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The role of entrepreneurial bricolage and design thinking in opportunity development: A
design-centred entrepreneurship perspective

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An article submitted to the Gordon Institute of Business Science, University of Pretoria,
in partial fulfilment of the requirements for the degree of Master of Business
Administration.

7 November 2018

DECLARATION

I declare that this research project is my own work. It is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration at the Gordon Institute of Business Science, University of Pretoria. It has not been submitted before for any degree or examination in any other University. I further declare that I have obtained the necessary authorisation and consent to carry out this research.



Lindie Schuld

7 November 2018

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MOTIVATION OF JOURNAL CHOICE

Entrepreneurship in efficiency-driven economies, such as South Africa, is considered to be fundamental to economic growth, however, the quality of the entrepreneurial activities and the establishment of opportunities, have been noted as a matter of concern (Van Vuuren & Alemayehu, 2018). The authors argued that entrepreneurial growth is slow-moving within these economies, as prospective entrepreneurs are curtailed by deficient resources, however, deliberated that innovational practices may aid to creatively employ these scarce resources to enable opportunity fulfilment.

The Southern African Journal of Entrepreneurship and Small Business Management (SAJESBM), was consequently identified as an appropriate choice, given the significance of entrepreneurship within this efficiency-driven economy, as well as the noted apprehension with regards to the establishment of entrepreneurial opportunities and therefore the prospect to deliver further insight with regards to this complex phenomenon. The DHET accredited journal is described as a transmission forum to evolve innovational practices, entrepreneurship and small business management within Southern Africa and is deliberated to appeal to both academics and practitioners (SAJESBM, 2018). The proposed journal article, which followed the journal's author guidelines, aimed to contribute to the current conversation of the journal and intended to offer an enhanced understanding of the facilitators to entrepreneurial opportunity development for researchers and business practitioners alike.

Additional information:

- All articles published in the journal are included in:
The DHET SA List;
GALE, CENGAGE Learning;
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1. PROBLEM DEFINITION AND PURPOSE

Technological disruption, unstable economies and demographic fluctuations led to both unique prospects and pressures, which presented businesses and society alike with challenges in coping with a shifting reality (Toma, Grigore & Marinescu, 2014). The authors described these fluxes to be fundamental in the recognition of entrepreneurship as a significant catalyst to enhance economic activity - with a greater emphasis placed on small and medium enterprises (SME's). This notion was endorsed by Bjørnskov and Foss (2016), who regarded entrepreneurship to be embedded in economic prosperity – apparent in its noteworthy contribution to resource distribution, economic progress and social transformation. Accordingly, entrepreneurs are known as key actors in creating employment opportunities and upsurge per capita income growth (Du & O'Connor, 2018). The evident prominence of the entrepreneurial phenomenon thus gave way to its regard as a valuable study field within the research and development domain (Simón-Moya, Revuelto-Taboada & Guerrero, 2014), with a focus placed on entrepreneurial antecedents, entrepreneurial opportunity advance and its ability to generate economy-wide significances (Bjørnskov & Foss, 2016).

Fisher (2012, p.1020), summarised the “emerging theoretical perspectives” of entrepreneurship, into four interrelated categories within the context of entrepreneurial advance: (a) effectuation; (b) entrepreneurial bricolage; (c) the creation perspective and (d) user-entrepreneurship, however, a growing consensus has emerged within the entrepreneurial domain, that fundamental to entrepreneurial progression, is the recognition and pursuit of opportunities, with the creation of knowledge, creativity (Lans, Blok & Wesselink, 2014) and entrepreneurial bricolage (Van Vuuren & Alemayehu, 2018), placed at its core. It is nonetheless documented, that many prospective entrepreneurs have limited knowledge with regards to market, industry and technological domains – areas which are considered fundamental in the transformation from the idea concept to a feasible and desirable offering, with the potential to yield viable monetary outcomes (Goldsby M. G., Kuratko, Marvel & Nelson, 2017).

In addition to the pronounced absence of entrepreneurial know-how, current innovation practices are described as deficient within the contemporary business environment, where business yields are increasingly dedicated to services or digital offerings (Kolko, 2015). Innovation practices, according to Saldanha, Mithas and Krishnan (2017), has

shifted from a single innovator to a collaborative model - dedicated to external resources, including customers and other business stakeholders.

The design-driven approach is regarded as a response to the digital era, characterised by modern technology and business (Kolko, 2015), with the incorporation of a continuing process of idea generation, deduction, testing and induction (Johansson-Sköldberg, Woodilla & Çetinkaya, 2013). The design methodology is said to incorporate a collaborative effort among various stakeholders and firm competencies, where ideas are proposed, discovered and validated as a reply to perceived consumer difficulties (Bjögvinsson, Ehn & Hilgren, 2012). Design approaches are further regarded as a means to construct informative and innovative solutions to prospective entrepreneurs, seeking to create novel offerings resultant in plausible opportunities and the establishment of new venture creation (Carlgren, Rauth & Elmquist, 2016).

The notion of design thinking is progressively deliberated as a strategic resource within the managerial discourse, with its problem-solving proficiencies and human-centred approach grounded on the methodologies of professionally trained designers (Carlgren *et al.*, 2016); however, this notion is often without theoretical grounding (Johansson-Sköldberg *et al.*, 2013). Liedtka (2015) congregated a distinctive validation on the problem-solving purpose of design thinking but referred to the absence of data with regards to its role in material innovative outcomes and consequent entrepreneurial opportunity development. The notion of applying design thinking as a facilitating construct with regards to innovation as well as entrepreneurial opportunity development is thus considered as an emergent field of study and often lacks a clear theoretical foundation (Carlgren *et al.*, 2016).

Entrepreneurial bricolage on the other hand, is considered to aid innovation practices and was defined by Chen and Fan (2015, p. 2369), as “making do by applying combinations of the resources at hand to new problems and opportunities, in the relations of creative self-efficacy and innovation speed”, whereas Witell, Gebauer, Jaakkola, Hammedi, Patricio and Perks (2017, p. 292), explained that “Bricolage refers to solving problems and taking advantage of opportunities by combining existing resources.” In essence, the notion of bricolage is considered to place emphasis on the actions of entrepreneurs, which is said to generate behavioural frameworks of these individuals. As a result, it is reasoned that the practical understandings of entrepreneurs

and the implications thereof, enables inferences towards enhanced opportunity development (Welter, Mauer & Wuebker, 2016). It was, however, noted that even though scholars have initiated research pertaining to the potential association between bricolage and the entrepreneurial process; a direct stimulus between entrepreneurial bricolage and opportunity development is yet to emerge (Rönkkö, Peltonen & Arenius, 2013; Vanevenhoven, Winkel, Malewicki, Dougan & Bronson, 2011). The authors underscored the potential effect of entrepreneurial bricolage and resultant venturing and described this discernment to be a process of adaptive design.

In summary, both design thinking and entrepreneurial bricolage have emerged as potential facilitators to entrepreneurial opportunity development and enactment - evident in the conceptual models put forward by Vanevenhoven *et al.* (2011) and Goldsby *et al.* (2017), relating to entrepreneurial bricolage and design-centred entrepreneurship respectively. The models, however, merely offered a theoretical account of these constructs and failed to amalgamate the concepts into a comprehensive framework towards opportunity development.

Even though Vanevenhoven *et al.* (2011) eluded to the bricolage concept as a process of adaptive design, the authors omitted the incorporation of the central design thinking elements. Likewise, the conceptual model, proposed by Goldsby *et al.* (2017), assimilated the principles of design thinking, which exemplified an integral part of the model's process phases, yet excluded the notion of entrepreneurial bricolage as a possible value-add to the realm of the suggested model. The ensuing proposal thus followed to explore the potential amalgamation of these constructs into one comprehensive framework in an aim to better understand the ambiguous and intricate entrepreneurial process towards opportunity development (Vanevenhoven *et al.*, 2011).

Additionally, seeing that these constructs and their associations towards entrepreneurial opportunity development are considered to be relatively nascent disciplines within the entrepreneurial domain, it became evident that these concepts had to be investigated in greater detail. The purpose of this research was thus (a) to further explore design thinking and entrepreneurial bricolage as facilitating constructs towards entrepreneurial opportunity development, with the employment of the design-centred entrepreneurship perspective offered by Goldsby *et al.* (2017) and within the contextual frame proposed by Vanevenhoven *et al.* (2011); (b) to investigate the effectiveness of the theoretical

frameworks offered by the authors; and (c) to explore the potential of amalgamating these frameworks into a more comprehensive and practical structure towards entrepreneurial opportunity development and fulfilment.

The contemporary business environment, characterised by rapid decision-making, fluctuating markets and multiple resource constraints, necessitated an examination of entrepreneurial opportunity development - with a specific focus on entrepreneurial bricolage and design thinking and its potential to facilitate new venture creation, novel offerings and business opportunities; to enable organisational competitiveness and as a consequence, commercial sustainability. This study subsequently contributed to both academia and practice, as it integrated scientific conversation from the recent design-centred entrepreneurship contribution by Goldsby *et al.* (2017), with the entrepreneurial bricolage perspective suggested by Vanevenhoven *et al.* (2011) into a single, more comprehensive framework to enable an enriched understanding of the illusive entrepreneurial opportunity development process for researchers and practitioners alike.

2. LITERATURE REVIEW

2.1 ENTREPRENEURSHIP

2.1.1 Introduction

The entrepreneur, as stated by Kirzner (1980) and cited by Bjørnskov and Foss (2016, p. 292), “is the prime mover of progress” – where progress refers to new venture creation, business rejuvenation, industry vitality, as well as the development of competitive advantages, technological improvement and economic growth. Due to the noticeable importance of such progress, the authors argued that a comprehension of entrepreneurial antecedents are fundamental, as individual firm outcomes aggregate to wide-ranging economic significances. Carland, Carland and Stewart (1996) echoed the prominence of the entrepreneurial phenomenon by means of its significant contribution to resource distribution, economic progress and social transformation and, thus, accentuated its worth from a business perspective as well as within the research and development domain (Simón-Moya *et al.*, 2014).

2.1.2 Entrepreneurship defined

Scholarly interpretations of entrepreneurship have developed into three overarching classifications – behavioural designations, mentioned in studies by Schumpeter (1911) and Kirzner (1973); occupational classifications as observed in studies by Evans and Jovanovic (1989); as well as synthesis definitions proposed by Gries and Naudé (2011) (Toma *et al.*, 2014). Both behavioural and occupational designations are considered to assume a narrow perspective with regards to the entrepreneurial phenomenon, focusing on either entrepreneurial conduct (Stuetzer *et al.*, 2017), or new venture creation as an occupational preference (Klein, 2008); whereas the synthesis view represents an incorporated approach to the entrepreneurial concept.

Similarly, the synthesis approach was assumed by Fayolle, Landstrom, Gartner and Berglund (2016); the authors described it as an intricate and multi-dimensional occurrence which necessitates a more comprehensive analysis of entrepreneurship as a process, resource and state-of-being (Toma *et al.* 2014). In retrospect, the more generally accepted definition within the business literature, as proposed by Shane and

Venkataraman (2000, p. 218), was deemed to be the most appropriate - “Consequently, the field involves the study of sources of opportunities; the processes of discovery, evaluation and exploitation of opportunities; and the set of individuals who discover, evaluate and exploit them”.

According to Lans *et al.* (2014), an increasing consensus has emerged, where the identification and pursuit of business opportunities have become distinguishing characteristics of entrepreneurship. As a result, a distinction may be drawn between the discovery of opportunities by the observant entrepreneur or the conception thereof as a creative and concerted effort of entrepreneurial actions. Alternatively, a co-existence may be assumed amongst opportunity discovery and creation, where both discovery and creation are considered to enrich one another in the pursuit of novel entrepreneurial opportunity development (Oyson & Whittaker, 2015).

Within the view of opportunity development, Toma *et al.* (2014, p. 438), proposed that entrepreneurship involve a process of innovative activities, “a creative human process”, in response to identified opportunities, where others perceive only disorder and ambiguity. The entrepreneur is regarded as the “initiating force” – the one who identifies and pursues the opportunity, the one who assumes the burden of risk (Carland *et al.*, 1996, p. 1). Albeit entrepreneurial valour with regards to risk-taking was identified as one of the primary characteristics of entrepreneurship, both creativity and innovation have since moved to the forefront and evolved as fundamental entrepreneurial qualities – regarded as integral to the entrepreneurial role. These proficiencies have been described as a primary driving force to differentiate organisational offerings from those of competitors and to remain relevant in an ever-changing business landscape (Nieman & Niewenhuizen, 2014).

2.1.3 Entrepreneurial antecedents

In essence, entrepreneurs have the ability to creatively employ limited resources to develop novel ideas into workable concepts, which yield heterogeneous outcomes (Carland *et al.*, 1996). The competitive advantage gained aids in the identification and development of opportunities where competitors failed to do so (Bucktowar, Kocak & Padachi, 2015). Creativity and innovation are thus regarded to be essential undertakings within the entrepreneurial process (Linke, 2017) and are considered to contribute

towards venture establishment, development, profitability and thus organisational sustainability, in the context of a dynamic environment (Park, Srivastava & Gnyawali, 2014).

Innovation per se is regarded as a critical antecedent to entrepreneurial development, with the association founded on the original work of Schumpeter in 1934, which gave emphasis to the notion of new combinations or innovations - creating a disequilibrium in the market and thus resulting in economic advancement (Malecki & Spigel, 2017). Innovation, according to Damanpour (1992), is regarded as an item or element that is original to the espousing firm, whereas Schumpeter (1942, p. 82), considered innovation as a practice of “creative destruction” - with innovational practices suggested to be inseparable to entrepreneurship and as such, regarded innovation and entrepreneurship to be “two sides of the same coin” (Ošeniēks & Babauska, 2014, p. 83).

The notion of creativity or invention and innovation may, in some instances, be regarded as interchangeable (Perry-Smith & Manucci, 2017), however, Fagerberg (2006, p. 4), proposed a clear distinction between these constructs, namely that “Invention is the first occurrence of an idea for a new product or process, while innovation is the first attempt to carry it out into practice” (Galindo & Méndez, 2014). The invention, as proposed by the authors, may transpire ubiquitously, however, innovation occurs where proficiencies, knowledge and resources are united. Nonetheless, in Schumpeterian terms, the entrepreneur should fulfil both the roles of inventor and innovator.

In contrast to the distinction made between creativity and innovation, Perry-Smith and Mannucci (2017) stated that these constructs are closely correlated and, in some instances, interchangeable – with collaboration networks amalgamating the two bodies. The activation of various network features among diverse stakeholders, aids in the transformation from the idea-concept to implementation and offers organisations enhanced opportunities by means of resource integration and co-creation (Frow, Nenonen, Payne & Storbacka, 2015). In accordance hereto, Nambisan, Lyytinen, Majchrzak and Song (2017), proposed that within the current digital era, existing theories of innovation practices need to be examined; more specifically, the foundational assumptions regarding innovational boundaries, the agency for innovation and the association between innovation processes and related effects.

The aforementioned constructs and associated theories included key assumptions such as (a) innovation is focused on fixed products; (b) innovation-agency is centralised and (c) the practices and outcomes of innovation are noticeably diverse. The authors suggested that within the digital world, established offerings continue to evolve with regards to their scope, features and worth. The innovational process is considered as a recurrent system of ideas which are generated rapidly, implemented, revised and re-enacted by means of testing and application; with innovation processes and outcomes interdependent on one another.

The writers continued to elucidate that the agency for innovation is distributed, rather than concentrated within the control of a primary innovator, as multiple stakeholders engage in the innovation process. This shift was acknowledged by Saldanha *et al.* (2017), noting that the focus has turned to a model dedicated to external resources, including customers and organisational partners.

2.1.4 Entrepreneurial context

Innovation, though critical to the entrepreneurial process, is regarded as deficient in the establishment of entrepreneurial opportunity development, as rapidly changing environments and growing technological intricacies are said to hinder organisations' and entrepreneurs' ability to innovate and consequently leverage opportunities on a continuous basis (Park *et al.*, 2014). As such, environmental factors, are considered to play a pivotal role with regards to the shaping of business opportunities and the subsequent success or failure of new business ventures (Simón-Moya *et al.*, 2014). According to Angulo-Guerrero, Pérez-Moreno and Abad-Guerrero (2017), the avant-garde findings of North and Baumol (1990), provided critical insights with regards to the association between environmental factors, noted as both informal and formal institutions, and that of entrepreneurial opportunity development.

Informal institutions, according to the authors, refer to an individual's ideas, views, attitudes and beliefs with regards to entrepreneurial activity, whereas formal institutions are considered as political, legal and economic rules and directions. Consequently, these institutions are viewed as structures said to guide entrepreneurial activities and approaches, with these contextual elements deliberated to either support or constrain entrepreneurial opportunity development.

Despite the upsurge in global entrepreneurial activity, a clear distinction can be drawn between factor, efficiency and innovation-driven economies, founded on the mentioned contextual variances (Herrington & Kew, 2018). According to the authors, opportunity-driven entrepreneurs are at the forefront of this movement, with a favourable entrepreneurial ecosystem facilitating stable or increased entrepreneurial activity. It was, however, established that innovation-driven economies exhibited the most efficient and robust ecosystems, compared to that of both factor and efficiency-driven economies, with the latter found to encompass several disparaging conditions deliberated to hinder entrepreneurial advance.

North-America, for instance, presented with the most supportive entrepreneurial ecosystem, which stood in stark contrast to the ecosystems of regions such as the Caribbean, Latin America and Africa. These regions exhibited withering conditions in support of entrepreneurial activity and development, with efficiency-driven economies, including Egypt, Morocco and South Africa, constrained by a lacking entrepreneurial education system and restrictive regulations and policies. In addition, entrepreneurial progression in factor-driven economies, such as Madagascar, are further challenged by several barriers to internal market entry (Herrington & Kew, 2018).

On the other hand, Simón-Moya *et al.* (2014), noted an upsurge in entrepreneurial activity in countries with greater income inequality, however, recognised that this movement is predominantly signified by necessity entrepreneurship, rather than an opportunity stimulus. Opportunity entrepreneurs are regarded as individuals who freely pursue an opportunity - motivated by factors such as increased earnings or independence, whereas, entrepreneurship by necessity, involves individuals who perceive the starting of a new venture as obligatory, due to inadequate employment opportunities or organisational downscaling (Angulo-Guerrero *et al.*, 2017). An important distinction is drawn between these motivational factors, seeing that it provides useful comprehensions with regards to the quality of early-stage entrepreneurial activity, irrespective of the particular economic environment in which it transpires (Herrington & Kew, 2018). Opportunity entrepreneurial activity, as noted by the authors, usually correlates with innovative endeavours, where new products, services or markets are shaped, whereas necessity entrepreneurship generally includes imitative undertakings associated with waning venture success and a diminishing contribution to economic prosperity.

2.1.5 Entrepreneurial opportunity

The notion of opportunity is recognised in diverse study fields, including economics, strategy and entrepreneurship (Alvarez & Barney, 2014), however, within the entrepreneurial domain, the term opportunity, according to Davidsson (2015), is considered an abstract concept. The author argued that more than one construct is required to capture the full potential of this particular notion. In this sense, opportunity entails external enablers, including regulatory amendments, technological shifts and demographical fluctuations.

These disruptions or fluctuations are considered to create unique prospects for the entrepreneur (Toma *et al.*, 2014), yet, cannot guarantee a successful economic return (Davidsson, 2015). Secondly, new venture ideas are considered, encompassing imagined and novel offerings - congruent with the Schumpeterian innovation perspective (Lans *et al.*, 2014); with opportunity confidence deliberated as the final construct of this notion. According to Davidsson (2015), opportunity confidence refers to a party's idiosyncratic assessment of the opportunity's appeal or lack thereof. This notion may thus be associated with the Kirznerian standpoint, which accentuates entrepreneurial contemplation with regards to opportunity evaluation (Lans *et al.*, 2014).

Irrespective of the viewpoint assumed, the definition of opportunity is founded in conditions of imperfect competition, giving way to the creation of economic wealth, by utilising scarce resources in a competitive manner (Alvarez & Barney, 2014). Accordingly, opportunities are regarded as the essence of the entrepreneurial phenomenon (Lans *et al.*, 2014), where entrepreneurs exploit opportunities, whether created by means of external enablers, new venture ideas or entrepreneurial confidence. Opportunities may thus be regarded from both a discovery point of view as well as an objective approach. The discovery viewpoint cogitates that opportunities are extant, awaiting detection by prospective entrepreneurs, whereas an objective or constructivist approach argues that entrepreneurs rather create and establish opportunities by way of innovative practices (Ramoglou & Zyglidopoulos, 2014).

2.1.6 Entrepreneurial bricolage

According to Shane and Venkataraman (2000), entrepreneurial research has progressively focused on the emerging domain of entrepreneurial opportunity advance,

with an increased awareness of opportunity identification and the consequent exploitation thereof. It was, however, noted by Welter *et al.* (2016) that these discernments lacked a concrete clarification of exactly how opportunities are established. More recently, behavioural frameworks of opportunity development arose, including the notion of effectuation and bricolage, with a specific emphasis on the actions of entrepreneurs in practice and the implications thereof on opportunity formation (Welter *et al.*, 2016).

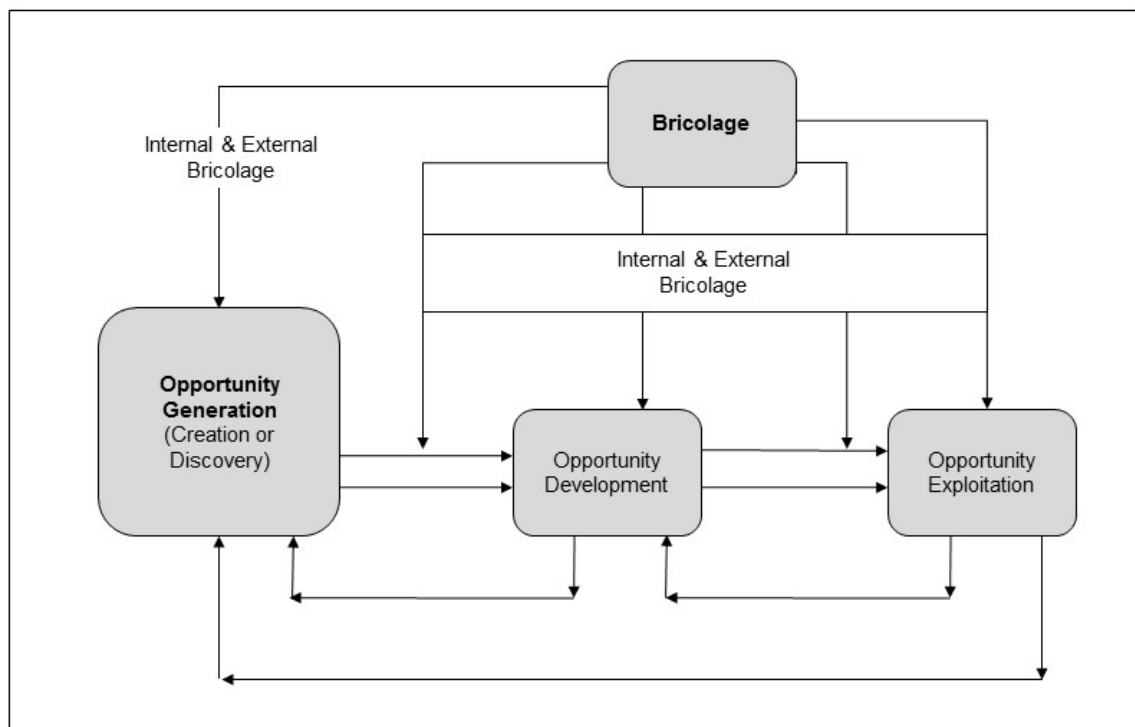
Witell *et al.* (2017, p. 292) suggested that the concept of bricolage may be divided into four entrepreneurial competencies, namely (a) a dynamic approach to resource scarcity; (b) creative techniques with regards to the grouping of resources; (c) the utilisation of available resources; and (d) the ability to collaborate with external stakeholders. Accordingly, the authors suggested that the notion of bricolage, refers to “solving problems and taking advantage of opportunities by combining existing resources”, whereas Chen and Fan (2015, p. 2369), defined it as: “making do by applying combinations of the resources at hand to new problems and opportunities”, as mentioned before.

According to Vanevenhoven *et al.* (2011), bricolage proficiencies are entrenched within the entrepreneurial process of opportunity-establishment, advance and exploitation and is considered as a catalyst to create distinguished value with the use of available resources (Welter *et al.*, 2016). Bricolage proficiencies and activities are thus recommended as a critical process within the establishment of opportunities, by reassigning resources in an innovative manner, to construct novel offerings (Chen & Fan, 2015). It was further suggested that bricolage initiatives may aid in the creation of a collaborative environment, both with regards to internal management activities, as well as to the development of external partner relations - which is said to enhance creative efficiencies and thus contribute to value-added activities (De Klerk, 2015).

As such, it was proposed that bricolage may be viewed as both internal and external activities (Vanevenhoven *et al.*, 2011). According to the authors, the internal perspective refers to distinctive entrepreneurial characteristics, such as understandings, personal experiences and knowledge, whereas external bricolage denotes the activities undertaken within the external environment - including the attainment of resources and the advancement of collaborative networks with external partners. The conceptual

model, proposed by Vanevenhoven *et al.* (2011), depicts the effect of bricolage on the entrepreneurial process (Figure 1). The model incorporates a synthesised approach towards opportunity development, where either opportunity detection or formation, lead to opportunity expansion and consequently opportunity exploitation. Opportunities, as signified in this model, are iterative in nature and may be altered or regenerated at any point in time. Both internal and external bricolage within the conceptual model is regarded to enhance the efforts of the entrepreneur enclosed in a particular phase and produce enriched entrepreneurial efforts when transitioning from one phase to another.

Figure 1: Conceptual model for the effect of bricolage on the entrepreneurial process



(Adapted from Vanevenhoven, *et al.*, 2011, p. 61)

2.2 DESIGN

2.2.1 Introduction

A linkage between design practices and the business environment was first established in the mid-1980's (Johansson-Sköldberg *et al.*, 2013). An incessantly changing business landscape, characterised by increased competition and the expected requirement to deliver unique business offerings, gave emphasis to innovative practices as an imperative to firm survival (Carlgren *et al.*, 2016). The notion of design, according to the authors, embraces ambiguity and complexity and is thus regarded as a suitable enrichment for innovative activities in the pursuit of new venture discovery, creation and sustainability.

2.2.2 Design theory

The theoretical viewpoints of design and 'designerly thinking', according to Johansson-Sköldberg *et al.* (2013), may be classified into five discourses. At the outset, the authors noted the perspective of Simon (1969), who considered design and 'designerly thinking' as the creation of artefacts, incorporating all conscious activities within the creative process. The act of design, according to Simon (1969), is to be undertaken by various professions with an aim to discover superior alternatives in response to either distinct or vague difficulties. Kimbell (2009, p. 2) elaborated on the explanation of the design concept by quoting Simon (1969), who proclaimed that "Everyone designs who devises courses of action aimed at changing existing situations into preferred ones" and further noted the continual iteration required between the current state of affairs and the desired outcomes, in order to find viable resolutions. It was later found that Simon's description of a "desired state" (p. 5), was difficult to determine in advance and as environmental complexity grew, research was developed later in the 1960's - often referred to as the "Design Methods Movement" (p. 5); in which scholars sought to apprehend the practices and techniques used by efficacious designers, divergent to the solitary emphasis on the creation of novel artefacts (Kimbell, 2009).

Secondly, the authors noted the viewpoint of Schön (1983), that design should rather be considered as a reflexive practice. A more practical perspective was thus introduced with a focus on the relationship between the creation and the "reflection-upon-the-creation"

(Johansson-Sköldberg *et al.*, 2013, p. 124) - allowing for a holistic design-view, based on the objective framework proposed by Simon (1969).

Buchanan (1992), on the other hand, acknowledged design and 'designerly thinking' as a problem-solving activity. The author viewed design as a "liberal art" (p. 5), appropriate in a technological age and applicable to both objects or systems. Accordingly, design techniques were said to offer a unique perspective to the discovery of solutions pertaining to so-called "wicked problems" (p. 14). Given this perspective, design is regarded as a non-sequential process, in which the problem-framing and solution are considered concurrently - encompassing multiple viewpoints of those participating in the process (Kimbell, 2009).

The final two constructs deliberated by Johansson-Sköldberg *et al.* (2013), include design as a reasoning mechanism, as well as a design approach to create meaning (Kimbell, 2009). According to Johansson-Sköldberg *et al.* (2013), the reasoning perspectives included writings by Lawson and Cross (2006), who have drawn on creative processes of designers and the practices of individuals during this process, to translate research knowledge into practical undertakings.

In conclusion, the final construct noted by Johansson-Sköldberg *et al.* (2013) was proposed by Krippendorff (2006), who regarded the creation of meaning as central to the design process, rather than the artefact as proposed by the writings of Simon (1969). The notion of design has thus evolved from the science of the artificial (Simon, 1969), to reflective, meaningful and co-creating activities to unravel wicked problems in a technological age – recognised today as the notion of design thinking.

2.2.3 Design thinking

The design thinking approach is considered as a response to the digital era, characterised by modern technology and business - curtailing complexity and enhancing innovation (Kolko, 2015). The notion of design thinking is progressively deliberated as a strategic resource within the managerial discourse, with its problem-solving proficiencies and human-centred approach grounded on the methodologies of professionally trained designers (Carlgren *et al.*, 2016). It is suggested that design thinking may aid in dealing with a multifaceted reality and act as an enabler to innovative strategic management, by

way of a continuing process of idea generation, deduction, testing and induction; however, this notion is often without theoretical grounding other than the aforementioned cycle-approach (Johansson-Sköldberg, *et al.*, 2013).

Prud'homme van Reine (2017, p. 57), specified two designations of design thinking in an attempt to simplify the intricate concept, of which the first was posited by Luchs (2016), where the notion was designated as “a systematic and collaborative approach for identifying and creatively solving problems”. The second definition, noted by the author, was that of Tim Brown, a specialist in the field of design thinking (Brown, 2018). Brown, contended that design thinking should be defined as “a human-centred approach to innovation that draws from the designer’s toolkit to integrate the needs of people, the possibilities of technology and the requirements for business success”.

According to Liedtka (2015, p. 926), a more detailed definition of the concept includes “a human-centred innovation process that emphasises observation, collaboration, fast learning, visualisation of ideas, rapid concept prototyping and concurrent business analysis”. It is evident that even though commonalities of design elements may be found in the variety of definitions proposed (Prud'homme van Reine, 2017), a uniformed definition for the concept of design thinking is yet to emerge (Liedtka, 2015). Literature revealed that discrepancies are not only found in the definition of the design thinking concept, but also in the description of the iterative design process followed. Johansson-Sköldberg *et al.* (2013), for instance, considered the process to be one of idea generation, deduction, testing and induction; whereas Seidel and Fixson (2013), focused on three key approaches, including need-finding, brainstorming and prototyping.

The exploration of a more practical approach to the notion of design thinking revealed extensive descriptions of the design thinking practice by prominent consultants, such as IDEO and Continuum, as well as leading educators, including the Darden Business School, the Rotman Business School and the Stanford Design School (Liedtka, 2015). According to the author, even though a disparity may be found in the terminology used by these practitioners and scholars, a shared view is established with regards to the design thinking process, as illustrated in Table 1.

Table 1: Models of design thinking processes in practice

Stage	IDEO	Continuum	Stanford Design School	Rotman Business School	Darden Business School
Stage 1: Data gathering about user needs	Discovery and interpretation	Discover deep insights	Empathise and define	Empathy	What is?
Stage 2: Idea generation	Ideation	Create	Ideation	Ideation	What if?
Stage 3: Testing	Experimentation and evolution	Make it real: prototype, test and deploy	Prototype and test	Prototyping and experimentation	What wows? What works?

(Liedtka, 2015, p. 928)

The practical accounts of the design thinking process may thus be summarised as an iterative practice of discovering user requirements. The process encompasses a deep understanding of the customer, the formation of numerous concepts to address the consumer needs and finally the experimentation and prototyping of the ideas generated (Seidel & Fixson, 2013), in order to find a solution that is feasible, desirable and viable (Goldsby *et al.*, 2017).

Roger Martin, Dean of the University of Toronto's Rotman School of Management, noted that business folk had been trained to employ analytical thinking, to rely on the 'proven' and to analyse past experiences to yield reliability. These established practices are considered by Martin as the 'enemy' of innovation. For that reason, business logic and strategic approaches should not be focused on 'what is' but rather on 'what might be' (Martin, 2010).

The design thinking process, according to Martin (2010), combines the best of analytical thinking with intuitive thinking, resulting in a hybrid model that is said to produce both creativity and business sustainability. It is further noted that contemporary customers have become more discerning and consider business as a facilitator to resolve vague and intricate difficulties. IDEO, a global design company, prides itself as such a facilitator, with progressive transformation and enhanced consumer solutions offered by means of design initiatives. The organisation believes that innovation starts with people, that

difficult problems are best resolved collaboratively and that creative organisations are more agile and best suited to respond to customer needs and wants (Brown, 2018).

Tom Kelly, a best-selling author of innovation titles, as well as a partner to the notorious design and innovation consultancy IDEO, is regarded as one of the most prominent figures in the field of design thinking (Kelly, 2018). Kelly described the design thinking approach as a mindset applicable to any challenge and considered practical examples of companies or institutions that have utilised the design approach, as confirmation of the value to be found in its application (Skillicorn, 2017). Industry leaders such as IBM, GE, Apple, Google and Samsung adopted design thinking as a core competence to simplify and refine product offerings.

Apple's products, for instance, start with design, incorporate consumer needs and wants and are considered to exceed the confines of prevailing technology (Thomke & Feinberg, 2016), whereas IBM builds on the fundamental philosophies of design thinking in the creation of value to the end-user (Powell, 2014). The approach has not only been embraced by prominent brands, but is also taught at leading tertiary institutions, such as Stanford, Harvard and the Massachusetts Institute of Technology (MIT) (Interaction Design Foundation, 2018).

The abovementioned companies and institutions, however, represent only a few instances of organisations who have successfully implemented and embraced the design thinking approach to innovation; yet as many organisations transform their offerings from products to services, or physical to digital offerings, the focus is progressively shifted to that of a user-experience approach, such as the design thinking methodology (Kolko, 2015). The design thinking approach, according to Goldsby *et al.* (2017), is not only valuable as an innovative approach to product or service enhancement but also regarded as an effective means to uncover or establish new venture opportunities. As such, the authors proposed the integration of design initiatives into the entrepreneurial process, with the concept termed, design-centred entrepreneurship.

2.3 DESIGN-CENTRED ENTREPRENEURSHIP

2.3.1 Introduction

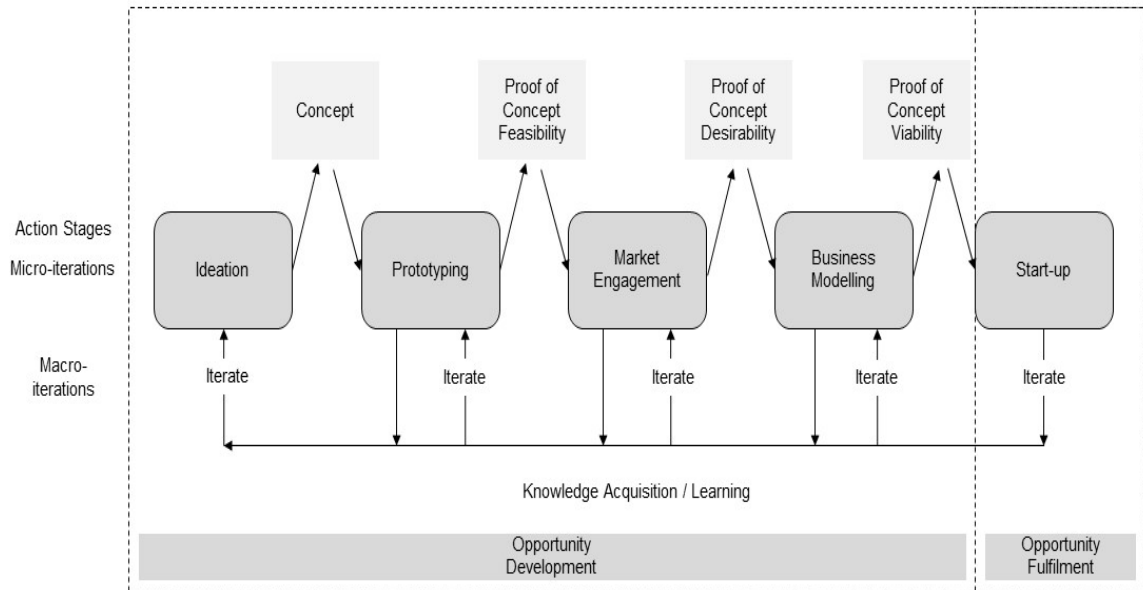
Literature revealed that entrepreneurship is regarded as a significant catalyst to economic activity (Toma *et al.*, 2014), prevalent in its ability to enhance living standards and consequently overall economic vitality (Carland *et al.*, 1996). However, a deficiency was noted with regards to an integrated structure to unite entrepreneurial antecedents, entrepreneurial activity and the consequences thereof (Bjørnskov & Foss, 2016). Pivotal to entrepreneurial activity is the notion of innovative practices, with innovation considered fundamental to entrepreneurial opportunity recognition, development and enactment (Zoo, de Vries & Lee, 2017).

Innovation, however, is often described in broad terms, rather than the application of a concentrated focus on the process of innovative practices (Galindo & Méndez, 2014), moreover, a present escalating demand exists for resourceful, innovative mechanisms, to yield distinctive resolutions for business, industry and societal advance (Ošenieks & Babauska, 2014). Design-driven innovation, in this sense, seeks to determine how design initiatives may increase innovation, leading to novel offerings and thus bridging the divide between entrepreneurial ideation, prospects and successful venture outcomes (Carlgren *et al.*, 2016).

2.3.2 Design-centred entrepreneurship defined

Goldsby *et al.* (2017) has put forward an approach to enable entrepreneurial opportunity development, termed, design-centred entrepreneurship. The authors proposed a conceptual model which applies design thinking principles to opportunity development in a way that maximises organisational viability, while simultaneously controlling for business risk (Figure 2). The authors additionally suggested that ideation, prototyping, market engagement and business modelling aid in the development of venture opportunities and fulfilment. According to the authors, the design process underscores the notion of proof of concept elements, which was formerly lacking within the entrepreneurial literature and include an emphasis on successive and incremental indicators related to the feasibility, desirability and viability of business offerings.

Figure 2: A conceptual model for design-centred entrepreneurship



(Adapted from Goldsby, *et al.*, 2017, p. 481)

2.3.3 Constructs of the design-centred entrepreneurship model

2.3.3.1 Opportunity development

Opportunity identification, as well as the pursuit thereof, has been described as a fundamental characteristic of entrepreneurship, with an implied focus on the development of novel products, services, processes or new markets (Lans *et al.*, 2014). As noted by Davidsson (2015), a combination of several constructs act as enablers to opportunity development and consequently opportunity fulfilment. These catalysts are described as external enablers, entrepreneurial confidence and new venture ideas. The emphasis, however, is placed on that of new venture ideas, in other words, creating opportunities where entrepreneurial ideas are converted into form (Goldsby *et al.*, 2017). The creation of opportunities is described as being both focused and evolving and is resultant of an entrepreneurial process which transpires with a series of interactive modifications, while concurrently attempting to alter the business environment (Alvarez & Barney, 2014). The process, according to the authors, necessitates the formulation of innovative knowledge and a collaborative effort with potential suppliers, customers and other stakeholders - endeavouring for the successful adoption of the business offerings.

In addition to the collaborative approach, an emphasis is placed on the iterative nature of the process, where so-called micro-iterations entail the in-process actions to improve developments within each phase, whereas macro-iterations encompass the practice of reconsidering preceding phases in an effort to enable further development. Design-driven innovation, within the context of entrepreneurial opportunity development, is thus advocated as an iterative and collaborative instrument, to enable the attainment of knowledge and, consequently, to act as a facilitator to yield innovative outcomes, where ideas manifest into concrete results (Goldsby *et al.*, 2017).

2.3.3.2 Ideation

Goldsby *et al.* (2017), noted that the starting point for the development of an opportunity is the formulation of a concept by means of an ideation process. Ideation in this sense refers to the development of novel and advantageous ideas, which aim to address either distinct or wicked problems (Perry-Smith & Manucci, 2017). In view of that, Dorst (2006) referred to these wicked or ill-structured problems, as those that are difficult to comprehend, however, indicated that these difficulties have the potential to produce greater innovation and are likely to yield superior economic benefits. During this stage, deep insights are gathered from a customer perspective, in order to explore plausible alternatives to perceived consumer difficulties and thus supports the creation of organisational offerings, which customers are likely to require, select and embrace (Goldsby *et al.*, 2017).

According to the authors, the use of specialists is regarded as an additional source of information to provide valuable insights with regards to the customer, pertinent difficulties experienced and existing or possible solutions to the particular problems noted. During the ideation phase, several techniques are proposed by Liedtka (2015), which may include observing or interviewing potential customers, journey mapping, brainstorming and a jobs-to-be-done analysis.

2.3.3.3 Prototyping

Following the formulation of ideas is a tangible representation thereof to provide clarity of the envisioned intent of the offering (Goldsby *et al.*, 2017). The use of prototyping

methods, according to Liedtka (2015), aids in the transformation from abstract ideas to tangible conceptions and may include approaches such as experience journeys, business concept illustrations and 'storyboarding'. Customer feedback, as well as insights from experts, is obtained with an aim to determine the feasibility of the offering from both a market and technical perspective (Goldsby *et al.*, 2017).

2.3.3.4 Market engagement

Imperative at this stage is the establishment of the proof of concept, applicable to the particular idea in relation to its customer appeal and desirability. Within this stage, both the potential market and business offering is iteratively created within the setting of a co-creating environment (Goldsby *et al.*, 2017).

A co-creating environment is one where customers are empowered to partake in detecting and resolving product, service or organisational difficulties, by means of an experience-setting; where consumers are given the opportunity to participate in lively dialogue and share personalised experiences pertaining to the relevant business offerings (Prahalad & Ramaswamy, 2004). The firm is thus enabled to view business offerings from a customer perspective, by means of constructive consumer dialogue and gain insights into the risk-benefit considerations deliberated by the customer.

The positive association of a co-creating environment or, in design thinking terms, collaborative innovation, is acknowledged by Greer and Lei (2012) to be essential in the development of novel products and services. However, the authors noted several difficulties associated with the incorporation of these collective efforts. These impediments are said to include increased development cost, possible interference in the development process, should patrons decide to terminate their partnership with the particular firm, as well as a potential deficiency of consumers' experience, knowledge and foresight - limiting the value of insights provided to the organisation (Greer & Lei, 2012).

2.3.3.5 Business modelling

The final stage of the design-centred entrepreneurship process is the compilation of a business model, which aims to clarify how the prospective business should operate (Goldsby *et al.*, 2017). The nascent entrepreneur is thus required to illuminate how resources, such as competencies, knowledge, skills and other assets (Galindo & Méndez, 2014) obtained during the ideation, prototyping and market engagement phases, would be combined to formulate the venture's value proposition and in turn, elucidate how profits will be generated (Goldsby *et al.*, 2017). It follows thus that the proof of concept status within this phase is that of economic feasibility.

The business model provides an explanation of how organisations 'do business' and encompass a system-level and holistic approach (Zott, Amit & Massa, 2011). According to the authors, the model's purpose is to expound how value is created and captured and may include components such as business activities and partners, resources necessary, cost structures, customer segments and relations, value propositions, sales channels and revenue streams (Joyce & Paquin, 2016).

2.3.3.6 Opportunity fulfilment

The fulfilment or exploitation of opportunities is defined as the attainment and recombination of appropriate resources to enable effectual and comprehensive business operations, founded on the creation of novel products, services, processes or new markets (Jarvis, 2016). Opportunity fulfilment may thus be described as the exploitation of the created opportunity, as well as the enactment of the proposed business model, where offerings have been validated by a series of design principles, with the proof of concept recognised to be feasible, desirable and viable (Goldsby *et al.*, 2017). The conceptual model proposed by the authors intended to afford a practical design approach to enable the development and enactment of entrepreneurial opportunities, imperative to both micro and macro-economic advancement, however, the utility of the perceived market value of design-centred entrepreneurship is yet to be validated.

3. RESEARCH QUESTIONS

The purpose of this study was to explore the role of entrepreneurial bricolage and design thinking as facilitators to entrepreneurial opportunity development and fulfilment. The research questions were founded on the reviewed literature, with a specific focus on the conceptual framework relating to entrepreneurial bricolage offered by Vanevenhoven *et al.* (2011), as well as the design-centred entrepreneurship model proposed by Goldsby *et al.* (2017).

Research Question 1: What role does entrepreneurial bricolage fulfil in the entrepreneurial opportunity development process?

Research Question 1 aims to understand the role of entrepreneurial bricolage within the entrepreneurial development process, by utilising the contextual frame proposed by Vanevenhoven *et al.* (2011). Moreover, this research question intends to establish new insights with regards to factors that have not been considered in the theoretical model proposed.

Research Question 2: What role does design thinking fulfil in the entrepreneurial opportunity development process?

Research Question 2 aims to understand the role of design thinking within the entrepreneurial development process, by applying the lens of design-centred entrepreneurship proposed by Goldsby *et al.* (2017). Furthermore, this research question intends to establish novel insights with regards to elements that have not been considered in the conceptual model offered.

Research Question 3: Is there an integrative potential to combine the proposed entrepreneurial bricolage process, with the conceptual design-centred entrepreneurship model?

Research Question 3 aims to explore the possibility of amalgamating the theoretical frameworks offered by Vanevenhoven *et al.* (2011) and Goldsby *et al.* (2017).

4. RESEARCH METHODOLOGY

4.1 INTRODUCTION

This section comprises the nominated research methodology utilised for this study. The literature review informed the elected methodology and denoted the interview guideline employed for the semi-structured interviews conducted. A deductive, qualitative and exploratory design was applied. The research design and process, as well as the data sampling methods and analysis, underpinned the selected research approach.

4.2 RESEARCH METHODOLOGY AND DESIGN

4.2.1 Rationale for the chosen method

Seidel and Fixson (2013), referred to exploratory studies as an enlightened mechanism, which aim to unveil novel insights about a topic which is not clearly understood. The design enables insight and seeks to provide tentative responses to preliminary questions, followed by a comprehensive inquiry and thus resulting in the attainment of more dependable outcomes (Saunders & Lewis, 2012).

The conceptual models put forward by Vanevenhoven *et al.* (2011) and Goldsby *et al.* (2017), relating to entrepreneurial bricolage and design-centred entrepreneurship were noted to be inconclusive and thus required supplementary exploration and explanation. Additionally, these models merely offered a theoretical account of the mentioned constructs and failed to amalgamate these concepts into a comprehensive framework towards opportunity development. The empirical understanding of entrepreneurial bricolage and design thinking was thus limited with regards to the facilitating effect it offers towards opportunity advance, especially when studied as an integrated approach and, as such, an exploratory design was considered to be appropriate (Carlgren, *et al.*, 2016).

Furthermore, these frameworks necessitated empirical validation and compelled fresh insights with regards to their utility for entrepreneurial opportunity advance. It was thus determined that the prior research conducted would benefit from further description and therefore a directed or deductive approach was assumed to validate and conceptually

extend the theoretical frameworks offered (Hsieh & Shannon, 2005). The ensuing proposal thus followed to explore the potential amalgamation of these constructs into one comprehensive framework, in an aim to better understand the ambiguous and intricate entrepreneurial process towards opportunity development (Vanevenhoven *et al.*, 2011).

The study entailed reflective perceptions, opinions and approaches, collected through sampled communications of entrepreneurs within the entrepreneurial process and thus due to its non-numeric nature, informed a qualitative approach within the research-method continuum (Mc Manus, Mulhall, Ragab & Arisha, 2017). The mono-methodological, qualitative approach was utilised with the objective to gain a more comprehensive understanding of the practical implications involved in entrepreneurial opportunity development (Kaivo-oja, 2014). As such, the research involved an in-depth understanding of entrepreneurs in their natural setting, which permitted a more inclusive enquiry of the bricolage and design constructs and their facilitation towards the entrepreneurial process.

The entrepreneurial process is described as a multifarious social construct, which necessitates diverse viewpoints and methods with regards to its research approach. In this sense, an interpretivist approach was validated to yield appropriate data in a meaningful manner, with regards to the assessment of respondents' opinions and reflections (Leitch, Hill & Harrison, 2010). The approach allowed the researcher to comprehend the differences among individual entrepreneurs as social protagonists, as well as accentuate the significance of individual characteristics in a social setting (Chowdhury, 2014; Saunders & Lewis, 2012). Subsequently, the researcher did not only consider the effectiveness and contributory constituent of entrepreneurial bricolage and design thinking with regards to entrepreneurial opportunity detection, development and formation, but also investigated the particular means in which it is revealed, as well as the context in which it is transpired (Chowdhury, 2014).

Fundamental to this particular research was the notion of ethnomethodology, which accentuated the employment of practical reasoning among entrepreneurs, rather than formal logic. Entrepreneurs are said to espouse divergent roles, reasoning structures and values in varying situations and thus a focus was placed on the "inner experience"

of entrepreneurs in deviating social realities relating to the entrepreneurial process (Kaivo-oja, 2014, p. 5).

Data was collected from multiple entrepreneurs during a particularly short period of time and thus implied a cross-sectional design (Saunders & Lewis, 2012). The cross-sectional study incorporated entrepreneurs within varying stages of the entrepreneurial process and ranging segments of the population. Semi-structured interviews, conducted on a one-to-one basis, were applied where a list of themes and questions were employed to explore the stated research questions (Saunders & Lewis, 2012). The research questions were informed by the prevailing literature pertaining to entrepreneurial bricolage and design thinking. More specifically, the conceptual frameworks advocated by Vanevenhoven *et al.* (2011) and Goldsby *et al.* (2017) were engaged to envisage the variables of interest, as well as the initial coding categories necessary to construct a more focused research inquiry (Hsieh & Shannon, 2005).

Given the investigative design suggested within this study, semi-structured interviews were appropriate, as they allowed for the exploration of the preliminary variables identified and presented the opportunity to acquire novel insights and in-depth information where matters were not clearly understood (Carlgren *et al.*, 2016). Park and Park (2016) corroborated the suitability of the proposed instrument, as the questions incorporated were open-ended, allowed for probing and the structure lent itself to adjust the order of the questions, depending on the particular circumstances or discussion undertaken.

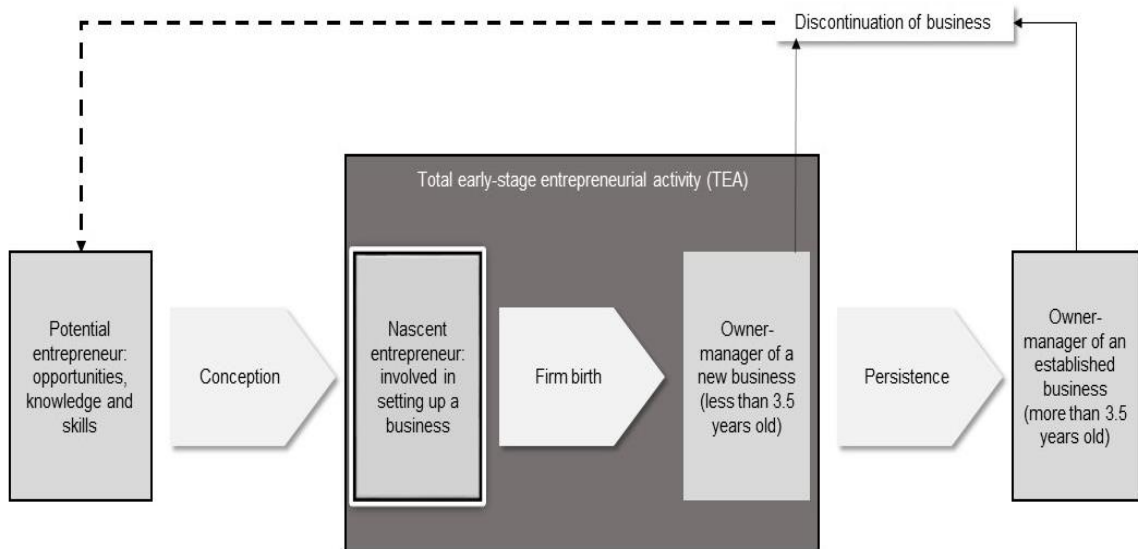
4.3 POPULATION

The population was identified as entrepreneurs operating within the small and medium enterprise sector of South Africa. The South African context was deliberated to be particularly relevant, as entrepreneurship in efficiency-driven economies, such as South Africa, is considered to be fundamental to economic growth - yet the quality of entrepreneurial activities and the establishment of opportunities have been noted as a matter of concern (Van Vuuren & Alemayehu, 2018).

Entrepreneurs included those engaged in growing an early-stage organisation with venture operations limited to three and a half years (Herrington & Kew, 2018), as well as

established businesses surpassing the early-stage phase, yet were limited to approximately ten years of existence. A graphical representation of the mentioned entrepreneurial stages is presented in Figure 3.

Figure 3: The entrepreneurial stages



(Adapted from Herrington & Kew 2018, p. 22)

4.4 SAMPLING METHOD AND SIZE

Non-probability sampling was engaged due to the inaccessibility of a comprehensive population list. Accordingly, the likelihood of selecting a particular partaker was not known (Saunders & Lewis, 2012). A purposive sampling technique, also referred to as judgmental sampling, was employed, which comprised a deliberate selection of appropriate participants. The participants were thus nominated in line with their specific virtues, knowledge and experiences and therefore considered to be conversant with the particular subject matter, which in turn allowed for relevant and meaningful data collection (Etikan, Musa & Alkassim, 2016).

The collected sample was small in size due to the qualitative nature of the study and comprised of 14 individual entrepreneurs - details of the participants are included in Table 2. Within qualitative research, the sample size is circumstantial and even though an estimate of the number of semi-structured interviews was premeditated, the

conclusive determinant, in this case, was that of data saturation (Etikan *et al.*, 2016). Consequently, data saturation was determined where further data gathering delivered limited or no additional insights or themes in terms of the stated research questions and objectives (Boddy, 2016). In this study, data saturation was attained after the 13th interview, followed by one additional interview; thereafter the data collection process was concluded.

The selected participants were either the founders or co-founders of small and medium entrepreneurial ventures within various industry sectors in South Africa. Due to the use of judgmental sampling, the industries and demographical attributes incorporated into this study were not equally represented. The participants were rather selected based on their competency and knowledge about the phenomenon of interest, with the ability to contribute to the relevant study field. The number of participants and years of business operations have been categorised per industry segment and are exhibited in Table 3 below. Additionally, Table 4 was used to summarise the demographical data of the relatable participants.

Table 2: Details of participants

No	Age Group (Years)	Gender	Race	Qualifications	Position	Year(s) in Position	Industry
1	34 - 37	Male	Caucasian	Post-graduate	Founder	1	Retail
2	30 - 33	Female	Caucasian	Post-graduate	Founder	3	Information Technology
3	30 - 33	Male	African	Undergraduate	Founder	5	Consulting
4	30 - 33	Female	Caucasian	Grade 12	Founder	4	Information Technology
5	30 - 33	Male	Caucasian	Post-graduate	Co-founder	5	Information Technology
6	30 - 33	Male	Caucasian	Undergraduate	Co-founder	2	Information Technology
7	> 37	Female	Caucasian	Post-graduate	Founder	6	Retail
8	> 37	Male	Caucasian	Post-graduate	Co-founder	8	Consulting
9	30 - 33	Male	Caucasian	Undergraduate	Co-founder	5	Retail and Wholesale
10	30 - 33	Female	Caucasian	Undergraduate	Founder	3	Consulting
11	30 - 33	Male	Caucasian	Undergraduate	Founder	10	Retail and Wholesale
12	30 - 33	Male	African	Post-graduate	Co-founder	1	Education
13	30 - 33	Female	Caucasian	Undergraduate	Founder	3	Consulting
14	34 - 37	Male	Caucasian	Post-graduate	Co-founder	2	Retail and Wholesale

Table 3: Industry type and years of trade

Industry	1 – 3 Years	4 – 6 Years	7 – 10 Years	Total
Consulting	2	1	1	4
Education	1	0	0	1
Information Technology	2	2	0	4
Retail	1	1	0	2
Retail and Wholesale	1	1	1	3
Grand Total	7	5	2	14

Table 4: Demographical data of participants

Age Group	Female		Male		Total
	African	Caucasian	African	Caucasian	
30 – 33 Years	0	4	2	4	10
34 – 37 Years	0	0	0	2	2
38 Years and Older	0	1	0	1	2
Grand Total	0	5	2	7	14

4.5 UNITS OF ANALYSIS

Reflective insights, sentiments and approaches sampled from entrepreneurs formed the units of analysis for this study. These relate specifically to the stated research questions and ultimately the research objectives identified. The individual perceptions, philosophies and discernments allowed for a more comprehensive understanding of entrepreneurial bricolage and design-centred entrepreneurship, as well as the integrative potential of these constructs and, consequently, their perceived effectiveness with regards to opportunity development and enactment.

4.6 DATA GATHERING PROCESS

To facilitate a more profound understanding of the value of entrepreneurial bricolage and design initiatives and their contribution towards entrepreneurial opportunity

development, 14 semi-structured, open-ended, in-depth, face-to-face interviews were conducted (Saunders & Lewis, 2012). The open-ended questions posed were followed by targeted questions relating to the initial coding categories derived from the literature reviewed and as such supported the qualitative deductive approach followed (Hsieh & Shannon, 2005).

Before the commencement of the interviews, two pilot interviews were executed. These interviews were utilised to evaluate the researcher's interview procedure and to ensure that the questions posed were thoroughly understood by the participants and congruent to the particular research questions and stated objectives (Saunders & Lewis, 2012). The piloted discussions were found to be satisfactory and were consequently included as part of the final research sample.

The sampled members were requested to partake in the interviews with the use of electronic correspondence. This communication mechanism thus aided as an official introduction between the researcher and the selected participants and included details pertaining to the specific purpose of the research and how the researcher intended to utilise the collected data. In addition, contributors were informed of the voluntary nature of participation and were assured that the gathered information would be reported without the use of individual identifiers.

Participants furthermore had the opportunity to review the research consent form, which had to be completed and signed before the commencement of the interviews. An example of the invitation to participate in the study and the consent form utilised is included in Appendix 1 and 2 respectively. Preparation is deliberated to be essential for effective interviews and thus, aspects such as the researcher's level of knowledge, information supplied to the respondent, the interviewer's appearance, opening comments, the approach taken to questioning and the researcher's behaviour throughout the interview, was carefully considered (Saunders & Lewis, 2012).

Sufficient time was allowed to gain access to and approval from the relevant participants. Appointments were scheduled at a time and location convenient to the selected individuals and consequently, meetings took place at either the interviewees' workplace, home or at an alternative venue dependent on the participant's preference (Saunders & Lewis, 2012). An interview guide, contained in Appendix 3, was compiled to enable a

more focused discussion and included initial questions and predetermined themes, or topics acquired from pertinent literature, with a specific focus on the theoretical models proposed by Vanevenhoven *et al.* (2011) and Goldsby *et al.* (2017). It should be noted that the predetermined themes and questions aided merely as a guideline and questions may have been altered or rearranged contingent on the specific interview held.

Interviews started with a formal introduction and were followed by a brief description of the title and purpose of the relevant study. Subsequently, the interviewee was requested to discuss eight interview questions, consisting of both open-ended and probing inquiries, after which each participant had the opportunity to provide additional thoughts or comments. The participants were encouraged to share their views freely and to respond to the questions based on personal knowledge, perceptions and experiences. The interviews conducted were purposeful and the sampled communications recent; to facilitate adequate data collection, a more profound understanding of the particular subject matter, and to permit acceptable answers to the stated research questions and objectives. The time taken to complete each interview varied, and ranged from 20 minutes to 1 hour and 15 minutes, with the average interview lasting around 50 minutes. The interviews were recorded with the permission of each participant, using a voice-recording device with detailed notes taken during each interview. The interview recordings were subsequently transcribed and were utilised in conjunction with the notes taken to analyse the data.

In conclusion, a consistency matrix (presented in Table 5), was employed to ensure the logical coherency of the reviewed literature, the research questions, the applied research method and the actual interview questions. These questions were purposively designed to allow for both novel insights relating to the subject matter and to validate and potentially further develop the conceptual models offered by Vanevenhoven *et al.* (2011) and Goldsby *et al.* (2017).

Table 5: Consistency matrix

Research Questions	Literature Review	Data Collection Tool	Analysis
Research Question 1: What role does entrepreneurial bricolage fulfil in the entrepreneurial opportunity development process?	Chen & Fan (2015); De Klerk (2015); Vanevenhoven <i>et al.</i> (2011); Welter <i>et al.</i> (2016); Witell <i>et al.</i> (2017)	Interview question 4, 5, 6, 7, 8	Thematic analysis
Research Question 2: What role does design thinking fulfil in the entrepreneurial opportunity development process?	Carlgren <i>et al.</i> (2016); Johansson-Sköldberg <i>et al.</i> (2013); Liedtka (2015); Prud'homme van Reine (2017);	Interview question 1, 2, 3, 8	Thematic analysis
Research Question 3: Is there an integrative potential to combine the proposed entrepreneurial bricolage process, with the conceptual design-centred entrepreneurship model?	Fisher (2012); Goldsby <i>et al.</i> (2017); Vanevenhoven <i>et al.</i> (2011)	Interview questions 1 - 8	Thematic analysis

4.7 ANALYSIS APPROACH

The detailed notes taken during each interview, accompanied by the audio recordings, were transcribed and were subjected to a process of data scrutiny, which enabled the pursuance of preliminary insights obtained and the recognition of data saturation. In addition, data were analysed with the use of specialist qualitative data analysis software on the basis of both open and axial coding.

The directed approach followed, informed the particular variables of interest for the study and consequently the initial coding categories utilised. The preliminary code categories were applied to the individual transcriptions, with new codes and categories created for text which could not be categorised by the initial coding schemes (Hsieh & Shannon, 2005). Subsequently, the newly created coding categories were scrutinised to determine whether these should be noted separately or incorporated with the initial constructs identified, after which the combined coding categories were collated into preliminary research themes (Braun & Clarke, 2006). Both descriptive data and frequency codes were utilised to refine the preliminary themes and to confirm the relevant findings, with

these paralleled to previous research outcomes (Braun & Clarke, 2006; Elo & Kyngäs, 2008).

The inquiry was therefore iterative, where developing themes were equated to preceding research and data obtained, which in turn permitted the researcher to be flexible with regards to emergent information and related themes (Carlgren *et al.*, 2016). The thematic analysis performed was employed as a means to identify, examine and report patterns or themes which emerged from the data collected and represented significant ideas, thoughts and constructs with regards to the research questions identified; thus supporting the narrative for the research conducted (Braun & Clarke, 2006; Saunders & Lewis, 2012).

4.8 MEASUREMENT INSTRUMENT

The use of semi-structured interviews may present challenges with regards to data reliability, forms of bias, as well as validity relating to the data collected (Saunders & Lewis, 2012). The open-ended questions utilised were flexible in nature and could potentially convey inconsistent results, should the study be repeated. This challenge pertaining to the reliability of this measurement instrument was mitigated in the sense that an informed or directed approach was included in the interview process and thus, brought about a more homogenous approach.

That being said, the employment of the theoretical models proposed by Vanevenhoven *et al.* (2011) and Goldsby *et al.* (2017), which informed the directed approach, could lead to confirmation bias (Hsieh & Shannon, 2005). However, this, in turn, was moderated with the inclusion of open-ended questions. Additionally, it should be noted that probing questions may potentially guide the answers provided by participants to some extent (Hsieh & Shannon, 2005). As a result, the researcher was mindful of this impending bias and thus made a concerted effort to preserve unrestricted feedback from participants.

Validity, on the other hand, refers to the degree to which the collection technique accurately measures what it is proposed to measure and whether the conclusions made, correlate with the appropriate research questions (Saunders & Lewis, 2012); was augmented with the use of a consistency matrix, as presented in Table 5. In order to further mitigate the challenges mentioned, the researcher ensured that the groundwork,

as well as the management and recording of results, were scrutinised within every research phase and accordingly endorsed that respondent requests were made clear, responses were investigated and topics were discussed from multiple viewpoints (Elo *et al.*, 2014). Finally, to enhance the value and rigour of the research findings, the appropriate limitations of the study are included in this report, with specific mention of the realistic expectations, should this study be replicated.

4.9 LIMITATIONS

Qualitative research is regarded to be subjective in nature and thus has several shortcomings as discussed earlier (Saunders & Lewis, 2012). Additional limitations have been identified as follows:

- As the population was defined as entrepreneurs within South Africa, the potential applicability to different environments or countries may be limited.
- Due to the use of judgmental sampling, the industries and demographic attributes incorporated into this study, were not equally represented.

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APPENDICES

Appendix 1: Invitation to participate

Dear Mr/Ms...,

With reference to our telephone conversation earlier, I would like to confirm your willingness to take part in the research I am conducting at the Gordon Institute of Business Science, a faculty of the University of Pretoria. As a final year Master of Business Administration (MBA) student, I am in the process to complete a compulsory research component as part of my degree course. The research I am conducting is titled: The role of entrepreneurial bricolage and design thinking in opportunity development: A design-centred entrepreneurship perspective.

This research aims to determine whether entrepreneurial bricolage and design thinking may be considered as facilitators to entrepreneurial opportunity development, with a specific focus on the following research questions:

1. What role does entrepreneurial bricolage fulfil in the entrepreneurial opportunity development process?
2. What role does design thinking fulfil in the entrepreneurial opportunity development process?
3. Is there an integrative potential to combine the proposed entrepreneurial bricolage process, with the conceptual design-centred entrepreneurship model?

You have been selected to participate in this research study, as I believe that you have the required expertise and experience to provide vital insights into this particular research domain. The semi-structured interview will be explorative in nature and is intended to last approximately one hour. Kindly note that your participation is voluntary and you may withdraw at any time without penalty. Also note, that all data will be reported without the use of identifiers and as such the interview will be treated as confidential. Attached hereto, is a copy of the consent form which will need to be signed before the interview commences. Please confirm your willingness to take part and kindly indicate your availability to be interviewed during July and August 2018. Thank you for your willingness to assist.

Kind Regards,
Lindie Schuld
Mobile: 079 912 5991
E-mail: lindie.schuld@gmail.com

Appendix 2: Participant consent form

The role of entrepreneurial bricolage and design thinking in opportunity development: A design-centred entrepreneurship perspective

Researcher: Lindie Schuld, Master of Business Administration (MBA) student at the Gordon Institute of Business Science, University of Pretoria

I am conducting research with regards to entrepreneurial bricolage and design thinking and their roles as facilitating constructs towards entrepreneurial opportunity development. The interview is expected to last one hour and will assist to gain insights into the facilitating roles of these constructs towards opportunity development.

Your participation is voluntary and you may withdraw at any time without penalty. Also note, that the audio recording is voluntary and you may choose not to have the interview recorded. All data will be reported without the use of identifiers and as such the interview will be treated as confidential. Should you have any concerns, please contact my supervisor or myself. Our details are provided below.

Lindie Schuld
lindie.schuld@gmail.com
079 912 5991

Prof Alex Antonites
alex.antonites1@up.ac.za
012 420 3119

Name of participant

Signature of participant

Date

Name of researcher

Signature of researcher

Date

Appendix 3: Draft discussion guide and interview questions

Organisation:

Start Time:

Date:

End Time:

Thank you for taking the time to meet with me today, your contribution to this research is much appreciated. This research aims to determine whether entrepreneurial bricolage and design thinking may be considered as facilitators to entrepreneurial opportunity development.

Information obtained in this interview will be treated as confidential and as such, I would like to encourage you to share your views freely. Before we commence with the interview, I would like to request to make use of a recording device. May I also request that a consent form is signed?

Demographical information:

- i. Please indicate your age group and gender.
- ii. What are your current qualifications?
- iii. What position or role do you fulfil in the organisation?
- iv. Please describe your start-up phase.
 - **Prompt 1:** When did your business start (registration date)?
 - **Prompt 2:** When did you activate your first paying client?
 - **Prompt 3:** Elaborate on any constraints faced in starting your business.
- v. Kindly explain your start-up structure.
 - **Prompt 1:** Are you the sole founder or part of an entrepreneurial team (please explain the structure of such a team)?
 - **Prompt 2:** Do you have employees (if yes, how many)?
 - **Prompt 3:** What was your start-up costs?
- vi. Please clarify the nature of your business and the relevant industry.

Question 1: Ideation and market engagement

1.1 Kindly define your business offering.

- **Prompt 1:** Do you consider your business offering to be novel and distinctive compared to products or services delivered by competitors?

1.2 How did you formulate your idea or concept?

- **Prompt 1:** Was the idea formulated due to perceived consumer difficulties?
- **Prompt 2:** How did/do you uncover consumer wants and needs? (Proof of concept – desirability).
- **Prompt 3:** Have you considered to collaborate with customers or business partners? Why or why not?

Question 2: Prototyping

2.1 Please explain the aspects considered in determining the feasibility of your business offering.

- **Prompt 1:** How do you transform abstract ideas into feasible business offerings?
- **Prompt 2:** How do you determine market feasibility?
- **Prompt 3:** How do you determine technical feasibility? (Proof of concept – feasibility).
- **Prompt 4:** Kindly explain if any forms of prototyping were used and if so please describe the nature of prototypes utilised.

2.2 How did you experience the resource acquisition process?

- **Prompt 1:** Which resources were required to aid in the transformation process and were these easily attainable?

Question 3: Business modelling

3.1 Elaborate on your organisation's value proposition.

- **Prompt 1:** How did you determine your venture's value proposition?
- **Prompt 2:** How is value created and captured? (Proof of concept – viability).

3.2 Did/do you expect profitability in the short, medium and long-term?

- **Prompt 1:** How did you determine potential profits for the organisation?

3.3 Which elements were considered in determining how the organisation will 'do business'?

- **Prompt 1:** Did you consider elements such as business activities and partners, resources necessary, cost structures, customer segments and relations, value propositions, sales channels and revenue streams? Why or why not?
- **Prompt 2:** Which of these elements do you consider to be most important? Why do you consider these to be significant?

Question 4: Bricolage in general

4.1 Discuss your opportunity finding process.

- **Prompt 1:** How did you discover your current or prospective business opportunity?

4.2 How did you convert the opportunity into an established venture?

- **Prompt 1:** Did creativity play a role? How?
- **Prompt 2:** Was it difficult to obtain the required resources? Explain which resources and why?
- **Prompt 3:** Did other stakeholders aid in the transformation process? Who were they and how did they contribute towards the establishment of the business?

Question 5: Internal bricolage

5.1 Discuss the role your personal characteristics played in starting the venture.

- **Prompt 1:** Do you consider personal characteristics to be advantageous with regards to the innovative use of scarce resources? Which characteristics do you regard as beneficial? In which way did these assist? (Entrepreneurial characteristics, in this sense, refer to understandings, personal experiences and knowledge).
- **Prompt 2:** Do you regard this as a continues process? If so, in which sense?

Question 6: External bricolage

6.1 Describe the effect of the external environment at the start-up phase.

- **Prompt 1:** Do you consider the external environment to be advantageous with regards to the innovative use of scarce resources? Which external elements do you regard as beneficial? In which way did these assist? (The external environment, in this regard, includes the attainment of resources and the advancement of collaborative networks with external partners).

- **Prompt 2:** Do you regard this as an ongoing process? If so, in which sense?

Question 7:

How would you change your start-up process if capital was not a constraint?

Question 8:

What was the most evident learning that took place during the opportunity finding phase of your business?

Appendix 4: Author guidelines of the journal

Source: SAJESBM (2018)

Overview

The author guidelines include information about the types of articles received for publication and preparing a manuscript for submission. Other relevant information about the journal's policies and the reviewing process can be found under the 'About' section. The compulsory cover letter forms part of the submission and is on the first page of the manuscript. It should always be presented in English. See the full structure of the cover letter below. After the cover letter, the manuscript body starts.

Original research articles

An original article provides an overview of innovative research in a particular field within or related to the focus and scope of the journal, presented according to a clear and well-structured format.

Word limit	7 000 – 10 000 words (excluding the structured abstract and references)
Structured abstract	250 words to cover a Background, Aim, Setting, Methods, Results and Conclusion
References	60 or less
Tables/Figures	no more than 7 Tables/Figures
Ethical statement	should be included in the manuscript, if applicable
Compulsory supplementary file	ethical clearance letter/certificate, if applicable

Cover letter

The format of the compulsory cover letter forms part of your submission. It is located on the first page of your manuscript and should always be presented in English. You should provide the following elements:

- Full title: Specific, descriptive, concise and comprehensible to readers outside the field, max 95 characters (including spaces).
- Tweet for the journal Twitter profile: This will be used on the journal Twitter profile to promote your published article. Max 101 characters (including spaces). If you have a Twitter profile, please provide us with your Twitter @ name. We will tag you to the Tweet.
- Full author details: The title(s), full name(s), position(s), affiliation(s) and contact details (postal address, email, telephone, highest academic degree, Open Researcher and Contributor Identification (ORCID) and cell phone number) of each author.
- Corresponding author: Identify to whom all correspondence should be addressed.
- Authors' contributions: Briefly summarise the nature of the contribution made by each of the authors listed.
- Disclaimer: A statement that the views expressed in the submitted article are his or her own and not an official position of the institution or funder.
- Source(s) of support: These include grants and equipment and/or other support that facilitated the conduct of the work described in the article or the writing of the article itself.
- Summary: Lastly, a list containing the number of words, pages, tables, figures and/or other supplementary material should accompany the submission.

Anyone that has made a significant contribution to the research and the paper must be listed as an author in your cover letter. Contributions that fall short of meeting the criteria as stipulated in our policy should rather be mentioned in the 'Acknowledgements' section of the manuscript. Read our authorship guidelines and author contribution statement policies.

Original research article full structure

Title: The article's full title should contain a maximum of 95 characters (including spaces).

Abstract: The abstract, written in English, should be no longer than 250 words and must be written in the past tense. The abstract should give a succinct account of the objectives, methods, results and significance of the matter. The structured abstract for an Original Research article should consist of six paragraphs labelled Background, Aim, Setting, Methods, Results and Conclusion.

- **Background:** Summarise the social value (importance, relevance) and scientific value (knowledge gap) that your study addresses.
- **Aim:** What is the aim of the study. Be careful not to use too much jargon.
- **Setting:** State the setting for the study (e.g. is it a generalised approach or for a specific situation).
- **Methods:** Clearly express the basic design of the study and name or briefly describe the methods used without going into excessive detail.
- **Results:** State the main findings. Identify trends, relative changes or differences in answers to questions.
- **Conclusion:** State your conclusion and any key implications or recommendations.

Do not cite references and do not use abbreviations excessively in the abstract.

Introduction: The introduction must contain your argument for the social and scientific value of the study, as well as the aim and objectives:

- **Social value:** The first part of the introduction should make a clear and logical argument for the importance or relevance of the study. Your argument should be supported by the use of evidence from the literature.
- **Scientific value:** The second part of the introduction should make a clear and logical argument for the originality of the study. This should include a summary of what is already known about the research question or a specific topic and should clarify the knowledge gap that this study will address. Your argument should be supported by the use of evidence from the literature.

- **Conceptual framework:** In some research articles it will also be important to describe the underlying theoretical basis for the research and how these theories are linked together in a conceptual framework. The theoretical evidence used to construct the conceptual framework should be referenced from the literature.
- **Aim and objectives:** The introduction should conclude with a clear summary of the aim and objectives of this study.

Research methods and design: This must address the following:

- **Study design:** An outline of the type of study design.
- **Setting:** A description of the setting for the study; for example, the type of community from which the participants came or the nature of the health system and services in which the study is conducted.
- **Study population and sampling strategy:** Describe the study population and any inclusion or exclusion criteria. Describe the intended sample size and your sample size calculation or justification. Describe the sampling strategy used. Describe in practical terms how this was implemented.
- **Intervention (if appropriate):** If there were intervention and comparison groups, describe the intervention in detail and what happened to the comparison groups.
- **Data collection:** Define the data collection tools that were used and their validity. Describe in practical terms how data were collected and any key issues involved, e.g. language barriers.
- **Data analysis:** Describe how data were captured, checked and cleaned. Describe the analysis process; for example, the statistical tests used or steps followed in qualitative data analysis.
- **Ethical considerations:** Approval must have been obtained for all studies from the author's institution or other relevant ethics committee and the institution's name and permit numbers should be stated here.

Results: Present the results of your study in a logical sequence that addresses the aim and objectives of your study. Use tables and figures as required to present your findings. Use quotations as required to establish your interpretation of qualitative data. All units should conform to the 'SI convention' and be abbreviated accordingly. Metric units and their international symbols are used throughout, as is the decimal point (not the decimal comma).

Discussion: The discussion section should address the following four elements:

- Key findings: Summarise the key findings without reiterating details of the results.
- Discussion of key findings: Explain how the key findings relate to previous research or existing knowledge, practice or policy.
- Strengths and limitations: Describe the strengths and limitations of your methods and what the reader should take into account when interpreting your results.
- Implications or recommendations: State the implications of your study or recommendations for future research (questions that remain unanswered), policy or practice. Make sure that the recommendations flow directly from your findings.

Conclusion: Provide a brief conclusion that summarises the results and their meaning or significance in relation to each objective of the study.

Acknowledgements: Those who contributed to the work but do not meet our authorship criteria should be listed in the 'Acknowledgments' section, with a description of the contribution. Authors are responsible for ensuring that anyone named in the 'Acknowledgments' agrees to be named.

Also provide the following, each under their own heading:

- Competing interests: This section should list specific competing interests associated with any of the authors. If authors declare that no competing interests exist, the article will include a statement to this effect: The authors declare that they have no financial or personal relationship(s) that may have inappropriately influenced them in writing this article. Read our policy on competing interests.
- Author contributions: All authors must meet the criteria for authorship as outlined in the authorship policy and author contribution statement policies.
- Funding: Provide information on funding if relevant.
- Disclaimer: A statement that the views expressed in the submitted article are his or her own and not an official position of the institution or funder.

References: Authors should provide direct references to original research sources whenever possible. References should not be used by authors, editors, or peer reviewers to promote self-interests. Refer to the journal referencing style downloadable on our 'Formatting Requirements' page.

Formatting Requirements

File format: The document uploaded during Step 2 of the submission process:

- Microsoft Word (.doc/.docx): We can accept Word 2003 DOC files and Word 2007 DOCX files. LaTeX documents (.tex) should be converted into Microsoft Word (.doc) before submission online.
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Appendix 5: An example of an article from the journal

Global sourcing risk management approaches: A study of small clothing and textile retailers in Gauteng



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Background: Global sourcing has increased as buyers searched for new markets that offered better pricing, quality, variety and delivery lead times than their local markets. However, the increase in global sourcing has also exposed businesses to many supply risks.

Purpose: The purpose of this descriptive qualitative study was to explore the global sourcing supply risks encountered by small clothing and textile retailers in Gauteng and to determine what supply risk identification and management approaches they utilise.

Method: This study utilised semi-structured interviews conducted with 12 small clothing and textile retail owners.

Results: The study found that the three major supply risks encountered by these retailers were fluctuating exchange rates, communication barriers and costly and complicated logistics, which included high customs costs. Furthermore, although aware of the supply risks, none of the small clothing and textile retailers had formal identification and management approaches in place. Instead, risks are dealt with at the sole discretion of the owner as and when they occur. The study also found that informal identification and management approaches were being applied by some of the retailers. These included factoring exchange rate fluctuations into the profit margins and using translators to combat communication barriers.

Contribution: The study is one of the first empirical studies conducted on global supply risks and the associated identification and management approaches in the South African small business context, specifically focused on clothing and textile retailers.

Conclusion: Small clothing and textile retailers need to proactively identify and manage global sourcing risk using the identified approaches in order to reduce and mitigate potential supply disruptions.

Introduction

Although global sourcing can bring many benefits to a business, it can also expose it to several supply chain risks (Deane, Craighead & Ragsdale 2009:861; Kumar, Himes & Kritzer 2014:875). Disruptions in the supply chain can negatively affect the performance of a business in the short and long term, resulting in its inability to meet customer demands (Ellis, Henry & Shockley 2010:34–35). In 2014, the outbreak of Ebola in West Africa caused major supply chain disruptions across the globe, with many countries suspending flights to and from the region. This resulted in delays in all air and sea cargo destined for Europe, Asia and the United States, mainly from Guinea (aluminium ore), Liberia (rubber), Nigeria (oil) and Sierra Leone (iron ore) (BSI 2014:2–6). Furthermore, in 2013 the 4-week strike of workers in the South African car manufacturing industry led to a supply shortage of components and a slowdown in the manufacturing of motor vehicles. This resulted in disruptions in the supply of vehicles to international markets and a daily loss of approximately R600 million for BMW, GM, Ford, Mercedes-Benz, Nissan, Toyota and Volkswagen (Williams 2013). The ripple effects of supply disruptions transcend beyond national borders, with the impact being as severe – if not more severe – for countries beyond the place where the disruptions occurred. Such supply disruptions result from the complexities associated with global sourcing (Chopra & Sodhi 2014:74).

In South Africa, many clothing and textile retailers, both small and large, engage in global sourcing. This is because of the uncompetitive nature of the South African clothing and textile manufacturers compared to those in China and other low-cost countries, such as Bangladesh, India, Pakistan and Sri Lanka (Edwards & Jenkins 2015:448; Yang 2014:3–5). As these clothing and textile retailers source products globally, the proactive identification and management of global sourcing risks are vital to ensure security of supply for business continuity (Faertes 2015:1400–1401).

Muhos, Wang and Kess (2012:958) warn that small businesses can expect to be exposed to risks when sourcing globally and that they will be affected more severely because of their limited resources and lack of experience in conducting business internationally. Thun, Dröge and Hoernig (2011:5512) and Verbano and Venturini (2013:195) highlight that minimal research has been conducted globally on understanding the type of risks encountered by small businesses that engage in global sourcing and the global supply chain. In addition, only limited local studies have been undertaken on supply chain risks and global supply chains (Mndzebele 2013:16; Sayed & Sunjka 2016:125). Furthermore, most of the literature dealing with research done in sub-Saharan Africa focuses on both small and large businesses in mining (Mndzebele 2013:1–109), manufacturing and automotive (Black 2009:483–512; Maje & Sunjka 2014:1–14; Sayed & Sunjka 2016:122–135; Sunjka & Emwanu 2013:1–12).

Although very few studies have been undertaken with a view to understanding the risks that small businesses encounter as a result of global sourcing and global supply chains, substantial research on this topic exists with a focus on large businesses, mainly in Europe (Christopher et al. 2011:67–81; Hoffmann, Schiele & Krabbendam 2013:199–211; Muhos et al. 2012:968; Thun et al. 2011:5511–5525). According to these studies, various risk identification and management approaches are used by large businesses operating in various industries to address supply risks related to global sourcing and the global supply chain. Fang et al. (2013:1380) advocate the use of a contingent supplier alongside a regular supplier to mitigate risks associated with supplier delivery reliability, or alternatively the use of two regular suppliers. However, given the low volumes purchased by small businesses, in general, formalising relationships with multiple suppliers may not be viable. This could be partly because of the lack of volume leverage that makes suppliers prioritise large businesses over smaller ones (Adams, Khoja & Kauffman 2012:20–21). Kumar et al. (2014:888) found that organisations tend to compile risk mitigation strategies based on three factors: firstly, the organisation's level of dependency on global supply; secondly, the possible impact of the potential risk; and thirdly, what the required investment is. For example, if the impact of the potential risk and the dependency on global supply are low, and the required investment of a risk mitigation strategy is high, it may be beneficial for an organisation to opt to do nothing. However, for small clothing and textile retailers, this may be a more complex decision. Because of the uncompetitive local clothing and textile manufacturing industry (Yang 2014:3–5), many of these small clothing and textile retailers are highly dependent on global supply for their products. Given this high level of dependency, the impact of disruptions in the global supply would be severe for these small clothing and textile retailers. The purpose of this descriptive qualitative study was to explore the global sourcing supply risks encountered by small clothing and textiles retailers based in Gauteng and to determine what supply risk identification and management approaches they have in place.

The following research questions guided the study:

- Why do small clothing and textile retailers in Gauteng source globally?
- What supply risks are these small clothing and textile retailers exposed to as a result of global sourcing?
- How do these small clothing and textile retailers identify possible supply risks associated with sourcing globally?
- How do these small clothing and textile retailers manage the identified supply risks?

The study contributed to both academia and practice. Firstly, it expanded on the current literature by identifying the supply risks encountered by small clothing and textile retailers in Gauteng. Secondly, the study shed light on the supply risk identification and management approaches applied by some of the small retail owners. These approaches could be beneficial for other small retail owners and managers who encounter similar supply risks, but lack knowledge on possible approaches that can be applied. Lastly, the study enhances policymakers' understanding of the supply risks encountered by small clothing and textile retailers, and thus aid them in creating solutions that enable small clothing and textile retailers to reduce or eliminate these supply risks.

Literature review

Small businesses in South Africa

So far, minimal research has been conducted on how small and medium enterprises (SMEs) assess and manage general risk (Thun et al. 2011:5512; Verbano & Venturini 2013:195). According to Falkner and Hiebl (2015:125), this is problematic given the significant contributions that SMEs make to the economies of developing countries. The *South African National Small Business Act (Act 102 of 1996)* defines a small business as:

a separate and distinct business entity, including cooperative enterprises and non-governmental organisations, managed by one owner or more which, including its branches or subsidiaries, if any, is predominantly carried on in any sector or subsector of the economy. (South African Government 1996:s. 1, ss. xv, 2)

Small businesses can be classified as medium, small, very small or micro businesses, based on their total number of full-time employees, total annual turnover and total gross asset value (South African Government 1996:15). Based on the *National Small Business Act (Act 102 of 1996)*, small clothing and textile retailers are categorised under the retail and motor trade and repair services sector. Table 1 illustrates the defining characteristics for this sector. For the purposes of this study, the term small clothing and textile retailers encompassed small, very small and micro businesses, that is, all businesses with fewer than 50 full-time employees and an annual turnover of less than R15 million (South African Government 1996:15).

According to Groepe (2015:5), small, medium and micro enterprises contribute between 52% and 57% to the South

TABLE 1: Business classification according to the *National Small Business Act* (No. 102 of 1996).

Size or class	Total number of full-time employees fewer than	Total annual turnover less than (R million)	Total gross asset value less than (R million)
Medium	100	R30	R5
Small	50	R15	R2.5
Very small	10	R5	R0.50
Micro	5	R0.15	R0.10

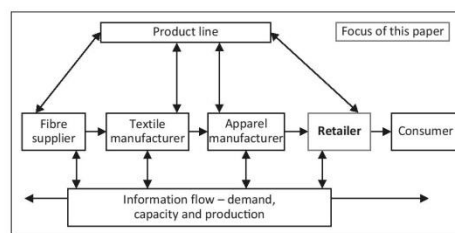
Source: South African Government, 1996, *South African National Small Business Act, No. 102 of 1996*, p. 15, viewed 06 June 2016, from https://www.thedti.gov.za/sme_development/docs/act.pdf

African gross domestic product. The failure rate and risks associated with running these businesses are high, regardless of whether they source globally or not (Timm 2013). Lavastre, Gunasekaran and Spalanzani (2012:834) found that French SMEs tend to attempt to reduce and address risks single-handedly, while large businesses use collaborative relationships with supply chain partners. The lack of using collaborative relationships in the supply chain to address risks could be because of SMEs having limited resources (i.e. time, money and personnel) to dedicate to risk management (Smit 2012:182). In addition, another contributing factor could be the lack of formalised relationships with suppliers because of low-volume purchases and bargaining power compared to large businesses (Lavastre et al. 2012:834). Because of the low barriers to entry and economies of scale, many of these small businesses operate in the clothing and textile industry (Kunene 2008:14).

Global sourcing activities of clothing and textile retailers

The clothing and textile industry is a typical example of a global supply chain and a major contributor to the global economy and international trade (Su & Gargeya 2012:23–24). Turker and Altuntas (2014:838) state that globalisation has played a significant role in enabling global sourcing in many industries, including the clothing and textile industry. This industry consists of the production, marketing, distribution and selling of clothing and textiles. Figure 1 illustrates the clothing and textile supply chain. In this study, the focus was on the retail part of the supply chain, where businesses are focused on selling to end customers.

The retail portion of the clothing and textile industry is characterised by intense competition, a wide variety of products, volatile customer preferences and uncertainty in the markets (Su & Gargeya 2012:23–24). Furthermore, it is a fast-paced environment where retailers need to be able to provide customers with items that match the latest trends in the shortest possible time (Mehrhoj & Pasek 2016:28). These short life cycles result in markdowns or write-offs of items that do not sell fast enough (Routroy & Shankar 2014:58). Given these and other pressures facing clothing and textile retailers, regardless of their size, it is imperative that any risks that may threaten their long-term viability and security of supply be actively minimised or eliminated (Peter 2016:324–325).



Source: Kunene, T., 2008, 'A critical analysis of entrepreneurial and business skills in SMEs in the textile and clothing industry in Johannesburg, South Africa', p. 14, viewed 15 May 2016, from <http://www.repository.up.ac.za/bitstream/handle/2263/24173/Complete.pdf?sequence=10>

FIGURE 1: The clothing and textile supply chain.

Berg, Berlemann and Hedrich (2013:2) and Steven, Dong and Corsi (2014:241) indicate that most clothing and textile retailers have shifted their sourcing activities to lower cost countries to enable them, among other things, to take advantage of the lower cost of labour and other resources. In addition, Jia et al. (2014:285) point out that global sourcing grants businesses, and ultimately also their customers, access to products not available in the local market.

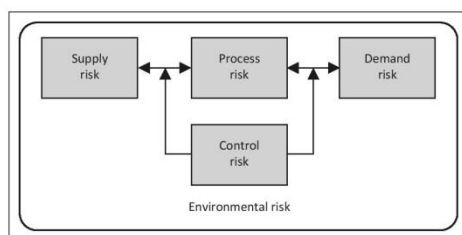
The focus of this study was on small clothing and textile retailers in Gauteng, which is recognised as the economic hub of South Africa (Badenhorst-Weiss & Waugh 2014:289). There has been a significant increase in the number of small clothing and textile retailers in the Gauteng area, and as a result of the uncompetitive nature of the local clothing and textile industry's manufacturers, most of them source merchandise from countries such as China, Dubai, Morocco and Thailand that offer lower cost, quicker turnaround times, more variety and better quality (Bruce, Daly & Towers 2004:155; Yang 2014:3–4).

Holweg, Reichhart and Hong (2011:334–335) identify three factors that prompt buyers to source globally. The first of these factors is access to cheaper labour and raw materials. The second factor is access to a wider range of resources and the third factor is the opportunity to gain a presence in new markets that are supported by larger product markets and financing prospects (Manuj & Mentzer 2008:134). All these factors were supported by the declining barriers to global sourcing as the economies of the world opened up to trade (Holweg et al. 2011:334–335).

Global sourcing risks

Kumar et al. (2014:873) note that it is difficult to predict disruptions associated with supply chain risks because of the uncertainty and variability of the risks. Routroy and Shankar (2014:53) define supply chain risk as the degree to which supply chain outcomes are unpredictable or vulnerable to disruptions. Furthermore, Ho et al. (2015) define it as:

the likelihood and impact of unexpected macro and/or micro level events or conditions that adversely influence any part of a supply chain resulting in operational, tactical, or strategic level failures or irregularities. (p. 5035)



Source: Christopher, M., 2011, *Logistics and supply chain management*, 4th edn., p. 195, Pearson Education, Great Britain

FIGURE 2: Sources of risk in the supply chain.

According to Christopher et al. (2011:68) and Routroy and Shankar (2014:53), risk categorisation is based on the source of the risk, with these sources being supply, demand, process, control and environmental risk. Supply and demand risks are both internal to the focal firm (Srinivasan, Mukherjee & Gaur 2011:262); process and control are external to the focal firm but internal to the supply chain; and environmental risks are external to both the focal firm and the supply chain (Christopher et al. 2011:68). Figure 2 depicts the relationships between the various sources of risk in the supply chain.

Global supply chains have opened up opportunities for small and large businesses to source globally and are concerned with movement of goods from suppliers in one country to buyers who are in another country. The intention is for the buyer to ultimately sell these goods to customers in their local market (Borges 2015:12). Deane et al. (2009:863) point out that global supply chains are complex and ever-evolving because of the many uncertainties they face. As a result of these uncertainties, global supply chains are exposed to various kinds of risks (Brammer, Hoejmose & Millington 2011:8) and can become costly if not well coordinated (Christopher 2011:171).

Holweg et al. (2011:334) define global sourcing as the sourcing of finished or intermediate products from other countries, with the intention to sell them to customers in the buyer's local market. For this qualitative study, global sourcing risks were categorised as supply, demand, process, control and environmental risks (Christopher et al. 2011:69), with the focus on supply risks associated with global sourcing.

Demand risk, which is associated with the movement of items from the focal firm to the customer, can arise as a result of inbound disruptions, such as seasonality, short product life cycles, volatile customer demands and the adoption of new products (Srinivasan et al. 2011:264). Process risks relate to the internal ability of the firm to make goods or provide services (Pfohl, K hler & Thomas 2010:34). This risk is about the resilience of the manufacturing and production processes. Control risk relates to how an organisation's own internal control systems are likely to cause disturbances and distortions. For instance, safety stock policies can obscure real demand (Christopher 2011:194). External factors usually

TABLE 2: Identified supply risks associated with global sourcing activities.

Author	Identified supply risks
Ho et al. (2015:5045)	Uncertainty about the supplier's capacity, late delivery, poor quality and poor supplier service
Holweg et al. (2011:334–335); Jiang and Tian (2009:19)	Supplier reliability, complicated and costly logistics, volatile economic and political environments, and communication and cultural barriers
Manuj (2013:90)	Political stability, cost of quality, currency fluctuations, increased lead times, rising fuel and transportation costs
Nunes (2016:147)	A decrease in the business's agility and flexibility; an increase in distance, cost and the number of intermediaries in the supply chain; the failure of logistics support; dealing with cultural differences, regulations and uncertainty in a country
Ray and Jenamani (2016:239)	The multiple possible reasons for failure in supply include insufficient supply of items or late to no delivery of the required items because of disruptions in the production process (i.e. machine breakdown), labour strikes, financial defaults and natural disasters

drive environmental risks such as weather, market forces and political issues, which are all able to affect the supply chain (Lockamy 2014:756). For this study, the focus was extended to understanding supply risks.

Supply risks

Pfohl et al. (2010:36) define supply risks as those that result in an interruption of the flow of goods from the supplier to the customer while Palaniappan (2014:22) defines supply risks as a business suppliers not being able to deliver required supply completely or on time. This impacts the ability of the business to ultimately deliver to the customers. Supply risks are associated with inbound supply and are concerned with the movement of material from the supplier to the purchasing firm and arise because global sourcing lengthens the supply chain (CIPS 2013:1). Thus, for businesses involved in global sourcing, supply risks increase even more as they have to deal with risks beyond the borders of the country in which they conduct their business (Chopra & Sodhi 2014:74). Table 2 summarises and indicates some of the supply risks that businesses can encounter because of globalisation.

In this study, these risks will be classified as follows: supplier reliability, complicated and costly logistics, fluctuating exchange rate, communication and cultural barriers and political and environmental volatility (Holweg et al. 2011:334–335; Jiang & Tian 2009:19).

Supplier reliability: Supplier failure as a result of disruptive events internal or external to the supplier can cause enormous loss and delays to buyers' ability to deliver to their customers (Ray & Jenamani 2016:238). Issues such as lack of capacity, poor quality and late deliveries can all compromise the supplier's reliability (Holweg et al. 2011:5045).

Complicated and costly logistics: Complicated and costly logistics result from increased delivery lead times, high customs costs and complicated customs requirements,

increased fuel prices and the consequent increases in transport costs (Jiang & Tian 2009:18), which all increase the likelihood of supply risks for businesses. Jain, Girotra and Netessine (2014:1202) mention that one of the disadvantages of global sourcing is the increased lead times that arise as a result of cross-border transit and customs clearance times. Adding to this, Berg et al. (2015:21) highlight the fact that all the administration around compliance with customs regulations could result in unexpected delays in buyers' attempts to have their products cleared and delivered to customers on time. Haldrup and Kovács (2010:8–9) note that travelling and transport costs are highly likely to be escalated whenever the fuel price increases. All these complicated and costly logistical issues could result in the late arrival of the supplies required.

Fluctuating foreign currency: Borges (2015:17) indicates that exchange rate fluctuations can have either minor or major impacts on businesses that source merchandise globally. Fluctuations in exchange rates result in items being more expensive for the buyer (Gheibi, Kazaz & Webster 2016:2), as they usually diminish the purchasing power of the business. In addition, exchange rate fluctuations not only impact on the purchasing price but also impact on the profit margins of the business (Young 2016:4).

Communication and cultural barriers: Towers and Song (2010:529) found that communication and cultural barriers remain as major challenges, especially for businesses that have minimal sourcing experience in that sourcing country. Borges (2015:17) states that culture refers to conduct and beliefs that are acceptable in a particular global region. Communication and cultural barriers encompass the language used, which Oke, Maltz and Christiansen (2009:158) found to provide a good basis for facilitating transactions and lowering transaction costs. Jiang and Tian (2009:19) highlight that the risk associated with communication misunderstandings cannot be underplayed. This is because clear communication between the buyer and supplier provides the buyer with better negotiating grounds.

Political volatility and environmental conditions: Political volatility and environmental conditions are regarded as external risks that do not originate from the supply chain, but can have major impacts on them. Colicchia and Strozzi (2012:409) indicate that political and environmental risks are part of external supply chain risks, which are not within the control of the focal firm. However, these external risks can have major impacts on the focal firm. These external risks may arise from natural disasters, epidemics, political instability and wars. Businesses that source merchandise globally are exposed to supply risks when incidents of political unrest and adverse environmental conditions occur in the countries from which they source products (Jain et al. 2014:1205).

Global sourcing risk identification approaches

Kırlmaz and Erol (2017:56) highlight that risk identification is the most important step in the supply chain risk management process (SCRMP) as it triggers any further need for a business to do risk assessment or management. The SCRMP involves the identification, assessment and management of risks (Kırlmaz & Erol 2017:56). For this study, risk identification and management were the key focus. Risk identification involves identifying potential internal and external risks that can impact the business (Hoffmann et al. 2013:202; Smit 2012:62; Wieland & Wallenburg 2012:656). Many risk identification approaches exist in the literature such as the fault-tree analysis, event tree analysis, risk checklists and catalogues, strengths, weaknesses, opportunities and threats (SWOT) analysis, risk breakdown structures, internal business brainstorming session of risks and review of risk literature among others (Kırlmaz & Erol 2017:56; Sherwin, Medal & Lapp 2016:155; Tummala & Schoenherr 2011:475–476; Vilko 2012:45). However, in this study the approaches that could potentially be applied by the small clothing and textile retailers are explored. These approaches could be beneficial to small businesses given that they are simple to use and require minimal resources (Barroso, Machado & Machado 2011:169; Murray-Webster 2010:88):

- Supply chain mapping: Entails the mapping of the entire supply chain from the supplier to the customer, thereafter identifying along that value chain what possible risks could be encountered.
- PESTEL analysis: A simple framework that is commonly utilised in risk identification. Risks are identified along political, economic, sociological, technological, environmental and legal dimensions (Peace 2013:5). It may be helpful for the small clothing and textile retailers as it is a simple framework. However, Hopkin (2017:138–139) indicates that gaining access to external data of high quality along these dimensions may prove to be time consuming and expensive.
- Supplier pre-buying review: Gathering information on potential and current suppliers from publicly available information (Falkner & Hiebl 2015:133; Smit 2012:62) could be done by using online portals and e-marketplaces as a source of information on potential suppliers. In addition, buyers can visit a supplier's premises to get a sense of the supplier's product offering, quality control systems and production capacity (Palaniappan 2014:22).

Global sourcing risk management approaches

Olson and Wu (2010:697) indicate that because businesses that are engaged in global sourcing cannot avoid supply risks, it is imperative that managers establish ways of managing these risks. Risk is part of purchasing, especially because the purchasing business has very little to no control over the suppliers. There is thus an incentive for businesses to find the correct mix of risk reduction practices, given their available resources (Ellegaard 2008:425–432). According to Chopra and Sodhi (2014:74), managers who engage in the

proactive management of supply risk add value to their businesses through reduced risk and higher cost efficiency. Because very few businesses, regardless of size, have formal processes in place for managing supply risk, those that do make provision for such processes create a competitive advantage for themselves (Dittmann 2014:5).

Several risk management approaches that could be applicable to small businesses for addressing risks that arise because of global sourcing are discussed below. The approaches require a small cost element such as insurance, hedging and dual transportation, while local sourcing, probability reduction and increasing sourcing partners should be implementable with minimal to no additional cost. The low-cost element is essential for small businesses as they have limited resources available (Smit 2012:182).

- Insurance: Usually, insurance companies have formalised processes for assessing and managing risks, which makes the use of insurance beneficial to the businesses that use them (Kunreuther & Pauly 2014:2). Insurance can be used to cover for supply risks such as supplier defaults or delays (Sodhi, Son & Tang 2012:2). Despite the viability of insurance as a risk management approach, Abe and Ye (2013:571) found that SMEs were highly underinsured. This could be because of the cost associated with insurance (Olson & Wu 2010:698). In addition, Dittmann (2014:7) found that few supply chain professionals across retail, manufacturing and services businesses of varying sizes used insurance as a measure to mitigate risk.
- Increasing sourcing partners: Jain et al. (2014:1206) recommend that to ensure delivery reliability, a business may need to increase its supplier base and source from multiple partners. As highlighted by Ray and Jenamani (2016:238), multi-sourcing is considered a common practice to hedge against supply risks, and although it does not eliminate the occurrence of such risks, it does reduce the probability or the impact of disruption. Berg et al. (2015:5) point out that sourcing activities can be allocated across multiple countries to minimise the impact of supply risks that may arise in one country.
- Hedging: Jain (2013:26) indicates that hedging can be a means of minimising or eliminating foreign currency fluctuations for businesses at a cost. This could be particularly helpful for a small business that has access to limited cash flows and whose purchases are heavily reliant on foreign exchange. Young (2016:4–5) indicates that there are pros and cons to hedging and thus a thorough assessment of the market before selecting a hedging option or forward is essential.
- Risk probability reduction: This entails a business complete avoidance or elimination of the occurrence of a supply risk. This is achieved by choosing to avoid purchasing from certain suppliers or countries or certain products (Ellegaard 2008:432).
- Dual transportation: This entails the splitting of a single batch order into two and using different transport providers (Christopher & Holweg 2011:71). This will ensure that should one transport provider delay or lose

the merchandise, the other batch will still be delivered to the buyer (Micheli, Mogre & Perego 2014:123).

- Local sourcing: Several arguments for local sourcing are highlighted by CIPS (2013:1–2). These included the increasing transport costs of moving goods, increasing supply chain risks such as extended lead times and exchange rate risks, and the heightened focus on sustainability in terms of businesses needing to reduce their carbon footprint (CIPS 2013:1–2). This aligns with Hendry, Sayed and Zorini (2015:3–4) and Shen (2014:6241) who also found that local sourcing results in reduced distances, the reduction in delivery lead times, product leftovers and carbon emissions.
- Supplier relationship development and management: Ho et al. (2015:5049) and Ellis et al. (2010:38) found that building strategic relationships with certain suppliers was beneficial but required time commitments from the buyer. In addition, Faes and Matthyssens (2009:246) highlight that loyalty sourcing, which is repeat buying from a single supplier with or without the use of contracts, enhances buyer and supplier relationships. This provides better grounds for negotiation for the buyer.

Methodology

Research design

This study followed a descriptive qualitative research design. Plano Clark and Creswell (2015:289) state that the purpose of a descriptive qualitative research design is to explore a phenomenon by exploring different perspectives on a topic through the identification of underlying themes that emerge from discussions with participants. A descriptive qualitative research design was deemed appropriate as the aim of this study was to explore the perceptions of small clothing and textile retailers in Gauteng regarding the global sourcing supply risks they encounter and the risk identification and management approaches applied to address these supply risks.

Sampling

The unit of analysis consisted of 12 small clothing and textile retail owners based in Gauteng who are engaged in global sourcing. A total of 12 semi-structured interviews were conducted. According to Guest, Bunce and Johnson (2006:76), for a homogenous group, saturation is likely to be achieved at around 12 interviews. Further interviews are likely to provide minimal to no new insights. In this study, saturation occurred after the 11th interview. One additional interview was conducted whereafter data collection was terminated.

Purposive sampling was used for this study as it allowed for the identification and selection of information-rich individuals who could provide the required information (Palinkas et al. 2015:533). The small clothing and textile retail owners in the sample were all solely responsible for all sourcing and risk-related decisions, except two who co-owned the business each with one other person. In addition,

TABLE 3: Details of the small retail owners who participated in the study.

Pseudonym	Sourcing location	Percentage of merchandise sourced globally	Gender of the small retail owners	Duration of interview (minutes)
B1	China, Democratic Republic of Congo and Thailand	35	Male	48
B2	China	100	Female	35
B3	Ghana	100	Female	33
B4	Turkey and the United Kingdom	100	Male	32
B5	Brazil, Canada, the United Kingdom and the United States	60	Female	48
B6	China and Turkey	100	Female	26
B7	Ghana	100	Female	37
B8	Turkey	100	Female	23
B9	Turkey	100	Female	54
B10	Ghana, Nigeria and Mozambique	100	Female	31
B11	China, Italy and Turkey	100	Female	20
B12	China, Ghana, Kenya and Nigeria	70	Female	28

two purposive sampling strategies were used in this study, homogenous and snowballing. Homogenous sampling allowed for the selection of individuals based on specific characteristics (Plano Clark & Creswell 2015:334), which allowed for reduced variations and a more focused investigation. All the selected small clothing and textile retailers were based in Gauteng and were engaged in the global sourcing of clothing or textiles for resale on the local market. The second purposive sampling strategy that was applied was snowballing. This strategy was used to identify additional participants based on the recommendations made by the initial group of participants (Plano Clark & Creswell 2015:334; Polit & Beck 2012:517). Six of the 12 individuals who were interviewed were recommended by other participants. Details of the 12 individuals who were interviewed are presented in Table 3.

Data collection

The primary source of data was semi-structured interviews. Two of the interviews were conducted face to face, while the rest were telephonic interviews because of logistical constraints. The interviews were conducted between August 2016 and April 2017. According to Saunders, Lewis and Thornhill (2009:320), semi-structured interviews are most appropriate for prompting participants to provide detailed information. Semi-structured interviews were deemed appropriate as the aim of this study was to prompt small clothing and textile retailers to provide insights regarding the global sourcing supply risks they encounter. Additionally, the aim was to also understand what risk identification and management approaches they applied to address these supply risks. The researcher made use of the discussion guide from the study undertaken by Christopher et al. (2011:67–81). The discussion guide was pretested with a supply chain management academic and a methodology expert and with one of the identified small clothing and textile retailers. Some of the questions were amended following the pretest to ensure that all the questions included in the interview would contribute towards providing the information needed to answer the main research questions. An introductory email was sent to the participants to inform them of the context of the study and to obtain permission for

their inclusion in the study. The interviews were audio-recorded and the duration of the interviews varied from 20 to 54 min, averaging 33 min. The researcher transcribed all audio recordings and replayed them while reading the transcripts to ensure the accuracy of the transcripts. Corrections were made where needed.

Data analysis

A thematic analysis allowed the researcher to identify, organise and highlight patterns concerning the research questions (Braun & Clarke 2012:57). A combination of both deductive and inductive approaches to thematic analysis was applied. The deductive approach allowed use of some of the already existing themes in the literature on supply risks, risk identification and management approaches. Inductive approach ensured that certain themes were derived purely from the data, and supporting literature was then identified. The six-phased thematic analysis process recommended by Braun and Clarke (2012:60–69) was followed. Familiarisation with the data was done by repeatedly listening to the audio recordings and making notes on the transcripts. This was done using the Microsoft Word comments tool. Then initial codes were generated by extracting data from the transcripts and notes made on them. The formulation of themes was done by identifying patterns across all the derived codes and grouping similar codes into sub-themes and then into main themes. Revision of all main themes was done to ensure no overlapping across the themes occurred. Each theme was then given a clear definition. The write-up of the findings was guided by the main themes and their link to the relevant research questions.

Trustworthiness

To ensure trustworthy findings, qualitative research needs to reflect transferability, confirmability, credibility and dependability (Shenton 2004:63). To ensure transferability, detailed descriptions of the research context, the participants and the research topic were provided (Polit & Beck 2012:526). To ensure confirmability and credibility, a triangulation strategy was used. This entailed having a wide range of informants, which allowed for the corroboration and

verification of individuals' opinions and experiences against others. This ultimately made it possible to provide 'a rich picture of the attitudes, needs or behaviour of those under scrutiny' (Shenton 2004:66). Peer debriefing ensured that trustworthiness issues could be identified and corrected (Polit & Beck 2012:594).

Ethical considerations

Ethical clearance for this study was obtained from a research ethics committee at a South African university prior to conducting fieldwork. To comply with the ethical principle of informed consent and voluntary participation, all the participants were required to read and sign the informed consent form. To ensure anonymity and confidentiality, the names of the participants and businesses were replaced with pseudonyms, which are listed in Table 3. Finally, the study adhered to the protection from harm principle as it did not focus on any psychologically sensitive issues.

Findings

The research identified key themes that aid in answering the initial research questions posed. Firstly, it identified the factors that influence why small clothing and textile retailers are engaged in global sourcing activities. Secondly, it identified the supply risks encountered by these small clothing and textile retailers as a result of their global sourcing activities. Thirdly, it indicated the risk identification approaches used by these small clothing and textile retailers. Lastly, it identified the risk management approaches, which many of the small clothing and textile retailers indicate are informal and are used to manage some of the identified supply risks. The findings of the analysis are summarised in Table 4.

The findings are discussed in the next section.

Reasons for global sourcing

Access to lower cost goods and better quality

Several factors influence why businesses source globally regardless of size. For the small clothing and textile retailers in this study, access to lower cost goods of better quality were major influencing factors for their sourcing globally from countries like China and Turkey. This aligns with Berg et al. (2013:2) who found that lower cost countries that offer superior quality goods are attractive sourcing locations for many businesses regardless of size. In addition, Yang (2014:3-5) highlights that the uncompetitive clothing and textile manufacturing industry in South Africa struggles to compete with a country like China in terms of lower pricing and quality:

'... initially China was primarily on price, because you know that their stuff is quite cheaper compared to other areas. And then with Turkey, I think what influenced me was the quality on the apparel.' [B6, Female, Owner]

'I think the quality of the clothing, the type of material. There was a time when we tried to make clothing locally, and use local seamstress, and things like that to get them to make clothes for us and it just isn't the same.' [B2, Female, Co-owner]

Limited or lack of local supply and access to more variety

The lack of local suppliers and the limited local supply in terms of variety were also found to be push factors for the small clothing and textile retailers to source globally. This aligns with Jia et al. (2014:285) and Mehrjoo and Pasek (2016:28), who highlight that global sourcing grants businesses access to more variety of the latest trends and products not available in the local markets:

TABLE 4: Summary of findings.

Research questions and themes derived from participants' responses	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12
Why do small clothing and textile retailers in Gauteng source globally?												
Lower cost	x	x	-	x	-	x	-	-	x	x	-	x
Better quality	x	x	-	x	x	x	-	x	x	x	-	-
More variety	x	-	-	-	-	-	-	x	-	x	-	x
No local supplier	-	-	x	-	-	-	x	-	-	-	-	x
Ease of access to market (i.e. familiarity or have local contacts)	x	-	x	-	x	-	x	-	x	x	-	x
What supply risks are these small clothing and textile retailers exposed to as a result of global sourcing?												
Fluctuating exchange rate	x	x	x	x	-	x	x	x	x	-	-	-
Communication and cultural barriers	x	-	-	x	x	x	x	x	-	x	x	x
Costly and complicated logistics	x	x	x	x	-	x	-	x	x	x	x	x
Supplier reliability	x	x	x	-	-	x	-	-	-	x	x	x
Political volatility and adverse environmental conditions	x	x	-	-	-	-	x	-	x	x	x	-
How do these small clothing and textile retailers identify potential supply risks associated with sourcing globally?												
Landscape analysis	x	-	-	x	x	-	-	-	-	x	-	x
Product quality checks	x	-	-	-	-	x	-	-	-	-	x	-
Supplier pre-buying review	-	x	-	x	x	x	-	x	-	-	-	x
Exchange rate monitoring	x	-	x	-	-	-	-	-	-	x	-	x
How do these small clothing and textile retailers manage the identified supply risks?												
Informal supplier relationship management	-	-	-	-	-	-	-	-	x	-	-	-
Exchange rate fluctuation buffers	x	-	-	-	x	-	-	-	-	-	-	-
Dual transportation	-	-	-	x	-	-	-	-	-	-	-	-
Communication management	-	-	-	-	x	-	-	-	x	-	-	-
Local sourcing	-	-	-	-	-	-	-	-	-	-	-	x

'But the whole point is the fact that it comes from West Africa, because there is no one who manufactures it here, it is not a South African thing.' [B3, Female, Owner]

'You have a wide variety of things to choose from' [B8, Female, Owner]

Ease of access to the market and familiarity with the sourcing market

A new influencing factor found in this study was that several small clothing and textile retailers also indicated that their familiarity with the sourcing market whether personally or having friends and family in those markets also influenced their choice of sourcing countries. Familiarity with the sourcing market was also supported with the ease of access to the market. Most of the small clothing and textile retailers indicated that the areas they source from were arranged as 'market-like setups' geared for trade. This supports Baldwin (2012:34) who indicates that, 'since firms source intermediate inputs from other firms, the presence of many firms in a given location tends to make that location attractive'.

'...my focus is not only on like Ghana per se, but I do want to bring out to other parts of Africa. But I think for now, it's just that I find it easier because I am from there and I know where to get the stuff and how much it costs, and how it works and stuff.' [B7, Female, Owner]

'Well, the thing is Nigeria was an easy access for me because I already have people that I know there.' [B10, Female, Owner]

'I think you know there's certain places that are destinations of trade so like by the time we step into Guangzhou there is literally a building that's like 15 stories high and it is geared to trade with people from other markets on particular things.' [B12, Female, Co-owner]

Supply risks encountered by the small clothing and textile retailers

This study identified several supply risks that small retail owners encountered because of global sourcing. These risks were categorised as complicated and costly logistics, fluctuating exchange rates, communication and cultural barriers, supplier reliability and volatile political environments.

Complicated and costly logistics

These are all the costs associated with the business owner travelling to and from the supplier, having items cleared by customs or having the items couriered or delivered to them. All the business owners indicated that customs remained a major challenge, with many of their items being either lost or damaged. In addition, they would also experience delays in the clearing of their items. This aligns with Jain et al. (2014:1202) and Berg et al. (2015:21) who mention that global sourcing exposes businesses to increased lead times because of cross-border administration and customs clearance and higher transport costs as distance and fuel prices increase:

'Customs mm, yeah, they are always a problem. They are always a problem, there is a lot of corruption in customs. Essentially, I lose a lot of stuff to customs.' [B1, Male, Owner]

'... the issue that we face as an African continent is that our imports and exports prices are very high. The cost that you will be charged as a small start-up business doesn't make sense in terms of your bottom line.' [B3, Female, Owner]

Fluctuating exchange rates

Most of the small clothing and textile retailers indicated that they paid for their purchases in US dollars. Thus, the constant fluctuations of the rand against the dollar tended to decrease their purchasing power. This aligns with Gheibi et al. (2016:2) and Young (2016:4) who highlight that exchange rate fluctuations impact not only on the businesses' purchasing power but also on profit margins. As found in this study, some of the small clothing and textile retailers indicated that exchange rate fluctuations meant that they have had to take profit margin cuts as they could not increase the selling price for their customers as often as the fluctuating exchange rate.

'Exchange rate fluctuations definitely, it is quite difficult. We started the business in 2014, 2013 actually – I can't even remember now. But the dollar was R9....' [B2, Female, Co-owner]

'Clients don't care about that, if you gave them a price a month ago, the fact that the rand has gotten low doesn't justify it in terms of charging them more today.' [B4, Male, Owner]

Communication and cultural barriers

Inability to clearly communicate with suppliers because of language meant that some of the small retail owners could not negotiate for better prices or ended up with delayed output. It also limited their ability to freely travel in some of these countries that they sourced from, unless they were originally from there or had assistance from a local. In addition, the cultural differences were also seen as a supply risk, as sometimes the health of the small clothing and textile retail owner would be compromised because of not being acquainted with the diet there. This would sometimes result in the small clothing and textile retail owner not being able to secure all the supplies they require on time as a result of health issues. This aligns with Oke et al. (2009:158) and Towers and Song (2010:529) who indicate that language barriers and cultural differences remain huge challenges in global sourcing and can also deter effective negotiation for the buyer (Jiang & Tian 2009:19):

'Language barriers, my God!!! It is a big thing (laughs). Language barrier is a big thing. So, you are not able to negotiate because of language barriers, you are unable to negotiate proper prices.' [B10, Female, Owner]

'No, they are always a challenge, and that is why in some countries you have got to have an agent if you want to save time because language barrier and cultural barriers are different so they will always be a challenge [risk].' [B11, Female, Owner]

'Being in this area where it is not the same diet and so you get a running tummy over the next three days, so it is kind of difficult' [B1, Male, Owner]

Other supply risks encountered by small clothing and textile retailers

Other supply risks were mentioned by some of the small retail owners. However, they were not mentioned by as many small

clothing and textile retailers as the supply risks identified above. These included supplier reliability, political volatility and adverse environmental conditions. Supplier reliability included issues such as poor quality from suppliers, which was usually an issue if the small retail owner presented the supplier with a specific design. In addition, stock unavailability meant that sometimes when certain items had been popular with their customers, these small clothing and textile retailers were unable to purchase more as suppliers had run out with no indication of when the item would be available. Failure by the supplier to meet deadlines in terms of production output and increased delivery lead times also had a knock-on effect on supplier reliability. All the issues raised with regard to supplier reliability align with Ho et al. (2015:5045) and Ray and Jenamani (2016:239) who also identified poor quality, insufficient supply and late or no delivery from supplier:

'... they don't check all the merchandise that they send, so sometimes you find that they send you something that has a fault.' [B6, Female, Owner]

'... they are not reliable ... I mean it once happened where I started negotiating with a supplier while I was here [South Africa] and I gave her deadlines of when I would be, when the dates I will be in Nigeria, and therefore my stock, she needed to be finished making my bags by the time I get there. And I mean she wasn't finished, she wasn't finished!' [B10, Female, Owner]

'...and if something was a hit you can't repeat a particular style because that space isn't that formalized you know, so you are literally going and sourcing from the women in the markets.' [B12, Female, Co-owner]

Political volatility and adverse environmental conditions were not mentioned as frequently by the participants. Those who did mention them raised issues such as the presence of specific political instabilities within the country [recent xenophobic attacks in South Africa], and even in the sourcing countries, as being hindrances for small clothing and textile retailers to continue with planned buying trips. Environmental conditions highlighted included adverse weather conditions in sourcing countries that the small retail owners were not particularly acclimatised to. As highlighted by Colicchia and Strozzi (2012:409), political and environmental conditions are external to a supply chain and out of the control of the focal firm:

'...where [China] the weather is extremely hard.' [B1, Male, Owner]

'And ya personally the only other place that we go and that we are considering to go to is Istanbul but now because of all the fighting we can't go there.' [B2, Female, Co-owner]

'I mean now there is this whole xenophobia issue that we are having. ... Trust me, I will not travel at this time when we are experiencing xenophobia in South Africa; I will not travel to those countries around the same time' [B10, Female, Owner]

Informal supply risk identification approaches used by the small clothing and textile retailers

Ates et al. (2013:35–36) highlight that SMEs tend to generally not have formalised decision-making processes in place. This aligns with findings from this study where although aware of

the possible supply risks, none of the small clothing and textile retailers indicated having formal risk identification approaches in place. Instead, several informal risk identification approaches were applied, all at the discretion of the small clothing and textile retail owner.

Landscape analysis

Some of the small retail owners indicated that they assess how favourable the economic, environmental and political landscapes are for a buying trip. This entails assessing the landscape of both the small retail owners' country and the sourcing countries. The landscape analysis usually entails online research of the political, economic and environmental aspects. The outcome from this online research would determine whether a buying trip should proceed as planned or be put on hold. This aligns with Hopkin (2017:138–139) and Peace (2013:5) who advocate for the use of PESTEL analysis to identify things such as political stability, exchange rate fluctuations and understanding cultural norms:

'I go online and see what the current affairs are that are happening there and also to check tabs on the economy to before I travel.' [B1, Male, Owner]

'So most importantly is I will check how the weather is there [sourcing country]. Sometimes depending on what season, it is it could be a very raining season and then my trip is fruitless in terms of me being there you know.' [B10, Female, Owner]

Product quality checks

This entails small retail owners identifying any quality or design problems. The aims of the checks for the small clothing and textile retail owner is to ensure that the output of the products complies with and meets the order specifications in terms of quality and design. This is done before the supplier packages the items. None of the small clothing and textile retailers had quality management systems in place. Instead, quality is based on the discretion of the owner. Although this is done informally without the use of actual checklists or catalogues, it aligns with Tummala and Schoenherr (2011:475–476) who advocate for the use of a risk checklist and catalogue to identify potential risks:

'So instead of dealing with the backlog, for me it is much simpler if I buy a ticket and then make sure that the things that I have bought I am satisfied with it.' [B6, Female, Owner]

'You have to check before they [suppliers] wrap their merchandise to be shipped.' [B11, Female, Owner]

Supplier pre-buying review

Supplier pre-buying reviews are usually done by the small clothing and textile retail owner to check suppliers' business profiles using online searches, and to also review any performance reviews that could have been posted by other buyers on the suppliers' web page. Information is sourced from business websites and social media platforms such as Facebook and LinkedIn. This is in line with Falkner and Hiebl (2015:133) and Smit (2012:62) who advocate for gathering information on potential and current suppliers from publicly available information:

'Oh ok, on the platform we also check the uhm reviews, so we check reviews and feedback from other people who have bought from them [suppliers].' [B2, Female, Co-owner]

'You can now even use LinkedIn to find out more about your suppliers. You know in fact social media has made it all so simple and you don't have to travel and can do everything online.' [B5, Female, Owner]

Exchange rate monitoring

Exchange rate monitoring involves conducting regular checks of the exchange rate to assess the performance of the rand against the US dollar. Most of the participants indicated that this was important as most of their purchases were paid for using the US dollar. Use is made of online news sites and forex companies such as Bidvest to obtain forex information. This aligns with Hopkin (2017:138–139) and Peace (2013:5) who advocate for the use of PESTEL analysis to identify things such as exchange rate patterns:

'Ya the dollar exchange rate I watch every day (emphasis again every day). I listen for it very closely because I know that my business is very dependent on it.' [B2, Female, Co-owner]

'... if I had goods overseas and I had to send them here, I would say they must hold so that you can assess the rand volatility, and until it stabilises a little bit then you can send them if you want to save costs.' [B11, Female, Owner]

Informal supply risk management approaches used by small clothing and textile retailers

Christopher et al. (2011:67–81) found that large UK-based businesses followed no formal risk management approaches, but relied on the sole experience and discretion of the supply chain manager. This aligns with the findings of this study, where even small clothing and textile retailers indicated not having any formalised approaches, but made use of informal approaches to managing possible supply risks. These were applied at the sole discretion of the owners. These included establishing and building informal supplier relationship building, exchange rate buffers, use of dual transportation and communication management to facilitate trade with suppliers.

Informal supplier relationship building and management

Although Ho et al. (2015:5049) and Ellis et al. (2010:38) found that building strategic relationships with suppliers proved beneficial for buyers, this study found that very few small clothing and textile retail owners engaged in strategic supplier relationship building and management. For those small clothing and textile retailers who did engage in relationship building and management, it was done very informally without the use of formal service-level agreements nor contracts. This was done over time by learning the language, cultural practices and business practices of the sourcing countries to engage better with suppliers. The establishment of supplier relationship over time aligns with Nunes (2016:148) who found that experience and learning the language and business practices of a sourcing country improved business relationships with suppliers. In addition, some small clothing and textile retailers made use of loyalty buying as suggested by Faes and

Matthyssens (2009:246). Being able to form these informal relationships meant that these small clothing and textile retailers could secure supply of items, and even be given a price discount:

'But when you have figured it out, you have built key relationships you figure out your own way to communicate and get it done.' [B4, Male, Owner]

'And it is also strengthening those relationships so that the more you buy from them the cheaper the costs are.' [B10, Female, Owner]

Exchange rate fluctuation buffers

Most of the participants managed exchange rate fluctuations by taking the knock in their profit margins either proactively or reactively. Although Jain (2013:26) and Young (2016:4) advocate for the use of hedging as a possible management approach to reduce erosion of purchase price and to ensure that the profit margins are not impacted, none of the small clothing and textile retailers made use of this approach. This is in part because of the additional costs associated with hedging and that most of the small retail owners did not view exchange rates fluctuations as a problem until recently:

'... in the past few years there was a lot of stability, I think the instability is coming only now, for the past few years. And obviously if you take that cover it is an additional cost....' [B11, Female, Owner]

'... so if you are using a, a, a dollar based (what is it?) pricing we would always factor like fluctuations.' [B12, Female, Co-owner]

Dual transportation

Dual transportation requires the small retail owner to split orders into batches and transport them separately. This is to avoid the possibility of total loss or delay of delivery from the supplier should anything happen (Micheli et al. 2014:123). Only one small retail owner used dual transportation as a supply risk management approach, while two others used it to avoid having to travel with excess luggage:

'... have figured out a way to say I am going to bring in things. So I am not going to bring in a whole container at once, I am going to break it up into pieces to minimise the risk.' [B4, Male, Owner]

'... flight, it gives me 30kg, and if I buy more stuff at times when they are bargains, I can post my stuff.' [B8, Female, Owner]

Communication and cultural barriers management

Misunderstandings in language and culture make it difficult for buyers and suppliers to transact successfully (Jiang & Tian 2009:19; Oke et al. 2009:158). In this study, findings show that small retail owners opted to counter communication and cultural barriers using translation applications and making use of a local who was usually a friend or family member to help facilitate the transactions with suppliers. Over time, some of the small clothing and textile retailers learnt the language. Improved communication between the small retailer and the suppliers helped in securing the supply and allowed for better negotiations:

'... on my second visit, I downloaded an APP, Google translator, where I actually type in English and it would translate it into their language [Turkish].' [B6, Female, Owner]

'I go there [fabric market] I would go with someone who has basically stayed in Ghana, and they would do most of the talking for me and the explaining.' [B6, Female, Owner]

'... now you ... we even know the language here and there ... and you say bye in Turkish and they like you even more because they [suppliers] know you are trying.' [B9, Female, Owner]

'So, learning the lingo has helped me cause then I start talking like them, I start dressing up like them as well' [B10, Female, Owner]

Conclusion

Summary of findings and theoretical implications

The aim of the study was to explore the supply risks that small clothing and textile retailers in Gauteng encounter as a result of global sourcing and to determine how they identify and manage these supply risks. The first research question focused on understanding the factors that influence why small clothing and textile retailers engage in global sourcing activities. A detailed literature review was conducted to identify some of the possible influencing factors for global sourcing. The factors identified in the literature review aligned with those found in this study. These were lower cost and higher quality of products in sourcing countries, more variety and limited to no local supply of sourced items. One new emerging factor not identified from the literature was small clothing and textiles retail owners' familiarisation with the sourcing country. This was usually either because the small retail owner travelled extensively there for other business purposes or even sourcing activities, had friends or family living in those countries or was originally from there but currently lived in South Africa. The findings indicate that the influencing factors for small clothing and textile retailers to engage in global sourcing are similar, regardless of business size.

The second research question focused on exploring what supply risks were encountered by these small clothing and textile retailers because of opting to source globally. Findings indicate that small clothing and textile retailers have an awareness of possible supply risks. In line with the supply risks identified in the literature review, this study found that small clothing and textile retailers encountered fluctuating exchange rate risks as most retailers sourced in countries that priced using the US dollar. In addition, communication and cultural barriers and costly and complicated logistics were mostly challenges with high customs costs and high cost of travel to and within the sourcing country. Other supply risks highlighted by the participants included supplier reliability in terms of quality, stock unavailability and delayed delivery lead times, political volatility both locally and in their sourcing countries and adverse environmental conditions in the sourcing country.

The third research question focused on what risk identification approaches were used by the small clothing and textile retailers in identifying supply risks. Although some of the

risk identification approaches available in literature require rigour and resource commitments, some of the small clothing and textile retailers seem to be using some approaches informally in identifying supply risks. The approaches used include quality checks, which could be formalised through risk checklists and catalogues, landscape analyses that focused on some elements of the PESTEL analysis and supplier pre-buying review.

The final research question focused on exploring the management approaches used by these small clothing and textile retailers in addressing the identified supply risks. Most of the management approaches identified from the literature review were cited as being used by these small clothing and textile retailers. However, this was done informally at the sole discretion of the owner and not on a frequent basis. These management approaches identified both from the literature and the study included sourcing from multiple partners, reduction of the probability of risks, dual transportation of goods, local sourcing where supplier was not able to meet delivery and another local retailer who had the required item and the building and management of informal supplier relationships. Only one small retail owner used contracts to formalise supplier relationships, whereas all others did this informally through loyalty sourcing among other things.

The study contributes to knowledge in two ways. Firstly, it confirms the similarities between findings from international studies and this one, which is based in the South African context. These findings include the similarities in the supply risks encountered by businesses, regardless of size or geographical location. Both these findings further affirm that businesses encounter and will continue to encounter supply risks regardless of their size or location. In addition, this study found similarities in how businesses of varying sizes identify and manage supply risks. Supply risks were identified and managed based on the sole discretion of either the small retail owner as per this study or as per the supply chain manager based on the international studies done. Secondly, this study identified a new influencing factor to global sourcing. This factor is ease of access to the market, which entailed small clothing and textile retailers electing to source from a specific country purely based on their familiarity with the country. This familiarity could be either that they were originally from that country or that they have local contacts in the form of close friends and family.

Managerial implications

This study indicates that there are several influencing factors that have resulted in small clothing and textile retailers sourcing globally. Consequently, many of them have been exposed to supply risks. Given the above, this study's findings provide small clothing and textile retail owners with two key insights. Firstly, it notes the supply risks known and identified by each of the small clothing and textile retail owners. Secondly, it shares the supply risks encountered by the other small retailers sourcing in similar and different

countries. Both these insights could be useful for small retail owners in broadening their awareness on the supply risks in their current and potential sourcing countries. This may also help to reduce the time and other resources that they may have had to invest in identifying these risks on their own. In addition, this study found that although aware of supply risks, none of the small clothing and textile retailers had formal risk identification and assessment approaches in place. However, even in the absence of these formal approaches, some of the small clothing and textile retailers have managed to find ways to address these supply risks. Thus, there is no strong evidence to confine small clothing and textile retailers to set up any formal approaches for identifying and managing supply risks. Instead, several of the informal approaches could be used. Some of the informal risk identifications from this study include random product quality checks and landscape analyses. The benefit to the small retailer of these findings is that there is no need to invest time and money resources in trying to find these informal approaches. Knowledge of these informal approaches could allow the small clothing and textile retailers to use resources for other purposes or finding additional informal approaches. The informal risk management approaches found include informal supplier relationship management and exchange rate buffer creation.

Limitations of this study and suggestions for future research

In this study, several limitations were noted that could provide areas for future research. Firstly, this study only focused on small clothing and textile retailers in the clothing and textile industry. A similar study exploring small businesses in a different industry engaged in global sourcing, which do not contend with the same challenges and weaknesses faced by the clothing and textile industry, may be particularly helpful. Findings will help to determine whether policymakers should introduce generic enabling solutions for small businesses that source globally or whether they may have to tailor solutions per industry. Secondly, under SCRMP, this study only focused on risk identification and management approaches and not assessment. It may be useful to small clothing and textile retailers if the risk assessment approaches were explored. This may help them in better understanding how to quantify the likelihood and impacts of supply risks, allowing them to determine which supply risks to address and commit their limited resources in terms of time and money on (Smit 2012:182). Thirdly, in this study across all the small clothing and textile retailers interviewed, none had more than 10 employees. In addition, because the small retail owner did all the sourcing activities, they also identified and managed supply risks informally and at their personal discretion. A similar study should be done on small clothing and textile retailers with at least 10 employees who directly engage in the sourcing activities. This may shed light on whether the small retailer owners still choose to have informal supply risk identification and management approaches and allow their employees to

address them at their sole discretion. Global sourcing provides benefits to businesses and their local customer base. However, it also still exposes them to supply risks that need to be proactively identified and managed by the business owner or supply chain manager.

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Competing interests

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Authors' contributions

This article is based on the MPhil dissertation of K.M. who was the main researcher. W.N. assisted as a supervisor with the conceptualisation, literature review, research instrument and review of the draft manuscript. T.K. provided methodological and technical guidance.

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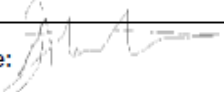
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Appendix 6: Copyright declaration form

COPYRIGHT DECLARATION FORM

Student details			
Surname:	Schuld	Initials:	L
Student number:	20118920		
Email:	lindie.schuld@gmail.com		
Phone :	079 912 5991		
Qualification details			
Degree:	MBA	Year completed:	2018
Title of research:	The role of entrepreneurial bricolage and design thinking in opportunity development: A design-centred entrepreneurship perspective		
Supervisor:	Prof Alex Antonites		
Supervisor email:	alex.antonites1@up.ac.za		
Access			
<input type="checkbox"/>	A. My research is not confidential and may be made available in the GIBS Information Centre and on UPspace.		
I give permission to display my email address on the UPspace website			
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<input type="checkbox"/>	Two years	N/A	Please attach a letter of motivation to substantiate your request. Without a letter embargo will not be granted.
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Copyright declaration			
I hereby declare that I have not used unethical research practices nor gained material dishonesty in this electronic version of my research submitted. Where appropriate, written permission statement(s) were obtained from the owner(s) of third-party copyrighted matter included in my research, allowing distribution as specified below.			
I hereby assign, transfer and make over to the University of Pretoria my rights of copyright in the submitted work to the extent that it has not already been affected in terms of the contract I entered into at registration. I understand that all rights with regard to the intellectual property of my research, vest in the University who has the right to reproduce, distribute and/or publish the work in any manner it may deem fit.			
Signature: 		Date: 07/11/2018	
Supervisor signature: 		Date: 07/11/2018	

Appendix 7: Certification of additional support form

CERTIFICATION OF ADDITIONAL SUPPORT FORM

(Additional support retained or not - to be completed by all students)

Please note that failure to comply and report on this honestly will result in disciplinary action

I hereby certify that (please indicate which statement applies):

- *I DID NOT RECEIVE any additional/outside assistance (i.e. statistical, transcriptional, thematic, coding, and/or editorial services) on my research report:*
- *I RECEIVED additional/outside assistance (i.e. statistical, transcriptional, thematic, coding, and/or editorial services) on my research report* ✓

If any additional services were retained– *please indicate below which:*

- Statistician*
- Coding (quantitative and qualitative)*
- Transcriber* ✓
- Editor* ✓

Please provide the name(s) and contact details of all retained:

NAME: Marius van Wyngaard

EMAIL ADDRESS: alphascriptions@gmail.com

CONTACT NUMBER: 082 672 2283

TYPE OF SERVICE: Transcription services

NAME: Marielle Tappan

EMAIL ADDRESS: mteditorialinfo@gmail.com

CONTACT NUMBER: 072 474 1158

TYPE OF SERVICE: Editorial services

I hereby declare that all *interpretations (statistical and/or thematic) arising from the analysis; and write-up of the results for my study was completed by myself without outside assistance*

NAME OF STUDENT:

Lindie Schuld

SIGNATURE:

A handwritten signature in cursive script, appearing to read "L. Schuld".

STUDENT NUMBER:

20118920

STUDENT EMAIL ADDRESS:

lindie.schuld@gmail.com

Appendix 8: Ethical clearance letter

**Gordon
Institute
of Business
Science**
University
of Pretoria

14 June 2018

Schuld Lindie

Dear Lindie

Please be advised that your application for Ethical Clearance has been approved.

You are therefore allowed to continue collecting your data.

Please note that approval is granted based on the methodology and research instruments provided in the application. If there is any deviation change or addition to the research method or tools, a supplementary application for approval must be obtained

We wish you everything of the best for the rest of the project.

Kind Regards

GIBS MBA Research Ethical Clearance Committee

Appendix 9: Confidentiality agreement



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14 August 2018

To whom it may concern

CONFIDENTIALITY AGREEMENT
TRANSCRIPTION OF 15 INTERVIEWS
RESEARCH BY MS L SCHULD

This letter serves to confirm that the information obtained while transcribing interviews conducted by Ms L. Schuld with various interviewees will be handled in the strictest confidence and will not be disclosed to any third party in any manner whatsoever.

Regards

MARIJS VAN WYNGAARD
ALPHA TRANSCRIPTION SERVICES CC

Appendix 10: Editorial letter

Marielle Tappan
Faerie Glen, Pretoria
Tel 072 474 1158
Email mteditorialinfo@gmail.com



Edit: Lindie Schuld

To whom it may concern,

I, Marielle Tappan, trading under the name MT Editorial, hereby confirm that I am a language editor.

I have extensive experience in the field of language and publishing and received my Bachelors of Information Science in Publishing from the University of Pretoria. I am also a registered member of the Southern African Freelancer's Association.

I hereby declare that the editing done for any client is done with the utmost diligence and the full appreciation of the English language and all of its intricacies, as was done for this paper.

If there are any other queries, please do not hesitate to contact me.

Kindest Regards,

Marielle Tappan
Owner, MT Editorial
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Marielle Tappan