: Flexibility contributes positively towards the business growth of the non-expert township small business owner's business venture.

4.3.5 Pre-commitments and business growth relationship

As explored earlier, pre-commitments are when self-selected stakeholders such as customers, suppliers and other organisations commit and/or contribute towards the success of the business venture (Smolka *et al.,* 2016:7). Palmié, Huerzeler, Grichnik, Keupp and Gassmann (2019:99) stated that the pre-commitments could be a disadvantage by limiting the resources that the business owner commits since there will be other partners also contributing, therefore resulting in a less bold approach. The study however saw this as an advantage for a resource constrained township small business owner since the little they contribute in the business will be boosted by their other partner/s. Pre-commitment was found to have a strong positive relationship with the financial performance of an organisation (Rizvi, Querishi & Saeed, 2018:16).

In the study the pre-commitments in the township wherein relation to prior commitments with suppliers and/or customers prior to the commencement of the business venture. These suppliers or customers could opt to be partners or merely have a business relationship with the business. These pre-commitments make it easier for the business to operate and realise sales or profit or business growth easier as opposed to commencing without pre-commitments. In the township context, this could be in the form of credit terms with suppliers for stock or commitments by customers to make use of the business owner's products or services when they start the business.

Consequently, the study hypothesised that:

> H_5: There is a positive relationship between the adoption of the pre-commitments and business growth of the non-expert township small business owner's business venture.

Figure 4.2 is a model of the hypothesised relationships between business growth and effectuation, experimentation, affordable loss, flexibility and pre-commitments.
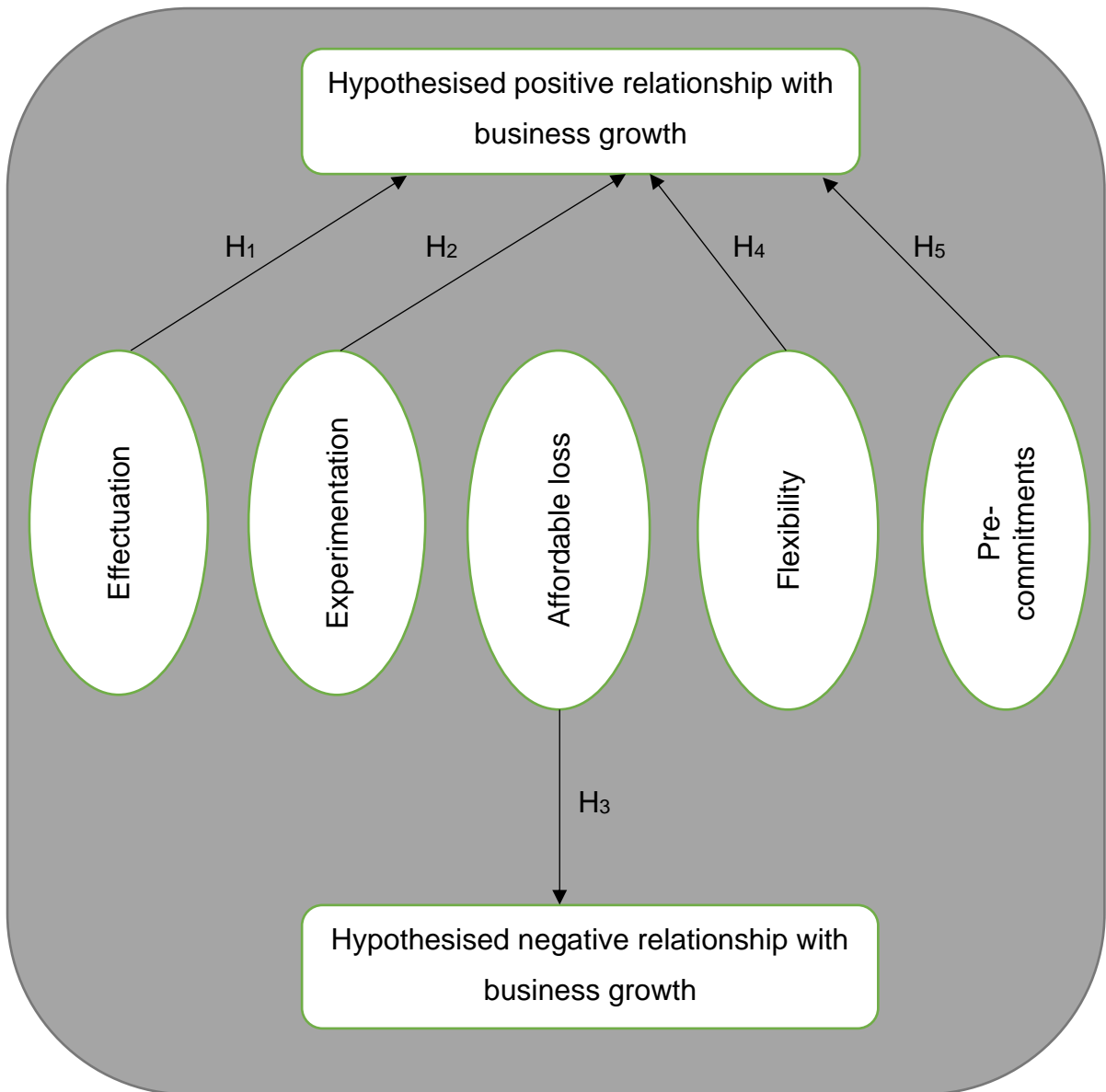
Source: Authors own compilation

Figure 4.2:   Hypothesised relationships between effectuation constructs and business growth

4.4   CHAPTER SUMMARY

Business growth in the study was measured using indicators of revenue, assets and employee numbers in the township small business. Since most township small business owners do not keep accurate records (Williams & Shahid, 2016:1), these indicators are easier to determine if they increased, decreased or remained the same in their small business. Some of these business growth indicators fall under financial

indicators which can be obtained from financial statements (Bogicevic *et al.,* 2016:3) which are revenue and assets of the business; and also, non-financial indicators which is the number of employees in the business. An increase in these indicators will mean there has been growth in the business of the township small business owner. The study investigated the relationship between the effectuation constructs and business growth in the business ventures were business growth occurred.

Effectuation constructs consist of experimentation, affordable loss, flexibility and pre-commitments (Urban & Heydenrych, 2015:127). The study posited that experimentation will have a positive relationship with business growth since the business can try different strategies (Omri & Ayadi-Frikha, 2014:365) and different business models (Khanagha *et al.,* 2014:325) to cope with competitors and changes in the market (Guo *et al.,* 2016). The study also hypothesised that affordable loss will have a negative relationship with business growth. This is because the small business owner may focus on what they are prepared to lose as opposed to focusing on business growth (Wennberg *et al.,* 2016:9) and may lead them to be a survivalist. The study further believed that flexibility had positive relationship with business growth because the business can adapt to the changing environment (Fernández-Pérez *et al.,* 2016:296) and better customer value is created (Prommarat *et al.,* 2017:74) which contributes to customer loyalty and/or business growth. The study also posited that pre-commitments will have a positive relationship with business growth as seen in a previous study (Rizvi *et al.,* 2018:16). Pre-commitments by stakeholders such as customers and suppliers make it easier for a small business to commence, operate and realise profits as prior arrangements have been made prior to commencement of the business.

CHAPTER 5:

RESEARCH DESIGN AND METHODOLOGY

5.1   INTRODUCTION

Effectuation theory was based on a study of 27 expert entrepreneurs with limited resources in the USA in the 1990s (Arend *et al.,* 2015:2). Previous chapters explored effectuation, business growth, township small business owners, the township environment and the application of effectuation by the township small business owners. Literature review (Sarasvathy, 2001:245; Günzel-Jensen & Robinson, 2017:782; Dew *et al.,* 2009:288) informed these chapters including the hypotheses formulation. The study however needed to verify or investigate the reality on the ground relating to the relationships of effectuation constructs and business growth of ventures run by township small business owners.
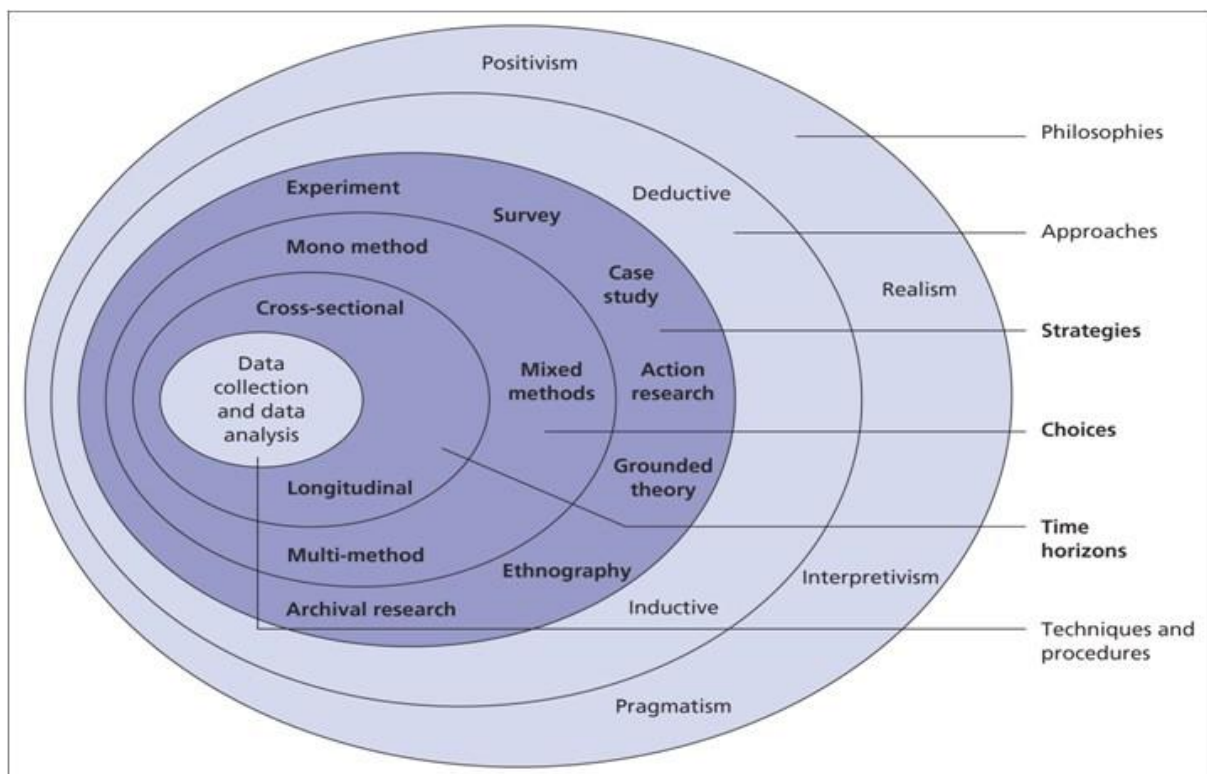
Source: Adapted from Saunders *et al.* (2009:109)

Figure 5.1:   Research onion

Prior to the commencement of the research in the field, it is important that there is planning and consideration of different options to find the most appropriate method to conduct field research and data analysis. The study's research design and methodology were based on the research onion by Saunders *et al.* (2009:109) in Figure 5.1. The research onion commences with philosophies on the outside of the research onion and proceeds inwards through approaches, strategies, choices, time horizons, then the techniques and procedures that are available. Thereafter the research design of the study was developed followed by going out with the questionnaire to the townships in South Africa to collect data based on the most appropriate choice. This was done to investigate if effectuation was applied by township small business owners and if so, the relationship between business growth and effectuation by these non-expert township small business owners, if any.

5.2   RESEARCH OBJECTIVES AND HYPOTHESES

This perceptual study proposed the practice of the emergent effectuation theory approach as a possible way of resolving the current problem of non-expert township small business owners who are struggling to start and/or grow their township small business ventures. The study's purpose investigated how the application of the effectuation principles contributes towards the business growth of township small businesses, if any. The effectuation theory was based on expert or experienced entrepreneurs (Arend *et al.*, 2015:12; Laskovaia, Shirokova & Morris, 2017:712). This study however investigated effectuation with non-expert township small business owners and the effect on the business growth of their small businesses. Effects of the industry that these township small businesses operate in with regards to application of effectual decision logic and/or business growth was also be investigated. Hence, the new contributions made by this study were the following.

Primary research objective:
- To determine the nature of the relationship, if any, between the practice of effectuation by non-expert township small business owners and business growth.

Secondary research objective:

- The relationships with business growth, if any, to the practice of the four effectuation constructs (experimentation, affordable loss, flexibility and pre-commitments) by non-expert township small business owners.

The study made the following five research hypotheses:
- H_1: Effectuation positively affects the business growth of the non-expert small business owner's business venture.
- H_2: Experimentation positively affects the business growth of the non-expert small business owner's business venture.
- H_3: Affordable loss negatively affects the business growth of the non-expert township small business owner's business venture, the more the business owner is resource constrained.
- H_4: Flexibility contributes positively towards the business growth of the non-expert township small business owner's business venture.
- H_5: There is a positive relationship between the adoption of the pre-commitments and business growth of the non-expert township small business owner's business venture.

These research hypotheses were tested based on the data collected from the sample of township small business owners.

5.3   RESEARCH PHILOSOPHY

Research philosophy is the belief or understanding that the study had in terms of the design, collection and analysis of data (Sinha, Clarke & Farquharson, 2018). The research onion starts on the outside with the philosophies of positivism, realism, interpretivism or pragmatism (Saunders *et al.,* 2009:109). The study looked at all four possible philosophies and select the one deemed appropriate for the research at hand. These philosophies were compared based on ontology, epistemology, axiology and data collection techniques. "**Ontology**" is the view of the world the researcher has of reality (Eicher-Catt, 2016:1). "**Epistemology**" is concerned with what counts as knowledge (Kim, 2017:1) that the researcher will accept into the study. "**Axiology**" is concerned with the values and/or opinions that are seen to be good for society and humans (Biedenbach & Jacobsson, 2016:140) by the researcher. These values may have a role in influencing research in a study, as different researchers may have

different values. Data collection techniques were discussed later in detail in this chapter.

5.3.1 Positivism

Positivism is commonly associated with quantitative research and the belief is that facts can be proven (Ryan, 2018:4) through the collection of data. Its purpose is to prove or disprove hypotheses by using a scientific method and statistical analysis (Alakwe, 2017:42). Its ontology is empirical in nature, an observable phenomenon and the knowledge must be obtained through experience by a human being (Pawlikowski, Rico & Van Sell, 2018:1). Empiricism refers to the experience that is observed as opposed to a theory that has not been experienced or tested on the ground (Crawford, Dimov & McKelvey, 2016:1). In other words, does reality on the ground when investigations are done agree with the theory or hypotheses proposed? Empirical data is what is collected while conducting investigations or observations that are experienced in a study or research (Angelov, Gu & Kangin, 2017). Epistemology is that of causality (Mingers & Standing, 2017:1) which is the relationship between cause and effect. Radical empiricism is associated with positivism where the sensory organs need to be part of the experience in data collection (Hwang, 2019:127) in terms of what is seen, heard or experienced. It aims to obtain objective data in social sciences especially in management and business research (Hasan, 2016:323). Objective data in one study was defined as the behaviour that was observed in using a product by the respondents as opposed to the subjective data which was the experience or expected experience of the product as mentioned by the respondents (Johanson, Jalminger, Frécon, Nelson, Olovsson & Gjertz, 2017:1). Axiology is the objective data that is free from bias by a respondent or data collector and another data collector should capture the same data.

5.3.2 Realism

Realism explores underlying theories to resolve contradictions that may exist (Alderson, 2016:203). It proposes that most successful theories are true to a degree and theories can be presented correctly or incorrectly (Cruse & Papineau, 2018). It seeks to intertwine critiquing and understanding of theories (Prinz & Rossi, 2017:362).

It seeks to investigate the assumptions that are made in the world relating to why and how things happen (Rechberg, 2018:64). Both quantitative and qualitative methodologies are acceptable in uncovering mechanisms behind events and actions (Abrahams & Witbooi, 2016:17). Epistemology and axiology suffer from bias by the researcher and has been one of the accusations made against realism (Prinz & Rossi, 2017:351). Realism philosophy may be appropriate to investigate the criticism relating to effectuation theory since it is not built on previous theories such as bricolage, as was previously discussed by Arend *et al.* (2015:8,9) in the 3E Framework. The study however was not about exploring underlying theories; therefore, realism may not be a relevant research philosophy to the study.

5.3.3 Interpretivism

Interpretivism is concerned with disclosing and revealing actions and purposes as it is an evaluatory framework (Lehman & Kuruppu, 2017:140). Ontology and epistemology are that it encompasses lived experiences which are subjective (Kelly, Dowling & Millar, 2018) since different people will perceive experiences differently. Axiology of interpretivism has also been described as having different meanings of reality depending on the knower and what is known (Kono, 2018:217). Reality evolves constantly, implying that facts and knowledge are subjective and/or relative. Data collection techniques that are qualitative make use of small samples to carry out in-depth investigations (Jokonya, 2016:2). This philosophy is highly subjective since it is dependent on the researcher. Probably ideal when being applied for in-depth interviews as these will be subjective based on the background, knowledge and/or experience of the researcher.

5.3.4 Pragmatism

Pragmatism based on Pierce's writing was about clarifying ideas and eliminating doubt based on the use of deduction, induction or abduction (Simpson, 2017:11) as explained by Table 5.1 using an example of beans in a bag. Deduction is about reaching a logical conclusion, induction is generalizing results beyond the observations and abduction is obtaining a feasible explanation for a phenomenon (Woo, O'Boyle & Spector, 2017:256-7). In the bean and bag example in Table

5.1, deduction, induction or abduction are applied to solve a problem or arrive at a conclusion. It emphasises practical experience first and takes theory and logic as being secondary (Li & Wu, 2016:40). Ontology and epistemology are not to find the truth or reality but rather how the theory can be applied to solve problems for humans and society (Parvaiz, Mufti & Wahab, 2016:68). Data collection techniques of mixed methods of quantitative and qualitative apply in pragmatic philosophy (Cai, 2018:46).

Table 5.1: Pragmatism philosophy

Deduction	Rule	All the beans from this bag are white
	Case	These beans are from this bag
	∴ Result	These beans are white
Induction	Case	These beans are from this bag
	Result	These beans are white
	∴ Rule	All the beans from this bag are white
Abduction	Rule	All the beans from this bag are white
	Result	These beans are white
	∴ Case	These beans are from this bag
Source: Adapted from Simpson, 2017:11		

Jokonya (2016:2) summarised the philosophies by Saunders *et al.* (2009) as shown in Table 5.2 and the comparison is based on ontology, epistemology, axiology and data collection techniques. Table 5.2 made it simpler to compare the four philosophies of positivism, realism, interpretivism and pragmatism by classifying them based on ontology, epistemology, axiology and data collection techniques. The table allowed the study to select the most appropriate philosophy that met the objectives and/or hypotheses of the study. Therefore, the research philosophy of this study was positivism because it is based on observable and quantifiable data (Antwi & Hamza, 2015:218). This study was empirical, based on the ability to provide evidence (Taylor, Bogdan & DeVault, 2017:12). The researcher acted independently of the data collected in the study. At the end of the study, the hypotheses made was either be supported or not by the data collected in the field.

5.4   RESEARCH APPROACH

The following layer of the research onion is the research approach and the study considered the two available options of deductive and inductive research approach (Sahay, 2016).

Table 5.2: **Comparison of research philosophies**

	Positivism	Realism	Interpretivist	Pragmatism
Ontology: The researcher's view of the nature of reality or being	Eternal, objective and independent of social actors	Is objective. Exists independently of human thoughts and belief or knowledge of their existence (realist), but is interpreted through social conditioning (critical realist).	Socially constructed, subjective, may change, multiple	External, multiple, view chosen to best enable answering of research question
Epistemology: The researcher's view regarding what constitutes acceptable knowledge.	Only observable phenomenon can provide credible data and facts. Focus on causality and law like generalizations, reducing phenomena to simplest elements	Observable phenomena provide credible data and facts. Insufficient data means inaccuracies in sensations (direct realism). Alternatively phenomena create sensations, which are open to misinterpretation	Subjective meanings and social phenomena. Focus upon the details of situation, a reality behind these details, subjective meaning motivating actions	Either or both observable phenomena and subjective meanings can provide acceptable knowledge dependent upon the research question. Focus on practical applied research, integrating different

		(critical realism). Focus on explaining with a context or contexts		perspectives to help interpret the data
Axiology: the researcher's view of the role of values in research	Research is undertaken in a value-free way, the researcher is independent of the data and maintains an objective stance	Research is value laden; the researcher is biased by world views, cultural experiences and upbringing. These impacted on the research	Research is value bound, the researcher is part of what is being researched, cannot be separated and so will be subjective.	Values play a large role in interpreting results, the researcher adopts both objective and subjective points of view
Data collection techniques most often used.	Highly structured, large samples, measurement, quantitative, but can use qualitative	Methods chosen must fit the subject matter, quantitative or qualitative	Small samples, in-depth investigations, qualitative	Mixed or multiple methods design, quantitative and qualitative
Source: Adapted from Jokonya, 2016:2				

5.4.1 Deductive research approach

Deductive approach tests the implications for existing theory relating to phenomenon being studied (Graneheim, Lindgren & Lundman, 2017:30). This approach is based on the term "deduction" that was defined earlier on as reaching a logical conclusion. Quantitative research methods tend to be used with the deductive approach (Sabri, Odeh & Saad, 2019:286). It tests hypotheses

that have been proposed in a study that is being undertaken (Albert, Keenan, Burns, Huxman & Monson, 2017:26). Positivism philosophy studies tend to adopt a deductive research approach (Naidoo, 2019:258). Deductive approaches are generally concerned with causality or relationships between two or more elements in a study (Trampusch & Palier, 2016:3).

5.4.2 Inductive research approach

Inductive approach is based on the term "induction" that was defined earlier on as generalizing results beyond the observations. Its aim is generating a new theory based on data (Graneheim *et al.,* 2017:30). This approach is based on observations made and finding the patterns in the data (Woo *et al.,* 2017:257). Inductive research tends to use qualitative methods such as ethnography and case studies amongst others to answer questions such as "how" and "why" (Woiceshyn & Daellenbach, 2018:3). It is appropriate in cases where there are big challenges with limited theory and for problems with vague answers where the data can be used to generate a theory (Eisenhardt, Graebner & Sonenshein, 2016:1113). Inductive approach is not intended to prove anything but rather is categorised generally as grounded theory (Daugherty, Hoffman & Kennedy, 2016:3169).

It is important to consider the purpose or approach of this study to decide whether the deductive or inductive approach was appropriate. This study explored related existing theories or literature before proposing hypotheses of the study. Consequently, four hypotheses were proposed in this study. This is followed by testing the hypotheses that are about the relationships between the effectuation constructs and business growth of the township small business owners' businesses. Hypotheses testing was based on the data collected in the townships from the small business owners using the structured questionnaire. Quantitative research allowed the study to quantify the data for analysis to determine the causal relationships, if any. At the end, the hypotheses are either supported or not, based on the findings in the study. For purposes of this study, the deductive approach was used as it was appropriate for testing hypotheses.

5.5   RESEARCH STRATEGY

Research strategy is how one carries out their research, encompassing a particular style and using different methods (Wilson, 2016:40). It consists of the options of experiment, survey, case study, action research, grounded theory, ethnography and archival research. These were discussed to determine which strategy was most appropriate for this study.

5.5.1 Experiment

Experiment is when you simulate or mimic an environment that is the same as in the real world such as through a simulation to test a factor under study (Sailer, Hense, Mayr & Mandl, 2017:375). Experiments may be done in a physical laboratory or online environment. Recruitment of respondents in laboratory experiments is more affordable compared to online experiments but more work may need to be done by the researcher such as communicating with respondents when they arrive at the laboratory (Arechar, Gächter & Molleman, 2018:101). The researcher also needs physical space for the laboratory which may make it costlier than the online experiments. Experiments have always had the criticism that as much as they are simulated to the real world, they may fail to capture the reality that happens in the real world as they are usually laboratory based (Coppock, 2019:1).

5.5.2 Survey

A survey consists of either a paper based or online questionnaire that requires respondents to answer questions (Determann, Lambooij, Steyerberg, de Bekker-Grob & De Wit, 2017:953) related to the study at hand. Data in a survey is collected in a standardised manner from a sample of the population to infer the findings to a wider population (Mourougan & Sethuraman, 2017:1), assuming probability sampling is used. It can be interviewer-administered or be a self-administered questionnaire which can be better as it reduces social desirability bias (Krosnick, 2018:286) for the respondent to answer in a socially acceptable manner. Traditional methods of collecting quantitative data are face-to-face but there is now computer assisted data collection where answers are captured directly onto a computer and telephonic or online data collection methods. Online based surveys tend to be self-administered

with the respondents being sent an email link to access the questionnaire online on their own in their own time. The measurement scale commonly used in questions for surveys are ordinal where a scale of one to five may be used (such as in Likert scales) (Arvidsson, 2019:604). Length of the survey may negatively affect the respondents' willingness to participate when it is long and the quality of answers reduces as they work their way down a lengthy questionnaire (Kachroo & Kachen, 2018:121). It is possible that fatigue will make respondents answer questions too quickly, without giving them sufficient thought, thereby reducing the accuracy of the data collected in the study. Pilot testing the survey may assist in checking and/or correcting the survey to ensure that such challenges do not occur in the study.

5.5.3 Case study

Case study is generally qualitative in nature, not seeking statistical information but rather in-depth information regarding a phenomenon (Gaya & Smith, 2016:529). The phenomenon can be an individual, organisation, group, event or a problem and the data is collected via triangulation (Ridder, 2017:282). It seeks a multi-perspective investigation about the phenomenon through the use of multiple data sources (Carolan, Forbat & Smith, 2016:2). Data collection can be done via positivist, interpretivist, deductive or inductive approach because case studies are multi-faceted (Wilson, 2016:40). Case studies are descriptive, exploratory, explanatory, illustrative and evaluative whilst being subjective in dealing with complex issues (Harrison, Birks, Franklin & Mills, 2017).

5.5.4 Action research

Action research is conducted by the practitioner and not by external researchers not involved in the phenomenon being studied (Norton, 2018:53). The goal is to move away from academics coming up with theories that are passed onto practitioners to implement but rather have the practitioners involved in the research. Teachers tend to be involved as practitioners in action research to test a phenomenon whilst engaged in teaching. Some action research reports by practitioners have challenged the academic reports and resulted in academics accepting these action research reports (McNiff, 2016:68). The goal of action research is therefore to generate relevant and

practical information around a problem or situation (Ripamonti, Galuppo, Gorli, Scaratti & Cunliffe, 2016:56) through the use of practitioners on the ground. Action research has been predominantly associated with qualitative research methods through observation, interviewing and analysis (Vaughan & Burnaford, 2016:283).

5.5.5 Grounded theory

Grounded theory enables researchers to generate a theoretical account of the phenomenon under study and ground it in empirical data or observations (Wiesche, Jurisch, Yetton & Krcmar, 2017:686). Unlike the traditional hypothetico-deductive approach, it is a complicated method based on inductive paradigm (Stol, Ralph & Fitzgerald, 2016:120) as shown by key components of grounded theory in Table 5.3.

Table 5.3: Key components of grounded theory

Limit exposure to literature	**Limiting exposure to existing literature and theories to promote open-mindedness and pre-empt confirmation bias.**
Treat everything as data	All qualitative data, quantitative data, semi-structured data, pictures, diagrams, videos and even existing theories and literature are treated as data.
Immediate and continuous data analysis	The researcher begins analysing data immediately and does not finish collecting data before beginning analysis. Data collection and analysis are simultaneous.
Cohesive theory	The researcher attempts to move beyond superficial categories and develop a cohesive theory of the studied phenomenon
Theoretical saturation	The researcher stops collecting and analysing data when theoretical saturation is reached. "Theoretical saturation" refers to the point at which a theory's components are well supported and new data are no longer triggering revisions or reinterpretations of the theory.
Source: Adapted from Stol *et al.* (2016:121)	

As can be seen in Table 5.3, grounded theory approach has so many different approaches to the traditional research that is based on testing hypotheses. Grounded theory is becoming more common in use as a qualitative research strategy that has now surpassed another qualitative research strategy of ethnography (Morse, 2016:13).

5.5.6 Ethnography

Ethnography is a qualitative research strategy and entails the researcher taking intensely detailed notes or thick description of their observations in the field (Bamkin, Maynard & Goulding, 2016:216). This research strategy is done over a longer time frame with the researcher immersing themselves in the field or community to collect detailed data as a participant observer (Morgan-Trimmer & Wood, 2016:1). The researcher immerses themselves into the community or field by living in the community whilst conducting their study. Anthropologists in their study of humans, human behaviour and societies have for ages been using ethnography to document their observations (McGranahan, 2018:24). This observation was on community social practises and how they interact or behaviour amongst themselves.

5.5.7 Archival research

Archival research is concerned with how the past or society's collective memories are wholly or partially recovered or lost (Hodder, 2017:452). There is a risk by the researcher of confirmation bias when the archival records are narrow (Daly, 2017:317). With this type of research, the researcher relies on existing records in archives of past events or observations that are found in but not limited to press releases, news articles and company records (Bloomfield, Nelson & Soltes, 2016:355). Communities tend to keep archival knowledge in their minds as memories and someone needs to capture this memory into digital or physical records prior to being lost (Battley, 2017:1). These are the records that a researcher applying archival research would then access in their study.

Having briefly discussed the seven different research strategies, it was important that the study selected the most appropriate strategy. For purposes of the study, the survey

research strategy was the most appropriate since the study tested hypotheses, make use of a structured questionnaire that was interviewer-administered and data was collected in a standardised manner. The study aimed to gather about 800 questionnaires from a sample of the population in a standardised manner in the selected townships. As much as self-administered surveys reduce social desirability bias (Krosnick, 2018:286), paper-based interviewer-administered surveys are more appropriate for adults as opposed to the online self-administered surveys (Weigold, Weigold, Drakeford, Dykema & Smith, 2016:412). The sample that data was collected from is predominantly adult small business owners based in the townships. The interviewer-administered questionnaire was also ideal due to the low levels of education with township small business owners (Mashau & Houghton, 2015:599). This allowed the data collectors to clarify any questions where ambiguity is perceived by the respondent and also ensured that respondents do not omit any questions by mistake or intentionally.

5.6 RESEARCH CHOICE

In the research onion, the research choice has the options of mono method, mixed methods and multi-method.

5.6.1 Mono method

Mono method refers to the use of one method (Cai, 2018:35) which is ether quantitative or qualitative. This method is appropriate if the research questions or problems can be answered by either quantitative or qualitative method (Subedi, 2016:575). Mono method bias is when the same method is used, be it qualitative or quantitative in different studies of the same or similar phenomena (Abid & Butt, 2017:19). The result is that it becomes easier to confirm findings of previous studies without considering that the results may have been influenced by the same method used. Triangulation of results (to be discussed in Chapter 5.6.2) from mixed methods is one of the ways to reduce mono-method bias. Quantitative methods were dominant in the first half of the 20th century till the 1960s when qualitative methods started gaining popularity in research (Rahman, 2017:102). The study looked at the two

methods that are used separately in mono method, which are quantitative or qualitative.

Qualitative method is concerned with complex problems that require in-depth knowledge (Queirós, Faria & Almeida, 2017:370). This qualitative research does not seek numerical data for analysis. Quantitative method on the other hand provides large numerical data in a short space of time that can be statistically analysed (Molina-Azorín & Font, 2016:11). These quantitative studies usually make use of surveys with larger samples in the study (Brown, Strickland-Munro, Kobryn & Moore, 2017:154). Park and Park (2016:3) stated the differences between quantitative and qualitative methods as shown in Table 5.4.

Table 5.4 shows the main differences the study used in determining whether the type of study would be objective or subjective, structured versus being unstructured and whether the study tested versus developing a theory. This study also considered if the data collected should be free from researcher bias or not, whether reliability and

Table 5.4: Differences between quantitative and qualitative methods

Quantitative	Qualitative
Objective	Subjective
Researcher is independent of research	Researcher interacts with research
Value free and unbiased	Value laden and biased
Impersonal voice	Personal voice
Deductive process	Inductive process
Structured	Unstructured
Accurate and reliable through reliability and validity testing	Accurate and reliable through verification
Test a theory	Develop a theory
Source: Adapted from Park and Park (2016:3)	

validity testing was applicable or not and if the process was deductive or inductive (as discussed previously in section 5.4).

5.6.2 Mixed method

Mixed method is when statistical data from quantitative research methods are supported by obtaining in-depth data from qualitative research methods by interviewing respondents to provide a richer data set (Manzoor, 2020:80). An approach to mixed method may commence with a qualitative (exploratory) pilot study which is then followed by the quantitative study based on the findings in the qualitative study (Bluth, Gaylord, Campo, Mullarkey & Hobbs, 2016:4). Mixed method in one study used three phases, were phase one collected both qualitative and quantitative data, phase two used phase one data to design a quantitative questionnaire and phase three used the mixed method based on phase two data collected (Makrakis & Kostoulas-Makrakis, 2016:147). The collection and analysis of data with this method is either done sequentially or simultaneously with the qualitative and quantitative methods. Almalki (2016:291) gave benefits of combining qualitative and quantitative in mixed methods as the following:

- triangulation which allows corroboration and convergence of results from different methods of research to enhance validity,
- complementarity which searches for enhancement, elaboration, illustration and clarification of results from one method with the results of another method,
- development which utilises results from one method to inform another method, and
- Initiation is the discovery of inconsistencies or contradictions within the data to allow the reformulation of questions or additional questions being required in the study.

Triangulation is based on the concept that if different research methods provide the same result, then it is highly probable that the results are accurate and/or valid. Mixed research method provides better inferences, reduces mono-method bias and more divergent views are obtained (Subedi, 2016:571). A large number of questionnaires in a quantitative study are required to justify correlations. However, correlations (quantitative) in a study with less than ten participants in mixed methods can be

justified through the qualitative methods added as it answers the "why" and "how" questions (Leppink, 2017:100). Mixed method has a number of benefits discussed earlier; however, it has a disadvantage that it takes longer (Cai, 2018:46) and tends to be more expensive.

5.6.3 Multi-method

Multi-method sounds the same as mixed method, but is it the same thing? Multi-method entails using multiple types of qualitative research (for example, ethnography and case studies) or multiple types of quantitative research (for example, experiments or surveys) whilst mixed methods is the mixing of both types of data (Anguera, Blanco-Villaseñor, Losada, Sánchez-Algarra & Onwuegbuzie, 2018). Mixed method will combine as an example ethnography and survey as these are from different research methods of quantitative and qualitative. In multi-method, you never mix quantitative with qualitative research methods but you use only one of the research methods (Schoonenboom & Johnson, 2017:108) and collect multiple data types for the chosen research method. Due to the variety of data collected from this method, triangulation of results provides broader and richer data (Hayes, Scott, Abraczinskas, Scaccia, Stout & Wandersman, 2016:200). Richness of data is an advantage of this method that made it worth considering for this study.

This study used the mono method of quantitative method only as this type of method tests a theory and the study needs to test hypotheses. In addition, the study made use of a structured survey to collect data with a team of data collectors, thereby requiring the research to be objective and independent of the different data collectors. Since this study targeted to collect data from 800 respondents, mixed method and multi-method took too much time to conduct and would also be relatively expensive. Mixed method was not be appropriate for this study as the qualitative method component was not able to test the hypotheses proposed by the study.

5.7   TIME HORIZONS

Time horizons involved in research as per the research onion include cross-sectional and longitudinal.

5.7.1 Cross-sectional

A cross-sectional study entails a sample or census of the population and the absence or presence of the outcome is ascertained at a certain point in time (Downes, Brennan, Williams & Dean, 2016:1). This is a snap shot of a point in time and consideration of what happened before or what might happen after this point is not taken into account. Advantages of this study is that the researcher is able to directly observe the phenomena, collect the data in a short period of time, no need for follow-up of the respondents, results are produced faster and is less costly (Zangirolami-Raimundo, de Oliveira Echeimberg & Leone, 2018:357). It is however difficult to determine the direction of causality in cross-sectional studies (Marques, Minderico, Martins, Palmeira, Ekelund & Sardinha, 2016:2). This time zone has been criticised for over-assuming that variables over time remain stable and this may lead to incorrect inferences (Baker & Algorta, 2016:12). The probable reasoning behind this is that the assumption is that at the point that the data is being captured, it captures what has been happening over time but this is not always the case.

5.7.2 Longitudinal

Longitudinal studies are repeat studies with respondents' data being collected at least twice to compare initial and final findings of data collected with a period of time in between the data collections (Ryan & D'Angelo, 2018:149). This is beneficial when studying a phenomenon over a period of time as opposed to studying it at a point in time. This allows the study to observe changes in behaviours or characteristics of the same respondents over a period of time. A study may want to trace the behaviours of respondents or a phenomenon over a period of time. These studies tend to be associated more with qualitative studies where in-depth information is required by the study over a period of time (Hermanowicz, 2016:491). They can at times span a long period of time as seen in one study that spanned seven years (Rohrbeck & Kum, 2018:108). The long-time duration and frequency of repeat studies or data collections would make the study longer and probably more expensive compared to cross-sectional studies. One of the challenges of longitudinal studies is that the follow up on respondents to collect data again may be a challenge (Hill, Woodward, Woelfel, Hawkins & Green, 2016:7) as some respondents may get arrested, move residence

or even die as an example. This would then make it difficult or impossible to collect the data again and those respondents become a wasted cost to the study as their data becomes incomplete.

The study made use of the cross-sectional time horizon and collected data once from respondents in the townships over one week. This was appropriate because the study is investigating the existence or lack of effectual decision logic at a specific point in time, of the township small business owner. The study also ascertained if business growth did occur in the business at the point that the study is done in the field. This was also appropriate for the study as time was limited to do the research and the budget was restricted as cross-sectional studies are relatively cheaper. There was also the advantage that the study did not have the onerous task of trying to collect the data from the same respondent again since the respondents may change location or not be willing or interested to do it again.

5.8 TECHNIQUES AND PROCEDURES

Techniques and procedures that are available in the research onion relate to data collection and data analysis.

5.8.1 Data collection

Before data collection can commence, sampling needs to occur first by the researcher, followed by an initial pilot study to test the questionnaire. After the pilot study and changes required, if any, have been addressed, the final data collection of the entire sample is done.

5.8.1.1 Sampling design

Sampling is studying a smaller selected number from a population. Non-probability sampling techniques are generally used in qualitative studies whilst probability techniques tend to be used in quantitative studies (Badu, O'Brien & Mitchell, 2019:8). Probability sampling gives every participant in the population a chance of being selected and includes simple random, systematic, stratified random and clustered random sampling (Elfil & Negida, 2017:1-2). Non-probability sampling methods such

as purposive, convenience and snow-ball sampling are non-random and a subjective means to select the participants in a study (Etikan *et al.,* 2016b:1). Probability sampling allows the findings of the study to be inferred to the rest of the population whilst this cannot be done with non-probability sampling (McCrae & Purssell, 2016:5). Quantitative studies commonly make use of probability sampling with large sample numbers whilst qualitative studies generally use non-probability sampling with smaller sample numbers (Samaddar, Ajay, Keil, Gupta, Paul, Arora, Marwaha & Pal, 2019:4). Non-probability sampling (purposive and snow ball sampling) was used in the study as a reliable database was not available for random sampling and, as such, the findings cannot be inferred to the population of township small business owners. Purposive and snow ball sampling has been used in other studies. In one study, it was used to investigate the business practices of migrant entrepreneurs in the townships of Cape Town (Mukwarami, Tengeh & Mukwarami, 2020:1893). This sampling method was also used to investigate challenges faces by female entrepreneurs in Mthatha who owned guest houses (Hlanyane & Acheampong, 2017:6).

The researcher had physical access to the sample frame of township small business owners in the selected townships of Johannesburg (Alexandra, Honeydew and Soweto) in Gauteng Province. The township small businesses predominantly operated in public spaces without gate-keepers to control physical access to them such as entrances with security guards screening entry. Gauteng Province was also selected because it contributes > 38 % towards South Africa's GDP and had the greatest number of small businesses (Kalitanyi, 2019:54-55), therefore making it especially suitable. The business sectors that these small business owners were selected from in the sample frame were retail, services and manufacturing industries. These industries were easier to access in the field by the researcher as they operated in public spaces like outside malls and along public streets. This study excluded small business owners who had run two or more businesses and had 15 or more years' experience in running a business because the study intentionally excluded expert business owners.

5.8.1.2 Sample size

Sample size that is too small increases the likelihood of statistical errors such as Type II error. Type I error is incorrectly rejecting a null hypothesis that is true and Type II error is where the null hypothesis is false, but it is not rejected (Hickey, Grant, Dunning & Siepe, 2018:4). At the same time, a sample that is excessively larger than required is a waste of resources such as time and money. The four formulae used to calculate minimum sample sizes are average value, proportion value, variance value and the Slovin formula (Susanti, Soemitro, Suprayitno & Ratnasari, 2019:50). All these formulae require the size of the population and most of the township small businesses are informal or unregistered, therefore no accurate number exists for the study to use. A sample size of 30 to 500 respondents at a 5 % confidence level is recommended (Delice, 2010). The study worked on achieving at least the upper level of 500 and hence targeted 800 respondents to factor in poor response rate and spoilt questionnaires that may have to be excluded. The study aimed to collect data from 267 responds from each of the three townships of Alexandra, Honeydew and Soweto. This would add up to a total of 801 respondents if a 100% response rate was achieved. This would mean the target of 800 would be reached and/or exceeded. A high response rate of 91 % (728 usable questionnaires out of a total of 800 questionnaires) was achieved and probably so because the data collection was interviewer administered.

5.8.1.3 Data validity and reliability of the instrument

Data validity and reliability relates to trustworthiness and accuracy of the findings, instrument and data (Bernard, 2017:53). SPSS was applied on the initial data obtained from the pilot study undertaken with 30 respondents. The instrument was tested with this data to be deemed valid and reliable prior to the final data collection from the respondents. Reliability is determining if the instrument has any measurement errors (Delesposte, Coutinho, Narcizo, Cardoso & da Silva, 2019:202). Reliability of an instrument means if the instrument is used with the same respondent twice, it should yield the same or a similar result. In a study by Soltanpour, Kalantari and Roostaei (2018:247), the reliability of the instrument was tested by the three methods of

- inter-rater reliability
- test-retester reliability, and

- internal consistency.

"**Inter-rater reliability**" is when two or more people give the same or similar rating for an instrument. Exploratory factor analysis, discussed in Chapter 6, was used in the study as a form of determining inter-rate reliability. "**Test-retester reliability**" is a measure that shows the consistency of a measurement when the test is done twice. The instrument was used about800 times and the data was tested statistically (discussed in Chapter 6) to show consistency of measuring the same constructs with different respondents. "**Internal consistency**" is the degree that items in an instrument measure multiple aspect of the same construct. In the study, the statements (items) under each effectuation construct and business growth measured the multiple aspects of these constructs.

"**Validity**" is when the instrument measures what it was meant to measure (Delesposte *et al.,* 2019:202) and there is internal and external validity. "**Internal validity**" is concerned with whether the way the study was designed, implemented and analysed resulted in trustworthy responses whilst "**external validity**" explores whether the findings of the sample can be generalised to the population (Andrade, 2018:499). Internal validity in the study needs to ensure that the relationships investigated between the effectuations constructs and business growth are not affected negatively by factors such as bias by the data collector as an example. Bias by the data collector may cause them to select their own preferred respondents since both purposive and snowball sampling was used in the field. This in turn affected the external validity as the sampling method was now non-probability, thereby meaning the findings could not be generalised to the population. Data collectors were trained on this prior to going to the field and the researcher monitored this whilst collecting data with them in the field. Yousuf and Khan (2018:57) stated that validity of the instrument can be broken down into

- face validity
- criterion validity
- content validity
- construct validity.

Face validity is a subjective measure of whether the instrument appears to be a valid measure of the variables or constructs in the study (at face value). In the study, the questionnaire measured all four effectuation constructs and also the measuring of business growth through assets, sales and employee numbers. Criterion validity measured the extent that one measure predicts an outcome for another measure. In the study, the hypotheses showed a relationship between the effectuation constructs and business growth. If the hypotheses are tested and proven true, for example with one of the hypotheses, high levels of experimentation should predict high levels of business growth. The correlation matrix can be used to measure criterion validity. Content validity assesses if the construct items measure the concept in the study being measured. Statements or questions for the respondents under the constructs of effectuation and business growth in the questionnaire (Q3, Q4, etc.) was assessed to determine if they measure the relevant construct. The questionnaire was adapted from previous studies (Chandler *et al.,* 2011:382; Adams *et al.,* 2014:4; Yeboah, 2015:5-6) and as such content validity can be assumed to be in place. Construct validity checked if the if questionnaire will measure the theoretical construct in the study. The theoretical construct in the study to be measured is how the application of effectuation theory by non-expert small business affected business growth. Factor analysis, to be discussed in Chapter 6, measures construct validity of the questionnaire in the study.

The questionnaire was adapted by adding the first two questions onto the questionnaire to test for effectuation practice by Chandler *et al.* (2011:382). The two questions asked (1) if the respondents had 15 years' experience or more of running a business and (2) if they had run two or more businesses. If both questions had been answered with a "yes", these respondents would be excluded from the study as they would be deemed to be experts. The last question by Chandler *et al.* (2011:382) which stated "we used pre-commitments from customers and suppliers as often as possible" was split into two questions to minimise confusion to respondents. The two questions had one question referring to "pre-commitments with customers" and the other question to "pre-commitments with suppliers". Since the study wanted to investigate the relationship between effectuation practice and business growth, which Chandler *et al.* (2011:382) did not investigate, the study added indicators of business growth as questions 17-21. The indicators that measured business growth were assets, sales and employees as per Adams *et al.* (2014:4) and Yeboah (2015:5-6). The study had

proposed in the conceptual model that the industries (retail, service and manufacturing) would be moderating variables to the relationship between effectuation practice and business growth. The instrument was further adapted to add options to select which industry the township small business owner belonged to when data was collected.

5.8.1.4 Pilot study

A pilot study was conducted on the 13th of February 2020 by the researcher through collecting data from 30 respondents in Honeydew township to pre-test the questionnaire. Honeydew township was selected for the pilot study since it was easier to access than the other selected townships. Additionally, it was selected due to its close proximity to the researcher thereby reducing travelling time to the field and costs. Findings from the pilot study revealed that most respondents were not fully literate in English, however common languages understood were Zulu, Tswana and Sotho. With this in mind, the study used interview-administered data collection and all data collectors recruited were conversant in English, Zulu, Tswana and Sotho. Some respondents thought the researcher was from government trying to find business owners who are not paying business tax and were not willing to participate. This was factored into the data collection after the pilot study by informing and assuring respondents at commencement that all data collected was anonymous as the study did not ask for personal details such as their names or identification numbers. This reduced the resistance to participate in the study. Some respondents were keen to participate but only if they were compensated for their time in the form of money or a cap as usually done by promoters. Data collectors were advised to exclude such respondents as it was unethical to compensate a participant as it may be unduly influential, coercive and places doubt on voluntary consent of the respondents (Largent & Lynch, 2017:6) in the study. The questionnaire was tested using exploratory factor analysis (EFA) and confirmatory factor analysis. The items in the questionnaire were correlated to the main factors and the questionnaire met the goodness-of-fit indices. The study proceeded with the collection from the 800 respondents in the field.

5.8.1.5 Final data collection

When data collection is directly done in the field, this data is called primary data and is more reliable compared to secondary data that is obtained from databases or literature (Lovarelli & Bacenetti, 2017:110). As much as primary data is more reliable, it probably takes more time and is costlier to collect due to the logistics of being in the field as opposed to quickly and cheaply accessing secondary data online. The study made use of primary data collection in the field. Data collected in the field will differ when it comes to qualitative compared to quantitative studies. With qualitative studies, the common data collection methods are interviews, participant observation and focus groups (Moser & Korstjens, 2018:12). This is done to obtain in-depth information about the phenomenon under study. This qualitative data collection tends to be more effective when done face-to-face and the researcher can also pick up on non-verbal cues (McGuirk & O'Neill, 2016). The respondents may also be more comfortable to give longer and more detailed responses, thereby contributing towards making the data thick or in-depth. Data saturation usually occurs in qualitative studies when no new data is found from additional data collection and it may be advisable to stop collecting more data at this point (Stol *et al.,* 2016:121). It would be a waste of time and money for the study to collect duplicate data.

Quantitative data collection is associated with research questions that require the researcher to measure, test or compare (Cleland, 2017:63) as it is about numbers or quantifying data. The assumption made is that there is one reality or a single fact that can be unearthed by quantitative data collection (Farghaly, 2018:6). Objective research instruments such as surveys are used to collect primary data in quantitative studies (Taguchi, 2018:24). As mentioned earlier above, this primary data has the benefit of being highly reliable as opposed to secondary data. This data collection has the advantage of collecting larger data and personal feelings of the researcher cannot influence the data collected as it is numerical (Basias & Pollalis, 2018:92). It also gives an advantage to the study that it can be replicated since it uses standardised data collection approach but its limitation is that data collection can be time consuming (Goertzen, 2017:13). Since more time is required to collect this data, it is probable that primary data collection in quantitative studies would make it costlier too.

Quantitative face-to-face primary data collection in the field with the use of a structured survey was found to be appropriate for the study compared to qualitative. The main reasons for this are because the study planned to collect data from 800 respondents, the data was quantified for analysis and data collector bias was reduced in the data. As much as this was relatively costlier and took more time compared to using secondary data collection, the study ensured reliability of its findings. Prior to going out to the field, ethical clearance was obtained from the university (protocol number: EMS107/19) to proceed with the study. Ethical considerations in the study included honestly informing the respondents, prior to data collection, the purpose of the study. Respondents had the option to consent or not to the study, their information would be kept confidential and their information would only be used for purposes of the study. This assisted in the respondents' consent to participate in the study as there would not be a suspicion that their information would be given to government agencies as this concern was raised during the pilot study. Most township small business owners run informal businesses and some had expressed fear of their information being used to register them to pay tax during the pilot phase of the study.

The survey had two close-ended screening questions at the beginning that ensure that township expert small business owners are excluded from the study since the study population is non-expert township small business owners. Close-ended questions have the advantage in a survey of creating ease for the respondents to answer without having to do too much thinking (Jain, Dubey & Jain, 2016:1). These two questions determine if the small business owners have 15 or more years' experience running a business/es and if they have run two or more businesses. If the respondents answer "yes" to both, they are classified as expert small business owners and they are excluded from the study.

In designing measuring scales for a questionnaire in the study, there are four main types of measuring scales which are nominal, ordinal, interval and ratio but the study only made use of nominal and ordinal scales (Arvidsson, 2019:605). Nominal scales are non-numeric as the measurement cannot be ranked or compared such as collecting data like age. Ordinal scales rank order or comparison of data such as when a respondent state if they strongly agree, agree, neither agree or disagree, disagree and strongly disagree with a statement. As per Table 5.4, the questionnaire is then

followed by a section made up of 14vmultiple choice ordinal questions that test if the four effectuation principles of experimentation, affordable loss, flexibility and pre-commitment were used in decision making by the township small business owner. A five-point Likert scale was used that ranged from "strongly disagree" (1) to "strongly agree" (5) from Question 3 (Q3) to Question 18 (Q18). The questionnaire was adapted from previous studies as these studies were accepted as being valid and therefore should increase the validity of the questionnaire in this study. The structured questionnaire used to measure effectuation was adapted from Chandler *et al.* (2011:382).

The next section is followed by five questions to measure business growth and these are made up of two ordinal questions (Q17 and Q18) and three close-ended nominal questions (Q19 to Q21). Questions 17 and 18 in the questionnaire for measuring business growth was adapted from Yeboah (2015:5-6) relating to sales and employee numbers. Respondents were asked if their sales and employee numbers increased to link this with business growth. Gibrat's Law for measuring business growth irrespective of the business size, was adapted from Adams *et al.*, (2014:4) and Questions 19 to 21 collected these data. Business growth according to Gibrat's Law should not affect the rate of business growth. Employee numbers were measured at start of the business (nascent business), at three-and-a-half years (established business) and on the day of data collection. The last five questions (nominal, multiple choice ordinal and close-ended) determined the demographics such as age, gender and highest qualification of the respondents. In total, the questionnaire (See Appendix A) was made up of 26 questions.

Table 5.5: Statements and questions used with respondents

Construct	Question Number	Item Statements and Questions
Experimentation	Q3	We experimented with different products and / or business models.
	Q4	The product/service we now provide is essentially the same as originally conceptualised.

	Q5	The product/service that we now provide is substantially different than we first imagined.
	Q6	We tried a number of different approaches until we found a business model that worked.
Affordable loss	Q7	We were careful not to commit more resources than we could afford to lose.
	Q8	We were careful not to commit more money than we were willing to lose with our initial idea.
	Q9	We were careful not to risk so much money that the company would be in real trouble financially if things didn't work out.
Flexibility	Q10	We allowed the business to evolve as opportunities emerged.
	Q11	We adapted what we were doing to the resources we had.
	Q12	We were flexible and took advantage of opportunities as they arose.
	Q13	We avoided courses of action that restricted our flexibility and adaptability.
Pre-commitments	Q14	We used a substantial number of agreements with customers, suppliers and other organizations and people to reduce the amount of uncertainty.
	Q15	We used pre-commitments from customers as often as possible.
	Q16	We used pre-commitments from suppliers as often as possible.
Business Growth Indicators	Q17	There are now more assets in the business since we started.
	Q18	There has been growth in sales since we started
	Q19	How many workers were employed by the business including the owner when it started?
	Q20	How many workers were employed by the business including the owner at 3.5 years old?

	Q21	How many workers are employed by the business including the owner currently?

Source: Adapted from Chandler *et al.* (2011:382); Adams *et al.* (2014:4), and Yeboah (2015:5-6).

Quantitative data collection method has the advantage of reducing the bias of data collectors in the data collected since the study recruited three additional data collectors to assist due to the large number of respondents (800) to collect the data from. The three data collectors all had experience in conducting surveys in the township. The first day was used to introduce the effectuation principle and workshop the questionnaire to allow them to clarify questions when in the field. A great deal of time was spent in training them on how to translate business or academic terms into Zulu, Tswana and Sotho without losing the intended meaning of the questions. Examples were also used that were relevant to the type of the business to explain terms such as pre-commitments and affordable loss so that respondents could accurately answer the questions. The researcher and the team spent four days in the field collecting data. Most respondents were willing to participate in the study and some who wanted compensation were excluded from the study. At one of the sites at Baragwanath Hospital taxi rank in Soweto, permission had to be requested and was granted. This was because the security and administration of the taxi rank initially thought the study was engaged in promotions, which they do not allow. The only disruption that was experienced was one day of rain which resulted in postponement to the next working day. Since the study aimed to collect data from approximately 800 respondents, this method was appropriate as opposed to qualitative data collection which collects data from a few respondents.

5.8.2 Data analysis

Data analysis entails the inspection, cleaning, transforming and modelling to retrieve information (Pal, 2017:1) to test the hypotheses and make conclusions in the study. Since the study applies quantitative data collection method of using a survey, the discussion on data analysis will focus on the quantitative methods that are appropriate for the study. The units of analysis for this study were the township small businesses in Gauteng province and the units of observation were the township small business owners. The study commenced with a pilot study and factor analysis was used to test

if the questionnaire was appropriate for this study. This pilot study was then followed by the collection of data from the target of 800 respondents. Descriptive and inferential statistics were done on this data. Before data can be analysed, the responses first need to be captured onto an Excel spreadsheet using coding as per the questionnaire (Sattar, Wang, Muqadas, Ashraf & Tahir, 2017:542). This data, now in numerical format was analysed through the use of the statistical package, SPSS (Statistical Package for Social Sciences).

5.8.2.1 Factor analysis

Factor analysis is a statistical technique explaining the relationships of underlying variables or factors in an observed phenomenon (Wright, 2017:1). The questionnaire was evaluated for internal reliability using factor analysis. Covariation between the effectuation and business growth constructs with the items in the questionnaire was tested. It is split up into confirmatory factor analysis (CFA) and exploratory factor analysis (EFA). CFA was used in the study to confirm the pre-defined factor structure (Çokluk & Koçak, 2016:539) to investigate if the predicted or hypothesised structure is a good fit to the data collected. The study used EFA to identify the lowest number of hypothetical constructs (factors or variables) which explained the covariation of variables to identify common factors (Watkins, 2018:219). Data inspection techniques, factor analytic method, factor retention methods and factor rotation were used for this.

5.8.2.2 Descriptive statistics

SPSS uses descriptive statistics to summarise, describe and present sample data in a way that makes it simple to present and understand (Conner, 2017:52). Descriptive statistics consist of measures of frequency (frequency and percent), central tendency (mean, median and mode) and dispersion or variation (variance, standard deviation, standard error, quartile, interquartile range, percentile, range and coefficient of variation) (Mishra, Pandey, Singh, Gupta, Sahu & Keshri, 2019:67). These measures were applied to the demographics of the township small business owner which include but not limited to age, gender and highest qualification, Responses on the practice of effectuation constructs, business growth indicators and moderating variables of the industries were subjected to these measures. This information was then presented in the form of but not limited to tables and charts for ease of interpretation.

5.8.2.3 Inferential statistics

Inferential statistics may be used to interpret data from the sample to generalise onto the rest of the population (Teja & Reddy, 2018:418). The most frequently used inferential techniques are correlation, t-test, chi-squared test, ANOVA (Analysis of Variance) and regression (Sanders, Sheard, Becker, Eckerdal & Hamouda, 2019:180). SPSS is a statistical package with numerous comparison and correlational statistical tests for parametric and non-parametrical tests (Ong & Puteh, 2017:18). Pearson correlation coefficient and structural equation modelling (SEM) was used in line with the research objectives of the study by interpreting data in the sample. For this study, in order to test that the relationship between effectuation and business growth was statistically significant, a p-value less than 0.05 was required. A p-value below 0.05 justified the study to reject the null hypothesis that a relationship does not exist, because it means there is less than a 5 % (0.05) probability that the null hypothesis is correct. The study then accepted the alternative hypothesis that a relationship does exist.

Pearson correlation coefficient is a commonly used coefficient that measures the direction (positive or negative) and strength (-1 to 1) of a correlation between two variables that are measured on the same scale (Akoglu, 2018:91-92). It was used in the study to test direction and strength of hypothesised and other relationships between effectuation and business growth variables. A value between 0 to 0.1 on the lower end would signify a negligible correlation whilst, on the higher end, a value between 0.9 and 1 signifies a very strong correlation (Boer & Schwarte, 2018:1765). These values discussed refer to a positive correlation and a negative or inverse correlation that may exist or a no correlation between the variables depicted by the value zero (0). Only correlation is tested but not causal relationship between variables when using Pearson correlation coefficient.

SEM (including first and second order) was used in this study to evaluate the conceptual model proposed and test causal hypotheses. This structural model is made up of latent variables and SEM is ideal for theory testing using latent variables. The SEM model is presented graphically with the use of rectangles (latent variables), circles or circular objects (observed variables), unidirectional arrows (causal relationships) (De Longueville, Zhu & Henry, 2019:464) and bidirectional arrows (non-

causal relationships). An advantage of SEM is that the individual items can be grouped under a construct and the relationships with other constructs (also grouped items) can be investigated, therefore time effective. Incorrect inferences by measurement errors are fully accounted for by SEM compared to regression and path analysis (Savalei, 2019:352). Effects of the practice of effectuation constructs on business growth by the township small business owner was tested by SEM to understand the strength of effectuation and/or effectuation constructs on business growth, if any. Goodness-of-fit indices were used to test the fit of the SEM models to the data from the sample in the study (Lance, Beck, Fan & Carter, 2016:389). These indices, not limited to minimum discrepancy (CMIN/DF), root mean square error of approximation (RMSEA), comparative fit index (CFI) and standardized root mean square residual (SRMR) was used to test this based on the indices values that are recommended. Recommended indices values but not limited to the following, CMIN/DF should be less than five (Alavi, Visentin, Thapa, Hunt, Watson & Cleary, 2020:2210; Chen, 2016:99), AGFI > 0.9 (Chang *et al.* 2019:4), CFI > 0.95 (Fonseca-Pedrero, Debbané, Ortuño-Sierra, Chan, Cicero, Zhang, Brenner, Barkus, Linscott, Kwapil & Barrantes-Vidal, 2018:6) and SRMR < 0.08 (Vannucci & Ohannessian, 2018:7).

Moderation test was used to determine if the retail, services and manufacturing industries are a moderating factor to the relationship between effectuation and business growth. Only the relationships that are found to be statistically significant ($p < 0.05$) was tested for the moderating effect of the industries. Interaction is another common term used to describe moderation between these variables and the study accepted that there would be moderating effect where this interaction is statistically significant, where the p-value is > 0.05 (Hayes & Rockwood, 2017:9).

Table 5.6 is based on the most appropriate option that was selected from the different options available in the research onion.

Table 5.6:   Research design selection summary for this study

Research onion layer	Choice / option selected	Justification
Research philosophy	Positivism	Study was empirical, based on observable and quantifiable data
Research approach	Deductive	Testing of hypotheses in the study to investigate the relationships between effectuation constructs and business growth
Research strategy	Survey	Data was collected from a large number of respondents (728).
Research choice	Mono method	The quantitative method was used alone as it is structured and allowed the study to be done at a shorter time and less cost.
Time horizon	Cross-sectional	The study was interested in investigating the relationships between effectuation constructs and business growth at a point in time. This method is also relatively affordable and less time required.
Techniques and procedures	Non-probability sampling, quantitative data collection, descriptive and inferential statistical techniques	Purposive and snowball sampling and inferential techniques limited the study to infer the findings to the rest of the population of township small business owners. Quantitative data collection allows the study to use both descriptive and inferential statistical techniques.
Source: Adapted from Saunders *et al.* (2009:109)		

These selected choices were used in the study to investigate the relationships between effectuation constructs and the business growth of the township small business owners.

5.9   CHAPTER SUMMARY

Prior to going out to the field, ethical clearance was obtained from the university to proceed with the study. Ethical considerations in the study included honestly informing

the respondents, prior to data collection, the purpose of the study. They were also informed that they had the option to consent or not to the study, their information would be kept confidential and their information was only for purposes of the study. In pursuing the research objectives of investigating the relationship between business growth and the effectuation constructs of experimentation, affordable loss, flexibility and pre-commitments, the study designed the research based on the research onion by Saunders *et al.* (2009:109). The research philosophy selected is positivism as the research was quantitative and empirical. Hypotheses are proposed in the study, needs to be tested and as such the research approach that tests hypotheses are deductive. Research strategy used was the survey since a structured questionnaire that was interviewer-administered was used to collect data from 800 small business owners in a standardised manner in the township. Mono method of a quantitative study was the chosen research choice and the time horizon of the data collection was cross-sectional as data was collected once at a specific point in time.

The questionnaire by Chandler *et al.* (2011:382) was adapted by adding two screening questions to exclude expert respondents from participating. One question was split into two to minimise confusion of respondents, business growth indicators and industry type was added. After the design of the research was completed, the implementation of the study commenced with non-probability sampling (purposive and snowball sampling) as there was no reliable database of township small business owners to apply simple random sampling to infer findings to the population. The questionnaire was first tested in the field through a pilot study with only 30 respondents. The pilot study indicated that questions should be translated by the data collectors to the home language of the respondents to improve the respondents' understanding of the questionnaire. EFA, CFA and goodness-of-fit tests were carried out to confirm that the questionnaire was appropriate to test the hypotheses proposed. After the test pilot, data was collected from the 728 respondents and analysed by running descriptive and inferential statistics including investigations via Pearson correlation coefficient and SEM to investigate the research objectives. Moderating effect of the retail, services and manufacturing industries on the statistically significant relationships between effectuation and business growth was tested.

CHAPTER 6:
RESEARCH FINDINGS

6.1 INTRODUCTION

The primary research objective of the study investigated the relationship between the practice of effectuation (all four effectuation constructs – experimentation, affordable loss, flexibility and pre-commitments) by township small business owners and business growth. With the study completing the data collection in the selected townships of Gauteng in South Africa, it was important to present, analyse and understand this data. This empirical data was presented and analysed descriptively by displaying the demographics of the township small business owner which include age, gender and highest qualification of the township small business owner. The age and industry that these small businesses operate in are also described. Descriptive statistics including the mean, median, standard deviation, skewness and kurtosis of effectuation and business growth constructs were presented. The conceptualised constructs were validated using the exploratory factor analysis method. Confirmatory factor analysis follows next to investigate if the hypothesised or conceptual model is a good fit to the data collected from the respondents who participated in the survey. It includes data inspection techniques, factor analytic method, factor retention method and factor rotation. Inferential statistics via Pearson correlation coefficient and structural equation modelling (SEM) are carried out to test the hypotheses proposed to confirm or not confirm the hypothesised model. The chapter presents and interprets the study's findings in reaching its objective.

6.2 EMPIRICAL DATA COLLECTION

For the perceptual study, empirical data was collected from the non-expert township small business owners through the use of the questionnaire (Angelov *et al.,* 2017). These data are captured and analysed to generate descriptive and inferential statistics via IBM SPSS STATISTICS version 26 and IBM SPSS AMOS version 26.

6.2.1 Descriptive statistical analysis

In the study, the sample data collected from the township small business owners was described based on the following variables: number of businesses owned, township small business owner's age, gender, highest qualification and business industry. Pie charts, tables and bar graphs are used to present this data in a simplified and summarised format.

6.2.1.1 *Number of businesses ventures owned and run by township small business owners*

Based on Dew *et al.* (2009:288), one of the criteria to qualify as an expert township small business owner is having run two or more business ventures and ≥ 15 years or more experience in doing so. Respondents who met both criteria described above were excluded from their data being collected as these are expert township small business owners. Whilst those who met one or none of the criteria were included in the study as these were classified as non-expert township small business owners that the study wanted to investigate. Findings (Figure 6.1) are that 691 respondents (94.9 %) own and run one business, 28 respondents (3.8 %) own and run two businesses and nine respondents (1.2 %) own and run three or more businesses as shown in Figure 6.1.
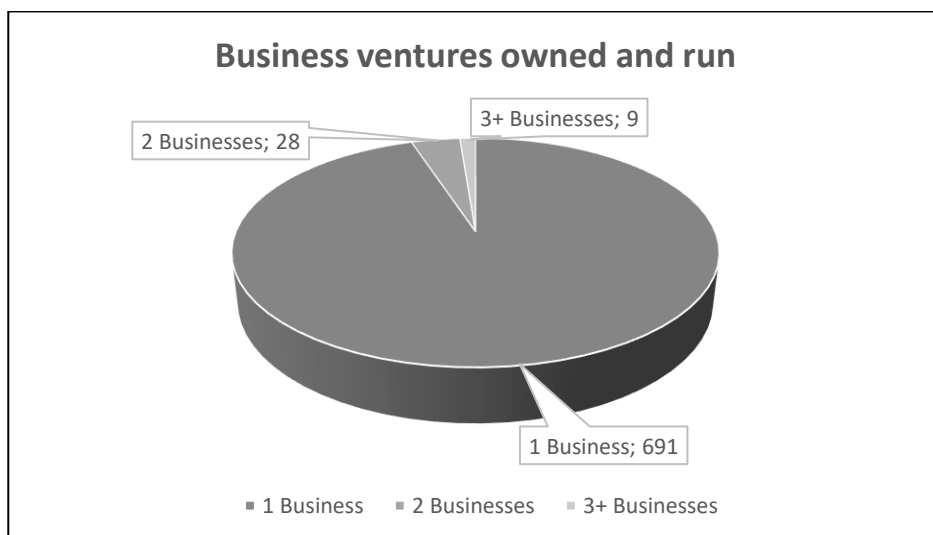
Source: Author's own compilation

Figure 6.1:   Distribution of township small business owners by number of businesses owned and run

The study agreed with Iwu *et al.* (2016:20) that most township small business owners are survivalists since nearly all the respondents in the sample (94.9 %) only own and run one business venture.

6.2.1.2   Township small business owner's age

Table 6.1 shows the distribution of township small business owner by age based on the sample from the data collection done in the study. The "youth" in South Africa is classified as from 15 to 34 years of age (SSA, 2019:8). The youngest respondent in the study is, however, 18 years of age, hence the table used18 to 34 years for youth. The sample shows that the highest numbers within the sample of township small business owners are the youth with 262 (36 %) respondents and the lowest are those over the age of 65 years with 11 (1.5 %) respondents. Due to high unemployment amongst the youth (Osabohien, Osuma, Ndigwe & Ozordi, 2018:52), this may be the reason the youth in the sample is the highest. The high unemployment may probably leave the youth with no option but to become necessity-based township small business owners in order to survive (Kontolaimou *et al.,* 2016:11).

Table 6.1:   Distribution of township small business owners by age

Age		Frequency	Percentage (%)
18 to 34 years	(Youth)	262	36.0
35 to 44 years	(Adult)	239	32.8
45 to 54 years	(Adult)	138	19.0
55 to 64 years	(Adult)	78	10.7
65+ years	(Adult)	11	1.5
Total		**728**	**100**
Source: Author's own compilation			

6.2.1.3 Gender of the township small business owners

Figure 6.2 shows the distribution of the sample by gender. In the questionnaire, the study added an option for "other" to accommodate all possible responses such as those respondents who may be transgender. All respondents selected male or female and 412 (56.6 %) were male and 316 (43.4 %) were female as presented.

Gender of the business owner

316 412

■ Male   ■ Female
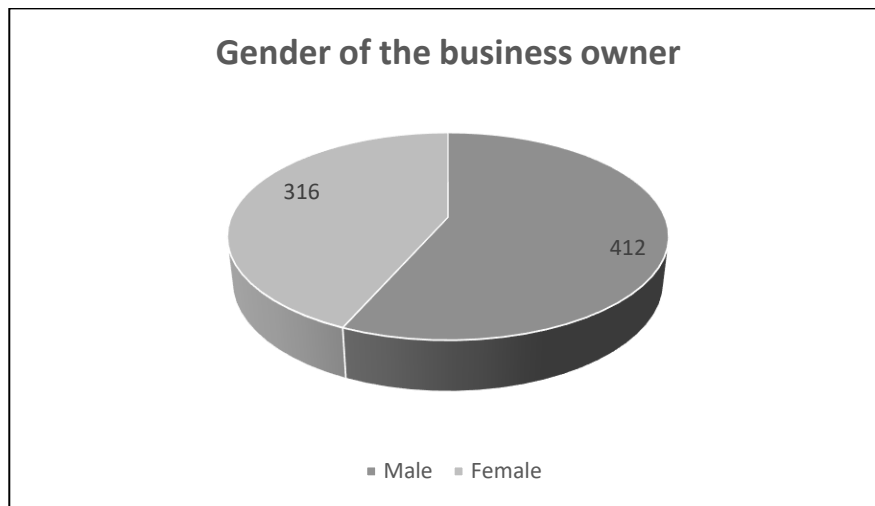
Source: Author's own compilation

Figure 6.2:   Gender of the township small business owners

The expectation was that there would have been more women in the sample since 30.1 million (51 %) of the population in South Africa is made up of women (SSA, 2019:8). However, there are only 316 (43.4 %) female respondents. It may be plausible, however, that women do not have the same access to start business ventures as owning businesses is perceived to be for men (Aneke, Derera & Bomani, 2017:38), hence there are more men in the sample. Another possible reason may be that men have been traditionally been the providers and women the caregivers who therefore became housewives.

6.2.1.4 Highest educational qualification of the township small business owners

Educational level has an effect on how the township small business owner runs their small business and the study, therefore, is interested in the educational levels of the respondents in the sample. The sample is distributed by highest qualification as shown

in Table 6.2. Literature has pointed to the low educational levels of township small business owners (Mashau & Houghton, 2015:599). The study confirmed this literature as 555 (76.2 %) respondents in the sample did not complete and/or pass their high school (Matric) whilst 99 (13.6 %) respondents had only a high school qualification. Only 74 (9.2 %) respondents had a qualification higher that a high school education.

Table 6.2: Highest educational qualification of the township small business owners

Highest educational qualification	Frequency	Percentage (%)
No Matric	555	76.2
Matric	99	13.6
Certificate	48	6.6
Diploma	10	1.4
Degree	8	1.1
Honours	0	0
Masters	1	0.1
PhD	0	0
Other	7	1.0
	728	**100**
Source: Author's own compilation		

As much as the definition of an expert township small business owner makes no mention of qualification levels, it is plausible that township small business owners with low educational levels may be non-experts. This sample is ideal for the study since the sample is that of non-expert township small business owners.

6.2.1.5 Business age and level of township small business owners

According to the 2016-2017 GEM report, a nascent business and/or nascent township small business owner is one that has been in business for less than three and half years whilst an established business or established business owner has been in business for more than three and a half years (Herrington *et al.,* 2017:17). Since

expert township small business owners were intentionally excluded in the study, Figure 6.3 classifies non-expert township small business owners as being both nascent and established. Two hundred and four (28 %) respondents are nascent township small business owners whilst 524 (72 %) respondents are established business owners.

Business Owner Level

204

524

■ Nascent   ■ Established
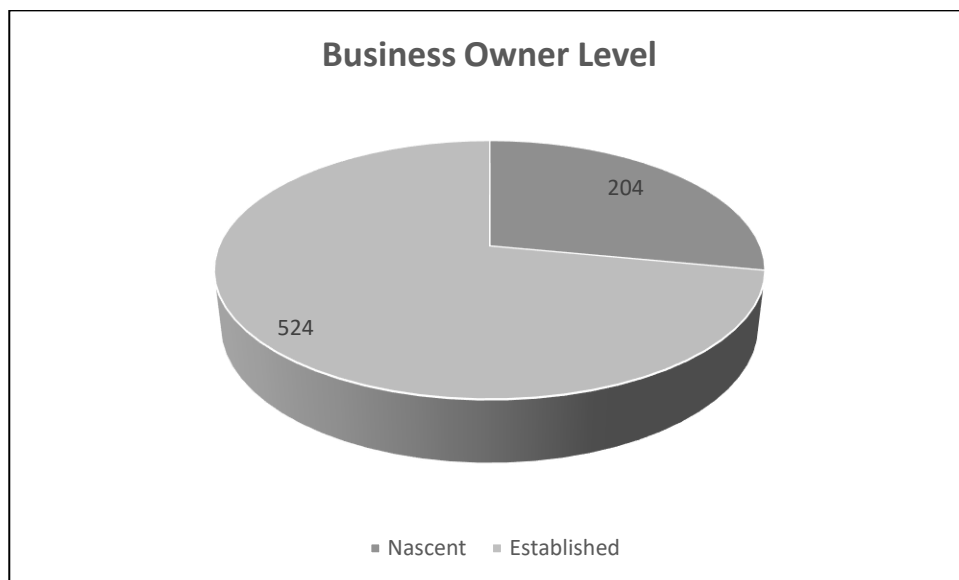
Source: Author's own compilation

Figure 6.3:   Business age and level of township small business owners

All these respondents however do not meet the definition of an expert township small business owner, since an expert business owner is classified as one that has run two or more business ventures for ≥ 15 years (Dew *et al.,* 2009:288).

6.2.1.6   *Business industry*

The different business industries that these township small business owners operate their businesses in may affect business growth or the decision-making logic applied in these businesses. It may even affect the relationships that exist between the effectuation constructs and business growth. The study was interested in understanding if this may be the case and investigated the effect, if any, of the distribution of the township small business owner by business industry. The industries are retail (for example, as hawkers, spazas, shops), service (for example, crèches, internet shops, car washes) and manufacturing (for example, gate manufacturers,

carpenters, tailors, etc.) as shown in Table 6.3. The majority of businesses in the sample fall under the retail sector with 605 (83.1 %) respondents which consists of buying and selling of goods to customers in the township. In another study done in the township, the distribution of township small business owners in the retail sector was 45 % (Petersen & Charman, 2018:568).

Table 6.3: Distribution of township small businesses by business industry

Business Industry	Frequency	Percentage (%)
Retail	605	83.1
Service	115	15.8
Manufacturing	8	1.1
	728	**100**
Source: Author's own compilation		

This study had a higher percentage in the retail sector probably due to the increase in malls being built in the township that attract hawkers around them due to high foot traffic. The study took advantage of this concentration of township small business owners around malls and targeted these as it increased access to respondents for data collection. There was an extremely low distribution of eight (1.1 %) respondents in the manufacturing industry. This may probably have been due to the higher barriers of entry in terms of relatively higher start-up costs within this industry, especially considering that Piper and Charman (2016:333) alluded to the higher poverty levels in the townships.

6.2.1.7 *Frequencies and percentages of effectuation and business growth constructs*

The tables below summarised the data from all 728 respondents per responses given, including frequencies and percentages. Data was grouped by experimentation, affordable loss, pre-commitments, flexibility and business growth constructs. The responses from the sample were presented in frequency (n) and percentage (%). The five-point Likert scale used had 1 for strongly disagree, 2 for disagree, 3 for neither agree nor disagree, 4 for agree and 5 for strongly agree.

Three hundred and fifty-one respondents (48.2 %) as per Table 6.4 did not experiment with different products and/or business models whilst 377 respondents (51.8 %) did, 304 respondents (41.7 %) did not change their product or service offering since conceptualising whilst 423 respondents (58.1 %) did and one respondent (0.1 %) neither agreed nor disagreed. Four hundred and nine respondents (56.2 %) stated that their product and/or service is not substantially different than when first imagined whilst 319 respondents (43.9 %) said it is substantially different. Four hundred and sixty-six respondents (64 %) did not try different approaches till they found a business model that worked, 258 respondents (35.4 %) tried different approaches and four respondents (0.5 %) neither agreed nor disagreed.

Despite most respondents experimenting when it came to trying out different products or services, most still have the same product or service as initially intended. The trying of different products or services may have been in the IFF (intelligent fast failure) approach where if the products or services failed to be viable, they were eliminated quickly from being part of the business offering (Qureshi *et al.,* 2016:624). Most respondents did not experiment with different business models and this is in line with De Reuver, Molina and Bouwman (2017:4) who stated that small businesses do not have the resources to experiment with business models but focus on day-to-day business operations. One of the challenges faced by township small businesses is the scarcity of resources (Maseko *et al.,* 2015:161). Mean scores to be discussed in Chapter 6.2.1.8 confirmed if overall, most respondents had an experimentation decision logic or not.

Table 6.4:   Frequencies and percentages on experimentation indicators

Q nr.	Experimentation indicators		Strongly disagree	Disagree	Not sure	Agree	Strongly agree	Total
Q3	We experimented with different products and /	n	301	50	0	69	308	728
	or business models	%	41.3	6.9	0	9.5	42.3	100
Q4	The product/service we now provide is	n	242	62	1	45	378	728
	essentially the same as originally	%	33.2	8.5	0.1	6.2	51.9	100
	conceptualised							
Q5	The product/service that we now provide is	n	363	46	0	39	280	728
	substantially different than we first imagined	%	49.9	6.3	0	5.4	38.5	100
Q6	We tried a number of different approaches	n	385	81	4	124	134	728
	until we found a business model that worked	%	52.9	11.1	0.5	17.0	18.4	100
Source: Author's own compilation								

Table 6.5 indicates that 472 (64.9 %) of respondents were not careful about committing more resources than they could afford to lose, two (0.3 %) respondents were not sure and 254 (34.9 %) respondents were careful in committing resources they could not afford to lose. Four-hundred and sixty-nine (64.4 %) respondents indicated that they were not careful in committing more money than they were prepared to lose, two (0.3 %) respondents were not sure and 257 (35.3 %) respondents were careful in losing more money than they were prepared to lose. Four hundred and forty (60.4 %) respondents risked with so much money that would put the business at risk if things went wrong, one (0.1 %) respondent was not sure and 287 (39.4 %) respondents were careful with risking money in the event that things did not work out. Most of the township small business owners in the sample, just under two-thirds of the

Table 6.5: Frequencies and percentages on affordable loss indicators

Q nr.	Affordable loss indicators		Strongly disagree	Disagree	Not sure	Agree	Strongly agree	Total
Q7	We were careful not to commit more resources than we could afford to lose	n	347	125	2	177	77	728
		%	47.7	17.2	0.3	24.3	10.6	100
Q8	We were careful not to commit more money than we were willing to lose with our initial idea	n	351	118	2	180	77	728
		%	48.2	16.2	0.3	24.7	10.6	100
Q9	We were careful not to risk so much money that the company would be in real trouble financially if things didn't work out	n	337	103	1	168	119	728
		%	46.3	14.1	0.1	23.1	16.3	100
	Source: Author's own compilation							

respondents, did not apply affordable loss decision logic. It may be probable that the reason for this is that most of these township small business owners were not risk averse. This finding does not support Wennberg *et al. (*2016:9) that township small business owners who seek survival are risk averse and manage risk through affordable loss. This sample accepted the risk that came with being a township small business owner and did not seem concerned with the adverse effect of loss of money and/or resources if the business failed. It may be plausible that this was the case because these were survivalists who did not have any other options to consider besides entrepreneurship due to high levels of poverty in the township.

Table 6.6:   Frequencies and percentages on flexibility indicators

Q nr.	Flexibility indicators		Strongly disagree	Disagree	Not sure	Agree	Strongly agree	Total
Q10	We allowed the business to evolve as opportunities emerged	n	79	104	2	137	406	728
		%	10.9	14.3	0.3	18.8	55.8	100
Q11	We adapted what we were doing to the resources we had	n	324	174	1	126	103	728
		%	44.5	23.9	0.1	17.3	14.1	100
Q12	We were flexible and took advantage of opportunities as they arose	n	109	93	4	159	363	728
		%	15.0	12.8	0.5	21.8	49.9	100
Q13	We avoided courses of action that restricted our flexibility and adaptability	n	412	219	27	42	28	728
		%	56.6	30.1	3.7	5.8	3.8	100
	Source: Author's own compilation							

One-hundred and eighty-three (25.2 %) respondents in Table 6.6 did not allow their business to evolve as opportunities emerged, two (0.3 %) respondents were not sure and 543 (74.6 %) respondents allowed the business to evolve as opportunities emerged. Four-hundred and ninety-eight (68.4 %) respondents did not adapt their business activities based on the resources they had, one (0.1 %) respondent was not sure and 229 (31.4 %) respondents adapted their business activities based on their resources. Two-hundred and two (27.8 %) respondents were not flexible to take advantages of opportunities as they became available, four (0.5 %) respondents were not sure and 522 (71.7 %) were flexible and took advantage of opportunities as they arose. Six-hundred and thirty-one (86.7 %) respondents did not avoid courses of action that restricted their flexibility and adaptability, 27 (3.7 %) respondents were not sure and 70 (9.6 %) respondents avoided activities that restricted their flexibility and adaptability. It seems that the majority of the

township small business owners in the sample were reactively flexible based on what is happening but were not proactively flexible in planning ahead for what might happen.

This finding is in line with Nnamseh and Akpan (2015:100) who stated that township small business owners do not engage in strategic planning such as PESTEL. Hence, the absence of applying flexibility decision logic in future plans of the business with most respondents. Township small business owners did not engage in strategic planning. Since strategic planning is not present for township small business owners, flexibility in business planning could not be measured but the study measured flexibility in the day-to-day activities (reactive). The study therefore concluded that most respondents reactively applied flexibility (Q10: 74.6 %, Q12: 71.7 %). This conclusion is in agreement with Peng, Liu and Lin (2015:565) when they stated that small business owners with low entrepreneurial self-efficacy (belief in their entrepreneurial capabilities) would apply more flexibility to mitigate uncertain or an unpredictable environment. Most non-expert township small business owners in the sample did not have a high school qualification (555 respondents, 76.2 %) and are non-expert township small business owners. This would make it probable that these township small business owners would have low entrepreneurial self-efficacy and hence reactively apply flexibility.

Table 6.7 indicates that 674 (92.6 %) respondents did not have substantial agreements with customers, suppliers and other organisations to reduce uncertainty, three (0.4 %) respondents were not sure and 51 (7 %) respondents reduced uncertainty by having substantial agreements with customers, suppliers and other organisations. Six hundred and seventy (92 %) respondents did not practise pre-commitments with customers, one (0.1 %) respondent is not sure and 57 (7.8 %) respondents practised pre- commitments with customers as often as possible. Six hundred and ninety (94.7 %) respondents did not practise pre-commitments with suppliers and 38 (5.2 %) respondents practised pre-commitments with suppliers. The majority of respondents, in excess of 90 % of the sample, did not practise pre-commitments with customers or suppliers for all three questions asked in the questionnaire. This finding is in agreement with Poh *et al.* (2017:64) that more experienced entrepreneurs (expert entrepreneurs) have a greater tendency to form

Table 6.7:   Frequencies and percentages of pre-commitments indicators

Q nr.	Pre-commitments indicators		Strongly disagree	Disagree	Not sure	Agree	Strongly agree	Total
Q14	We used a substantial number of agreements with customers, suppliers and other organizations and people to reduce the amount of uncertainty	n	642	32	3	33	18	728
		%	88.2	4.4	0.4	4.5	2.5	100
Q15	We used pre-commitments from customers as often as possible	n	635	35	1	37	20	728
		%	87.2	4.8	0.1	5.1	2.7	100
Q16	We used pre-commitments from suppliers as often as possible.	n	670	20	0	25	13	728
		%	92.0	2.7	0	3.4	1.8	100
Source: Author's own compilation								

pre-commitments prior to starting a new business venture. Based on findings by Koens and Thomas (2016:10) that Ubuntu in the townships results in closer social networks, the study expected pre-commitments with customers and/or suppliers to exist with most respondents but this is not the case with township small business owners. As shown in Table 6.8, 118 (16.2 %) respondents' business assets did not grow since start of business, 18 (2.5 %) respondents were not sure and 592 (81.3 %) respondents had an increase in their business assets since inception. One-hundred and eight (14.8 %) respondents had no growth in sales, 22 (3 %) respondents were not sure and 598 (82.1 %) respondents experienced growth in sales since commencement of their business. Five-hundred and ninety-two (81.3 %) respondents of the sample experienced growth in their business based on increases in assets and

Table 6.8: Frequencies and percentages for business growth indicators

Q nr.	Business growth indicators		Strongly disagree	Disagree	Not sure	Agree	Strongly agree	Total
17	There are now more assets in the business since we started	n	18	100	18	211	381	728
		%	2.5	13.7	2.5	29.0	52.3	100
18	There has been growth in sales since we started	n	16	92	22	252	346	728
		%	2.2	12.6	3.0	34.6	47.5	100
	Source: Author's own compilation							

sales since business started. Five-hundred and ninety-two (81.3 %) respondents of the sample experienced growth in their business based on increases in assets and sales since inception. This is in line with findings in the sample (Figure 6.3) that 524 (72 %) respondents (most) are established township small business owners which may imply that the business had survived three and a half years to grow from being nascent to being established. Most township small businesses (530 respondents, 72.8 %) did not have an increase in employee numbers and remained with one employee (township small business owner). These township small business owners are still survivalist despite showing a growth in sales and assets because this growth is probably for their "own consumption and not intended to employ more employees" (Iwu & Opute, 2019:1445). It may be probable that most of these township small business owners did not have the vision (Yamakawa *et al.,* 2015:8) to employ additional people in their businesses as part of their business growth plan, if any.

Table 6.9: Descriptive statistics of effectuation constructs and business growth

Variable	Label	N	Mean	Median	Standard Deviation	Skewness	Kurtosis	Min	Max
Experimentation		728	2.71	2.25	1.54	0.20	-1.62	1.00	5.00
Affordable loss		728	2.38	2.00	1.51	0.52	-1.39	1.00	5.00
Flexibility		728	3.14	3.67	1.10	-0.63	-0.67	1.00	5.00
Pre-commitments		728	1.30	1.00	0.85	3.00	8.25	1.00	5.00
Business Growth indicators	Growth 17 = assets, Growth18 = sales	728	4.14	4.50	1.07	-1.23	0.52	1.00	5.00
Business growth19	Number of workers at start	728	1.21	1.00	0.65	5.34	39.44	1.00	8.00
Business growth20	Number of workers at 3.5 years	526	1.43	1.00	1.03	6.97	82.17	1.00	16.00
Business growth21	Number of current workers	728	1.46	1.00	1.13	5.33	43.03	1.00	15.00
Business GrowthA	Number of workers at 3.5 years - Number of workers at start	526	0.21	0.00	0.89	9.08	149.72	-4.00	15.00
Business GrowthB	Number of current workers - Number of workers at start	728	0.25	0.00	1.02	3.99	32.30	-4.00	10.00
Business GrowthC	Number of current workers - Number of workers at 3.5 years	526	0.07	0.00	1.14	0.43	44.90	-12.00	10.00
Demo26	Business Age in months	728	111.03	84.50	92.71	1.05	0.69	1.00	458.00
Source: Author's own compilation									

6.2.1.8 *Descriptive statistics of effectuation constructs and business growth*

In Table 6.9, the N refers to the sample size of 728 respondents. Descriptive statistics are made up of measures of central tendency, measures of variability (dispersion) and shape. Mean, median, and mode are the three types of measures of central tendency and in this study mean, median and frequency was used. Mean and median shows the average response whilst frequency shows the number of responses per item. **Experimentation** had a mean score of 2.71, meaning overall for the four questionnaire statements most respondents were leaning towards a neutral response of neither agree nor disagree. This strong leaning towards a neutral response towards three is probably because with the first two questionnaire statements (Table 6.4: Q3 & Q4), most respondents showed an experimentation decision logic whilst, with the last two questionnaire statements (Table 6.4: Q5 & Q6), they did not. **Affordable loss** had a mean score of 2.38, implying that most respondents disagreed with using the decision logic of affordable loss as discussed Chapter 6.2.1.7. **Flexibility** had a mean score of 3.14, the implication being most respondents were slightly leaning towards agreeing that flexibility is practised in making decisions in the business by the owner. This was because most respondents had a flexibility decision logic in the two questionnaire statements (Table 6.6: Q10 & Q12) and in the other two questionnaire statements (Table 6.6: Q11 & Q13), no flexibility decision logic existed. **Pre-commitments** had a mean score of 1.3, meaning most respondents strongly disagreed with the practise of pre-commitments in their decision-making logic. Business growth in sales and assets in the business had a mean score of 4.14, implying an agreement that there is business growth with most respondents in this regard. The business growth measured by increase in employees (current – start) had a mean score of 0.25. This implied that most respondents strongly disagreed that there was business growth when increase in employees' numbers was used as a business growth indicator. Business age in months had a mean score of 111.03 months which means the average years of these township small businesses are nine years and three months, therefore the average township small business is an established business (Herrington *et al.*, 2017:17).

Standard deviation is a measure of variability or dispersion as it shows the difference between observed scores and mean scores to show how spread out the data is. The

smaller the standard deviation, the more statistically significant the study's data will be as opposed to a larger standard deviation with outliers. The empirical rule (3-sigma) also called the 68-95-99 rule refers to the percentage of data values (68.27 %, 95.45 % and 99.7 %) that should lie around the mean for it to be a normal distribution (Shahriar, Smith, Rahman, Freeman, Hills, Rawnsley, Henry & Bishop-Hurley, 2016:23). From the sample, all the standard deviations are less than two (94.95 %) except for the business age in months which is 92.71. This high standard deviation exception can be expected as it forms part of the demographics of the respondents which states that their business age in months is widely spread. The data from the sample is therefore without outliers and within a normal distribution.

Skewness and kurtosis measure non-normality in data (Cain, Zhang & Yuan, 2017:1716). "**Skewness**" measures the extent of symmetry in the distribution of data and a normal distribution will have a skewness value of zero where both tails are symmetrical. A positive skewness means that the right tail is longer than the left tail whilst a negative skewness means that the left tail is longer than the right tail in terms of data distribution. A guideline for skewness is that if the number is greater than +1 or lower than –1, this is a substantially skewed distribution. Fairly symmetrical data will range from -0.5 to 0.5, moderately skewed data from -1 and – 0.5 or between 0.5 and 1, highly skewed is less than -1 or greater than 1. "**Kurtosis**" measures the combined sizes of the two tails relative to the rest of the distribution and in a normal distribution. It is a measurement of the probability in the tails. This value is compared to the kurtosis of the normal distribution, which is equal to 3. If the kurtosis is greater than 3 (leptokurtic), then the dataset has heavier tails meaning there is more outliers in the data (1s and 5s). If, however the kurtosis is less than 3 (platykurtic), then the dataset has lighter tails meaning the data set is concentrated more in the middle (2s, 3s and 4s).

In the sample, experimentation data distribution is fairly symmetrical and the kurtosis is a lighter-tailed distribution. Affordable loss data is moderately skewed and kurtosis indicates a lighter-tailed distribution. Flexibility data distribution is moderately skewed and based on kurtosis, the distribution is lighter-tailed. With experimentation, affordable loss and flexibility, the data set had outliers where respondents mostly selected disagree, neither agree nor disagree or agree on the questionnaire.

Pre-commitment is highly skewed and the data distribution is heavy-tailed meaning the data had outliers that mostly selected strongly disagree or strongly agree. Business growth (assets, sales and employees) data distribution is highly skewed (-1.23 and 3.99). The kurtosis of 0.52 for business growth (assets and sales) indicates a lighter-tailed distribution meaning the data is more concentrated in the middle with most responses agreeing that there is business growth. However, the kurtosis of 32.30 for business growth (employees) is greater than three, indicating the dataset had heavier tails meaning there is more outliers in the data set (1s and 5s). Skewness and kurtosis confirm the findings discussed above under frequencies and percentages of the constructs of the study in Chapter 6.2.1.7.

6.3   EVALUATING THE MEASUREMENT MODEL

The study needed to verify that the instrument used was valid and reliable by using factor analysis. Factor analysis is a statistical technique explaining the relationships of underlying variables or factors in an observed phenomenon (Wright, 2017:1). There are two types of factor analysis and they are exploratory and confirmatory. Confirmatory factor analysis (CFA) confirms a pre-defined factor structure whilst exploratory factor analysis (EFA) is concerned with reducing the number of variables or factors and/or simplifying data by grouping similar variables or factors (Çokluk & Koçak, 2016:539). These factors or variables are the constructs of effectuation and business growth in the study.

6.3.1 Confirmatory Factor Analysis (CFA)

As stated earlier, confirmatory factor analysis (CFA) confirms a pre-defined factor structure (Çokluk & Koçak, 2016:539). CFA investigates if the predicted or hypothesised structure is a good fit to the data collected. CFA falls under SEM and tested the hypotheses made in the study that relationships exist between the effectuation constructs and business growth. CFA verifies the number of underlying latent variables (Lewis, 2017:239) and observed variables in an instrument. The three main purposes of CFA are to evaluate construct validity, compare response pattern and model comparison (Alavi *et al.,* 2020:2209). Standardised factor loadings are statistically significant for loadings > 0.3 for sample sizes > 350 (Sonita, Jomnonkwao,

Champahom, Beeharry & Ratanavaraha, 2020:53). This was the case in the study as per CFA model in Figure 6.5 where standardised factor loadings between the construct and their indicators (variables) were all loading above 0.3 except for one loading at 0.3. Therefore, there was statistical significance as shown in Table 6.15 as the standardised factor loadings are ≥ 0.3.

In figure 6.5, the five oval shapes on the far left in the model, represent latent (unobserved) variables, the rectangular shapes in the middle represent the observed variables (questionnaire items) (De Longueville *et al.,* 2019:464) and the circular shapes on the far right represent the measurement errors. Double headed arrows do not show a causal relationship but rather a correlation between the latent variables. **Experimentation** (0.24), **Flexibility** (0.27) and **Pre-commitments** (0.00) have a low factor correlation of 0.24, 0.27 and 0.00, respectively, with **Business Growth**. However, **Affordable Loss** and **Business Growth** are seen with a factor correlation of - 0.5 meaning there is a low inverse relationship between these variables. This is appropriate since factor correlations in CFA should not exceed 0.7.
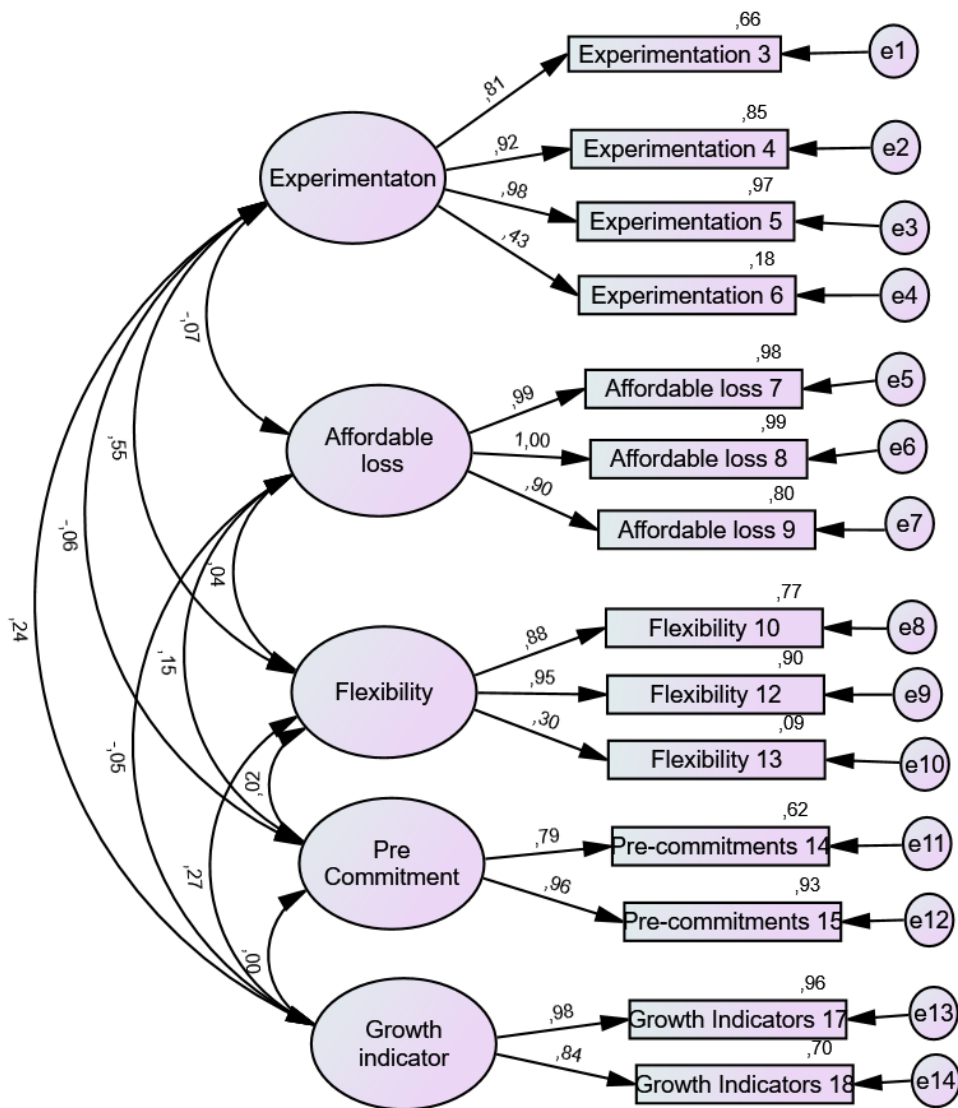
Source: Author's own compilation

Figure 6.4:   Confirmatory factor analysis measurement model

6.3.1.1   *Goodness-of-fit test*

The initial model with all the items, before **Flexibility** 11 and **Pre-commitments** 16 was excluded, did not meet the indices for **goodness-of-fit**. Acceptable fit is when Chi-square divided by the degree of freedom is < 5, however with the initial model, this number was > 5 (9736.865/120 = 81.14). An updated model excluding flexibility 11 and pre-commitments 16 was assessed for goodness-of-fit. Table 6.16 summarises acceptable goodness-of-fit indices compared to those found for the updated model (questionnaire) in the study shown in Figure 6.5. Goodness-of-fit is

measured by indices that compares the relationship between the actual model results compared to the observed data. Chi-square (X^2) accepts or rejects a null hypothesis. A null hypothesis in the study would state that no relationship exists with the constructs of effectuation and business growth. It indicates how much difference exists in the data between expected and observed covariance. The chi-square is dependent on the sample size and a ratio ≤ 2 when chi-square is divided by degrees of freedom (DF) indicates a superior fit (Alavi *et al.*, 2020:2210). In the study (X^2/DF) CMIN/DF = 3.64, this figure disqualifies it from being a superior fit but Chen (2016:99) stated that a ratio < 5 is an acceptable fit and as such null hypothesis is rejected. Root-mean-square error-of-approximation (RMSEA) is concerned with the residuals in the model and comparative fit index (CFI) checks the overall improvement in the model over an independent model in the event that the observed variables are not correlated. To be acceptable, CFI should be > 0.95 and RMSEA should be < 0.08 (Fonseca-Pedrero *et al.*, 2018:6). Both CFI and RMSEA figures in the study met these requirements and as such are acceptable.

The Goodness-of-fit index (GFI) measures the fit between the predicted or hypothesised model versus the observed covariance and this measure is affected by the number of indicators in each latent variable. The adjusted Goodness-of-fit index (AGFI) corrects the GFI from this. AGFI greater than 0.9, is a good fit (Chang, Lo & Hung, 2019:4) and in the study the AGFI was 0.93, making it acceptable as a good fit. Standardised root mean square residual (SRMR) is the standardised difference between the observed versus the predicted correlation. It should be less than 0.08 to be deemed a good fit (Vannucci & Ohannessian, 2018:7) and in the study the SRMR was 0.04, therefore acceptable. A value closer to zero is preferred, with a value of zero considered a perfect fit. The range of zero to one is used for RMSEA with lower figures indicating a better fit for the model. RMSEA lower limit less than 0.05 and RMSEA upper limit less than 0.80 is a good fit (Rose, Markman & Sawilowsky, 2017:73, 76). Degrees of freedom (DF) are dependent on the number of variables measured, model type and values estimated in the model (Cortina, Green, Keeler & Vandenberg, (2017:366) and in the study the DF was 67.

Table 6.10: Confirmatory factor analysis model fit summary

Goodness-of-fit index	Recommended values for acceptable model fit	Relevant literature	Value in this Study	Remark on model fit
Degree of Freedom (DF)	Dependent on type of model and number of variables	Cortina *et al.,* 2017:366	67	Acceptable
AGFI (Adjusted Goodness of Fit Index)	> 0.90	Chang *et al.,* 2019:4	0.93	Acceptable
CFI (Comparative Fit Index)	> 0.95	Fonseca-Pedrero *et al.,* 2018:6	0.98	Acceptable
SRMR (Standardized Root Mean Square Residual)	< 0.08	Vannucci & Ohannessian, 2018:7	0.04	Acceptable
RMSEA (Root Mean Square Error of Approximation)	< 0.08	Fonseca-Pedrero *et al.,* 2018:6	0.06	Acceptable
RMSEA LL	< 0.05	Rose, Markman & Sawilowsky, 2017:73	0.05	Acceptable
RMSEA UL	≤ 0.08	Rose *et al.,* 2017:76	0.07	Acceptable
Pr Close Fit	RMSEA ≤ 0.05	Shi, Maydeu-Olivares & DiStefano, 2018:2	0.02	Acceptable
TLI (Tucker Lewis Index)	> 0.95	Bouwstra, Smit, Wattel, van der Wouden, Hertogh, Terluin & Terwee, 2019:422	0.97	Acceptable
CMIN/DF	1-5	Elrehail, 2018:130	3.64	Acceptable
Source: Author's own compilation				

RMSEA value of 0.05 or less indicates the model is a close fit (Shi *et al.,* 2018:2) and in the study this value was 0.02, hence the model is a close fit. The Tucker-Lewis index (TLI) ranges from 0-1 and a value > 0.95 represents a good fit for the model

(Bouwstra *et al.,* 2019:422). In the study this was met as the TLI is 0.97. CMIN/DF value of between one (1) to five (5) is acceptable as a good model fit (Elrehail, 2018:130). In the study this value is 3.64.

Based on the summarised findings on table 6.16 using degree of freedom, AGFI, CFI, SRMR, RMSEA LL, RMSEA UL and Pr Close Fit, the model in the study was found to be a good fit. RMSEA and SRMR are absolute measures of fit of goodness indices that do not use comparison to other models to determine goodness-of-fit such as with incremental indices (Ainur *et al.,* 2017:578). All these absolute measures were accepted as meeting goodness-of-fit in the study, hence the questionnaire in the study met the goodness-of-fit standard.

6.3.2 Exploratory factor analysis (EFA)

Exploratory factor analysis (EFA) identifies the lowest number of hypothetical constructs (factors or variables) that explains the covariation of variables to identify common factors (Watkins, 2018:219). Covariation is concerned with whether there is a relationship between variables and in the study the variables at play are effectuation constructs and business growth. To perform an EFA the study required the following statistical and methodological decisions, data inspection techniques, factor retention method, factor analytic method, factor loading cut-off and factor rotation method (Howard, 2016:52).

6.3.2.1 Assumptions of factor analysis technique

Data inspection techniques checked statistical violations for data collected. The two popular techniques are Bartlett's test of sphericity and the Kaiser–Meyer–Olkin (KMO) measure of sampling. These two tests are done to determine if the factor analysis can be conducted on the data collected in the sample. Bartlett's test of sphericity compares the correlation matrix with the identity matrix to check for differences and values less than 0.05 indicate that the data may be used for factor analysis (Lee & Kang, 2018:201). It is a test for a null hypothesis that the correlation matrix has an identity matrix. The following metrics below are generally used to inspect data in the KMO technique (Howard, 2016:52):

- 0.00 to 0.50 – Unacceptable: Bad
- 0.50 to 0.60 – Miserable: Bad
- 0.60 to 0.70 – Mediocre: Okay
- 0.70 to 0.80 – Middling: Okay
- 0.80 to 0.90 – Meritorious: Good
- 0.90 to 1.00 – Marvellous: Great

Table 6.11: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.711
Bartlett's Test of Sphericity	Approx. Chi-Square	8897.449
	df	105
	Sig.	0.000
Source: Author's own compilation		

From the metric, it can be seen that a minimum of 0.6 is acceptable as a minimum but a value closer to 1.0 is preferred for KMO (Hoque, Siddiqui, Awang & Baharu, 2018:86). In the study as per Table 6.10, these were the results for KMO and Bartlett's test on the sample data collected. The KMO for the study was 0.711 which according to Howard (2016:52) and Hoque *et al.* (2018:86), indicates that the sample is okay, therefore valid. Assuming a 95% (0.95) level of Significance, α = 0.05. The p-value (Sig.) of 0.000 < 0.05, therefore the factor analysis is valid. Since p (Sig.) < α, there would be rejection of the null hypothesis and acceptance of the alternate hypothesis that there may be significant relationships between variables. The Chi-square is 8897.449 with 105 degrees of freedom. Factor analysis is therefore an appropriate technique for further data analysis.

6.3.2.2   Factor analytic method

One of the methods used in factor analytic is the principal axis factoring (PAF). PAF is appropriate for the exploration of the underlying factors in the sample collected (Akhtar-Danesh, 2017:149). A communality is the degree that a factor correlates with

all other items and the higher the communalities, the better the correlation. The initial factor analysis with all the items in the questionnaire (Experimentation 3 to Business Growth 18) is attempted to extract five factors. In Iteration 25, the communality of a variable exceeded 1.0 and extraction is terminated. To resolve this, Pre-commitments 16 is excluded because it is highly correlated with Pre-commitments 14, resulting in Table 6.11. Communalities of the variables or factors were used to determine which variable should be excluded. A low extraction value of 0 to 0.2 for a variable should be excluded in the factor analysis (Wipulanusat, Panuwatwanich & Stewart, 2017:13). Flexibility 11 and Flexibility 13 variables (communalities) should have been considered for exclusion as they both have low extraction values of 0.151 and 0.170 respectively, however, they were initially retained since they both have factor loadings greater than 0.3 (Yusoff, Rahim, Mat Pa, See, Ja'afar & Esa, 2011:295).

Table 6.12: Communalities, extraction method: principal axis factoring (PAF)

Communalities		
	Initial	**Extraction**
Experimentation 3	0.670	0.707
Experimentation 4	0.843	0.863
Experimentation 5	0.871	0.912
Experimentation 6	0.247	0.215
Affordable loss 7	0.971	0.970
Affordable loss 8	0.973	0.987
Affordable loss 9	0.817	0.817
Flexibility 10	0.710	0.669
Flexibility 11	0.254	0.151
Flexibility 12	0.726	0.878
Flexibility 13	0.241	0.170
Pre-commitments 14	0.581	0.760
Pre-commitments 15	0.585	0.742
Business growth indicators 17	0.689	0.821
Business growth indicators 18	0.686	0.831
Source: Author's own compilation		

6.3.2.3   Factor retention method

With this method, the analysis of eigenvalues which represents variances in variables and the use of the visual scree plot (VSP) analysis was used to decide the number of factors to retain. Factors with eigenvalues greater than 1 should be retained

Table 6.13: Total variance explained (eigenvalues)

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.000	26.664	26.664	3.766	25.105	25.105
2	2.972	19.814	46.478	2.876	19.176	44.281
3	1.877	12.516	58.994	1.595	10.636	54.917
4	1.560	10.399	69.393	1.358	9.054	63.971
5	1.309	8.725	78.119	0.899	5.993	69.964
6	0.939	6.262	84.381			
7	0.698	4.652	89.033			
8	0.587	3.913	92.945			
9	0.271	1.804	94.749			
10	0.238	1.588	96.337			
11	0.174	1.161	97.497			
12	0.158	1.051	98.548			
13	0.125	0.833	99.381			
14	0.078	0.523	99.904			
15	0.014	0.096	100.000			
Source: Author's own compilation						

(Howard, 2016:53). The eigenvalue indicates how much variance exists in the data. In Table 6.12, Factor 1 (experimentation) to Factor 5 (flexibility) range are the only ones with an eigenvalue greater than one. These five factors extracted (with eigenvalue >1) explains 78.119 % of the variance in the data and these are the factors that were retained. "**Variance**" describes the extent to which the data are spread out. Variations explained by Factor 1 (Experimentation), Factor 2 (Affordable Loss), Factor 3 (Pre-commitments), Factor 4 (Business Growth) and Factor 5 (Flexibility) represent 26.664 %, 19.814 %, 12.516 %, 10.399 % and 8.725 %, respectively.

The scree plot in Figure 6.4 represents the factors along with their corresponding eigenvalues. It is an alternate method of determining the number of factors to retain based on the curve. This method is subjective as one needs to check for a change from a steep line towards a flat gradual slope, the elbow point. Factors above this elbow point are the ones to be retained.
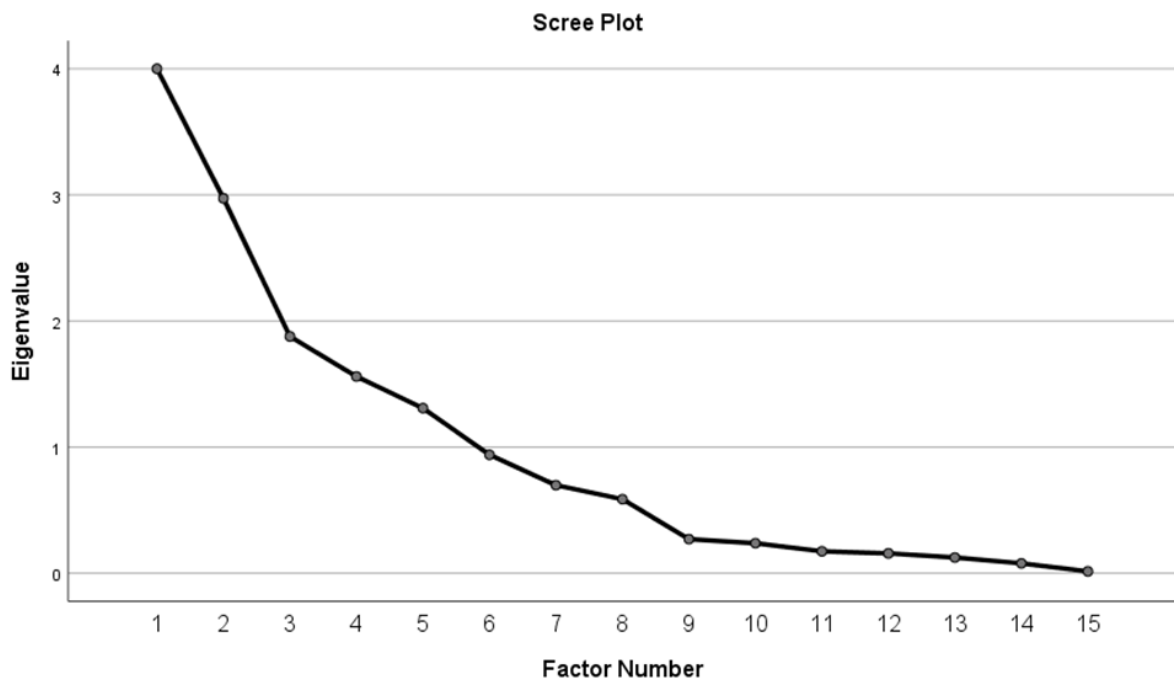
Source: Author's own compilation

Figure 6.5: Scree plot of eigenvalues of the factors

In this study, the elbow points occur at factor three and factor nine, therefore the study did not use the scree plot as it seems inconclusive to use it as an alternative method. The five factors of experimentation, affordable loss, flexibility, pre-commitments and business growth were retained based on the initial method of using factors that are above an eigenvalue of one.

6.3.2.4   *Factor rotation*

Factor rotation is when the original factors are rotated, resulting in a simple structure with easily interpretable factors (Akhtar-Danesh, 2017:150). In the pattern matrix in Table 6.13, oblimin is the rotation method used in oblique rotation for correlated factors

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(Rodrigues-Bigaton, de Castro & Pires, 2017:122) as the study believed the factors are correlated.

Table 6.14: Pattern matrix

	Factor				
	1	**2**	**3**	**4**	**5**
Experimentation 4	-0.939				
Experimentation 5	0.938				
Experimentation 3	0.819				
Experimentation 6	0.414				
Affordable loss 8		0.992			
Affordable loss 7		0.985			
Affordable loss 9		0.904			
Pre-commitments 14			0.879		
Pre-commitments 15			0.866		
Business growth Indicators 18				0.916	
Business growth Indicators 17				0.896	
Flexibility 12					0.849
Flexibility 10					0.696
Flexibility 13					0.382
Flexibility 11					0.347
Extraction Method: Principal Axis Factoring. Rotation Method: Oblimin with Kaiser Normalization.a a. Rotation converged in 6 iterations.					
Source: Author's own compilation					

Factor loadings with values less than 0.3 should be excluded and in the pattern matrix all are above 0.3. **Experimentation** 3, 4, 5 and 6 have a correlation to Factor 1 (**Experimentation Construct**) and **Affordable Loss** 7, 8 and 9 have a correlation with Factor 2 (**Affordable Loss Construct**). **Pre-commitment** 14, 15 and 16 have a correlation to Factor 3 (**Pre-commitment Construct**) even though **Experimentation** 16 was excluded because it is highly correlated with **Pre-commitments** 14 and gave an error. **Business Growth Indicators** 17 and 18 are correlated to Factor 4 (**Business Growth Construct**) and **Flexibility** 10, 11, 12 and 13 are correlated to Factor 5 (**Flexibility Construct**).

Cronbach coefficient alpha tests reliability of the instrument and a minimum score of 0.7 is acceptable (Gallais, Gagnon, Forgues, Côté & Laberge, 2017:24). Table 6.14 shows Cronbach coefficient alpha scores for experimentation at 0.863210, **affordable loss** at 0.972338, **pre-commitments** at 0.862466 and **business growth** at 0.902119.

Table 6.15: Cronbach coefficient alpha

Construct	Variables	Cronbach alpha (Standardised)
Experimentation	Exp3, rExp4, Exp5 & Exp6	0.863210
Affordable Loss	Afford7, Afford8 & Afford9	0.972338
Flexibility	Flex10, Flex11, Flex12 & Flex13	0.671114
Flexibility	Flex10, Flex12 & Flex13	0.714467
Pre-commitments	Pre-comm14 & Pre-comm15	0.862466
Business growth	Business growth17 & Business growth18	0.902119
Source: Author's own compilation		

All items (questionnaire statements) under experimentation, affordable loss, pre-commitments and business growth had reliability with scores above 0.7. The initial score for **Flexibility** with all 4 items (**Flex10**, **Flex11**, **Flex12** & **Flex13**) scored 0.671114 which is below 0.7. To improve the Cronbach alpha of **Flexibility** from 0.66

Table 6.16: Standardised factor loadings

Indicator item	Experimentation	Affordable loss	Flexibility	Pre-commitments	Business Growth
Exp3	0.81				
Exp4	0.92				
Exp5	0.98				
Exp6	0.43				
Aff7		0.99			
Aff8		1.00			
Aff9		0.90			
Flex10			0.88		
Flex12			0.95		
Flex13			0.30		
PreC14				0.79	
PreC15				0.96	
Grow17					0.96
Grow18					0.70
Source: Author's own compilation					

0.66 to 0.71 flexibility 11 is discarded as it was reducing the correlation as recommended by Jain and Angural (2017:289). The study then tested the questionnaire with 3 items **(Flex10, Flex12 & Flex13)** and the flexibility score is 0.714467, thereby making it reliable as the score is now above 0.7.

Thus, the modified CFA fits the model. This has also been confirmed by subsequently running an EFA. The results of the EFA also concluded the deletion of items 11 and 16 from the constructs.

6.4 INFERENTIAL STATISTICS

Inferential statistics make predictions or generalisations about the population based on the data from the sample (Gibbs, Shafer & Miles, 2017:2). It is easier to apply inferential statistics to a research problem from a sample as it would be harder in terms of time and money to collect data from an entire population. Probability sampling is used in research to allow the findings of the study to be inferred to the rest of the population (McCrae & Purssell, 2016:5). In this study, these predictions or generalisations based on the data collected from the sample of 728 township small business owners were not made on the population of township small business owners since non-probability sampling (purposive and snowball sampling) was used. This sampling method was used because a reliable database of township small business owners was not available at the time of conducting this study. However, strength of relationships between independent variables (cause) and dependent variables (effect) can be investigated through inferential statistics. The study made hypotheses about relationships and inferential statistics tested these hypotheses (Ali & Bhaskar, 2016:665). The Pearson correlation and SEM were discussed.

6.4.1 Pearson correlation coefficient

The Pearson correlation coefficient measures the strength and direction (positive or negative) of a relationship between two variables, ranging from -1 to 1. A zero (0) means there is no relationship, closer to minus one (-1) is a strong inverse or negative linear relationship and closer to one (+1) is a strong positive linear relationship (Akoglu, 2018:91).   According to Schober, Boer and Schwarte (2018:1765),

0.00 to 0.10 is a negligible correlation, 0.10 to 0.39 is a weak correlation, 0.40 to 0.69 is a moderate correlation, 0.70 to 0.89 is a strong correlation and 0.90 to 1.00 is a very strong correlation. The study investigated the strengths between the independent variables (effectuation constructs) and the dependent variable of business growth, be it a positive or the inverse relationship. The Pearson correlation coefficient was applicable as all variables were found to be approximately normally distributed with skewness and kurtosis values between -2 and +2 except business growth. However, the Pearson correlation coefficient and associated test are robust against violations of the assumption of normality (Edgell & Noon, 1984:581). In the study as shown in Table 6.17, the four effectuation constructs of **Experimentation**, **Affordable Loss**, **Flexibility** and **Pre-commitments** were correlated with **Business Growth** (17 and 18) to determine the nature of the relationship. In the study, more than 80 % of the sample experienced growth in their business based on increases in assets and sales since inception as per **Business Growth Statements** 17 and 18.

Experimentation had a weak correlation ($r = 0.23$, $p < 0.0001$) with business growth (assets and sales) and a negligible correlation ($r = 0.03$, $p = 0.48$) with business growth (employees). **Flexibility** had a weak correlation ($r = 0.23$, $p < 0.0001$) with business growth (assets and sales) and a negligible correlation ($r = 0.04$, $p = 0.29$) with business growth (employees). **Pre-commitments** had a negligible correlation ($r = 0.03$, $p = 0.45$) with business growth (assets and sales) and weak correlation ($r = 0.05$, $p = 0.2$) with business growth (employees). **Affordable loss**, however, had a moderate inverse correlation ($r = -0.05$, $p = 0.15$) with business growth (assets and sales) and a negligible correlation ($r = 0.07$, $p = 0.07$) with business growth (employees). Practice of experimentation, flexibility and pre-commitments as a decision logic by the township small business owners in the study contributes positively towards overall business growth (assets, sales and employees). Affordable loss, however, has a negative or inverse relationship meaning the more it is practiced, it had a negative effect on business growth (assets and sales). No correlation exists with any of the effectuation constructs with business growth (employees) where $p < 0.05$. These findings may seem to be in line and confirm the hypotheses made initially in the study but not when statistical significance is considered (p-value < 0.05).

Table 6.17: Pearson correlation coefficients

						Pearson Correlation Coefficients				
		Prob > |r| under H0: Rho=0			
		Number of Observations			
Variable	**Label**	**Experimentation**	**Affordable loss**	**Flexibility**	**Pre-commitments**	**Business Growth indicator**
Experimentation		1.00000 728	-0.04631 0.2120 728	0.51191 <.0001 728	-0.03750 0.3123 728	0.22984 <.0001 728
Affordable loss		-0.04631 0.2120 728	1.00000 728	0.04714 0.2039 728	0.13126 0.0004 728	-0.05336 0.1504 728
Flexibility		0.51191 <.0001 728	0.04714 0.2039 728	1.00000 728	0.05324 0.1512 728	0.22814 <.0001 728
Pre-commitments		-0.03750 0.3123 728	0.13126 0.0004 728	0.05324 0.1512 728	1.00000 728	0.02830 0.4458 728
Business growth indicator (Growth 17, Growth18)	Business growth 17 = assets, Business growth 18 = sales	0.22984 <.0001 728	-0.05336 0.1504 728	0.22814 <.0001 728	0.02830 0.4458 728	1.00000 728

Pearson Correlation Coefficients Prob > |r| under H0: Rho=0 Number of Observations						
Variable	**Label**	**Experimentation**	**Affordable loss**	**Flexibility**	**Pre-commitments**	**Business Growth indicator**
Business growth19 Workers at start	Number of workers at start	-0.01291 0.7280 728	-0.04562 0.2189 728	-0.00091 0.9804 728	0.07410 0.0456 728	0.05458 0.1412 728
Business growth20 Workers at 3.5	Number of workers at 3.5 years	0.05889 0.1775 526	-0.07026 0.1075 526	0.03280 0.4529 526	0.03942 0.3669 526	0.09348 0.0321 526
Business growth21 Current workers	Number of current workers	0.01608 0.6648 728	0.03480 0.3485 728	0.03485 0.3477 728	0.08484 0.0221 728	0.08841 0.0170 728
Business growthA Workers at 3.5 - workers at start	Number of workers at 3.5 years - Number of workers at start	0.09014 0.0388 526	-0.02484 0.5697 526	0.05647 0.1960 526	0.02087 0.6329 526	0.06459 0.1390 526
Business growthB Current workers - workers at start	Number of current workers - Number of workers at start	0.02598 0.4841 728	0.06741 0.0691 728	0.03912 0.2918 728	0.04683 0.2069 728	0.06316 0.0886 728
Business growthC Current workers - workers at 3.5	Number of current workers - Number of workers at 3.5 years	-0.06408 0.1422 526	0.11288 0.0096 526	-0.03620 0.4074 526	0.01996 0.6478 526	-0.00890 0.8387 526

Pearson Correlation Coefficients						
Prob > |r| under H0: Rho=0						
Number of Observations						
Variable	Label	Experimentation	Affordable loss	Flexibility	Pre-commitments	Business Growth indicator
Demo26 Business Age in months	Business Age in months	0.17906 <.0001 728	0.02724 0.4630 728	0.09902 0.0075 728	0.00865 0.8158 728	0.07535 0.0421 728
Source: Author's own compilation						

Applying hypotheses testing for statistical significance, if p < 0.05, the study rejected the null hypothesis that linear relationships do not exist between these variables (Andrade, 2019:211). The study based on statistical significance, rejected the null hypotheses for experimentation with business growth (assets and sales) and flexibility with business growth (sales and assets) as the p-value is < 0.05. However, the relationships of pre-commitments and affordable loss with business growth (sales and assets or employees) have a p-value > 0.05. The study did not reject the null hypotheses for these latter relationships based on statistical significance. This however does not mean the null hypothesis is accepted. Therefore, there is a positive correlation between experimentation and flexibility with business growth (sales and assets). Relationship of all four effectuation constructs with business growth (employee) had p-values > 0.05 and therefore the relationships are statistically significant. The study now however, needed to investigate the effect of effectuation constructs on the township small business owners' business growth.

6.4.2 Structural equation modelling (SEM)

SEM was used to test the conceptual model. Although SEM does not require normally distributed data, the method used to estimate the model, the maximum likelihood (ML) requires the data to be normally distributed. Only one variable, the observed continuous variable, business growth as measured by number of current employees minus number of employees at the start of the business was not distributed normally. The impact on the ML results has been investigated by running an asymptotic distribution free estimation. The results did not differ in terms of the statistical significance of the structural paths investigated.

Structural equation modelling (SEM) was used to test if the hypothesised conceptual model confirms with the observed data by investigating if the model had a goodness-of-fit (Ainur, Sayang, Jannoo & Yap, 2017:575). Effects of variables on each other are measured via SEM (Warrington, Freathy, Neale & Evans, 2018:1229) and the study investigated the effect of effectuation, experimentation, affordable loss, flexibility and pre-commitments variables on business growth. All these are latent variables and their effects on each other was investigated in the postulated model in fig 6.6. Business growth as shown in Figure 6.6 was measured with growth 17 and growth 18 combined which was increase in assets and increase in sales combined as one variable. These were combined as one variable since the Cronbach alpha for these two variables was highly correlated with a score of 0.9. Business growth was also measured using the increase in employee (worker) numbers by subtracting current number of employees from employees at commencement of the township small business.
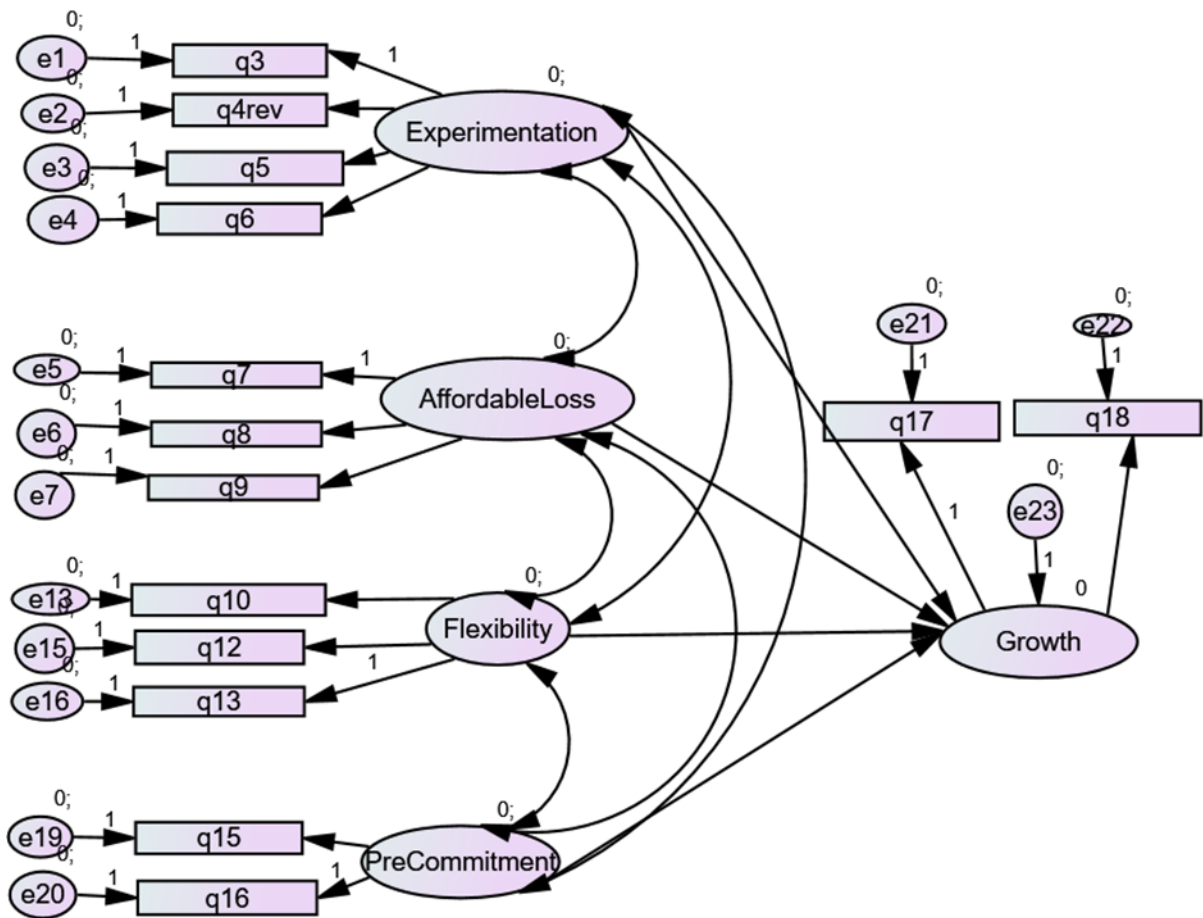
**Figure 6.6:   SEM – relationship between effectuation constructs and business
growth (assets and sales)**

It was not possible to combine the three business growth variables (assets, sales and employees) into one because assets and sales use five-point Likert scales whilst employees were a continuous variable. However, Cronbach alpha correlation indicated that assets and sales were highly correlated (0.9) and could be measured as one variable. As a result, the study now had two business growth indicators of assets combined with sales and employees separately. As a result of this, the study now had sub-hypotheses to accommodate the business growth being split into assets with sales combined and employee increase as per below:

- H_{1a}: Effectuation positively affects the business growth (assets and sales) of the non-expert township small business owner's business venture.

- H_{1b}: Effectuation positively affects the business growth (employees) of the non-expert township small business owner's business venture.

- H_{2a}: Experimentation positively affects the business growth (assets and sales) of the non-expert township small business owner's business venture.

- H_{2b}: Experimentation positively affects the business growth (employees) of the non-expert township small business owner's business venture.

- H_{3a}: Affordable loss negatively affects the business growth (assets and sales) of the non-expert township small business owner's business venture, the more the township small business owner is resource constrained.

- H_{3b}: Affordable loss negatively affects the business growth (employees) of the non-expert township small business owner's business venture, the more the township business owner is resource constrained.

- H_{4a}: Flexibility contributes positively towards the business growth (assets and sales) of the non-expert township small business owner's business venture.

- H_{4b}: Flexibility contributes positively towards the business growth (employees) of the non-expert township small business owner's business venture.

- H_{5a}: There is a positive relationship between the adoption of the pre-commitments and business growth (assets and sales) of the non-expert township small business owner's business venture.

- H_{5b}: There is a positive relationship between the adoption of the pre-commitments and business growth (employees) of the non-expert township small business owner's business venture.

6.4.2.1 Structural equation model results

Structural equation model in the study investigated the effect of independent latent variables on the dependent township small business growth variable (assets and sales) in Figure 6.6. Experimentation, affordable loss, flexibility and pre-commitments have a standardised effect of 0.125, -0.052, 0.198 and 0.012 respectively with business growth 17 and business growth 18 combined (asset and sales increase) in the township small business. In Figure 6.7, experimentation, affordable loss, flexibility

and pre-commitments have an effect of 0.042, 0.071, 0.008 and 0.044, respectively, with employee growth in the township small business. These effects are in line with the relationships found when the Pearson correlation coefficient was done except for the positive effect of affordable loss with employee growth.

Source: Author's own compilation

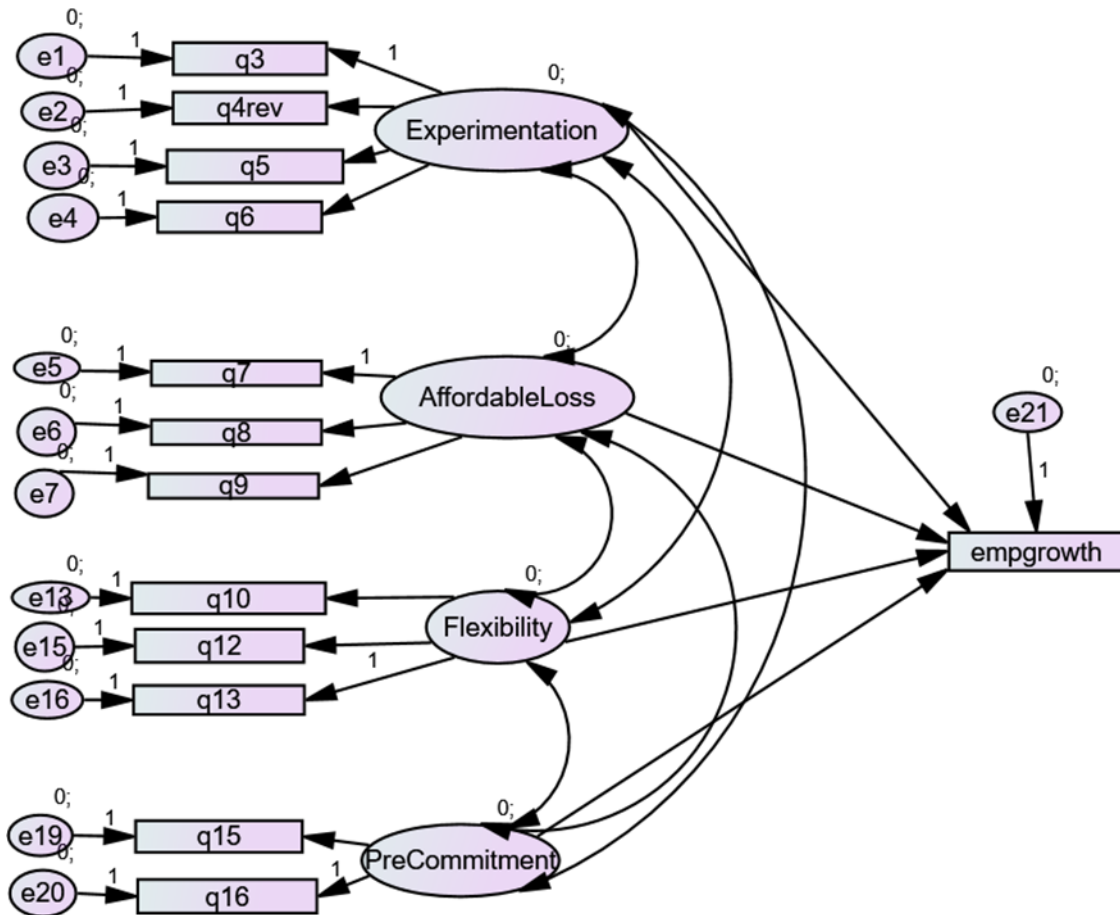**Figure 6.7:   SEM – relationship between effectuation constructs and business growth (employees)**

The study posited that this effect would also be negative as was seen with combined growth 17 and growth 18 (asset and sales increase). It was probable that this positive effect was not as expected because most township small businesses (530, 72.8 %) did not have an increase in employee numbers and remained with one employee (township small business owner). The data from 198 (27.2 %) respondents where

employee growth occurred may have been too small to give the hypothesised negative effect with affordable loss (Kyriazos, 2018:2210). However, when considering for statistical significance where the p-value < 0.05, the only two hypothesised relationships that could be supported was experimentation and flexibility with business growth (assets and sales). Table 6.20 with the SEM model fit summary indicates that the indices of CMIN/DF (3.67), DF (45), CFI (0.978) and TLI (0.97), to mention a few, meet the goodness-of-fit. and as such the data fits the model in figure 6.6 adequately. In figure 6.7, the model fit indices of CMIN/DF (4.08), DF (56), CFI (0.98) and TLI (0.97), to mention a few, meet the goodness-of-fit. However, the model of the relationship between effectuation constructs and business growth (employees) was not statistically significant as p-value was above 0.05 for all relationships, hence model not accepted. The study explored the relationship between the combined effect of effectuation (experimentation, affordable loss, flexibility and pre-commitments) and business growth (assets and sales). This was because only the experimentation and flexibility relationship with business growth (assets and sales) was statistically significant ($p < 0.05$) whilst affordable loss and pre-commitments relationships with business growth (assets and sales) was not.

Table 6.18: SEM results and statistical inferences in the relationship between effectuation constructs and business growth

Hypothesised relationship	Associated hypothesis	Structural Path coefficient	p-value	Hypothesis supported or not
Experimentation ⟶ Assets & sales growth	H_{2a}	0,125	0.006	Supported
Experimentation ⟶ Employee growth	H_{2b}	0.042	0.359	Not supported
Affordable loss ⟶ Assets & sales growth	H_{3a}	-0,052	0.161	Not supported
Affordable loss ⟶ Employee growth	H_{3b}	0.071	0.060	Not supported
Flexibility ⟶ Assets & sales growth	H_{4a}	0.198	<0.001	Supported
Flexibility ⟶ Employee growth	H_{4b}	-0.008	0.862	Not supported
Pre-commitments ⟶ Assets & sales growth	H_{5a}	0.012	0.754	Not supported
Pre-commitments ⟶ Employee growth	H_{5b}	0,044	0.283	Not supported
Source: Author's own compilation				

6.4.2.2 Second-order construct

Second-order construct test was explored to determine if the direct relationship between effectuation and business growth (assets and sales) can be investigated. It commenced by running a first-order model of the independent variables as shown in Figure 6.8 and testing it with goodness-of-fit indices. This model was found to be acceptable as shown by the indices in Table 6.20.
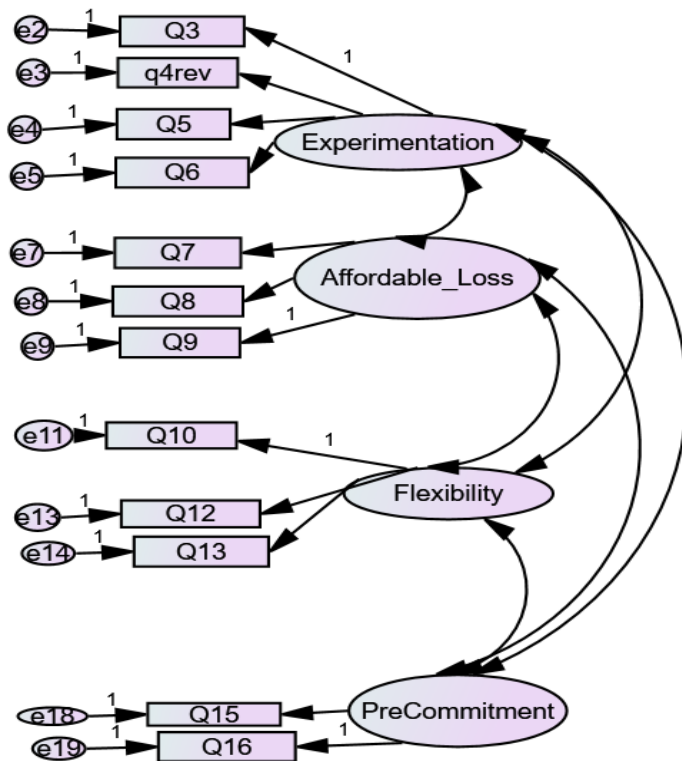
Source: Author's own compilation

Figure 6.8: Effectuation first order measurement model

The next step was to investigate the goodness-of-fit indices on the second-order model and this was found to be acceptable. When effectuation second-order measuring model was run with all items, it did not show acceptable fit. SEM second-order model met the fit indices requirements when item 12 (Flexibility – Q12) was removed and as such was an acceptable model for the study in showing the direct relationship of effectuation (represented by four constructs) with business growth. These two models' indices were shown in Table 6.20. Both models were accepted. For the effectuation second-order measuring model to be statistically acceptable over the first order model that postulates effectuation as a first order model (multidimensional constructs) versus effectuation as represented by the four constructs the target co-efficient was calculated. Target co-efficient was calculated by effectuation first-order measurement model divided by effectuation second-order measurement model and the value should be above 0.9 (Hong & Thong, 2013:287).
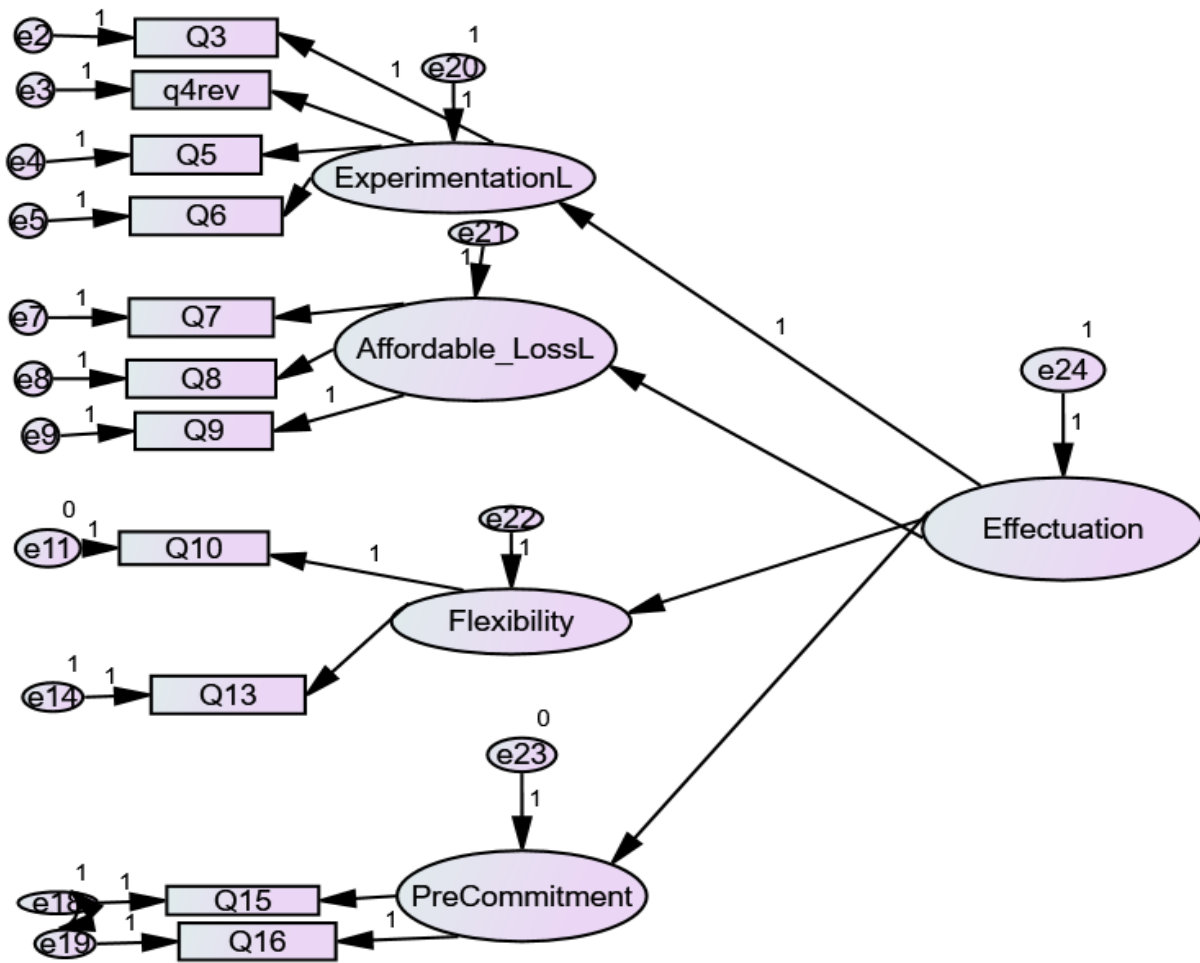
Source: Author's own compilation

Figure 6.9:   Effectuation second-order measurement model

Table 6.19: Effectuation first-order and second-order model indices

Goodness-of-fit index	Recommended values for acceptable model fit	Relevant literature	First-order SEM model	Second-order SEM model
Degree of Freedom (DF)	Dependent on type of model and number of variables	Cortina *et al.,* 2017:366	48	66
AGFI (Adjusted Goodness of Fit Index)	> 0.90	Chang *et al.* 2019:4	0.92	0.92
CFI (Comparative Fit Index)	> 0.95	Fonseca-Pedrero *et al.,* 2018:6	0.98	0.97
RMSEA (Root Mean Square Error of Approximation)	< 0.08	Fonseca-Pedrero *et al.,* 2018:6	0.07	0.07
RMSEA LL	< 0.05	Rose *et al.* 2017:73	0.06	0.06
RMSEA UL	≤ 0.08	Rose *et al.* 2017:76	0.08	0.08
Pr Close Fit	RMSEA ≤ 0.05	Shi *et al.*, 2018:2	0.00	0.00
TLI (Tucker Lewis Index)	>0.95	Bouwstra *et al.,* 2019:422	0.97	0.97
CMIN/DF	1-5	Elrehail, 2018:130	4.48	4.22
Source: Author's own compilation				

In the study, the target co-efficient was 0.91 (215/237) which means the second-order was an appropriate (statistically) representation of effectuation. In order to test the primary objective, namely if there was a statistically significant relationship between effectuation and business growth, a SEM as depicted in figure 6.10 was tested. Effectuation was represented by the second-order model rather than perceived as a multi-dimensional construct with co-variants between them (first-order).
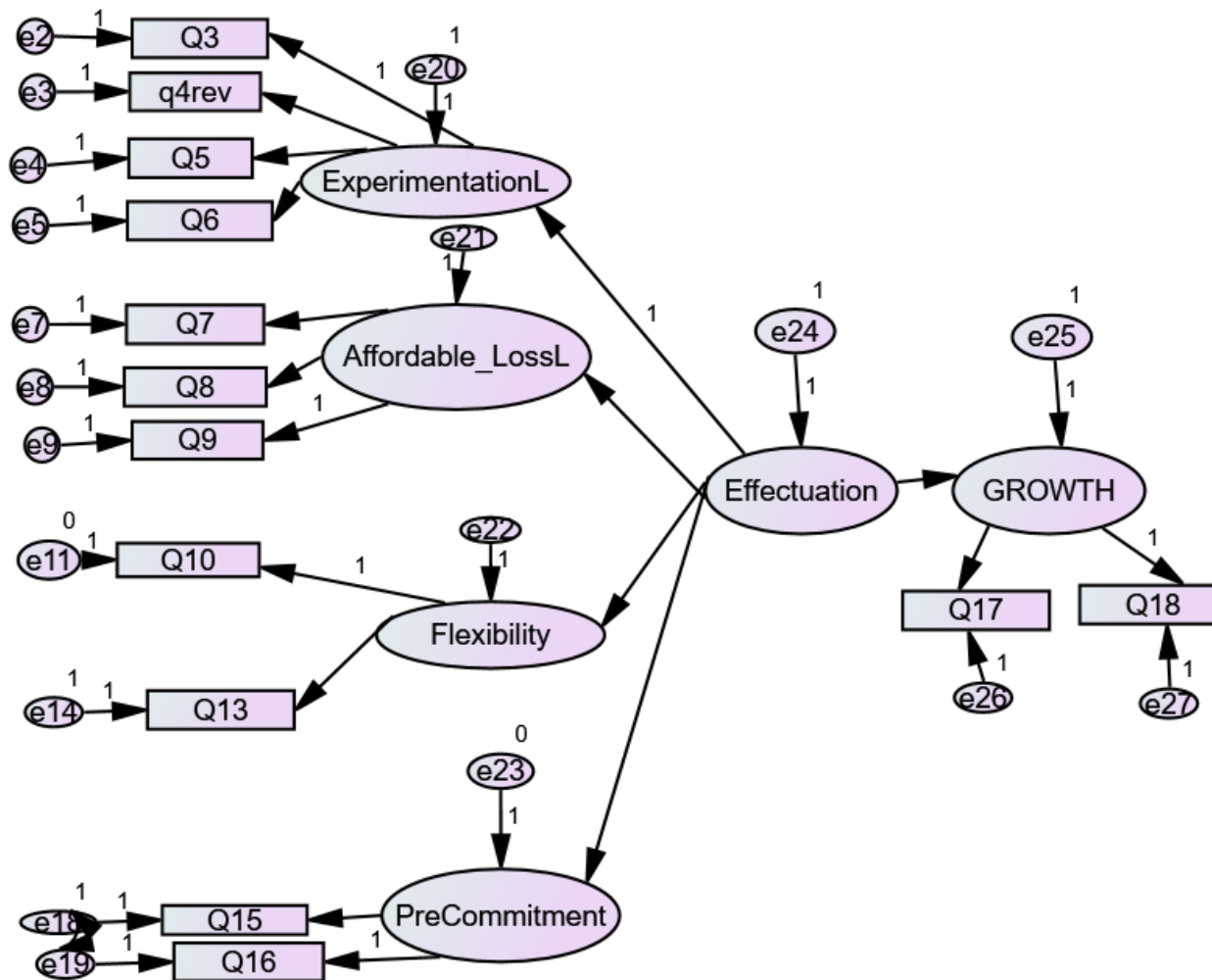
Source: Author's own compilation

Figure 6.10: Structural equation model

Table 6.20: Structural equation modelling model fit summary (effectuation and business growth – assets and sales)

Goodness-of-fit index	Recommended values for acceptable model fit	Relevant literature	Value in this Study	Remark on model fit
Degree of Freedom (DF)	Dependent on type of model and number of variables	Cortina *et al.,* 2017:366	66	Acceptable
CFI (Comparative Fit Index)	> 0.95	Fonseca-Pedrero *et al.,* 2018:6	0.97	Acceptable
RMSEA (Root Mean Square Error of Approximation)	< 0.08	Fonseca-Pedrero *et al.,* 2018:6	0.067	Acceptable
RMSEA LL	< 0.05	Rose *et al.,* 2017:73	0.06	Not acceptable
RMSEA UL	≤ 0.08	Rose *et al.,* 2017:76	0.075	Acceptable
Pr Close Fit	RMSEA ≤ 0.05	Shi *et al.,* 2018:2	0.00	Acceptable
TLI (Tucker Lewis Index)	>0.95	Bouwstra *et al.,* 2019:422	0.97	Acceptable
CMIN/DF	1-5	Elrehail, 2018:130	4.22	Acceptable
Source: Author's own compilation				

Table 6.21: SEM results and statistical inferences in the relationship between effectuation and business growth (assets and sales)

Hypothesised relationship	Associated hypothesis	Path coefficient (regression)	p-value	Hypothesis supported or not
Effectuation ⟶ **Assets & sales growth**	H$_{1a}$	0.302	<0.001	Supported
Effectuation ⟶ **Employee Growth**	H$_{1b}$	0.031	0.492	Not supported
Source: Author's own compilation				

Indices that met the goodness-of-fit test for the SEM relating to the relationship between effectuation and business growth (assets and sales) in figure 6.10 included CMIN/DF (4.217), DF (66), CFI (0.971) and TLI (0.966), to mention a few. Most of these indices were all within the acceptable values and hence the model was accepted. As per table 6.21, the model had a p-value<0.001, meaning the relationship between effectuation and business growth (assets and sales) was statistically significant. The standardised regression of 0.3 indicated a weak correlation. The relationship between effectuation and business growth (employees) was a positive negligible one (standardised regression of 0.031), however with a p-value of 0.492, it was not statistically significant and therefore no relationship exists. In response to the primary research objective, there was a weak relationship between effectuation and business growth (assets and sales). The study also investigated the moderating effect of the industry variables on the statistically significant relationships of experimentation and flexibility with business growth (assets and sales) as shown in the model in Figure 6.11.

6.4.2.3 Moderation test

Since experimentation and flexibility have a statistically significant relationship with business growth (assets and sales), the study investigated the moderating effect of
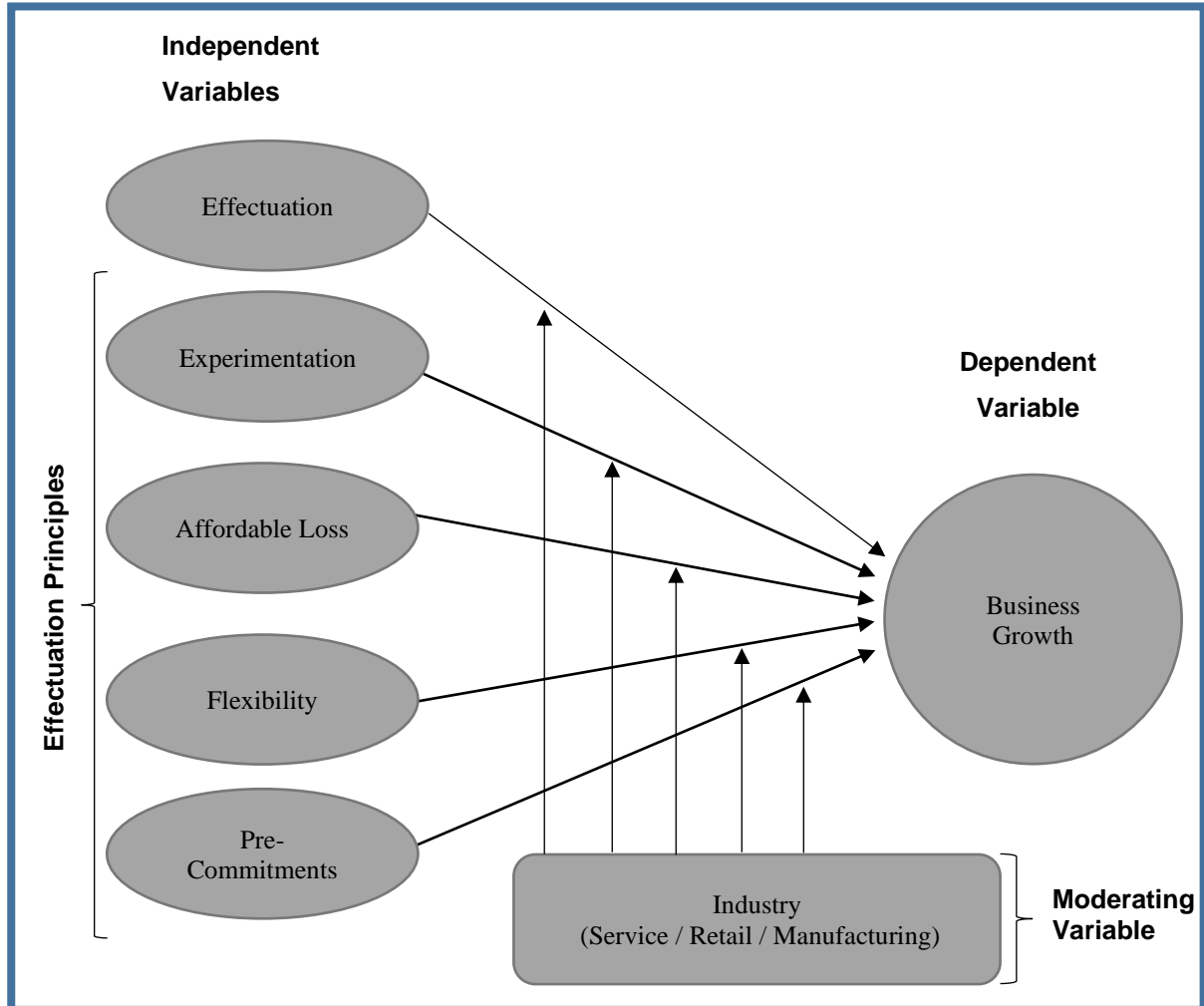
Source: Author's own compilation

Figure 6.11: Effectuation and business growth

the industries. Distribution of respondents by industry are 605 (83.1 %) in retail, 115 (15.8 %) in service and eight (1.1 %) in manufacturing. Only the retail and service industries were investigated as a moderator but the manufacturing was not investigated as the number of eight respondents was too low for a valid test. Table 6.22 had an interaction (Int_1) p-value for experimentation (0.3594) and flexibility (0.8404) that was > 0.05, meaning it was not statistically significant. In addition to this, the confidence interval (LLCI to ULCI) for the retail and service

industries should not include zero in the range to have a moderating effect. Experimentation (-0.1991 to 0.0723) and flexibility (-0,1638 to 0,2012) interval both have a zero. Therefore, the retail and service industries did not have a moderating effect on the respective relationships between experimentation and flexibility with business growth (assets and sales).

Table 6.22: Output moderation test for experimentation and flexibility

	coeff	se	t	p	LLCI	ULCI
Constant	3,3088	0,2470	13,3956	0,0000	2,8239	3,7938
Experimentation	0,2360	0,0840	2,8091	0,0051	0,0711	0,4009
Industry	0,3271	0,1952	1,6760	0,0942	-0,0561	0,7102
Experimentation*Industry	-0,0634	0,0691	-0,9172	0,3594	-0,1991	0,0723
	coeff	se	t	p	LLCI	ULCI
Constant	3,3626	0,3780	8,8967	0,0000	2,6206	4,1047
Flexibility	0,1982	0,1149	1,7256	0,0848	-0,0273	0,4237
Industry	0,0673	0,3035	0,2217	0,8246	-0,5286	0,6632
Flexibility*Industry	0,0187	0,0930	0,2014	0,8404	-0,1638	0,2012
Source: Author's own compilation						

Figures 6.12 and 6.13 shows the flexibility and experimentation graphs with slopes for both the retail and service moderating variables. Both graphs have similar or close to parallel slopes and this confirm once again that both the retail and services industries are not a moderating variable to the relationship between experimentation and flexibility with business growth (assets and sales). The study thought the industries would have a moderating effect on the relationship between effectuation and business growth but this was not the case. The reason may probably be that most township small business owners did not apply strategic planning (Nnamseh & Akpan, 2015:100) such as PESTEL or SWOT that informed them of the environment, opportunities and threats of their industry. Consequently, their decision making was not be affected as they did not differentiate their approach based on the industry since no industry knowledge was gathered due to lack of strategic planning.
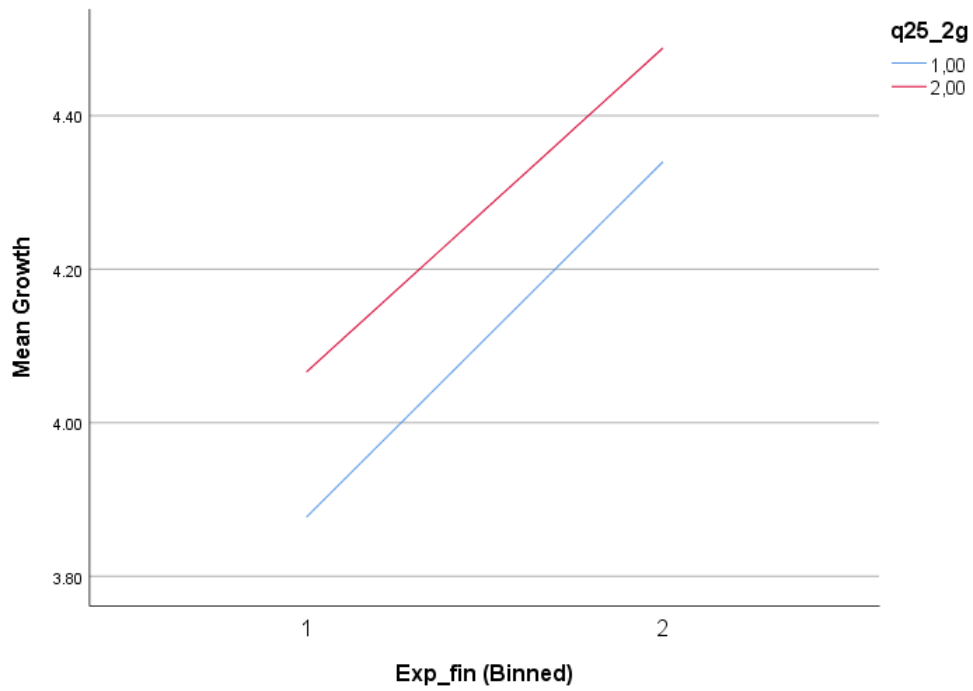
Source: Author's own compilation

Figure 6.12: Industry moderating effect graph for flexibility
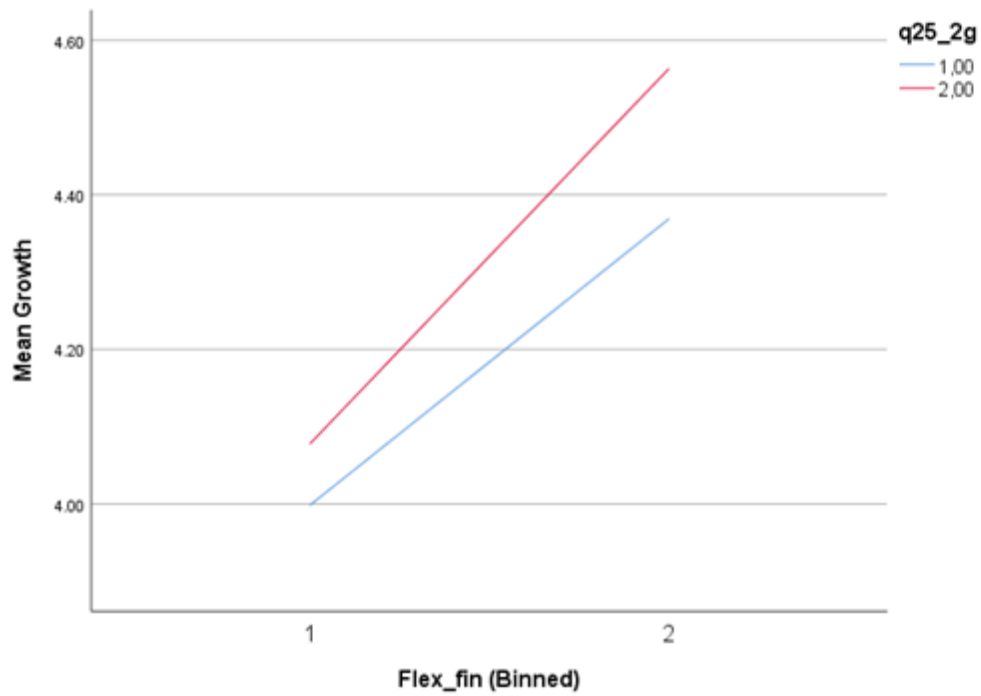
Source: Author's own compilation

Figure 6.13: Industry moderating effect graph for experimentation

The labels 1 and 2 represent retail and service industries in both Figure 6.11 and Figure 6.12 as taken from item 25 (business industry – Q25) in the questionnaire.

The study tested to determine if industry was a moderator in the relationship between effectuation and business growth. As stated earlier on, the confidence interval (LLCI to ULCI) for the retail and service industries should not include zero in the range to have a moderating effect. Effectuation (-0.2613 to 0.2640) interval had a zero. Therefore, the retail and service industries did not have a moderating effect on the respective relationship between effectuation and business growth (assets and sales).

Table 6.23: Output moderation test for effectuation

	coeff	se	t	p	LLCI	ULCI
Constant	3,9758	0,1307	30,4306	0,0000	3,7193	4,2324
Effectuation	0,2760	0,1700	1,6229	0,1050	-0,0579	0,6098
Industry	0,1334	0,1077	1,2393	0,2156	-0,0779	0,3448
Effectuation * Industry	0,0013	0,1338	0,0100	0,9920	-0,2613	0,2640
Source: Author's own compilation						

6.5   CHAPTER SUMMARY

From the 728 respondents, the findings were that the majority was composed of 691 respondents (94.9 %) that own and run one business, 262 (36.0 %) respondents are youth (18 to 34 years), 412 (56.6 %) respondents were male, 555 (76.2 %) respondents had

no high school qualification and 605 (83.1 %) respondents operate in the retail sector as street traders. The majority of the township small business owners (377 respondents, 51.8 %) experimented with different products but their products still remain the same and in agreement with De Reuver *et al.* (2017:4), 466 (64 %) did not experiment with different business models. The mean score for experimentation was 2.71, indicating that sample leaned towards a neither agree nor disagree response regarding the practise of experimentation. The majority of township small business owners in the sample did not apply affordable loss decision logic and they agreed with the practise of flexibility. The majority of respondents, in excess of 90 % of the sample did not practise pre-commitments with customers or suppliers. Five-hundred and ninety-two (81.3 %) respondents had an increase in their business assets and 598 (82.1 %) respondents experienced growth in sales. The majority of township small business owners (530, 72.8 %) in the sample did not have an increase in employee numbers and still remained with one employee (the township small business owner). Business growth when measured in assets and sales showed an increase for the majority of respondents but when measured using employee growth, the majority did not show business growth.

The measurement model (questionnaire) was evaluated for validity and reliability using factor analysis (CFA and EFA). CFA confirmed that the predicted or hypothesised structure was a good fit to the data collected only after excluding flexibility 11 and pre-commitments 16. KMO test was done to test sample adequacy and the sample size of 728 was adequate to conduct factor analysis with KMO of 0.71. PAF was used to investigate the underlying factors in the sample and pre-commitments 16 was excluded as it was highly correlated with pre-commitments 14. Five factors (latent variables) are found with an eigenvalue greater than one and these factors are experimentation, affordable loss, flexibility, pre-commitments and business growth. Factor rotation indicated that all remaining items (excluding pre-commitments 16) on the questionnaire was correlated to their relevant factors (questionnaire sub-headings). To improve the Cronbach alpha of flexibility from 0.66 to 0.71 flexibility 11 was discarded as it was reducing the correlation as recommended by Jain and Angural (2017:289). Some of the indices that met the goodness-of-fit test included Chi-Square, SRMR, RMSEA and TLI.

Inferential statistics to test the hypotheses was done using Pearson correlation coefficient and SEM. Pearson correlation coefficient indicated that there was a weak positive correlation between experimentation (0.23) and flexibility (0.23) with business growth (assets and sales) where $p < 0.05$. No correlation exists with any of the effectuation constructs with business growth (employees) where $p < 0.05$. SEM indicated that experimentation and flexibility have an effect of 0.15 on business growth (assets and sales) where $p < 0.05$. H_{2a} and H_{4a} was supported by Pearson correlation coefficient and SEM where $p < 0.05$ for statistical significance. Effectuation second-order test investigated and confirmed that there was a weak relationship between effectuation (all four combined effectuation constructs) and business growth (assets and sales). The two moderating industries that had sufficient respondents were retail and services. These two industries, using the moderation test, were found not to have a moderating effect on the relationship between effectuation, experimentation and flexibility with business growth (assets and sales).

CHAPTER 7:
CONCLUSION AND RECOMMENDATIONS

7.1   INTRODUCTION

The purpose of the study investigated the practise of effectuation as a decision-making logic by non-expert township small business owners and its effect on their businesses' growth. The previous chapters discussed effectuation plus their four constructs which are experimentation, affordable loss, flexibility and pre-commitments. Indicators or measures of business growth are assets, sales and employees. Based on this background, the Literature Review was conducted but not limited to non-expert township small business owners, effectuation and business growth. Research design and methodology (research onion) explored the different options available to the study with reference to research philosophy, research approach, research strategy, research choice, time horizons and techniques and procedures. A summary of descriptive and inferential statistics was discussed together with their data analysis to conclude the findings of the study.

The purpose of this chapter summarised all chapters till Chapter 6 and concluded on findings. It was also found it important to explore the contributions made by this study to the body of knowledge on effectuation and township small business growth. Certain areas in this study were inconclusive and these limitations were discussed. During the study, there were certain areas or gaps in the body of knowledge on effectuation and township small business growth that were realised and these were recommended for future study.

7.2   OVERVIEW OF THE LITERATURE STUDY

Literature review of topics related to the study were covered in Chapters 2 to 4. Chapter 1 was an introductory chapter. The following paragraphs discussed Chapter 1 to Chapter 4 since some of the Literature Review was contained in Chapter 1.

Chapter 1 was the introductory chapter to the study which discussed the unstable background that township small business owners operate in. Creation and/or growth

of small businesses contributes to GDP and job creation. The TEA rate for South Africa however has declined whilst in comparison the TEA rate for the African region as a whole which was 2.5 times greater than the South African TEA rate (Herrington *et al.,* 2017:6). As an emerging economy, faced by high resource or means constraints such as attributes, knowledge, networks and financial resources (Lingelbach *et al.,* 2015:6-7), this poses a challenge for the township small business owner (Maseko *et al.,* 2015:161; Burger *et al.*, 2017:13). Government initiatives to aid entrepreneurial development and support of small businesses through funding have and are being implemented through agencies such as the NYDA, NEF, SEFA and SEDA (Mary *et al.,* 2015:133; Oseifuah & Manda, 2017:127; Mpiti & Rambe, 2016:437). These initiatives based on causation approach, however have not alleviated the challenges faced by small businesses to start and/or grow (Madi, 2017:41).

Effectuation is an alternative emergent approach to the creation and growth of small businesses as opposed to the traditional causation approach. Expert business owners in the USA were proven to practise effectuation decision logic and this study investigated the practice of effectuation, if any, by the non-expert township small business owners in South Africa. Effectuation and its effect on the business growth of small business ventures run by township small business owners was tested directly and also by the four effectuation constructs or principles. According to Lingelbach *et al.* (2015:10) these principles are

- experimentation
- affordable loss
- flexibility, and
- pre-commitments.

The research was confined to non-expert township small business owners operating in the selected Gauteng townships of Alexandra township, Honeydew township and Soweto township. The research design of the study was based on the "research onion" by Saunders *et al.* (2009:109).

Chapter 2 commenced with a discussion on township small business owners whom for purposes of the research included micro, very small and small business owners. The small business was defined as having < 50 employees, annual turnover

< ZAR32M and gross assets value < ZAR6M. The business growth of these small businesses in the township is important as it resulted in the creation of jobs and thereby contribute towards the reduction of poverty. With the main focus of the study looking at the nexus between effectuation and business growth, business growth was examined. Determinants of business growth included the township small business owner's vision, intent, educational background, skills, calibre of employees in the business, age and size of the business and the environment that the business is operating in. Constraints and barriers to business growth for township small business owners include low education levels of the township small business owner, inability to access support services, competition from migrant businesses, competition from new malls built in the township and limited access to affordable funding. These business growth barriers and constraints for the township small businesses in the macro, meso and micro environments make it challenging to start and/or grow their small businesses. This study indicated that it would measure organic business growth of the township small business through financial and non-financial indicators of sales, assets and employee numbers.

Chapter 3 defined effectuation as a decision-making logic that starts by considering the means of the township small business owner at hand to determine the outcome that can be co-created with partners or stakeholders (Sarasvathy, 2001:245) such as customers, suppliers and/or competitors (Kalinic *et al.,* 2014:637; Galkina & Lundgren-Henriksson, 2017:3). Means of the township small business owner refers to "**who I am**", "**what I know**" and "**who I know**" (Welter *et al.,* 2016:7). These means are the bird in the hand principle by Sarasvathy and they were not tested in the study as the study used the four principles or constructs of effectuation by Chandler *et al.* (2011:382). The effectuation principles are different or opposite from traditional causation because effectuation is about the business commencing, surviving or achieving business growth by:
- controlling the unpredictable future (experimentation) as opposed to predicting the future (Reuber *et al.,* 2016:538),
- focusing on reducing the loss to one that the township small business owner can afford (affordable loss) as opposed to focusing on expected returns (Brettel *et al.,* 2014:612),

- embracing contingencies (flexibility) as opposed to eliminating or preventing contingencies (Eyana *et al.,* 2017; Stroe *et al.,* 2018:266) and
- forming partnerships with competitors and other stakeholders (pre-commitments) as opposed to competitor analysis (Kerr & Coviello, 2019:2; Jiang & Ru̇ling, 2017:3).

Effectuation was based on expert business owners and these are defined as having ≥ 15 years' experience in running at least two business ventures (Dew *et al.,* 2009:288). In the study, non-expert township small business owners in the township consisted of nascent township small business owners with up to ≥ 42 months' experience and established township small business owners with ≥ 42 months' experience but ≤ 15 years or ≥ 15 years but having run one business (Herrington *et al.*, 2017:17; Ayala & Manzano, 2014:128). Effectuation used to be thought of as an opposite or mutually exclusive with causation but both can mutually co-exist as a decision logic (Werhahn *et al.,* 2015:307). The effectual process has shown how all four constructs can be applied by a township small business owner to achieve business growth or viability in their business venture. Effectuation seems applicable to these township small business owners as a decision logic when the business environment is uncertain (Reymen *et al.,* 2015:4), when the township small business owner has a Communitarian business social identity (Also *et al.,* 2016), when the township small business owner is an expert with high entrepreneurial self-efficacy (Engel *et al.,* 2014) and township small business owners with limited resources that would consider a lean start-up approach (Frederiksen & Brem, 2017:181). It is possible that township small business owners are unknowingly applying some or all of the effectuation constructs when making decisions about their business ventures.

Chapter 5 stated that business growth in the study would be measured using indicators of assets, sales and employee numbers in the township small business. Since most township small business owners do not keep accurate records (Williams & Shahid, 2016:1), these indicators are easier to determine if they increased, decreased or remained the same in their small business. Some of these business growth indicators fall under financial indicators which can also be obtained from financial statements (Bogicevic *et al.,* 2016:3) which are sales and assets of the

business; and also, non-financial indicators which is the number of employees in the business. An increase in these indicators would mean there has been growth in the business of the township small business owner. The study indicated that it would investigate the relationship between the effectuation and business growth in the business ventures were business growth occurred.

Effectuation constructs consist of experimentation, affordable loss, flexibility and pre-commitments (Urban & Heydenrych, 2015:127). Primary research objective was determining the relationship between effectuation and business growth. The study's hypothesis (H_1) was that there would be a positive relationship between **effectuation** and business growth. This hypothesis was supported by the study as per the SEM that was discussed in Figure 6.10. Literature stated that effectuation practice leads to business growth (Deligianni *et al.*, 2017:3) and this was the case with the township small business owners that practised effectuation in relation to growth in assets and sales but not with employee growth. This relationship however, had a weak positive relationship based on the regression weight of 0.3. The study posited (H_2) further that **experimentation** had a positive relationship with business growth since the business can try different strategies, business models (Shirokova, Osiyevskyy, Laskovaia & MahdaviMazdeh 2020:478) and products to cope with competitors and changes in the market (Guo *et al.,* 2016). This hypothesis was supported by the study despite the literature stating that most small business owners do not make use of strategic planning such as SWOT and PESTEL (Nnamseh & Akpan, 2015:100). Despite the low levels of education of the township small business owners observed in the data, this did not deter most of the township small business owners from experimenting with different products despite their products still remaining the same, in agreement with De Reuver *et al.* (2017:4).

The study also hypothesised that (H_3) **affordable loss** had a negative relationship with business growth. This was because the township small business owner may focus on what they are prepared to lose as opposed to focusing on business growth (Wennberg *et al.,* 2016:9) and may lead them to be a survivalist. By the very nature that most township small business owners are faced by poverty (Piper & Charman, 2016:333), the study believed that they may be more risk averse, in line with literature, with the little money they invest in their small business. This should result in them

exiting their business if they feel that they may lose the money they invested in the business. They should probably not be prepared to lose a certain portion of their money invested. This hypothesis however was not supported as the data indicated that the relationship between affordable loss and business growth not statistically significant. The study further believed that (H4) **flexibility** would have a positive relationship with business growth because the business can adapt to the changing environment (Fernández-Pérez *et al.,* 2016:296) and better customer value is created (Prommarat *et al.,* 2017:74) which contributes to customer loyalty and/or business growth. This hypothesis was supported by the data in the study. With the entry of new malls into the townships (Dlamini & Mbhele, 2019:1378) that compete with township small business owners, flexibility was practised. Flexibility was also practised in the study as township small business owners were seen to have moved, to operate outside the malls since more foot traffic was attracted to these malls. They did not fight the malls but rather made the most of their existence to remain viable. This was an additional observation by the research team (not included in the data) that supported the findings in the data.

The study also posited that (H5) **pre-commitments** would have a positive relationship with business growth as seen in a previous study (Rizvi *et al.,* 2018:16). Pre-commitments by stakeholders such as customers and suppliers make it easier for a small business to operate and realise profits as prior arrangements have been made prior to start of the business. With the township small business owner being based in the township and the spirit of "ubuntu" (Koens & Thomas, 2016:10) being strong in the township, the study believed pre-commitments would easily occur. However, this hypothesis was not supported (not statistically significant) by the data collected. This may probably be in line with low levels of education (Urban & Ndou, 2019:6) that prevent most township small business owners to engage in strategic planning which may include incorporating pre-commitments. Another factor could be the inability of the respondents to prepare a business plan (Makhitha, 2016:259) as most external parties to the business may probably want to see a business plan or equivalent to consider a pre-commitment.

7.3 OVERVIEW OF DESCRIPTIVE STATISTICS

These descriptive statistics were compiled from the sample of 728 respondents in the townships of Alexandra, Honeydew and Soweto. The majority of the respondents (691, 94.9 %) in the sample owned one business. The youth, aged 18 to 34 years, were the majority (262, 36 %) and this was probably due to high unemployment amongst the youth (Osabohien, *et al.*, 2018:52) that forces them to turn to entrepreneurship for survival. The distribution by gender comprised of 412 (56.6 %) male and 316 (43.4 %) female respondents and this was not in line with the population of South Africa where 51 % are women (SSA, 2019:8). Most respondents did not have a high school qualification (555, 76.2 %) and this was in line with the low educational levels of township small business owners (Mashau & Houghton, 2015:599). Two-hundred-and-four (28 %) respondents were nascent township small business owners (0 - 3.5 years) and 524 (72 %) are established township small business owners (+ 3.5 years). Township small business owners by industry comprised 605 (83.1 %) in retail, 118 (15.8 %) service and 8 (1.1 %) in manufacturing.

Table 7.1:   Sample characteristics and description (n = 728)

Sample characteristic	Description				
Township businesses owned	691 (94.9 %) respondents owned 1 business, 28 (3.8 %) respondents own 2 businesses and 9 (1.2 %) respondents own 3 or more businesses				
Age	18 to 34 years	(Youth)	262	(36.0 %)	
	35 to 44 years	(Adult)	239	(32.8 %)	
	45 to 54 years	(Adult)	138	(19.0 %)	
	55 to 64 years	(Adult)	78	(10.7 %)	
	65+ years	(Adult)	11	(1.5 %)	
Gender	412 (56.6 %) were male and 316 (43.4 %) were female				
Highest qualification	No Matric	555	(76.2 %)	Matric	99	(13.6 %)
	Certificate	48	(6.6 %)	Diploma	10	(1.4 %)
	Degree	8	(1.1 %)	Masters	1	(0.1 %)
	Other	7	(1.0 %)			
Township small business owner level	204 (28 %) are nascent business owners and 524 (72 %) are established business owners				
Business industry	Retail	605	(83.1 %)		
	Service	115	(15.8 %)		
	Manufacturing	8	(1.1 %)		
Source: Author's own compilation					

7.4   RESEARCH OBJECTIVES AND HYPOTHESES REVISITED

The primary research objective investigated the relationship between the practice of effectuation by non-expert township small business owners and business growth in these businesses. The secondary objective investigated the relationship between the effectuation constructs of effectuation (experimentation, affordable loss, flexibility and pre-commitments) with business growth. The study initially had the following hypotheses:

- H_1: Effectuation positively affects the business growth of the non-expert township small business owner's business venture.

- H_2: Experimentation positively affects the business growth of the non-expert township small business owner's business venture.

- H_3: Affordable loss negatively affects the business growth of the non-expert township small business owner's business venture, the more the township small business owner is resource constrained.

- H_4: Flexibility contributes positively towards the business growth of the non-expert township small business owner's business venture.

- H_5: There is a positive relationship between the adoption of the pre-commitments and business growth of the non-expert township small business owner's business venture.

Business growth indicators were assets, sales and employees and the study initially believed these three indicators could be measured as one variable. It however was later realised in the study that it was not possible to combine the three variables into one because assets and sales used five-point Likert scales and employees was a continuous variable. However, the Cronbach alpha coefficient indicated that assets and sales were highly correlated (0.9) and could be measured as one variable. As a result, the study now had two business growth indicators of sales combined with

assets and employees separately. Consequently, there was a sub-hypothesis for each hypothesis and all the hypotheses are now represented as per below:

- H_{1a}: Effectuation positively affects the business growth (assets and sales) of the non-expert township small business owner's business venture.

- H_{1b}: Effectuation positively affects the business growth (employees) of the non-expert township small business owner's business venture.

- H_{2a}: Experimentation positively affects the business growth (assets and sales) of the non-expert township small business owner's business venture.

- H_{2b}: Experimentation positively affects the business growth (employees) of the non-expert township small business owner's business venture.

- H_{3a}: Affordable loss negatively affects the business growth (assets and sales) of the non-expert township small business owner's business venture, the more the township small business owner is resource constrained.

- H_{3b}: Affordable loss negatively affects the business growth (employees) of the non-expert township small business owner's business venture, the more the township small business owner is resource constrained.

- H_{4a}: Flexibility contributes positively towards the business growth (assets and sales) of the non-expert township small business owner's business venture.

- H_{4b}: Flexibility contributes positively towards the business growth (employees) of the non-expert township small business owner's business venture.
- H_{5a}: There is a positive relationship between the adoption of the pre-commitments and business growth (assets and sales) of the non-expert township small business owner's business venture.

- H_{5b}: There is a positive relationship between the adoption of the pre-commitments and business growth (employees) of the non-expert township small business owner's business venture.

Sub-hypotheses H_{1a}, H_{2a} and H_{4a} are supported by the findings in the study. Experimentation and flexibility have a relationship with business growth (assets and sales) that is statistically significant ($p<0.05$). The other sub-hypotheses H_{1b}, H_{2b}, H_{3a}, H_{3b}, H_{4b}, H_{5a}, H_{5b} are not supported by the study as being statistically significant. The sub-hypotheses that are supported and not supported by the findings of the study would affect the model of effectuation and business growth going forward.

7.5 CONCEPTUAL MODEL OF EFFECTUATION AND BUSINESS GROWTH

The conceptual model of effectuation and business growth was updated based on the findings made during inferential statistics (Chapter 6) of the sample of 728 township small business owners. Figure 7.1 is the updated conceptual model to be explained.
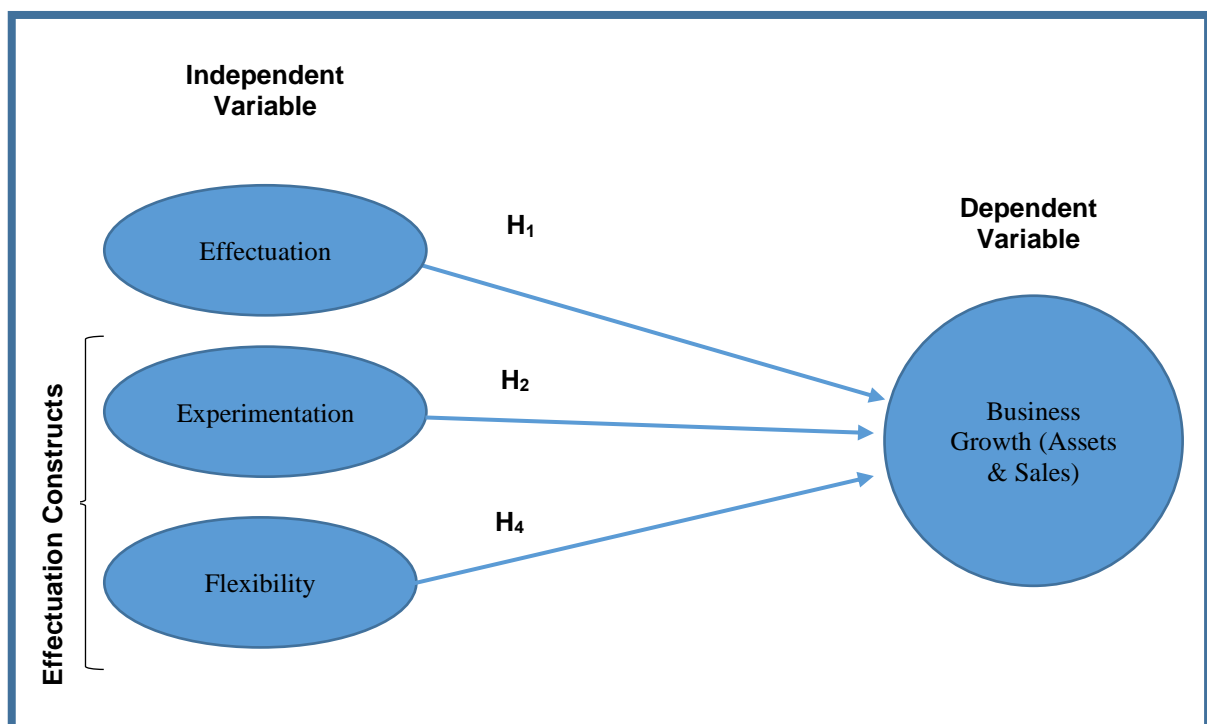
Source: Author's own compilation

Figure 7.1:   Final conceptual model of effectuation and business growth

The only statistically significant relationships found with business growth (assets and sales) was with effectuation (primary objective), experimentation and flexibility (secondary objective). Consequently, the relationship between affordable loss and pre-commitments with business growth was no longer shown in the updated model.

Business growth was initially made up of assets, sales and employees but the latter (employees) did not have a statistically significant relationship with any of the effectuation constructs. Consequently, the model was updated by only showing assets and sales in brackets under business growth. Based on the sample of 728 respondents in the study, employee numbers are probably not a reliable indicator for business growth with township small businesses. The retail, service and manufacturing industries were thought to have a moderating effect on the relationship between effectuation and business growth but this was not the case. These industries were not a moderator with the statistically significant relationship between effectuation, experimentation and flexibility with business growth (assets and sales). Consequently, the retail, services and manufacturing industries were removed as a moderator in the model.

7.6   CONTRIBUTION OF THE STUDY

This perceptual study made theoretical, practical and policy contributions towards the advancement of the body of knowledge in the areas of township small business management and effectuation.

7.6.1 Theoretical contribution

The theory studied was effectuation and its effect on business growth, when practised as a decision logic by township small business owners. The study discussed the new and/or additional knowledge that this study added to the effectuation theory. Fundamental questions addressed in this dissertation were:

- do non-expert township small business owners practise effectuation decision logic,
- was there a relationship between effectuation by non-expert township small business owners and business growth, and

- are the retail, service and manufacturing industries a moderator for the relationship between effectuation by non-expert township small business owners and business growth?

The emergent effectuation theory was based on research by Sarasvathy on the decision-making logic of expert business owners based in the USA (Arend *et al.,* 2015:2). Non-expert business owner's practise of effectuation was tested using MBA students (Sarasvathy *et al.,* 2001:4) however, this study investigated if effectuation was practised by township small business owners? Investigations based on the use of the individual effectuation constructs by the township small business owners revealed the following. Experimentation had a mean score of 2.71, meaning overall most respondents were leaning towards a neutral response of neither agree nor disagree. Most respondents, based on the mean score of 3.14 in the sample, were slightly leaning towards agreeing that flexibility was used in making decisions in the business by the owner. Most respondents disagreed with using the affordable loss decision logic. The majority of respondents, in excess of 90 % of the sample did not make use of pre-commitments with customers or suppliers. This finding was in agreement with Poh *et al.* (2017:64) that more experienced (expert) business owners have a greater tendency to form pre-commitments prior to starting a new business venture. Regarding the effectuation constructs of affordable loss and pre-commitments, most respondents did not practise these as a decision logic. Flexibility was leaning towards agreeing to its practise as a decision logic. Experimentation construct was closer to neither agree nor disagree for most respondents in the sample and as such were inconclusive regarding the practice or non- practice of effectuation as a decision logic by most respondents in the sample. Hence, theoretical contribution of the study to the body of knowledge in effectuation was that non-expert township small business owners made practice of flexibility but did not make practice of affordable loss and pre-commitments in their decision-making logic. This was partly in line with Sarasvathy's (2001:4) findings that effectuation was not practised by non-expert business owners, when it came to affordable loss and pre-commitments.

Sarasvathy found that effectuation was not used as a decision-making logic by non-experts in the initial study on effectuation but this was based in the USA where the

scarcity of resources is relatively lower than in South Africa, which is an emerging economy. Research on the use of effectuation in South Africa by nascent or non-expert township small business owners has been done (Urban, 2018; De Villiers Scheepers *et al.*, 2018:26) but the sample was mostly made up of respondents with a post-high school qualification such as a diploma or a degree. The sample in this study however, was mostly composed of respondents with no high school qualification (555, 76.2 %), therefore differentiating it from other studies done in South Africa. Theoretical contribution of the study was that township small business owners with low educational levels in the sample that practised effectuation had a weak positive relationship with business growth (assets and sales).

Affordable loss decision logic may result in small business owners may focusing on what they are prepared to lose as opposed to focusing on business growth (Wennberg et al., 2016:9) and may lead them to be a survivalist. Roach *et al.* (2016:229) stated that affordable loss contributes positively towards the performance (business growth) of the small business. Pre-commitments had a positive relationship with business growth as seen in a previous study (Rizvi *et al.,* 2018:16). Pre-commitments should assist the small business owner to acquire more means to alleviate their resource constraints. Contrary to studies on affordable loss and pre-commitments, the study did not find a statistically significant relationship with business growth for assets and sales nor employees. Theoretical contribution of the study was that with the township small business owners there was no relationship between affordable loss and pre-commitments with business growth.

Past studies have indicated that the practice of experimentation will result in business growth (Welter & Kim, 2018:24; Shirokova *et al.*, 2020:478). In this study, where the experimentation decision logic was practised by the township small business owner, it had a statistically significant and positive relationship with business growth ($p < 0.05$). Flexibility in previous studies contributed towards business growth (Vedanthachari & Baldock, 2015:2; Prommarat *et al.,* 2017:74; Dibrell *et al.,* 2014:7). When flexibility was used as a decision logic by the township small business owner in this study, it had a statistically significant and positive relationship with business growth ($p < 0.05$). Affordable loss and pre-commitments relationship with business growth was not statistically significant as the p-values were > 0.05. Theoretical

contribution of the study was that experimentation and flexibility have a weak positive relationship with business growth (assets and sales) when these decision logics are separately practised by township small business owners.

Another theoretical contribution made was that effectuation and business growth (assets and sales) had a negligible positive relationship. The lack of a statistically significant relationship between affordable loss and pre-commitments may be the reason why this relationship was negligible as opposed to the weak relationships with experimentation and flexibility with business growth (assets and sales). Another theoretical contribution made was that the retail, services and manufacturing industries are not moderating variables to the relationships between effectuation, experimentation and flexibility with business growth.

7.6.2 Practical contribution

These theoretical contributions discussed above were assessed for their practical contribution in society for the township small business owner. With the need of emerging economies to reduce unemployment and increase GDP, entrepreneurship was one of the solutions (Chinomona & Maziriri, 2015:835; Sambo & Chiloane-Tsoka, 2015:189). The effectual approach could be beneficial as an entrepreneurial approach for non-expert township small business owners in emerging economies like South Africa with scarce resources. These resource constraints faced by township small business owners could be minimised or eliminated whilst they start and grow their small business ventures through the effectual means-based approach. Experimentation would create new products and services (Altinay *et al.,* 2016:9), allow experimentation with different business models (Shirokova *et al.*, 2020:478) and to cope with an unpredictable future (Guo *et al.,* 2016; Welter & Kim, 2018:24) to result in business growth. The township small business owners would stop focusing on the challenge of not having resources they need for the chosen business venture. They would now look at what business venture to start and grow based on the resources (means) at hand.

The township economy would benefit from more business ventures that are created or grow through the effectual approach. This would translate to higher revenue for the

township small business which means the owner was able to sustain their livelihood and possibly create more jobs for other township residents as employees. These employees that work in the business would benefit from a decent wage without needing to seek employment outside the township. As the business grows, the township consumers benefit from better quality products or services that the business was generating. More businesses could be created to support these growing businesses since the informal economy would now be a big enough market worthy to attract new entrants to service these businesses profitably. Professional businesses such as IT support and consulting could be created in the township to target these growing township small businesses.

7.6.3 Policy and practice contribution

Based on the research findings, the study recommends that policies and practice by governments and financial institutions in emerging economies like South Africa to support small businesses to start and grow should incorporate findings in the study. Policies on the training and funding of small businesses could benefit by considering the below.

- Causation should not be the only theory that government support initiatives (NYDA, NEF, SEDA and SEFA) for small businesses is based on, but effectuation also to be considered. The extant approach of creating and growing small business ventures in the township is based on the causation approach (Ladd, 2016:205; Roach *et al.,* 2016:215) of drawing up a business plan and then seeking funding or resources to implement the business plan. Challenges with the extant approach is that most small business owners cannot draw up a business plan (Makhitha, 2016:259) and business plans are about predicting the future as opposed to controlling the future through flexibility. Predicting the future is difficult or nearly impossible in the uncertain environment that most businesses operate in. Business plans as a minimum requirement for funding should be re-considered based on the challenges discussed.

- Training of township small business owners should also incorporate effectuation as an option of starting and/or growing a business. The perception that funding is not available may discourage nascent township small business

owners from taking the first step of starting a business. Knowledge of effectuation through training programs by government agencies may probably increase TEA in emerging economies as some resource constrained nascent small business may opt for the effectuation approach.

- A different approach or policy towards the supporting of the township economy should be considered by government agencies. The growing of the existing businesses could result in the emerging of new businesses to support these growing businesses. Growth of the township economy could result in the reduction of unemployment within the township as opposed to hoping for the formal economy to remedy the high unemployment levels in the townships. For these reasons stated, an aggressive policy to grow the township economy should be enacted seeing that the current initiatives by government agencies are not as effective (Madi, 2017:41).

7.7 LIMITATIONS OF THE STUDY

This study's main research objective investigated the relationship between the practise of effectuation by township small business owners and business growth. As much as the study intended to have minimum or nil limitations, some limitations were discovered.

- Practice or non-practice of experimentation decision logic by most township small business owners in the sample was inconclusive as the mean score was close to "neither agree nor disagree (3)" as a five-point Likert scale was used. This could have been avoided using a four-point or six-point Likert scales to avoid neutral responses.
- The study could not investigate the statistically significant relationships of experimentation and flexibility with the combined business growth indicator consisting of assets, sales and employees for respondents who practised these. These three indicators of business growth had different measuring scales that prevented the study from combining them, assuming they were highly correlated. Use of the same type of scales would have prevented this limitation if there was a need to combine these indicators.
- The study was based in townships in Gauteng province and justifiably so, as this was the province with the highest concentration of small businesses within

South Africa (Kalitanyi, 2019:54). This may however limit the study in understanding how township small business owners in other provinces may have respondent as the challenges and/or opportunities may differ in the different provinces. Incorporating townships from all provinces in the study, assuming resources were not limited, would have prevented this limitation. Comparisons could also be drawn between the different townships and between the different provinces.

- The time horizon used in the study was cross-sectional thereby the study could not track the changes in decision logic, if any, across a time range by the township small business owner. A longitudinal study with data being collected more than once over a period would have prevented this limitation.

- Since purposive and snowball sampling (non-probability sampling) was used in the study, this does not allow the findings to be inferred to the population of all township small business owners (Yang & Banamah, 2014). This limitation could be removed in future research by using simple random sampling when an accurate database of township small business owners exists.

7.8   RECOMMENDATIONS FOR FUTURE STUDY

This study has contributed to the body of knowledge on effectuation and small business management. Gaps for future studies were realised during the investigations based on the research objectives.

- The sample was that of township small business owners. Future research could also be conducted for rural small business owners' practise of effectuation and its effect on business growth, if any.

- The study found no relationship between the practise of effectuation and any of the effectuation constructs by township small business owners and employee growth in their business. It would be worthwhile to investigate in future why this was the case.

- Industry was not a moderating factor to the relationship between effectuation, experimentation and flexibility with business growth. Future research could investigate why this was the case and if there are other moderating variables such as education and gender for this relationship with township small business owners.

- Comparison of the relationship between practice of effectuation and business growth between expert and non-expert township small business owners could be investigated in the future.

- With industry not being a moderating variable, it could be investigated if the industry was a segmenting variable.

7.9 CHAPTER SUMMARY

The research's primary objective was investigating the relationship between effectuation and business growth. The industries these township small businesses operated in was proposed as a moderating effect. Indicators of business growth were assets, sales and employee numbers. **Assets and Sales** were highly correlated using the same scale and combined as one indicator and **Employees** was another stand-alone indicator. The study now had sub-hypotheses to accommodate the splitting of business growth into two indicators (H_{1a}, H_{1b}, H_{2a}, for example). The study posited that **Experimentation, Flexibility** and **Pre-commitments** had positive relationships with business growth whilst **Affordable Loss** had a negative relationship with business growth.

Data were collected from 728 township small business owners based in Alexandra township, Honeydew township and Soweto township. Descriptive statistics showed that most township small business owners were leaning slightly towards the practise of flexibility. **Affordable Loss** and **Pre-commitments** were not practised by most township small business owners and the practise of **Experimentation** by most in the sample was inconclusive (neutral response). Inferential statistics using SEM models indicated that **Effectuation**, **Experimentation and Flexibility** had a statistically significant relationship with **Business Growth** (assets and sales). There was no statistically significant relationship between effectuation, effectuation constructs and business growth (employees). The industries the township small business owners operate in do not have a moderating effect on the relationship between effectuation, experimentation and flexibility with business growth.

The theoretical contribution of this study was that there was a positive relationship between effectuation, experimentation and flexibility with business growth (assets and sales) when practised by township small business owners who mostly had no high school qualification. Industry was not a moderating variable to the relationships between effectuation, experimentation and flexibility with business growth (assets and sales). Practical contribution was that effectuation can be incorporated for the training of township small business owners as an option for starting and/or growing their businesses when resources are limited. Support and funding by government and financial institutions can incorporate effectuation by not requiring a business plan that predicts the future but rather assessing if the township small business owner has skills to control the future. Policy and practice contribution recommend that government and financial institutions that support small businesses should incorporate effectuation for funding and training purposes. Limitations of the study were discussed and recommendations made on how these limitations could have been addressed.

In conclusion, the theoretical contribution of the study was that non-expert township small business owners who practised effectuation (all 4 constructs combined), experimentation and flexibility resulted in their businesses' growth (assets and sales). Finally, retail, services and manufacturing industries are not moderating variables in these relationships.

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APPENDIX A:

QUESTIONNAIRE

Respondent #: _____

1.   For how many years have you been a small business owner?   _____

2.   How many business ventures have you owned and run to date?   _____

	Please rate using: 1 = Strongly disagree, 2 = Disagree, 3 = Neither agree nor disagree, 4 = Agree and 5 = Strongly agree				
Experimentation					
3. We experimented with different products and / or business models	1	2	3	4	5
4. The product/service we now provide is essentially the same as originally conceptualised	1	2	3	4	5
5. The product/service that we now provide is substantially different than we first imagined	1	2	3	4	5
6. We tried a number of different approaches until we found a business model that worked	1	2	3	4	5
Affordable loss					
7 We were careful not to commit more resources than we could afford to lose	1	2	3	4	5

	Please rate using: 1 = Strongly disagree, 2 = Disagree, 3 = Neither agree nor disagree, 4 = Agree and 5 = Strongly agree				
8 We were careful not to commit more money than we were willing to lose with our initial idea	1	2	3	4	5
9 We were careful not to risk so much money that the company would be in real trouble financially if things didn't work out	1	2	3	4	5
Flexibility					
10 We allowed the business to evolve as opportunities emerged	1	2	3	4	5
11 We adapted what we were doing to the resources we had	1	2	3	4	5
12 We were flexible and took advantage of opportunities as they arose	1	2	3	4	5
13 We avoided courses of action that restricted our flexibility and adaptability	1	2	3	4	5
Pre-commitments					
14 We used a substantial number of agreements with customers, suppliers and other organizations and people to reduce the amount of uncertainty	1	2	3	4	5

	Please rate using: 1 = Strongly disagree, 2 = Disagree, 3 = Neither agree nor disagree, 4 = Agree and 5 = Strongly agree				
15 We used pre-commitments from customers as often as possible	1	2	3	4	5
16. We used pre-commitments from suppliers as often as possible	1	2	3	4	5

Business Growth Indicators	**Please rate with 1 = Strongly disagree, 2 = Disagree, 3 = Neither agree nor disagree, 4 = Agree & 5 = Strongly agree**				
17. There are now more assets in the business since we started	1	2	3	4	5
18. There has been growth in sales since we started	1	2	3	4	5

19. How many workers were employed by the business including the owner when it started?	

20. How many workers were employed by the business including the owner at 3.5 years old?	
21. How many workers are employed by the business currently, including the owner?	

Demographics

22. Small business owner's Age: _____

23. Gender:

Male	1	Female	2
Other	3		

24. Highest Qualification:

No Matric	1	Matric	2	Certificate	3
Diploma	4	Degree	5	Honours	6
Masters	7	PhD	8	If other, please state	9

25. Business Industry:

Retail	1	Service	2	Manufacturing	3

26. Business Age in months: _____

Source: Adapted from Chandler *et al.* (2011:382), Adams *et al.* (2014:4) and Yeboah (2015:5-6).