ENTREPRENEURIAL COGNITIONS: ASSESSING THE INFLUENCE OF COGNITIVE STYLES AND PSYCHOSOCIAL FACTORS ON ENTREPRENEURIAL DECISION MAKING

BY

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Declaration

I, Marijke Akua Adobea Okyireh, author of this thesis, hereby declare that except for references to other people's works which have been duly acknowledged, the work presented here was done by me as a student of the Department of Psychology, University of Ghana, Legon, under the supervision of Professor Charity S. Akotia, Dr. Adote Anum and Dr Annabella Osei-Tutu. This work has never been submitted in whole or in part for any degree elsewhere.

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Dedication

To my angels and husband – Efia Armabea, Abena Kokwe and Kojo Owusu

You made it interesting but challenging. This is for you!

And to my parents – Mr Yaw Opoku Asiama and Dr. Mary Opoku Asiama. Your mentorship made me soar to this height. I am short of words in expressing my appreciation to you thank you and God Bless you.

To my sisters – Eileen and Grace for your unflinching support

I love you all. Thank you for being there for me.
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ABSTRACT

Entrepreneurial cognitions is gradually receiving attention in Ghana in recent times. The decisions people make concerning the development of entrepreneurial businesses are key in the performance of the business. The present study conducted a two-fold study using mixed methods, to examine the relationship between analytical and intuitive cognitive styles and entrepreneurial decision making approaches amongst community participants. Study one which was quantitative in nature administered questionnaires on the relationship between entrepreneurial cognitions and decision-making approaches to 272 participants located within the La Nkwantanang municipality, in Accra, Ghana. Study one reported that both cognitive styles significantly predicted entrepreneurial decision making approaches. Also demographic factors influenced the choice of entrepreneurial decision-making approaches. Psychosocial factors—perceived relational support, cultural orientations and psychological empowerment moderated the relationship between cognitive styles and at least one dimension of entrepreneurial decision-making approach.

Study two was explorative in nature where participants’ experiences of entrepreneurial decision-making were explored. 12 participants with quasi-intuitive cognitive styles were purposively selected from the research pool of 272 and interviewed. The data generated from the transcribed data were analysed using thematic analysis. Three major themes: perceptions attached to entrepreneurial activities; perceptions of past entrepreneurial experiences on decisions towards future venture creation; and potential challenges in decision-making for entrepreneurial businesses were identified. Limitations of the study and their implications for future research and practice are discussed.
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CHAPTER ONE

INTRODUCTION

Background to the study

Entrepreneurial discourse is of concern to researchers over the centuries (Cornelissen & Clarke, 2010; Shane, 2003) and this is as a result of the quest to alleviate poverty and empower people to be economically empowered as the rate of unemployment keeps increasing worldwide. A scan through literature across the globe suggests that entrepreneurship is used as a catalyst to address unemployment issues and also as a safe haven for young minds to explore creative opportunities (Ijdens, 2015; Mumford, 2011; Okyireh & Okyireh, 2017).

The Global Entrepreneurship Monitor (GEM, 2017) show that 7.7% of people venture into new businesses annually however this decision to start entrepreneurial businesses comes with challenges especially when the approach to decision-making on the operation of the business is frustrated. Hence the need to investigate the determinants of venture creation intentions, issues of job creation and productivity (Busenitz, West, Shepherd, Nelson, Chandler & Zacharakis, 2003; Dawson & Henley, 2015; Sarasvasthy, 2008). Furthermore, concerns about entrepreneurship require an in-depth enquiry into the reasons why entrepreneurial careers emerge from the view of community participants and to help formulate policy interventions to aid decisions to engage in entrepreneurial activities.
Entrepreneurial cognitions and decision-making

Currently, there are arguments as to the reasons why individuals venture into entrepreneurial activities. Nevertheless, scholars have advanced that the answer to this question stems from two perspectives: that is, either the individual does not possess the information needed to identify the opportunity or the cognitive structures needed to advance it (Businetz & Barney, 2000; Shane & Venkataraman, 2000). From a social psychological perspective, the theory of reason action and planned behaviour states that, for a behaviour (the act of decision-making) to occur, three aspects are involved: attitudes toward the behaviour, subjective norms and the degree of perceived behaviour control (Azjen, 2011). The aspect of attitudes towards the behaviour includes an appraisal of the behaviour and its outcomes. This aspect of appraisal implies that the actor should have the appropriate cognitive styles to undertake the activity. Hence the role of cognitions cannot be undermined in the entrepreneurship discourse.

Additionally, scholars of entrepreneurship studies such as Smith, Mitchell and Mitchell (2009) and Schumpeter (1961) have initiated studies on the role of an individual in discovering entrepreneurial opportunities from a cognitive perspective. The end results of these studies over the period have led to the term entrepreneurial cognitions (Mitchell, Busenitz, Lant, McDougall, Morse & Smith, 2002). Entrepreneurial cognition is the knowledge structures that people use to make assessments, judgments, or decisions involving opportunity evaluation, venture creation, and growth. Thus creating a refreshing change in the entrepreneurial discourse and this serves as an effective tool in probing and explaining how decisions in entrepreneurial business are done (Mitchell et al., 2002).

Sanchez-Garcia (2014) posits that the use of entrepreneurial cognitions methods such as cognitive styles, causal maps, mental scripts and schemes have demonstrated that processing information on a behaviour is done in an interrelated manner depending on an individual’s
beliefs and ideologies. Entrepreneurial cognition methods especially cognitive styles have been defined differently by several researchers. For example, Groves, Vance and Choi (2011, p.439) refer to cognitive styles “as one’s preferred pattern for using mental abilities in addressing daily demands and activities, including perceiving and solving”. Furthermore, Ijdens (2015) also explains it as the mental structures needed in making decisions on opportunities available to the individual.

As the scope of entrepreneurial cognitions increases, it is categorized into three levels namely: the individual, the firm and the environmental levels. Cognitive styles have been reported not to work in a vacuum but with factors such as cognitive mapping methods, personality characteristics (alertness, risk preference, self-efficacy) of an individual and environment where he is likely to start the entrepreneurial activity (Ijdens, 2015; Karabey, 2012).

Cognitive styles are broadly categorized into two types: intuitive thinking and analytic thinking (Karabey, 2012). Intuitive thinkers are described as people who acquire knowledge automatically and are more creative but less conformist. Analytical thinkers on the other side prefer an open-ended approach in the process of problem solving (Ijdens, 2015). Comparing the two, Corbett (2002) argues that successful entrepreneurs possess intuitive thinking patterns though managers of business view analytic thinking as the standard way of making decisions. Similar to these two dimensions, Groves et al. (2011) considers professionals with linear thinking patterns as analytic thinkers, whilst non-linear thinkers are viewed as intuitive thinkers. According to Allison, Chell and Hayes (2010), cognitive styles are arranged in a continuum as one’s thinking can move from one level to another. In some instances, an individual may adopt a middle level approach called adaptive thinking and this is as a result of quasi-intuitiveness; or from analytic to quasi-analytic.
Amongst the aforementioned dimensions of cognitive styles, it has become evidential that entrepreneurs who are successful in their businesses demonstrate more of intuitive thinking styles than analytical styles in decision-making compared to hired managers in the same field (Allison et al., 2000; Blume & Covin, 2005). Additionally, the study of cognitive structures of people including entrepreneurs paves the way for the understanding of the realization of entrepreneurial business. More importantly, it exposes the role of cognition in the entrepreneurial process through decision-making (Karabey, 2012; Mitchell et al., 2002; Krueger, 2003; Sanchez-Garcia, 2014).

In the light of the fact that cognitive styles can occur in a continuum, scholars have reported that the diverse levels of it, plays a key role in decision-making for entrepreneurial activities (Groves et al., 2011; Sanchez-Garcia, 2014). According to Sarasvathy (2008), entrepreneurial decision-making is the series of activities and decisions an entrepreneur goes through, leading from one idea or opportunity to a successful venture. Sarasvathy (2008) further posits that the sequential process in decision-making has been categorized into two namely effectuation and causation. Thus, effectuation involves planning entrepreneurial processes without making a detailed plan whilst causation means developing a detailed plan for the entrepreneurial processes (Sarasvathy, 2001; Saravasthy & Dew, 2008). The entrepreneurial decision-making process differs from person to person and it is dependent on factors such as an entrepreneur’s life style, preferences, skills, competencies, culture and rational and intuitive thinking (Paprika, 2010; Upadhayay, Kumar Singh & Thomas, 2007).

Idjens (2015) concluded that, cognitive styles adopted by entrepreneurs significantly influence the categories of decision-making afore mentioned. This is because individuals with intuitive thinking styles are capable of identifying opportunities but are less capable of planning entrepreneurial activities, and that makes them orient towards causation. On the
contrary, analytical thinkers are less capable of searching for opportunities but are more capable of planning and evaluating activities, thus analytical thinkers are effectuators. Similarly, Groves et al. (2011) reported that intuitive thinkers are able to identify and recognize entrepreneurial businesses more readily than analytic thinkers. The report from the studies (e.g., Ijdens, 2015; Upadhyay et al., 2007) implies that the dynamics of entrepreneurial cognitions are multifaceted and it embraces a complex set of issues such as styles of thinking, culture and business planning strategies and further research will help develop a model for assessing an individual’s preparedness for an entrepreneurial career and hence reduce the rates of unemployment in Ghana.

Perceptions of Entrepreneurial Decision-making.

The impact of a person’s perceptions about entrepreneurship is crucial in taking decisions towards business activities (Dzisi, 2008). These perceptions are mostly gleaned from the experiences acquired by both direct and indirect ways of rationalisations, for entrepreneurial decision-making (Vershinina et al., 2017). In recent past, some studies have reported that decisions to engage in entrepreneurial activities connote “persistence”, “optimism” and the ability to choose an entrepreneurial industry (Acheampong, 2017; Adomako et al., 2016). This implies that when an individual lacks these qualities, there is the possibility that he or she will not opt for an entrepreneurial career.

Across the globe, people express their beliefs about the challenges and future prospects for entrepreneurial activities based on how they describe their experience (Jyoti et al., 2011; Kirkwood, 2009). The factors that shape their experience are enormous ranging from their intrinsic needs, livelihood strategies to cultural factors (Mordi et al., 2010; Okyireh & Simpeh, 2016; Shelby, 2017). Dzisi (2008) also commented that entrepreneurial experiences
have created a debate as to who qualifies to be an entrepreneur, thus the controversies surrounding the traits and demographic characteristics of prospective entrepreneurs also exist.

In Ghana, there is the belief that entrepreneurial activities is the career of people with low education such as people who couldn’t proceed from basic education to higher educational level as well as people who haven’t been successful in seeking for employment in formal institutions (Boateng et al., 2014; Dzisi, 2008). Additionally, the same view has been extended to the marginalized people such as the physically challenged (Acheampong, 2017). Entrepreneurial activities are also perceived to be activities that can only be successful if the doer incorporates intense efforts to gather logistics for the running of the business and its success. It is important to note that perceptions of improving the business also come from experiencing ups and downs in the business especially in decision-making (Adom, 2015).

**Psychosocial factors and Entrepreneurial Decision-making**

Scholarly works in recent times have made substantial efforts to highlight the factors that empower and constrain decisions on entrepreneurial activities (Ullah et al., 2012). Perhaps some of the most researched issues are personality characteristics, education, cultural values and diversity of skills (Mordi, Simpson & Singh, 2010).

In addition to this, other scholars argue that cognitions are structured in the minds of individuals and so the social environment has a reciprocal relationship with it in that, the experiences of people influence the formation of neurological structures needed in developing ideas for business activities (Denanyoh, Adjei & Nyamekye, 2015; Urban, 2008). Furthermore, these social environments encapsulate units that satisfy the psychological and socio-emotional needs of an individual, which foster or hinder decisions towards the
formation of businesses. Khefacha and Belkacem (2015) propose the extent to which the factors (social support, diversity of skills, education) influence an individual’s behaviour and this vary from one society to another depending on values inhabitants are socialized into.

Most studies have found a relationship between personality characteristics and entrepreneurial behaviour. In this regard, personality characteristics such as determinism and risk taking proponents are described as pull factors for new venture creation (Acheampong, 2017). Adomako, Uddin and Ofori Damoah (2015) have also argued that the intrinsic needs of people such as psychological empowerment affects their ability to make entrepreneurial decisions. Psychological empowerment is described as an emotional state that motivates an individual to change his or her environment in order to satisfy their needs (Okyireh & Simpeh, 2016). An individual’s level of psychological empowerment consists of four dimensions namely: meaning, impact, competence and self-determination (Spreitzer, 2007; Thomas & Velthouse, 1990). The explanation for the four dimensions depicts how an individual is oriented towards a task role. For instance, the dimension-meaning explains how well a person’s goals and values synchronizes with his work role; competence or belief in one’s ability to execute a job; self-determination that is a sense of autonomy on the job; and impact, or a sense of control over work outcomes (Okyireh & Simpeh, 2016). Therefore a low assessment in any of the sub dimensions will lower the overall empowerment of an individual and vice versa (Lee & Koh, 2001).

Across the globe researchers have found that psychological empowerment and entrepreneurial decisions are influenced by demographic characteristics of people (Idjens, 2015). Kirkwood (2009) reported that women compared to men demonstrate self-confidence and efficacy in managing their businesses. Similar to this, Linan and Moraine (2007) found that when people attach a sense of meaning to their jobs, they are more likely to become
successful entrepreneurs.

While an individual’s emotional state motivates him or her to change his environment to satisfy his needs, other elements of the same environment such as support from members in his network also contributes to how these needs are met in terms of work activities (Adom, 2015). Concerns about support and encouragement from relevant people in a social network for entrepreneurial businesses are on the rise (Dzisi, 2008; Ullah et al., 2012). This is because the presence or absence of networks plays a crucial role in an entrepreneur’s performance (Adom, 2015). Although the extent of social support received by an individual is defined by cultural orientation, it is imperative to entrepreneurial decisions (Denanyoh et al., 2015; Segal, Borgia & Schoenfield, 2005). Forkuoh, Appeinti and Osei (2012) argue that perceptions of relational support are crucial to the performance of entrepreneurial activities based on cultural components (ethnicity and religion) and demographic variables. Kuada (2009) also commented that relational support from networks offer moral and psychological support that reduce the anxiety experienced during business start-ups for new entrepreneurs.

Perceived relational support is categorized into two, namely formal and informal relational support (Ullah et al., 2012). Formal relational support comprise of support received from members in professional groups, business clubs and members of an individual’s society whilst informal relational support is mostly given by parents and family members. Ullah et al. (2012) further advanced that people who use either formal or informal relationships as agents to discuss their problems and opportunities towards business activities ultimately increase entrepreneurial orientations and performance in entrepreneurial businesses. Therefore perceptions of relational support influences seem common when an individual has assumed an entrepreneurial role (Denanyoh et al., 2015; Urban, 2008). Nonetheless, little is known of people who have not yet assumed the role of an entrepreneur (Al-harrasi, Al-
Zadjalik & Al-Salti, 2014).

Traditionally, most African countries including Ghana have a belief that family and friends play a critical role in shaping the attitudes of entrepreneurs (Astik, 2015). It is believed that these members of a society seek the wellbeing of the individual (Gyekye, 1996). Carayannis, Evans and Hanson (2003) further commented that an individual’s entrepreneurial intentions can be shaped by his or her perceptions of support and barriers to start a new business in the environment in which he or she is located. Belief, according to Gyekye (1996), helps individuals to accept and hope that anything that is thought of can be achieved once you are socialized into a culture that permits the execution of that activity.

**Culture and Entrepreneurship**

Culture is conceptualized as a variable that affect aspects of an individual’s life and attitudes (Jahoda, 2009; Jyoti et al., 2011; Sam & Berry, 2010). Culture includes behaviour, languages, beliefs, values, social institutions, and technologies (Sam & Berry, 2010). Culture is also broadly defined from internal and external perspectives such as “networks of knowledge consisting of learned routines of thinking, feeling, and interacting with other people, as well as a corpus of substantive assertions and ideas about aspects of the world, expressed by rich symbols, artefacts, social constructions, and social institutions (e.g., cultural icons, advertisements and news media)” (Hong, 2009, p. 4). It is used to form the common ground for communication among members; transmitted from one generation to the next generation. Thus, if culture is viewed from the internal and external aspect then it may influence an individual’s cognitions towards engaging in activities that are business related as well as making decisions in that direction (Sam & Berry, 2010).

In as much as culture affects an individual’s behaviour, socializing members of a society with peculiar cultural orientations can influence cognitive aspects of behaviour towards
entrepreneurial activities (Karimi, Biemans, Chizari, Mulder & Zaefarian, 2011). Reports from cultural orientations including Hofstede (1980) support this stance; for example, individualism vs. collectivism was found to moderate relationship between gender and entrepreneurial intentions (Shinnar, Giacomin & Janssen, 2012). Furthermore, Astik (2015) found that individualistic cultures orient their members not to seek advice and support from others when making decisions on venture creation. Also, people oriented towards uncertainty avoidance were found to initiate steps that reduce ambiguous situations by engaging in careful planning before implementing business activities (Vershinina, Barrett & McHardy, 2017). In the work of Shinnar et al. (2012), Hofstede’s (1980) cultural dimension was explored on the individual level and concluded that culture is crucial in predicting the relationship between perceived barriers and intentions towards entrepreneurship. Other studies conducted on cultural orientations were done on the individual level also used countries including Ghana, to assess the impact on attitudes (Astik, 2015; Forkuoh et al., 2012; Yoo, Donthu & Lenartowicz, 2011).

However there seem to be gaps in the literature pertaining to cultural value orientations on the individual level as opined by McCoy, Galleta and King (2005) and Shinnar et al. (2012). The gaps identified are: power distance, masculinity-femininity, long term–short-term orientation and Indulgence-restraint, which needs to be further assessed. These dimensions mentioned forms part of Hofstede model and is operationalized as a psychosocial factor in the present study.

**Demographic Variables and Entrepreneurial Decision-making**

The decision to engage in an entrepreneurship career is dependent on an individual’s age, gender, level of education and business experience (Neneh, 2014). Therefore demographic
variables are seen as a key determinant of decision-making in entrepreneurial activities. However this factor is dependent on cultural values and beliefs (Shinnar et al., 2012; Bosma & Levie, 2009). For instance, Bosma and Levie (2009) conclude that the rate at which women are venturing into entrepreneurship is twice the number of men. Contrary to this view, other scholars perceive entrepreneurship as a male dominated activity and so men own more businesses than women (Ahl, 2006; Marlow, 2002). Additionally, there exists the perception that young educated people have entrepreneurial intentions compared to older people (Denanyoh et al., 2015; Ijdens, 2015). Similarly, some studies found that young adult possess high risk capabilities for entrepreneurial activity compared to older people who are mostly risk averse (Kebaili, Al-Subyae & Al-Qahtani, 2017). Wang and Wong (2004) also posit that business experience acquired from family, gender and education were the determinants of entrepreneurial decisions. Although some studies have shown a significant relationship between demographic characteristics (age, education, gender and business experience), controversies still exists. For instance, it has been observed the ability to make causal or effectual decisions is not dependent on age (Fink, 2015) Additionally, Thebaud (2010) concluded that women have 50% ability to become entrepreneurs compared to men even when they are given equal amounts of resources to start a business. Thus the contradictory finding of these studies (e.g., Fink, 2015; Kebaili et al., 2017) does not provide an in-depth knowledge on how demographic characteristics influence decision-making for business activities.

Entrepreneurial Cognitions in Ghana

Historically, the development of entrepreneurship activities as a part of the Ghanaian culture existed years before the 15th century (Buame, 1996). However, the rate of growth in the area
was impeded by three reasons: political policies which favored large scale businesses, high levels of bureaucracy and corrupt practices and socio-cultural factors. The reasons for the poor growth have compelled researchers to investigate entrepreneurial orientations and intentions amongst people in order to ignite growth in the area (Pedrini, Langella & Molteni, 2017). Furthermore, the extent to which research was done has provided comprehensive knowledge on the types of entrepreneurial industries available to Ghanaians and the types of personalities that can manage such businesses. For instance, Acheampong (2017) found that individuals with high risk propensities are likely to opt for manufacturing businesses whilst individuals who are innovative preferred choosing service industries as an entrepreneurial business.

More importantly, the alarming rate of unemployment amongst the youth especially students also increased the quest to become entrepreneurial since entrepreneurship related programs were introduced in schools to shape the career goals of students (Opoku-Frimpong, 2014). In the same light, some studies in Ghana have also reported that specific samples are more oriented towards entrepreneurial activities than others. Asamani and Opoku Mensah (2013) concluded that Ghanaian students are more entrepreneurially inclined and hence a little education can influence outcomes. Although, people resort to an entrepreneurial career in order to reduce the rates of unemployment in Ghana, neither the knowledge structures for managing these businesses or predictors of decision-making towards such businesses were investigated.

The results of some studies have shown that debates exist in the choice of entrepreneurship as a means of employment. For instance, Buame (2000) asserted that, individuals prefer formal employment as opposed to the creation of businesses. The author is of the view that there are certain factors that make people shun entrepreneurial activities and one of them is the risk of
failure and uncertainty associated such businesses.

Despite this, entrepreneurial activities in developing economy is reported to provide opportunities for entrepreneurs as it is implied that many indigenous business activities thrived in Ghana where colonial interest was absent. Examples of such businesses included cash crop production, trading activities in foodstuffs, urban trading, traditional artisanship in weaving, pottery, leather works, gold smiting, wielding and internal transportation services (Buame, 2000; Denanyoh et al., 2015).

More importantly the intention to develop business opportunities are triggered by factors such as traditional beliefs and ideologies about the roles men and women play in Ghanaian societies as well as support and advice from expert entrepreneurs (Astik, 2015). Therefore when examining the reasons that account for entrepreneurial behaviour, the socialization of people into believing that specific roles are assigned to men and women should not be undermined. This view was also shared by Adom (2015) and Dzisi (2008) who reported that until now some Ghanaian societies still attach specific roles to men and women. Men are seen as the providers of the needs of the family whilst women are seen as the caregivers and managers of financial resources of the home. In this regard it is permitted for men to engage in entrepreneurial activities whilst other family members offer support such duties (Adom, 2015; Dzisi, 2008).

Reports from entrepreneurship studies also indicate that the nature and patterns of motivating factors are not static but change overtime amongst Ghanaians especially young adults as they prefer choosing enterprises they can completely control or have autonomy over (Afutu Kotey, Gough & Owusu, 2017). Furthermore, demographic characteristics such as level of education, business experience and age positively influence business performance as it affects the income acquired from the business proceeds. Hence it was reported that the demographic
factors mentioned together with networking with experts and peers are rated high when it comes to selection and performance of small and medium scale businesses (Denanyoh et al., 2015).

Majority of studies in Ghana on entrepreneurship focused on the experiences of women entrepreneurs and young people with reports showcasing percentages of indigenous women in various business sectors such as trading (26%), agriculture (5%), education (5%) and construction (4%), service industry (21%), agro processing (16%), manufacturing (12%), textiles and fabrics (12%). On the contrary, there is little or no information about men and other groups of people. Additionally extant studies also placed emphasis on entrepreneurial education, available logistics, demographic factors (age and gender) and the development of business skills for partnership ventures or sole proprietorship. However, neither the issue of cultural orientations nor its impact on planning for entrepreneurial businesses nor the levels of psychological empowerment of prospective entrepreneurs has been under researched (e.g., Asamani & Opoku Mensah, 2013; Boateng et al., 2014).

Notwithstanding that, efforts were made to examine the factors that influence the decision to start a business, studies have identified the roles of business people, academics and career advisors and how they influence the choice of entrepreneurial career (Yeboah Asuamah, Kumi & Baffour Awuah, 2013).

Reports from studies in other countries have confirmed the essence of cognitive styles and their effect on approaches to decision-making for entrepreneurial activities (e.g., Idjens, 2015; Waardenburg, 2016). In view of this, Okyireh and Okyireh (2017) have initiated investigations into the determinants of entrepreneurial decision-making by exploring whether students would adopt different cognitive styles for planning their future businesses. Although other studies have researched same, it is scanty and doesn't adequately explain the predictors
and challenges of entrepreneurial decision-making as it has emerged that the research area is broad and the factors that account for the various entrepreneurial decision-making strategies: causation and effectuation have fully being discovered. Additionally, studies (e.g., Okyireh & Okyireh, 2017; Okyireh & Simpeh, 2016) recommended that further studies, which are comparative in nature, should investigate the predictors of decisions for entrepreneurial businesses amongst different samples in a research setting and also assess the impact of social support whilst making decisions for business opportunities. Furthermore, there is emerging evidence that psychological characteristics such as empowerment exist amongst Ghanaian entrepreneurial women when they want to set-up and operate a business in rural areas. The women demonstrated that they had a sense of meaning, self-determination, impact and competencies for their businesses (Okyireh & Simpeh, 2016). This finding suggests that other psychosocial factors ought to be investigated amongst Ghanaians communities where the experiences of both men and women can be examined.

Hence two different studies are employed in the thesis to first investigate the relationship between demographic factors and entrepreneurial decision-making approaches. Secondly, to investigate the potential relationships between cognitive styles and entrepreneurial decision-making approaches. Finally, the study seeks to establish the extent to which psychosocial factors and demographic characteristics influence the relationship between cognitive styles and entrepreneurial decision-making. The psychosocial factors are psychological empowerment (meaning, impact, competency and self-determination), perceived relational support (PRS) and Hofstede’s cultural dimensions (individualistic/collectivistic, long/short term orientation, masculine/feminism, power distance, uncertainty avoidance, indulgence and restraint cultures). Finally, perceptions attached to entrepreneurial activities will also be explored.
Statement of the Problem

Ghanaian economy is in its embryonic stages and coupled with the political peace and stability, a number of companies in Ghana is expected to thrive rapidly. Notwithstanding the fact that international investors have established businesses, there is the need to foster entrepreneurial behaviour amongst the indigenes for local businesses to also grow. There is therefore the need for an in-depth research on issues such as the psychological empowerment, cultural orientations and perceptions of support from significant others that affect entrepreneurial decisions in Ghana and the establishment of policy interventions to ignite the exploration and development of business opportunities.

Evidence from the Global Entrepreneurship Monitor (GEM) (2017) indicates that 197,000 people from 73 countries engage in entrepreneurial activities annually. The report also shows that the economic orientations of these countries played a pivotal role in influencing their Gross Domestic Product (GDP). Hence the decisions taken to create and manage entrepreneurial businesses can contribute to the economic development of a country. In as far as decisions made are crucial to the survival of the business, situational factors such as perceptions of support and cultural orientations of societies where businesses thrive have not been examined extensively.

In Ghana, Abor and Quartey (2010) posit that, small and medium scale enterprises (SMEs) of foreign and indigenous investors account for 70% of GDP in Ghana and SMEs constitute 92% of businesses in the country as well. This report suggests that when more people are socialized into an environment conducive for discovering business opportunities, they are likely to set up more small or medium scale businesses which can further contribute to the GDP of Ghana. Also, how owners of businesses process information and its impact on the
approach to business management is deemed important. Over the years, researchers have
initiated studies in entrepreneurship and related behaviour due to its uncertainty and
volatility. However there are still gaps in literature that require additional research. For
instance majority of the studies have examined variety of issues such as entrepreneurial
decision-making, motivations, barriers and attitudes (e.g., Francioni, Musso & Cioppi, 2015).
The factors examined so far does not adequately explain what accounts for the structure of
decision-making in entrepreneurial business. Therefore there is limited understanding of how
business opportunities are planned and implemented. This situation has created the need to
examine a combination of psychological (cognitions, empowerment etc.) and social factors
(perceived relational support, cultural orientations) in order to ascertain which of these
factors stimulate entrepreneurial decisions amongst Ghanaians.

Due to this, studying these factors using a multi-level framework provides a holistic approach
to understanding entrepreneurial orientations and this aid in formulating policies to enhance
entrepreneurship careers amongst people especially the youth. More importantly, examining
the thinking styles of people and the strategies they will adopt for entrepreneurial decision-
making makes the field worthy of study and provides career counselors with information for
advising their clients on the options available.

It is in the light of these reasons that the study seeks to address the diverse issues, which is
guided by the following objectives.

Objectives of the Study

Aims and Objectives of the study

The aim of the current study is to examine the relationship between cognitive styles and
entrepreneurial decision-making. In line with the aim, five specific objectives were set in
order to attain a detailed understanding of the relationships amongst the study variables.
The specific objectives set for the study are as follows;

- To examine the extent to which demographic factors will influence the choice of entrepreneurial decision-making approaches.
- To examine the extent to which cognitive styles affect entrepreneurial decision-making approaches.
- To assess the moderating role of psychosocial factors (i.e. psychological empowerment, perceived relational support and individual cultural orientation) between cognitive style and entrepreneurial decision-making.
- To assess the moderating role of demographic factors on cognitive styles and entrepreneurial decision-making.
- To identify the extent to which perceptions of entrepreneurial activities influence entrepreneurial decision-making.

Research Questions

- What are the perceptions attached to entrepreneurial activities?
- To what extent do perceptions of entrepreneurial activities influence decisions towards future venture creation?
- What are the potential challenges an individual is likely to face when making decisions on business start-ups or starting a business and explore whether three perspectives: gender, competency and cultural elements influence entrepreneurial decision-making.

Significance of the study

Entrepreneurial activities propel the growth of an economy (Yeboah Assuamah et al., 2013). Steps ought to be taken to investigate the factors that hinder or foster entrepreneurial
decisions. To do this, it is important to appreciate which of the cognitive styles or psychosocial factors influence entrepreneurial decisions positively. More so it is necessary to understand which of these factors can orient non-entrepreneurs into entrepreneurship.

Consequently, the significance of the current study will provide ways in which societies can equip individuals who are interested in venture creation activities. Additionally, the results of this research will inform counselors and consultants on the psychosocial factors that adversely affect entrepreneurial intentions. More importantly, findings of the current research will stimulate more research in entrepreneurial literature.

Outline of the thesis

The thesis is organized into five main chapters namely: introduction, literature review, methodology, results and discussion. Chapter one which is the introduction gives the background to the study, problem statement, research objectives and significance of the study.

Chapter two which is the literature review states the theoretical underpinnings of the study. The theories (Social Cognition Theory and Entrepreneurship Network Theory) are then linked to the study variables of the research. Afterwards literature on the relationships between entrepreneurial cognitions and entrepreneurial decision-making, psychosocial factors and demographic characteristics on entrepreneurial intentions and decision-making are reviewed. The chapter is completed with a summary of the critic of the studies reviewed.

Chapter three that is the methodology, the research design and setting, population, sampling and sampling technique, research instruments, data collection procedure and the type of analysis used for study one and two. Study one is a quantitative study where 272 from the La-Nkwantanang Municipal Assembly is assessed on the relationships between cognitive styles, psychosocial factors and entrepreneurial decision-making approaches. Study two is also a
qualitative study where 12 participants from the same municipality are interviewed on their experiences of entrepreneurial activities and decision-making.

Chapter four show the results of both studies one (quantitative) and two (qualitative). This includes the results, a model of the observed relationship between the study variables and the summary findings. The chapter concludes with the discussion of study one and two followed by the point of convergence of both studies.

Chapter five contains a summary of findings of study one and two. This is followed by a general discussion of findings in relation to the theories underpinning and studies done previously. It also outlines the studies that support or refute the findings in a discursive manner. Additionally, implications for existing research and practice, limitations of the study, and recommendations for future research are discussed. The chapter then ends with conclusion summarizing the entire study.
CHAPTER TWO
LITERATURE REVIEW

Introduction

This section is divided into two parts: the theoretical framework upon and a review of related studies. Under theoretical framework, a review of the theories that form the basis for the present study is presented. Under review of related studies section, studies done on the relationships between entrepreneurial cognitions and entrepreneurial decision-making, psychosocial factors, entrepreneurial intentions and decision-making and demographic characteristics and entrepreneurial decision-making.

Theoretical Framework

The section discusses the theories relevant to the study by relating it to the research variables. Theories to be reviewed are Bandura’s (1991) social cognitive theory and Klyver, Hindle, and Meyer’s (2008) entrepreneurship network theory.
**Bandura (1991) Social Cognition Theory**

Social cognition theory states that behaviour, cognitive and situational factors interact operatively and tend to influence each other. For example, behaviour witnessed can change a person’s cognitions. In the same way, people interact with others and gain support from them, which can also influence their way of thinking. In line with this argument, it has been established that dimensions of cultural orientations like power distance, uncertainty avoidance etc. play a pivotal role in the developing of cognitive structures for decisions on business opportunities (Asitik, 2015). However, Forkuoh et al. (2012) are of the view that other elements like ethnicity, religion and other demographic characteristics can moderate the reciprocal relationship between behaviour, cognitive and situational factors in terms of idea development. Whilst the debate on the influence of the trio factors (behaviour, cognition and situation) are ongoing, Denanyoh et al. (2015) opine that knowledge structures has the least impact on making decisions for entrepreneurial activities compared to individual’s behaviour and environment.

The social cognition theory forms the framework for examining personality characteristics, cognitive structures and contextual factors (perceived relational support and cultural orientations) in relation to attitudes exhibited in organizations, health issues etc. but much is yet to be explored on venture creation activities. Using the social cognition theory as a framework, the present study conceptualizes a person’s cognitive style and assessment of levels of psychological empowerment as cognitive factors which will influence behaviour that is the act of decision-making for entrepreneurial business whilst cultural orientation and perceptions of relational support are conceptualized as situational factors which can influence both cognitions and decision-making in a reciprocal manner. In all of these, there has been some criticism on social cognitive theory in fully explaining the dimensions. For example, Carillo (2010) is of the view that, a lot of studies have excluded situational factors in
predicting cognitive factors and behaviour, which is in contradiction of the core assumptions of social cognitive theory (Glanz, Rimer & Lewis 2002; Parraga, 1990). In addition, some studies (e.g., Wang & Netemeyer, 2002) have reported a direct relationship between cognitive factors and behavioural factors whilst others have reported the mediating effect of situational factors on cognitive factors and behaviour.


The entrepreneurship network theory by Klyver et al. (2008) has its roots in the social network theory which postulates that the social relationships that an individual has and interacts with, in his or her network influence their attitudes or actions (Barnes, 1954). Greve and Salaff (2003) opined that members of a family are crucial agents in an entrepreneur’s network because they interact with the entrepreneur throughout all the process of the business (Adom, 2015). Owing to this belief, cultural differences are said to precipitate conditions that foster or inhibit entrepreneurship network building (Jayanti & Raghunath, 2018). This is due to the fact that individualistic and collectivistic societies dictate the extent of cohesiveness that should exist in social groups.

Besides the assumptions of the entrepreneurship network theory have generated divergent discussions amongst scholars. For instance, Urban (2008) argues that the formation of entrepreneurial businesses depends on an individual’s utilization of arrangement mental scripts that is, the use of formal and informal relationships, social capital and network systems when making decisions. This stance is further reinforced by Okyireh and Okyireh (2017) and Adom (2015) who hold the view that that identifying appropriate network structures provide moral and mental support that reduces anxiety or fear from new
entrepreneurs who set up businesses and thus lead to successful venture creation. Contrary to this view, some studies have reported that perceptions about support from relations for entrepreneurial businesses are influenced by factors such as gender, level of education and cultural values (Asitik, 2015; Khefacha & Belkacem, 2015; Ullah et al., 2012). Besides there is the belief that a multi-cultural society like Ghana may have divergent views on the impact of social network on entrepreneurial decision-making.

The entrepreneurship network theory expands this idea further as the ultimate view held by many in explaining the characteristics that makes people behave the way they do as opined by Yeboah Asuamah et al. (2013). In addition, the social environment seeks to breed the notion of networking in enhancing the outcomes of business enterprises as seen about perceptions of relational support. Using the entrepreneurship network theory, the present study assumes that an individual’s network comprise of family members, peers, members of a society, business group or experts in entrepreneurial business that provide the individual with advise or information about entrepreneurial activities. This means that when the entrepreneurship network of an individual provides adequate advice for business activities then it is perceived that there is support from the network (perceived relational support) and vice versa.

Moreover, the effectiveness of the entrepreneurship network will depend on the cultural orientation that exists within the community in which the individual resides. These two concepts (perceived relational support and cultural orientations) are hypothesized to moderate the relationship between cognitive styles and entrepreneurial decision-making.

**Review of Related Studies**

A number of scholars have examined some antecedents of entrepreneurial behaviour. Most of
these studies have focused on entrepreneurial intentions whilst a few of them have examined
entrepreneurial cognitions for decision-making towards entrepreneurial activities (e.g.,
are centered on the relationships between entrepreneurial cognitions and decision-making,
psychosocial factors, entrepreneurial intentions and decision-making. In addition to this,
perceptions of decisions for entrepreneurial activities are also reviewed as these issues form
the key variables in the present study.

**Studies on Entrepreneurial Cognitions and Entrepreneurial Decision-making**

Generally, entrepreneurial activities occur within environments that are full of uncertainties
and in this regard decisions to manage such business aim at combating the challenges that
impede the success of entrepreneurial activities (Mitchel et al., 2007). Entrepreneurial
decision-making is envisaged as a process through which business ideas are formed and
implemented (Cunningham, Gerrard, Schoch & Hon, 2002; Sarasvathy, 2008). In planning
for such businesses, the nature of thinking or the information processing capacities are
crucial. This is because some similarities have been identified between the use of a goal
based approach (Causation) and a means based approach (effectuation) and people who
demonstrate either analytical or intuitive elements in their thinking patterns (deWit & Meyer,
2010).

Furthermore extant literature have also examined factors that have influenced cognitive
structures and decisions towards entrepreneurial businesses and have reported that other
factors influence cognitive styles and entrepreneurial decision-making. For instance, Kickul
et al. (2009) investigated how the cognitive styles of people influence entrepreneurial self-
efficacy and the decision to create new ventures. Kickul et al. (2009) investigated the types of
cognitive styles possessed by 138 graduate students from Midwestern University. Out of this 53% were men and 47 women. They identified two cognitive styles that is, the preference for analytic and intuitive styles and then assessed how it influenced the confidence levels of people in decision-making activities for the establishment of businesses. The decision-making activities included their ability to identify and recognize opportunities without much confidence in their capacity of assessment, evaluation, planning and marshaling of resources at their disposal. The results showed that cognitive styles moderated the relationship between entrepreneurial self-efficacy and decision-making.

In reviewing Kickul et al. (2009), it was observed that the dimensions of entrepreneurial cognitions were categorized into two: intuition and analytical. The researcher further assessed the impact of these thinking styles on venture creation. From the study it is noted that the strength of the relationship between an individual’s belief in his capabilities to plan and execute an entrepreneurial task is dependent on the knowledge structures he or she has for making decisions. Hence, thinking patterns whether analytical or intuitive play a crucial role in enhancing a person’s self-assessment of his ability to perform an entrepreneurial activity. Notwithstanding the fact the study projects the role of cognitive styles, it reduces the types of cognitive styles into two broad categories and creates an impression that every individual possess either analytical or intuitive thoughts without examining other types. Additionally, Kickul et al. (2009) did not focus on the dimensions of decision-making (causation and effectuation) which limits the understanding on impact how the cognitive styles relate to the approaches to decision-making independently.

In a related study, Urban (2010) examined cognitive styles and motivations for new venture creations with samples of entrepreneurs from small and medium enterprises in Johannesburg.
Urban (2010) found that entrepreneurial mind-set is universal and that similar patterns of cognitive structures for entrepreneurial mind-set existed regardless of the country of origin. Additionally, it was revealed that, partial significant relationships existed between entrepreneur cognitive styles, willingness and ability scripts and self-efficacy.

In the work of Urban (2010), much emphasis was placed on cognitive styles and the impact of psychological empowerment. This is because self-efficacy is seen as one of the constructs that measure an individual’s level of psychological empowerment and this implies that psychological empowerment play a crucial role in affecting entrepreneurial behaviour. Nevertheless, Urban (2010) undermines the effects of other factors such as culture orientation and how it affects cognitions for decision-making within the societies in which the entrepreneurs operated their businesses. Also perceptions of relational support by an individual who have the intention to start a business is also not investigated. Finally, the study failed to examine the role of demographic characteristics such as age, gender, business experience of entrepreneurs on entrepreneurial mind set. This means that demographic characteristics were seen as having little or no influence on the decisions toward the formation of businesses.

Karabey (2012) also examined the analytical and intuitive styles and personality characteristics of 126 people comprising of 118 males and 8 females in Turkey. In the study, analytical styles were described as linear thinking styles while intuitive styles was described as nonlinear styles. Comparing the cognitive styles (linear and nonlinear thinking styles) and personality characteristics of both entrepreneurs and non-entrepreneurs in three samples (entrepreneurs, accountants and managers) where managers and accountants grouped under the non-entrepreneurs category, Karabey (2012) reported no differences in the thinking styles adopted by both entrepreneurs and non-entrepreneurs. Also, the evaluation degree of the
sample accountants in terms of the thinking styles was lower than the samples with entrepreneurs and managers. Furthermore, some differences existed in the personality characteristics of the two categories in that accountants scored lower on entrepreneur alertness and risk preference compared to the entrepreneurs and managers.

Similarly, Ijdens (2015) examined the relationship between cognitive characteristics, demographic variables and preference of decision-making approaches for entrepreneurial activities. Using a sample of 759 students from a university in the Netherlands, the results of the study showed that the students had preference for effectuation strategies in decision-making rather than the causation. Also it was observed that an individual’s level of education moderated the relationship between cognitive characteristics and preference for decision-making processes.

In reviewing both studies which were conducted in Turkey and Netherlands, it can be said that they focused on investigating the moderating relationships between personality variables, demographic characteristics on cognitive styles and entrepreneurial decision-making (Ijdens, 2015; Karabey, 2012). This means that the strategies adopted for planning entrepreneurial activities are influenced by characteristics or traits as well as the age, gender, education and others. Thus it is implied that these factors can also exist in other countries where entrepreneurial activities are practiced.

In another study conducted by Okyireh and Okyireh (2017), eight student participants offering business related courses were assessed on their cognitive styles and strategies for decision-making towards the establishment of businesses. The results of the study showed a direct relationship between cognitive structures and entrepreneurial decision-making. This was because cognitive styles (arrangement, ability and willingness) are needed for entrepreneurial decisions and for the success of business activities. The study by Okyireh and
Okyireh (2017) is limited because the findings were extracted from the responses of eight final year students and not people from different social backgrounds. Additionally, other variables such as demographic factors, culture and perceptions of support were not measured as distinct factors and this creates undermine the role these factors play in decision-making for business opportunities.

Similarly, Acedo and Florin (2006) assessed entrepreneurial cognition perspectives, perception of risk on the implementation of international expansion of small and medium scale enterprises in Spain. The study randomly selected a sample of 222 small and medium size businesses owned by 122 male and 100 female entrepreneurs. The study reported that cognitive perspectives adopted by entrepreneurs, has an inverse effect on the adoption of strategies to expand their SMEs internationally.

In the same vein, Groves et al. (2011) examined the relationship between cognitive styles; non-linear (Intuitive) and linear (Analytical) and balanced (both intuitive and analytical) cognitive styles and decision-making strategies for enterprises amongst 180 male and female professionals. Groves et al. (2011) studied five job positions in selected states in the United states. It was observed that entrepreneurs and senior managers exhibited balanced cognitive styles in making entrepreneurial decisions to enhance performance. Additionally, the study showed that the educational background of the professionals also influenced their choice of cognitive styles for decision-making.

The above studies suggests that past studies focused on the moderating effects of specific personality characteristics such as alertness and risk preference whilst other studies focused on demographic factors such as levels of education implying that these are factors are noted as crucial to the choice of entrepreneurial decision-making strategies amongst entrepreneurs and non-entrepreneurs. Hence, these characteristics may also be predominant amongst
prospective entrepreneurs in other countries where studies in entrepreneurial cognitions are minimal and further studies in this direction can assist people to opt for the right entrepreneurial careers.

Similar to the studies reviewed, Bryant (2006) assessed the influence of self-regulation on decision-making strategies of entrepreneurs. A sample of 30 founder entrepreneurs and 30 non founder managers were assessed for their self-regulation characteristics. Out of 30 participants, 7 were women. The study was conducted in Australia. The results showed that self-regulation significantly predicted aspects of decision-making of entrepreneurs such as, the management of heuristic bias, decision styles, the use of heuristics, career choice, opportunity risk, decision speed and the role of values and ethics in decision-making.

Moreover, Waardenburg (2016) investigated the relationship between cognition, casual and effectual decision-making and entrepreneurial success amongst a sample of 137 novice entrepreneurs. The study reported that cognitions (Analytical and intuitive styles) significantly correlated with causal decision-making but not with intuition and effectuation. There was no relationship between intuition and cognition. Additionally, causation and age was negatively correlated with entrepreneurial success. Contrary to this finding, Fink (2015) examined age and its influence on the choice of decision-making dimensions (causation and effectuation) amongst 20 student entrepreneurs from Germany. They reported that no relationship existed between a persons’ age and the choice of causal or effectual decision-making.

In another study, Chandler, De Tienne, McKelvie and Mumford (2011) assessed the constructs which describe causal and effectual decision-making. Chandler et al. (2011) examined the responses of one hundred and eleven participants and concluded that constructs such as taking advantage of resources, setting clear goals and competitively analyzing target
markets could be conceptualized as causal decision-making. A follow up study on the constructs that measure effectuation showed that experimentation, strategies, affordable loss and flexibility constituted that approach to decision-making (effectuation). Additionally, the construct pre-commitment adequately measured both causal and effectual decision-making.

In the same vein, Harms and Schiele (2012) investigated antecedents and consequences of causation and effectuation decision-making in the development of international new venture creation. The study focused on 65 owner managed businesses from Germany. Particularly, the study focused on the psychic distance of an entrepreneur, international experience and the decision to choose causation or effectuation strategies of decision-making. In the course of the study, the moderating effect of uncertainty on experience and approaches to decision-making were also examined. The results showed that psychic distance was positively related to causation decisions, also international experience negatively influenced causation decisions but positively influenced effectuation decision-making processes. Furthermore, there was a positive interaction effect between international experience and psychic distance on effectuation decision process.

Smolka, Verheul, Burmeuster-Lamp and Heugens (2016) also assessed the relationship between an entrepreneur’s usage of either causal or effectual reasoning and venture performance. The authors further examined the interaction effect of two dimensions of entrepreneurial decision-making (causation and effectuation) on venture performance. Responses were obtained from sample of 93, 265 people in 489 universities. The study showed that causal decision-making was a strong predictor of venture performance while aspects of effectuation such as flexibility and precommitment positively predicted venture performance. Also the results showed that there was an interaction effect from both dimensions (causation and effectuation) on venture performance. However, one of the
constructs of effectuation: affordable loss negatively predicted venture performance.

Additionally, Vershinina et al. (2017) assessed the logics that entrepreneurs used when they faced critical incident threat in their businesses. Both expert and novice entrepreneurs were sampled for the study. The study reported that entrepreneurs who are experts opt for causal logic decisions when their assessment of risk is high. The expert entrepreneurs also sought advice from people they trust in their network to make decisions. Intuitive styles were also used concurrently depending on the situational factors available.

Overall the evaluation of the studies cited above suggests that the researchers consider the decision to explore business opportunities as an essential part of managing entrepreneurship activities. This is because their studies focused on investigating the factors that determine the approach to decision-making and the benefits to the output of the business. From their studies it was observed that factors such as self-regulation, cognitions and usage of causal and effectual decision strategies impacted entrepreneurial success positively. The studies also imply that situational factors such as feelings of uncertainty, an individual’s assessment of psychic distance, international experiences in business set ups and critical incident threat account for the adoption of either an effectuation approach or a causation approach to decision-making. Additionally, it is gathered from the findings that emphasis was placed on entrepreneurs choosing strategies that would maximize performance in businesses. Even though some of the studies sought to highlight the importance of network members in the entrepreneurial decision-making process other contextual factors such as cultural orientations and the psychological needs of individuals in implementing the entrepreneurial task are under researched.

Other studies contend that the use of casual decision-making over effectual decision-making yields benefits and vice versa. Furthermore there are controversies surrounding the personal
details of prospective entrepreneurs. Whilst some studies observed that the higher an individual is educated, the more they are oriented towards exhibiting entrepreneurial behaviour others also report that young people are more entrepreneurial inclined than old aged people. This is evident in the trend of investigation of the study variables in the past studies, the samples selected and the research setting. A scan through the studies also shows that students and entrepreneurs on the job were the target groups for examination (Ijdens, 2015; Mumford, 2011; Okyireh & Okyireh, 2017). Therefore the use of students for entrepreneurial studies means that societies attach importance to shaping the careers of such people in order to get them into income generating activities and at the same time reduce the rate of unemployment and this is a view shared across the globe.

**Demographic factors, Psycho-social factors, Entrepreneurial intentions and Decision-making**

A plethora of studies (e.g., Amaucci & Crawley, 2011; Urban, 2008) have examined the relationships between psychological factors, social factors and intentions or decisions towards venture creation. For example, Urban (2008) found that a psychological factor thus self-efficacy plays a mediating role in the relationship between cognitive styles and venture creation decisions. Additionally, Amatucci and Crawley (2011) investigated one of the dimensions of psychological empowerment: self-efficacy on women entrepreneurs in terms of how their financial resources are managed. Fifty-one women entrepreneurs were randomly selected from the United States and assessed on the extent to which their self-efficacy levels enabled them to decide and manage the financial resources in their businesses. Results from the study showed that lack of self-efficacy and anxiety significantly influenced the financial resources for their businesses. In reviewing both studies Amatucci and Crawley (2011) and
Urban (2008), much emphasis were placed on investigating one psychological factor: self-efficacy on the relationship between entrepreneurial cognitions and decision-making which undermines the potential effects of other factors which influence entrepreneurial behaviour.

Another study, Mordi et al. (2010) examined both psychological and social factors (achievement, self-perceptions and self-efficacy, relational support, gender role orientation and market demands) amongst 274 Nigerian female entrepreneurs. Their results showed that psychological factors: self-perceptions and self-efficacy influenced the women’s entrepreneurial decision-making compared to social factors. The findings of the study were consistent with studies done in patriarchal societies suggesting that entrepreneurial activities are performed by men as they are solely responsible for providing financial resources for the family whilst the women worked at home (e.g., Ahl, 2006).

Comparing the influence of psychological and non-psychological factors on entrepreneurial intentions of people in a society, Ullah et al. (2012) assessed the impact of psychological and non-psychological factors on entrepreneurial intentions of 3496 registered members of commerce and industry in Pakistan, the province of Khyber Pakhtunkhwa. They found that a positive relationship between both psychological and non-psychological factors with respect to entrepreneurial orientations. Furthermore, Asamani and Opoku-Mensah (2013) examined psychological factors such as personality characteristics and study programs that influence students’ entrepreneurial inclination. The study randomly sampled 520 students comprising of 332 males and 188 females from three departments (Psychology, Biology and Management) at the University of Cape Coast. Their study showed that personality characteristics like risk taking, leadership attributes, task performance and achievement attitudes correlated with entrepreneurial inclination.

In the same year, Yeboah Asuamah et al. (2013) also examined the motivating factors and
obstacles to entrepreneurial intentions in Ghana. Using 136 participants (students) thus 94 males and 42 females, variables which influenced decision-making were ranked in order of priority. The results showed that the top most ranked social support for students who were interested in entrepreneurial careers came from academicians/lecturers, business people, career advisors, entrepreneurs before family members and friends. Additionally, it was reported that the students envisaged some obstacles to the establishment of their enterprises and these were collateral security and inadequate financial resources. Notwithstanding the fact that some combined factors (psychological and social factors) have been investigated, Denanyoh et al. (2015) reported that three support factors: education, community and family affected an individual’s intention to venture into entrepreneurial activities using a sample of 228 students from Ghana. This finding implied that in starting a business, a range of factors including contextual ones become a necessity and they count towards the success of the business. These contextual factors may come from institutions such as schools as well as our society especially from the network within which the individual interacts. This view was shared by Adomako, Danso, Bos and Narteh (2018) as they examined the role of entrepreneurial alertness and networking on new venture performance. The study assessed how an individual within specified networks use their cognitive capacity to process knowledge and experiences towards making a new venture successful. Two hundred and three newly created firms was used for the study. The study reported that a positive relationship exist between people’s ability to discover and process ideas about new ventures (alertness) and success in the ventures performance. Also it was revealed that social networking moderated the relationship between entrepreneurial alertness and new venture performance. This finding implies that a person’s ability to identify a business opportunity and the success of the business depends on their ability to interact with suppliers, customers, distributors and other executives in external government and industrial bodies.
More importantly, Francioni et al. (2015) also found that other factors such as decision-maker characteristics and the type of cognitive styles adopted by entrepreneurs who owned small and medium scale enterprises (SMEs) were related. Using a sample of 165 decision-makers of SMEs in Italy, the study revealed that there is a positive relationship between a person’s need for achievement and political behaviour and decision-making. In the study a person’s political behaviour was described as a decision-maker’s willingness to be sustained by both internal and external factors with which the firm interacts. Therefore when an individual (an entrepreneur) is goal oriented, he or she tends to rely on the support of both internal and external factors in the line of decision-making for their business. The study further advances that awareness of risk in business informs the decision-maker to make rational decisions that will inure to the benefit of the business. In addition, demographic characteristics show that educational level is positively related to analytical thinking and hence the more educated one is the better his ability in taking rational decisions.

Similar to the study above, Acheampong (2017) assessed the personality characteristics that influence decision-making when choosing an entrepreneurial industry. Three hundred small and medium enterprises were sampled from the Greater Accra Metropolitan Area for the study. The report showed that entrepreneurs with high risk propensities opted for manufacturing enterprises such as bottling and cannery companies, making of building materials and making of car parts while people with high innovative propensities opted for service enterprises such as running restaurants, telecommunication services, hair artistry and others. Hence an entrepreneur’s personal characteristic can influence his or her choice of entrepreneurial business.

Firstly, the aforementioned studies have considered psychological factors as determinants of entrepreneurial activities (e.g., Francioni et al., 2015; Ullah et al., 2012). The studies
concluded that people possess some inherent characteristics that propel them to create an enterprise. Some of the psychological factors which influenced cognitive styles and decision-making for entrepreneurial businesses were the need for achievement, risk taking propensities, self-efficacy and self-perception. This finding implies that all things being equal if an individual possess these characteristics he or she is likely to be oriented towards exhibiting entrepreneurial behaviour and then proceed to adopt strategies in making decisions for their businesses.

Secondly, the authors considered social support as a factor which was equally important and hence perceptions of support can affect the entrepreneurial process. The social support systems available to an individual greatly influence the consequences of a business in a positive way. Therefore when an individual perceives support in the form of advice, encouragement and other forms of support from members of their network it enhances intentions towards entrepreneurship. However, studies reviewed in this direction explored the views of students or entrepreneurs and this makes the potent effects of perception of relational support difficult to generalize to other samples such as unemployed people or prospective entrepreneurs. Consequently, the use of these samples restricts the understanding of the extent to which perceptions of support affect the relationship between cognitive styles and entrepreneurial decision-making.

The nature and pattern of choice of decisions for the establishment of new entrepreneurial activities has been reported to be culture bound. Hence cultural orientations, norms and beliefs have been observed to influence thoughts and actions of people who intend to manage their business or develop an entrepreneurial career. Additionally, the demographic characteristics of people such as their gender, age, level of education and business experience is also noted to some extent as the factors that influence cognitions and decision-making approaches. In line with these observations some studies have reported the effects of
demographic factors and cultural orientations (e.g., Hang, 2015; Ssendi, 2013).

Ssendi (2013) examined the psychosocial-cultural factors that influence entrepreneurial activities amongst rural women in three villages: Kongowe, Ruvu Darajani and Patandi located in Tanzania. The study explored the perceptions of the women on cultural factors, managerial competence and barriers to entrepreneurship. The study showed that cultural beliefs such as discouraging the formal education of females negatively impact entrepreneurial skills. Additionally, religious beliefs and traditional norms also influence the performance of rural female entrepreneurs to the extent that reasons for practicing entrepreneurship are solely for survival purposes. The study also showed that access to financial resources posed as a treat in the management of the entrepreneurial business.

Other studies also examined the role of cultural orientations in entrepreneurial decision-making. For example, Hang (2015) assessed the influence of cultural orientation long-term orientation on the cognitive styles of Chinese students and decision-making for entrepreneurial activities. Hang (2015) revealed that, the students who had being socialized to accept long term orientation preferred adopting existing market knowledge which was a causal approach in decision-making. This implied that the students experiencing long term orientation perceived a host of uncertainties and saw predefined plans as adequate for business success whilst they experimentation as a means of planning for their businesses.

Besides it has also be identified that issues with culture are more revealing when studied with the demographic characteristics of people. For example Minola, Criaco and Obschonka (2015) examined the role of age and cultural orientation on self-employment motivations. Self-employment motivations were measured with two-dimensions: an individual’s intrinsic interest in entrepreneurship (desirability beliefs) and perceptions of the ability to execute an
entrepreneurial behaviour. Thirteen thousand nine hundred and sixty three (13,963) people who were between the ages of 18 and 64 were purposively sampled from 21 countries for the study. The results showed that cultural orientations (institutional collectivism, uncertainty avoidance and performance orientations) moderated the relationship between age and both self-employment motivations.

The issue of past career experiences on entrepreneurial behaviour were also assessed by Engel, Van Burg, Kleijn and Khapova (2017). Engel et al. (2017) investigated the role of past career management practices on approaches to entrepreneurial decision-making. Specifically, an individual’s prior experience in a career environment influences his or her preference for causal or effectual decision-making. The study sampled twenty-eight (28) firm founders comprising of 23 males and 5 females in the Netherlands. The study reported that serial entrepreneurs that are people who had moved from one business to another opted for effectual decision-making compared to novice entrepreneurs. Also entrepreneurs who had had long entrepreneurial careers also opted for effectual decision-making.

Opoku Frimpong (2014) assessed the relationship between teaching entrepreneurship related programs, entrepreneurship experience and the decision of students to start partnership ventures with others in Ghana. Two hundred and twenty students were selected using convenience sampling. The results showed that students who had received education in entrepreneurship and had obtained a business experience of one to two years were more likely to make decisions towards entrepreneurial career after graduation. Students who showed interest in starting large scale businesses also preferred partnership ventures. Finally, it was also reported that gender, familiarity with business partners and business ideas didn't influence to decision to partake in venture partnership.

Neneh (2014) assessed factors which motivated 600 university students in Cameroon to make
decisions towards entrepreneurship after completing their education. The study selected a sample with an age range of 20 and 30 with majority of the students being males. Additionally the study sought to investigate whether demographic factors such as gender, experience from family and entrepreneurship education would influence career choice. Six hundred students were purposively sampled for the study. The study showed that males compared to females had intentions to start their own business and entrepreneurship education enhanced entrepreneurship intentions. The students were also motivated to venture into entrepreneurship for reason such as poverty, unemployment and job insecurity whilst they found financial challenges, strong competitors and business skills as key barriers in entrepreneurship businesses.

An overall evaluation of the studies reviewed suggests that an individual’s information processing abilities for business activities is influenced by a host of factors which are psychological and sociological in nature. The psychological factors affect entrepreneurial intentions include personal characteristics (e.g., risk taking, innovativeness) and intrinsic needs (e.g., self-efficacy, achievement motivation). Since these factors emanate from the individual, it is implied that before an individual decides to engage an entrepreneurial career, he or she should assess himself to see if he possesses the characteristics and intrinsic qualities observed before he can engage in the profession. Additionally some researchers found that social factors such as traditional norms and cultural beliefs, networking, support from educational institutions and the community in which an individual reside affects the decision to engage in entrepreneurship activities. This means that entrepreneurial decisions can be triggered when the factors listed (e.g., cultural beliefs) create conditions that encourage or support the exploration of business opportunities.
Additionally, the studies also project the idea that career development is a topical issue and people are constantly investigating factors that hinder or foster careers goals especially towards entrepreneurial activities. The findings also imply that an individual’s personal characteristics can affect the choice of business industries and how it is managed. Furthermore, it is indicated in studies with entrepreneurs as samples that past experiences do not always yield success as they still face challenges and their businesses serve as a basis for correcting mistakes in further businesses. Finally, it is also assumed from the studies that despite the challenges in an individual’s environment, researchers acknowledge that entrepreneurship is instrumental in the economic growth of countries and their studies will unearth ways in which people can develop the capacities for self-employment and hence optimal performance in businesses.

**Perceptions of Entrepreneurial decision-making**

Perceptions about behaviour are mostly based on subjectivity or feelings rooted in a person’s beliefs. However, these feelings may emanate from an individual’s experience of the act or experiences shared by others (Dzisi, 2008). In this regard, researchers resorted to a wide range of methods to report the views of both entrepreneurs and non-entrepreneurs on entrepreneurship behaviour, challenges of entrepreneurship and their line of thoughts for developing future businesses. In the light of the methods adopted several themes have emerged to explain what entrepreneurship is and what it means to explore business opportunities.

For instance Okyireh & Simpeh (2016) reported that female entrepreneurs perceived four themes: competence, meaning, impact and self-determination to describe their level of psychological empowerment for managing future entrepreneurial businesses. Hence when a
person possesses equal levels of the four themes, they are motivated to make decisions that accounts towards the success of the business. Other studies also extracted themes such as risk taking, self-confidence, desire for independence and responsibility, high optimism and high levels of persistence from the quotes of participants to describe their perceptions of entrepreneurial businesses (Dzisi, 2008; Pounder & Devonish, 2016; Kebaili et al., 2017).

Similar to the study above, Kirkwood (2009) assessed the views of 28 women and 47 men who were business owners in New Zealand and reported that self-confidence influenced decision-making amongst female entrepreneurs compared to men. Similarly, Adomako et al. (2016) opined that entrepreneurial optimism for persistence in SMEs was enhanced when cognitive styles for planning, knowing and creating activates were employed in entrepreneurial decisions.

Furthermore, Adom (2015) explored the role of 60 women entrepreneurs to economic development of Ghana. The participants expressed their view on motivational factors and managerial skills of the women in Ghana. Themes that emerged as motivational factors were determinism and freewill. This was because some women felt that building a business for themselves at freewill will help them combine family activities and work compared to working in the formal sector. Additionally, the women confirmed that with their background in public relations and accounting, the entrepreneurial business has helped them attain better managerial skills for managing customers and financial resources. The women further agreed that they contributed to the Ghanaian economy when they employ people in their business and pay tax.

Other studies perceived enormous benefits of entrepreneurial activities as motivating factors for venturing into small scale and medium scale enterprises amongst 8 migrant entrepreneurs in Finland. The themes that emerged were family survival needs and independence (Shelby, 2017). Emphasis was also placed on the relationships that emerged amongst groups of people
plying the same business as some participants narrated the support and advice they had received from such groups (networking) as reported by Klyver et al. (2008), the degree of networking amongst entrepreneurs ranged from 48% to 82% with an average of 64%; and this represents huge gaps. Additionally they reported that, countries oriented towards individualism were less likely to engage in entrepreneurial networking compared to collectivists’ cultures. Hence it is assumed that the degree of networking depends on the extent to which cultural values encourage interaction amongst its members. However, the networks were considered essential for the thriving of future businesses as Jyoti et al. (2011) found that, social capital and advice from networks were determinants of future management of entrepreneurial business. Despite the advantages of the networks their existence solely depended on the cultural environment in which businesses were situated. More importantly, the use of networks was advanced by perception of opportunities, fear of failure and high growth expectation (Khefacha & Belkacem, 2015).

Other studies highlighted the experiences of participants concerning entrepreneurial management. From their narratives themes such as customer satisfaction, financial reasons, requisite skills and others were the crucial points which ought to be considered when planning for entrepreneurial activities. For instance, Kwamega, Li and Ntiamoah (2015) sampled the views of 450 comprising of women who represented 52% and men 47.5% in Ghana and found that both entrepreneurs and non-entrepreneurs identified customer satisfaction and sales growth as crucial in boosting firm growth and performance. Urban (2008) and Boateng et al. (2014) found that skills and financial challenges posed as a threat to venture creation decisions because it impedes business performance.

Overall the evaluation of the studies cited on perceptions of entrepreneurship implies that universally people have varying thoughts about entrepreneurship and these thoughts emanate
from a number of factors depending on one’s direct or indirect experience. Firstly the act of entrepreneurship must begin with an individual’s own assessment of how well he or she can perform entrepreneurial activities in terms of his or her capabilities. Given the fact that some studies have shown that personality characteristics and intrinsic factors such as self-confidence, desire for independence and risk taking propensities are exhibited by entrepreneurs, it is concluded that lacking these characteristics makes it a challenge for people to engage in the business. The nature of the experiences reported from the studies also suggests that a prospective entrepreneur should be ready to manage the mixed feelings that come with managing the business. For instance, there will be times where the individual will experience positive feelings such as a sense of independence and total control over the business and at other times the feelings of risk taking and the uncertainties that comes along with the implementation of the business.

Additionally, the findings of the studies show that participants expect entrepreneurial businesses to thrive when some factors are considered in decision-making. The factors considered comprised of inputs towards the operation of the business (e.g., support from networks) as well as outputs (e.g., customer satisfaction). This implied that decisions for starting entrepreneurial activities should include every aspect of the business in a holistic manner. Therefore entrepreneurial perceptions provide a framework on which the real businesses are set up and its management.

Hamilton and De klerk (2016) investigated the motivating factors for entrepreneurial behaviour amongst 400 female students in higher institutions in South Africa. Four hundred students were sampled from public higher institutions in Guateng and administered with questionnaires measuring three variables: independence motives, extrinsic and intrinsic motives. The study concluded that independence motives such as assuming the role of a boss
and the liberty to choose a task and working at one’s own time correlated with the decision to be entrepreneurial. Intrinsic motives such as individuals’ passion and personal assessment of his or her capabilities for the work enhanced entrepreneurial Climate. Extrinsic motives such as tangible rewards were also significant in that regard.

In the same vein, Cardon and Kirk (2015) examined the mediating effect of entrepreneurial passion the relationship between self-efficacy and persistence of entrepreneurs. A sample of 129 entrepreneurs with an average of 48 years was assessed on three scales self-efficacy, persistence and entrepreneurship passion. Entrepreneurship passion was measured on three dimensions: passion for inventing, founding and developing businesses. They study reported that passion for inventing and founding businesses but not developing businesses influenced an entrepreneurs persistence in a business.

Similarly, Chu (2015) examined the resilience capabilities in entrepreneurs of SME’s in Hong Kong. The study sampled the views of 177 entrepreneurs on resilience capabilities in turbulence environments. Four dimensions of resilience capabilities: adaptability, agility, anticipatory ability and flexibility were assessed on their employment in three stages of a turbulence environment (Pre-crises, during post and post crises). It was reported that anticipatory ability and flexibility resilient capabilities were adopted at the pre crises stage whilst adaptability and agility were employed during the peak crises stage and adaptability and flexibility were also used at the post crises stage. This implies that the anticipatory and flexibility strategies were used to define the business’s processes in order to preserve the structure of production before crises set in, adaptability and agility strategies were adopted to reduce the effect of the firm’s crises whilst adaptability and flexibility strategies were used to refine or conform to the organization’s strategic objectives based on the nature of the crises.

Furthermore, Canedo, Stone, Black and Lukaszewski (2014) examined the factors that
motivate entrepreneurial behaviour amongst Hispanic entrepreneurs in the United States. The study identified cultural values, social networks and skills as motivation factors for entrepreneurial behaviour. Under cultural values, it was concluded that Hispanics were oriented on uncertainty avoidance and so they were not interested in accessing loans since they viewed the lenders as not trustworthy. To reduce uncertainty and maintain the security of their business, they resorted to borrowing money from money lenders after they have exhausted other opportunities available. Accordingly the use of social networks by the Hispanics also showed that they made use of their ethnic enclave to increase the success of their business by transacting business with members of the enclave and receiving resources as well. This was done because they perceived members of the enclave as trustworthy people who will engage in reciprocity when the need arises.

Moreover, Shinnar, Giacomin and Janessen (2012) examined the role of gender and culture on perceived barriers and entrepreneurial intentions of 761 university students from China, America and Belgium. The study selected samples from these countries because they were ranked high on power distance and masculinity on Hofstede (1980). Accordingly, these cultural dimensions (power distance and masculinity vs femininity) were assessed on gender in terms of three perceived barriers: lack of competency barrier, fear of failure and lack of support barriers. The study reported that women found lack of support more significant than men. In terms of cultural orientations there were no differences amongst the three countries. Perceived barriers: fear of failure and lack of competency was also significantly more important for women than men. However, the difference between men and women with respect to the barriers (fear of failure and lack of competency) was statistically significant in America and Belgium but not China.

In another related study; Ratten (2016) explored the female entrepreneurship, the role of
customer knowledge development, innovation outcome expectations and culture on intentions to start informal business ventures. The study showed that continuous innovation about of information of customer preferences and wants is significantly related to the formation of new businesses. Additionally, the study reported that people oriented into collectivism depend on group members for ideas, resources and support to develop businesses in the informal sector.

Finally, Valmohammadi (2011) studied the impact of selected total quality dimensions: customer focus, leadership, employee and process management, supplier, customer focus, communication and quality information system and tools and techniques on the performance of SME manufacturing industries. A sample of 65 managers of Iranian companies revealed significant relationships between total quality practices such as customer focus, customer satisfaction and sales growth.

The studies reviewed above suggest that several factors are considered when making decisions in enterprises. The factors may be categorized as internal factors and external factors. The internal factors are the psychological needs of the individual such as resilience, desire for independence, persistence and others whilst the external factors are cultural values and customer management. Hence a combination of both factors impacts people’s experiences on the strategies they adopt for planning entrepreneurship activities.

**Critique, Summary of Studies on Entrepreneurial Cognitions, Psychosocial Factors, Entrepreneurial Decision-making and Uniqueness of present study.**

Extant literature have identified significant relationships between entrepreneurial cognitions, psychosocial factors and entrepreneurial behaviour (e.g., Amatucci & Crawley, 2011;
Asamani & Opoku-Mensah, 2013; Joyti et al., 2011). Other studies showed an indirect relationship between psychosocial factors, entrepreneurial cognitions and decision-making (Adomako et al., 2016). Reasons for the inconsistency in the relationship between entrepreneur cognitions, intention and decision-making could have been as a result of methodological issues such as the use of self-developed questionnaires and different sample sizes (e.g., Okyireh & Simpeh, 2016; Yeboah Asuamah et al., 2013).

Some studies also adopted a mixed method, a qualitative or a quantitative approach (e.g., Francioni et al., 2015; Kirkwood, 2009; Pounder & Devonish, 2016).

The target population for the previous studies also differed with majority of them being students (e.g., Ijdens, 2015; Okyireh & Okyireh, 2017) and entrepreneurs (e.g., Amatucci & Crawley, 2011; Mordi et al., 2010).

Some of the studies were conducted in Asian, Europe and African countries (e.g., Kickul et al., 2009; Kebaili et al., 2017; Urban, 2010), but researchers have not given enough attention to entrepreneurial cognitions and decision-making on entrepreneurial businesses. Hence their findings cannot be generalized to Ghana.

Besides, some studies assessed psychological and contextual factors on entrepreneurial intentions (e.g., Ullah et al., 2012), entrepreneurial orientations (e.g., Jyoti et al., 2011), entrepreneurial behaviour (Pounder & Devonish, 2016), entrepreneurial management (e.g., Kirkwood, 2009; Mordi et al., 2010) and entrepreneurial inclinations (Asamani & Opoku-Mensah, 2013), whilst few studies were done on entrepreneurial decision-making (e.g., Ijdens, 2015; Urban, 2008). Additionally some studies focused on dimensions that measure cognitive styles (e.g., Ijdens, 2015; Kickul et al., 2009) and sub dimensions that measure psychological empowerment and cultural orientations (e.g., Amatucci & Crawley, 2011; Mordi et al., 2011).
However, none of the scholars has considerably investigated and explored the relationship between cognitive styles, psychosocial factors and dimensions of entrepreneurial decision-making as a combined study.

The present research uniquely focuses on variables such as cognitive styles of entrepreneurs and prospective entrepreneurs as well as approaches adopted for decision-making for the establishment of businesses. These research variables are expected to enhance economic capabilities of individuals and increase revenue generation in the Ghanaian context. Therefore, a two-fold study was conducted to examine firstly the extent to which demographic factors influence entrepreneurial decision-making. Secondly, investigate the relationship between cognitive styles and entrepreneurial decision-making. Thirdly, investigate the extent to which psychosocial factors influence the relationship between cognitive styles and entrepreneurial decisions. Fourthly, the study examines the moderating effect of demographic variables on the relationship between cognitive styles and entrepreneurial decision-making approaches. Finally, the study explores the extent to which perceptions of entrepreneurial activities influence entrepreneurial decision-making.
The model (Fig.1) is a proposed diagrammatic representation of a summary of the research hypothesis of the present research.

Two dimensions of cognitive styles (Analytical and Intuitive) is predicted to relate to entrepreneurial decision-making approaches—effectuation and causation. The relationship between cognitive styles and entrepreneurial decision-making is predicted to be moderated by perceived relational support (PRS), dimensions of psychological empowerment (meaning, competence, self-determination and impact) and cultural orientations. Additionally, it is hypothesized that demographic variables (age, gender) will moderate the relationship between cognitive styles and entrepreneurial decision-making.

**Research Hypotheses**

H₁: Demographic factors (age, gender, education, business experience) will predict the choice of entrepreneurial decision-making approaches.

H₂: Cognitive styles (analytical and intuitive) of an individual will significantly predict entrepreneurial decision-making approaches such that higher scores on both

**Psychosocial Factors:**
- Psychological Empowerment
- Perceived Relational Support
- Individual Cultural Values

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Fig.1 Proposed conceptual model of the study
analytical and intuitive styles will lead to either causation or effectuation decision-making.

H₃: Psychosocial factors will significantly predict cognitive styles of an individual, such that higher psychosocial factors will be associated with higher entrepreneurial decision-making.

H₄: Demographic characteristics will significantly moderate the relationship between cognitive style and entrepreneurial decision-making, such that the effect of cognitive style on entrepreneurial decision-making will be higher for males, as well as those with high education and business experience.

**Operational Definition of Concepts**

**Independent variables**
There is one main independent variable in the present research that is cognitive styles with sub dimensions. The sub dimensions are intuitive, quasi intuitive, adoptive, analytic and quasi analytics cognitive styles. These variables are operationally defined below.

**Intuitive thinkers** are people who acquire knowledge through creativity and are more adventurous. They also prefer an open-ended approach in the process of problem solving.

**Quasi-intuitive thinkers** have some elements of intuitive thinking however they are more cautious when it comes to trust on their gut feeling as a basis for decision-making.

**Adaptive thinkers** do not believe in knowledge that comes suddenly, creativeness nor knowledge acquired through a sequential process as a medium to making decisions. That is they are neither intuitive thinkers nor analytic thinkers.

**Quasi analytical thinkers** apply some elements of sequential approach in decision-making.
Analytical cognitive style involves thinking and decision-making that is fair, sequential, convergent, constrained, critical and detailed.

**Dependent Variables**
There is one main dependent variable in the present research that is entrepreneurial decision-making with two sub-dimensions which are effectuation and causation decision-making processes.

**Effectuation approach** describes a process whereby a goal is set in advance and careful planning is done to achieve that goal with the set of given resources.

**Causation approach:** describes a process of adopting planned strategies which will yield a particular effect in a business.

**Moderating Variables**
There are two sets of moderating variables in the study these are the psychosocial factors and demographic variables.

The psychosocial factors consist of perceived relational support (PRS), dimensions of psychological empowerment (meaning, competence, self-determination and impact) and cultural orientations (individualistic/collectivistic, long/short term orientation, masculine/feminism, power distance, uncertainty avoidance, indulgence and restraint cultures). The demographic variables are age, gender, business experience, marital status, education and religion.

**CHAPTER THREE**

**METHODOLOGY**

Introduction
This chapter describes the methodology used in the two-fold study and this includes the research setting/population, philosophical paradigm, research design for study one and two, sampling technique, inclusion and exclusion criteria, instruments and procedure. Afterwards, the chapter outlines research questions and concludes with the ethical considerations for both studies (quantitative and qualitative phases).

**Research Design**

A research design is “a general plan for implementing a research strategy. A research design specifies whether the study will involve groups or individual participants, will make comparisons within a group or between groups and how many variables will be included in the study” (Gravetter & Forzano, 2006, p.165). The current study examined the relationship between cognitive styles and entrepreneurial decision-making. Additionally, the study also examined the extent to which psychosocial factors influenced the relationship between cognitive styles and entrepreneurial decision-making. The study adopted a cross-sectional research design which used different groups of people who differ in the variable of interest but share other characteristics such as socioeconomic status, educational background, and ethnicity (Creswell, 2009). The study used closed ended questionnaires on the research variables were administered to people from varying backgrounds in one study. In addition to the survey, the views of selected participants were further explored using interviews to understand their perceptions of entrepreneurial experiences and the extent to which it influences decisions for entrepreneurial businesses to augment the findings of study one. As postulated by Creswell (2009) linking assumptions and methods of investigation is key in social science research.

In sum, a two-fold study (studies one and two) was chosen to achieve the research objectives. Study one used quantitative methods to assess the predictors of entrepreneurial decision-
making whilst study two engaged selected participants from study one in personal interviews on questions which were not asked in study one.

**Philosophical paradigm**

A philosophical paradigm is described as the context within which all researches are captured (Creswell & Plano Crack, 2011). In this regard, the present study is guided by the assumptions of the pragmatism approach which assumes that there is truth and reality like the positivism epistemology but it is ever changing based on our actions which are social constructed through the process of institutionalization. Thus pragmatism focuses on what the actual truth is, as per the research questions under investigation (Creswell, 2008). It is also based on the assumptions that our actions have outcomes that are often predictable and we build our lives around experiences that link actions and their outcomes (Creswell & Plano Crack, 2011).

Pragmatism epistemology advocates for the use of mixed methods that is the collection of both quantitative and qualitative data in a single study either concurrently or sequentially in order to understand the research problem (Ormerod, 2005). The pragmatists believe that based on the problem under investigation an inquirer has the liberty to choose the techniques, methods, and procedures that is needed to solve the problem.

This study aims at examining the relationship between cognitive styles, psychosocial factors and entrepreneurial decision-making as the perceptions attached to decisions on entrepreneurial activities. Studying these variables in a Ghanaian context will require the adoption of different strategies in order to broaden the findings in entrepreneurial cognition literature. This also makes the study different from other studies (Karabey, 2012; Kirkwood, 2009; Karimi et al., 2011 ) as most of them have adopted either a quantitative approach or a qualitative approach with most of the studies employing the explanatory approach .In this
regard, this study was guided by the ideologies of pragmatism to use questionnaires and interviews to collect information sequentially in order to understand the potential psychosocial factors that influence cognitive structures for entrepreneurial decision-making. However, as stated by Creswell and Plano Crack (2011) two approaches can be used in mixed methods. These are the concurrent or sequential mixed method. This study adopts the sequential mixed method in that first it employs an explanatory phase to describe the hypothesized relationships between the independent variables and the dependent variables and then proceed to explore the perceptions of the Ghanaian people on entrepreneurial decision-making with the aid of research questions.

**Research Setting and Population**

The present study was conducted amongst people of the La Nkwantang Madina Municipal Assembly (LaNMMA) in the Greater Region of Ghana and this is one of the most populated informal sectors within the Greater Accra Region. The towns located within this municipality are Madina, Libia Quarters, New Road, Redco, Oyarifa and Madina Estate. The area is densely populated with people from different religious sects (Christian, Islam and Traditional believers) and educational backgrounds. The population of LaNMMA according to the 2010 Population and Housing Census was 111,926 representing 2.8% of the region’s total population. Females constitute 51.5% and males represent 48.5%. About 84.0% of the population in the Municipality resides in urban localities. The municipality has a sex ratio of 94.1%. The population of the Municipality is youthful (38.7%) depicting a broad base population pyramid which tapers off with a small number of elderly persons (5.0%). The predominant activities in the municipality are commercial activities managed by owners of small and medium scale businesses and private organizations. The profession of the
inhabitants are mainly trading, with a few others non-entrepreneurs like students. Additionally, the area is sited with both private and public basic and tertiary institutions such as Mary Queen of Peace basic schools, Presec Basic Schools, Preset Secondary Schools, Presec Boys Secondary School, University of Professional Studies and the Wisconsin International University College. This municipality was selected for the present study because of the social background of the inhabitants and their exposure to the commercial and educational activities in that location. The researcher anticipates that the exposure to the entrepreneurial activities in the research area will influence inhabitants’ opinion about cognitive styles and psychosocial factors on decisions on entrepreneurial businesses.

**Study One**

**Participants**

A total number of 305 questionnaires were administered to participants from the La Nkwantang municipality. The participants who were conveniently selected to fill to the questionnaires were mainly found in households located at the research areas (Madina, Libia Quarters, New Road, Redco Flats and Madina Estate). Other research participants were identified for participation around commercial centers such as shops, market etc. Each of the questionnaires was labeled according to the geographical location where the participants were found. After administering the questionnaires, 275 of them were returned but 272 were eligible for analysis representing a response rate of 89%. Three of the questionnaires were not eligible due to the tattered nature of the sheets making it difficult to identify the answer options that were chosen. Despite the reduction in sample size, the number used was adequate for the analysis. This is because the required sample size for a number of independent variables in a research should not be below a certain number when calculated with the formulae $N > 50 + 8(M)$ (Tabachnick & Fidell, 2000). The letter $N$ represents the sample size.
and $M$ is the number of independent variables. Since the study investigates five (5) independent variables (intuitive, quasi intuitive, adoptive, quasi analytic, analytic cognitive styles). The sample size for the study should be above the figure obtained when the formulae is computed. That is $N > 50 + 8(5) = N > 90$. Therefore the sample size for the study should be greater than 90. This answer justifies why the number obtained (272) was adequate for the study.

Table 1 shows the demographic characteristics of the respondents in study one

<table>
<thead>
<tr>
<th>Demographic Characteristics</th>
<th>Categories</th>
<th>Frequency</th>
<th>Percent</th>
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</thead>
<tbody>
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<td>38.6</td>
</tr>
<tr>
<td>Marital Status</td>
<td>Single</td>
<td>159</td>
<td>58.5</td>
</tr>
<tr>
<td></td>
<td>Married</td>
<td>39</td>
<td>14.3</td>
</tr>
<tr>
<td></td>
<td>In a relationship</td>
<td>52</td>
<td>19.1</td>
</tr>
<tr>
<td></td>
<td>Divorced</td>
<td>22</td>
<td>8.1</td>
</tr>
<tr>
<td>Religion</td>
<td>Traditional</td>
<td>24</td>
<td>8.8</td>
</tr>
<tr>
<td></td>
<td>Christianity Orthodox</td>
<td>110</td>
<td>40.4</td>
</tr>
<tr>
<td></td>
<td>Christianity Charismatic</td>
<td>102</td>
<td>37.5</td>
</tr>
<tr>
<td></td>
<td>Islamic</td>
<td>22</td>
<td>8.1</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>14</td>
<td>5.1</td>
</tr>
<tr>
<td>Business Experience</td>
<td>Yes</td>
<td>201</td>
<td>73.9</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>71</td>
<td>26.1</td>
</tr>
<tr>
<td>Source of Experience</td>
<td>Personal full time</td>
<td>20</td>
<td>7.4</td>
</tr>
<tr>
<td></td>
<td>Personal part time business</td>
<td>57</td>
<td>21.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------------</td>
<td>-------</td>
<td>------</td>
<td></td>
</tr>
<tr>
<td>Family members'</td>
<td>45</td>
<td>16.5</td>
<td></td>
</tr>
<tr>
<td>business</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>99</td>
<td>36.4</td>
<td></td>
</tr>
</tbody>
</table>

Table 1: presents the demographic statistics of the sample used for the study. The sample is predominantly youth between 19 and 35 years as at the time of the survey. The youth constitutes about 66% of the sample while adults, 35 years and more, constitute 34% of the total sample of the study. The sample is fairly balanced in terms of gender. Males constitute 51% while female samples constitute 49%. The sample is fairly literate with everybody having completed some form of formal education. While majority 38.6% completed other educational levels than basic, secondary and tertiary educational level, a little over 36% completed tertiary education. 20 and 5% of the sample completed secondary and basic education respectively. Majority of the sample (59%) are single while 19% are not married but in relationship and 14% are married. Majority of the sample are Christians, about 78% and a similar proportion (76%) also reported to having business experience as at the time of the survey while 24% said they do not have.

**Sampling Technique**

A convenience sampling method was used to select 305 participants from Madina, Libia quarters, New Road, Redco Flats and Madina Estate which are suburbs of the La-Nkwantanang municipal assembly. The justification for choosing the sample size was that quantitative studies on entrepreneurial behaviour in Ghana used samples ranging between 220 and 520 (e.g., Asamani & Opoku Mensah, 2013; Opoku Frimpong, 2014). Also, convenience sampling technique was adopted because it enabled the researcher collect data from participants as and when the participants were available in the community. Secondly
this sampling technique was used because the study was conducted in a community and not in a formal organization.

**Inclusion and Exclusion Criteria**

This section gives details of people who fell in the category of participants for the study. The inclusion and exclusion criteria were set to guide the selection of participants for the study. Thus the inclusion criteria were limited to persons above 18 years who have had some knowledge about entrepreneurial business either by self, family, peers or through education. Persons who had no knowledge in entrepreneurial businesses were also eligible to participate in the study.

However, people below the age of 18 years were excluded from the study as it is believed that they may not be in the position to give consent for participation or may not inadequate exposure to share their view on the discourse.

**Research Instruments**

The study administered structured questionnaires to the respondents in order to examine the study variables. The independent variable in the study was entrepreneurial decision-making whilst the independent variables were the dimensions of cognitive styles (intuitive, quasi-intuitive, adaptive, quasi analytic, analytic). The relationship between the independent variable and the dependent variable was proposed to be moderated by psychosocial factors and demographic characteristics. Therefore that measure these variables were also administered and computed with moderation analyses. A total of six scales were used to test the hypotheses (Appendix A). Initially, the scales were tested for their reliability and validity with PCA and Reliability analysis. Each of the measures is described below.
Psychological Empowerment Scale (PE)

The psychological empowerment scale was developed by Spreitzer (2007). The scale has 4 subscales that measure meaning, impact, self-determination and competence. The construct-competence was measured with items 1, 2 and 3. The construct-self-determination was measured with items 4, 5 and 6. The level of impact was measured with items 7, 8 and 9 whilst the level of meaning was measured with items 10 -12. The total number of items is 12 and an example of an item is “I have mastered the skills for performing a job”. The answer options were arranged on a seven-point Likert scale. Where answer option 1 was very strongly disagree, 2 was strongly disagree, 3 was disagree, 4 was neutral, 5 was agree, 6 was strongly agree and 7 was very strongly agree. The highest score for the response options is 84 whilst the lowest score is 12. The original scale had a reliability coefficient of 0.72 however the current study showed a Cronbach alpha of 0.87. This meant that scores on the psychological empowerment scale would be consistent when used in the study.

Items on the psychological empowerment scale were originally designed to assess samples that were already in work roles, therefore aspects of it scale was revised to suit the purpose of the study. For instance an item on the original scale which read “I have significant autonomy in determining how I will do my job” was revised to “I have significant autonomy in determining how I will do my entrepreneurial activity”. All the twelve items were used because the participants had a good understanding of the items on the scale when it was first administered in the pilot study.

Individual Cultural Value Scale (CVS)

The individual cultural value scale (CVS) was adopted from Hofstede (1980) and revised by Yoo et al. (2011). Unlike the original scale which assesses cultural orientation at the national level, this scale was aimed at measuring cultural orientation an individual basis. This is to say
that it draws on Hofstede’s cultural dimensions to assess an individual’s cultural orientation (Hofstede, 1980). The CVSCALE is a 26-item measuring 5 subscales: Power distance (PDI), Uncertainty avoidance (UAI), Masculine and Feminine (MAS), Individualism- Collectivism (IND) and Long term-Short term Orientation (LTO). The cultural value - PDI was measured with 5 items, UAI was measured with 5 items and IND had 6 items. The other subscales namely LTO and MAS were measured with 6 items and 4 items respectively.

The Cronbach’s alpha of the subscales (PDI, UAI, MAS, IND, LTO) before the present study was 0.79, 0.79, 0.84, 0.89 and 0.78 respectively. The present study also tested for the reliability of the scales and the results showed that the scales (PDI, UAI, MAS, IND, LTO) had Cronbach’s alpha ranging between 0.77 and 0.84 making it suitable for testing the variables under study. Furthermore when the exploratory factor analysis (EFA) was done, a visual inspection of the items showed that the items correlated above .30 which showed that all the items loaded unto the construct.

An example of an item on the scale “It is important for a man to have a professional career than for a woman”. The responses for this scale were measured with a 5 point Likert scale with the response options ranging from strongly disagree to strongly agree. Answer option 1 was strongly disagree, 2 was disagree, 3 was neutral, 4 was agree, 5 was strongly agree. The highest score on the scale is 130 and the lowest score is 26.

**Perceived Relational Support (PRS) scale**

Perceived relational support (PRS) scale was developed by Ron, Van Lieshout and Van Aken. (2003). The level of PRS was measured with 5 items and it had a reliability coefficient of 0.68. An example of an item on the scale is “My family and my friends let me decide as often as possible”. Responses to the items were scored using a seven point Likert scale with answer options ranging from very strongly disagree to very strongly agree. Answer option 1
was very strongly disagree, 2 was strongly disagree, 3 was disagree, 4 was neutral, 5 was agree, 6 was strongly agree and 7 was very strongly agree. The highest score for the response options is 35 whilst the lowest score was 7. All the items were used for the study because they were easily comprehended by the participants. The Cronbach alpha of the scale for the present study was 0.79. This meant that scores on the perceived relational support scale would be consistent when used in the study.

**Cognitive Style Index**

The cognitive style index (CSI) was developed by Allison et al. (2010). The CSI is a 38-item self-support inventory with two broad categories i.e. intuitive and analytical styles. Each of the two dimensions had sub dimensions with an additional dimension being midstream. The scale measures the thinking styles in a continuum. In all sub dimensions of cognitive styles namely: intuitive, quasi intuitive, adaptive, quasi analytic and analytic styles were measured. The items on the scale were scored in parts one being positive (true = two) and the other being negative (true = zero)

The main dimensions of the index: Analytical and intuitive styles showed a reliability coefficient of 0.79 and 0.82 respectively. The CSI had a total of 38 items on the scale. An example of an item on the scale is “I avoid taking a course of action if the odds are against its success”. It uses a trichotomos scale with the response options: True, Uncertain and False. It had a score range of 0 to 76. The score range for intuitive thinking styles was 0-28, quasi-intuitive styles was 29-38, adaptive thinking was 39-45 whilst quasi –analytic and analytic thinking styles was 46-52 and 53-76 respectively. The present study also tested for the reliability of the scales and the results showed that the Cronbach alpha of the two main dimensions of cognitive styles was; analytical styles 0.80 and intuitive styles 0.82.
Additionally, a visual inspection of the items on the exploratory factor analysis output showed that the items correlated above .30 which meant that all the items loaded unto the construct.

**Entrepreneurial Decision-making Scale**

This scale was developed by Brettel, Mauer, Engelen and Küpper (2012). The scale measures 2 dimensions: Effectuation and causation in decision-making. It has a reliability coefficient of 0.781 with 25 items. The original scale begins with a vignette on a specific business case after which samples are asked to answer items on the scale using the vignette stated. An example of an item on the scale is “The decisions I make when starting my new venture will be based on the resources I have available”. It is a 7 point Likert scale with the response options ranging from very strongly disagree to very strongly agree. Answer option 1 was very strongly disagree, 2 was strongly disagree, 3 was disagree, 4 was neutral, 5 was agree, 6 was strongly agree and 7 was very strongly agree. The highest score for the response is 175 and the lowest is 25. The Cronbach alpha of the two dimensions; causation and effectuation was 0.84 and 0.88 respectively in the present study. Furthermore, when the exploratory factor analysis (EFA) was done; all the items on the scales had a figure above 0.30 which showed that all the items loaded unto the construct.

**Research Procedure**

**Pilot Study and Main Study**

After satisfying ethical requirements, a pilot study was conducted to test the validity of the scales in the Ghanaian setting and to assess how well the items on the scales were understood by the participants. Twenty participants were sampled from Madina and Oyarifa for the
study. When the questionnaires were completed, a reliability analysis was done to ascertain the consistency in measurement. All the scales had Cronbach alpha above .07 which shows that if the scales were used in the main study, measurement of the variables will likely be consistent. Ideally, scales with Cronbach alpha above .07 is recommended some authors whilst others consider 0.6 and above (Bland & Altman, 1997; Field, 2005). Consequently, the scales were also tested for their validity using the Exploratory Factor Analysis (EFA).

The procedure for the EFA enables a researcher to investigate whether the items of the scale were components of a common variable construct (Field, 2005; MacCallum & Browne, 2004). In the light of this, the items for the scales measuring cognitive styles, cultural orientations and entrepreneurial decision-making were analysed using EFA. The analysis showed that all the items had factor loadings of and above 0.30 meaning that each scale had items which measured that variable.

After ascertaining the suitability of the scales, it was then administered to participants at times convenient to them with the help of a research assistant. Each participant was briefed on the aims of the study and also asked to sign the consent forms (see appendix E) affirming the fact that they consented to the filling of the questionnaire. A time duration of one (1) hour was given for the filling of the questionnaire after which the responses were analyzed.

**Data Analysis Procedure**

The present study employed three statistical tools in examining the relationships between the research variables. First and foremost, multicollinearity assumption under the multiple regression analysis was tested which made it fit for multiple regression to be used. The choice of multiple regression was based on the assumption that the researcher wanted to investigate which of the two dimensions of cognitive styles and demographic factors had an effect on
entrepreneurial decision-making. Again, a moderating effect of psychological empowerment, perceived relational support and cultural orientations was investigated using the same statistical tool. Firstly, multiple regression analysis was used to assess the group differences in both the cognitive styles and the entrepreneurial decision-making approaches. Secondly a hierarchical multiple regression was used to investigate the predictors of entrepreneurial decision-making. Finally the moderating effects of psychosocial factors and demographic variables on the Independent variable (cognitive styles) and dependent variables (entrepreneurial decision-making) were also tested using regression.

**Study two**

**Participants**

Twelve (12) participants who demonstrated quasi intuitive cognitive styles were selected from study one for the follow up study. The choice of the participants was also guided by the procedure for conducting an interpretative phenomenological analysis which states that the choice of participants should range from one to fifteen participants in an ideal situation (Smith, Flowers & Larkin, 2009). The participant’s selected obtained score range of 29-38 on the cognitive index scale signifying that they were quasi-intuitive thinkers. Choosing participants who were quasi intuitive thinkers was also vital in the qualitative study as they demonstrate element of intuitive thinking and partial signs of creativeness when engaging in activities (Groves et al., 2011; Ijdens, 2015). Therefore, it was deemed appropriate to explore their perceptions, decisions for future venture creation and challenges. The number of participants who obtained a score range of 29-38 was 12 and all of them consented to the study. Participants who were excluded were people who had not taken part in study one and also did not meet the designated score range.
The participants were sampled from three geographical locations (Redco, New Road-Madina, Libia Quarters) within LANMMA, Ghana. The participants were included in study one and so this was a follow up study. The demographic characteristics of the participants are shown in Table 16.

**Table 2: Summary of the Demographic Characteristics of Participants in Qualitative Study.**

<table>
<thead>
<tr>
<th>Interview no</th>
<th>Occupation</th>
<th>Gender</th>
<th>Age</th>
<th>Marital status</th>
<th>Level of Education</th>
<th>Religion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Manager (Restaurant)</td>
<td>male</td>
<td>45</td>
<td>married</td>
<td>Tertiary</td>
<td>Christian</td>
</tr>
<tr>
<td>2</td>
<td>Seamstress</td>
<td>Female</td>
<td>37</td>
<td>Single</td>
<td>J.H.S</td>
<td>Christian</td>
</tr>
<tr>
<td>3</td>
<td>Trader</td>
<td>Female</td>
<td>35</td>
<td>Married</td>
<td>S.S.S</td>
<td>Christian</td>
</tr>
<tr>
<td>4</td>
<td>Bar operator</td>
<td>Female</td>
<td>63</td>
<td>Married</td>
<td>Middle school</td>
<td>Muslim</td>
</tr>
<tr>
<td>5</td>
<td>Sales boy</td>
<td>Male</td>
<td>34</td>
<td>Single</td>
<td>Basic</td>
<td>Christian</td>
</tr>
<tr>
<td>6</td>
<td>Electrician</td>
<td>Male</td>
<td>29</td>
<td>Married</td>
<td>J.H.S</td>
<td>Muslim</td>
</tr>
<tr>
<td>7</td>
<td>Sales attendant</td>
<td>Female</td>
<td>27</td>
<td>Single</td>
<td>S.S.S</td>
<td>Christian</td>
</tr>
<tr>
<td>8</td>
<td>Trader</td>
<td>Female</td>
<td>36</td>
<td>Married</td>
<td>J.H.S</td>
<td>Christian</td>
</tr>
<tr>
<td>9</td>
<td>Driver</td>
<td>Male</td>
<td>38</td>
<td>Married</td>
<td>S.S.S</td>
<td>Christian</td>
</tr>
<tr>
<td>10</td>
<td>Mechanic</td>
<td>Male</td>
<td>29</td>
<td>Single</td>
<td>Basic</td>
<td>Muslim</td>
</tr>
<tr>
<td>11</td>
<td>Unemployed</td>
<td>Female</td>
<td>41</td>
<td>Single</td>
<td>Tertiary</td>
<td>Christian</td>
</tr>
<tr>
<td>12</td>
<td>Graduate</td>
<td>Female</td>
<td>28</td>
<td>Married</td>
<td>Tertiary</td>
<td>Muslim</td>
</tr>
</tbody>
</table>
From Table 2, it can be said that twelve (12) people took part in study two. They consisted of seven females and five males. The age range for the participants was between 27 and 63 years; five (5) of them were between 34 years and 38 years, four (4) of the participants were between 27 and 29 years, Two (2) were between the ages of 41 and 45 and the remaining one was 63 years. Seven of the participants were married whilst five of them were single. The occupational status of the participants showed that majority of them was working in the service industry. For example, one was a seamstress, a bar operator, a trader, an electrician, manager of a restaurant and a mechanic. Two (2) of them were sales attendant. One was in the transport industry; a driver, one was a graduate assistant and one was unemployed. The educational levels of the participants ranged from basic education to tertiary. The religious affiliation also showed that eight were Christians and four were Muslims.

**Inclusion and Exclusion criteria**

All participants who took part in study one (quantitative phase) were also eligible to participate in study two. However, they had to obtain a score range of 29-38 on the cognitive index scale signifying that they were quasi-intuitive thinkers. The justification for choosing this criterion was because quasi-intuitive thinkers are people who exhibit some elements of intuitive thinking and partial signs of creativeness when engaging in activities (Groves et al., 2011; Ijdens, 2015). Therefore it was deemed appropriate to explore their perceptions, decisions for future venture creation and challenges. The number of participants who obtained a score range of 29-38 was 12 and all of them consented to the study.

Participants who were excluded were people who had not taken part in study one and also did not meet the designated score range.
**Justification for In-depth Interviews**

A qualitative study is mainly conducted to understand a phenomenon in a comprehensive manner and it is done in several ways. Some of the qualitative approaches are in depth interviews, focus group discussion, informant interviews etc. (Shenton, 2004). The present study adopted the use of in-depth interviews to collect data. This strategy was used because the researcher wanted to capture the unique experiences of the participants individually and examine the pattern of themes emerging from their responses.

**Interview Guide**

The researcher used a semi-structured interview guide. The questions were developed based on recommendations from studies on entrepreneurship in Ghana (e.g., Adom, 2015) which was administered to a sample of three people in the study (Appendix B). Based on the responses of the sample in the pilot study the guide was revised to include more questions. For instance, one question was asked on how culture influenced the thoughts of the participants when making entrepreneurial decision-making but upon revision questions like which cultural elements influence decisions in entrepreneurial businesses were added. Another question on whether their cultural background encouraged the use of labels or stereotypes to describe people in entrepreneurship. The interview guide was then used for the interview sessions together with probes in order to clarify core questions which were not thoroughly explored. Refer to Appendix B where the interview guide can be found.

**Research Procedure for In-depth Interviews**
Participants eligible for the interview session was identified from study one. During the analysis of the demographic characteristics in study one, responses of participants on the cognitive index were computed and arranged according to four cognitive styles (Intuitive, quasi intuitive, adaptive, analytical and quasi analytical). It emerged that out of 272 participants in study one, twelve participants had scores which identified them as quasi intuitive thinkers and these participants were selected for the qualitative phase of the study. The participants were identified from the coding system used in locating the participants at the various research locations after which they were consulted and asked to fill a consent form for study two.

After the participant’s eligible for participation in the follow up study consented, they signed a consent form, and a day was scheduled for interview sessions. The day was scheduled in agreement with each of the participants. Additionally, each of the participants decided on the location suitable for their interview. On the day of the interview participants consent was sort for audio recording of the responses for the ease of transcription. The interview sessions began with a personal introduction by the researcher followed by the participant. Thereafter the questions on the interview guide were asked with further probing to clarify issues investigated. The interview sessions lasted between 50 minutes and 75 minutes.

**Reflexivity**

Reflexivity is the process of reflection by the researcher, to provide more effective and impartial analysis. The concept of reflexivity stems from different factors such as intellectual and emotional comfort, person’s interest in a certain phenomenon, and attraction toward certain roles or environments that supplement personal style (Breuer, 2000). The researcher is very passionate about business start-ups and by virtue of her profession as a lecturer in General Studies Department, where business students take core courses, students troop in to
discuss their career development goals. This precipitated the quest to examine potential factors that inhibits or otherwise the willingness of students in their pursuit for business development.

In addition, the subject of entrepreneurship became more paramount when orientation was organized for final year students readiness to face the world. The students’ facial expression was full of fear and anxiety as scorns of failure gripped them. Having gone through formal training, it was expected that students would have the right skills to start a business venture but that was not the case. In addition, a market woman whom I buy food stuff from, was discussing other businesses idea with another seller. The remarks from the woman meant that a certain tribe in Ghana is noted for particular businesses hence high success rate. Lastly, my husband is an entrepreneur and sometimes the issues that confront him are very daunting which sometimes results in sleepless nights all in the wake of satisfying clients. That is my motivations for researching in the field of entrepreneurship with the dimensions of cognitions, psychosocial factors and decision-making.

Analysis of Interviews

Transcription

The interview sessions were recorded and later transcribed verbatim with the moods of the participants (e.g., laughs, pauses, sighs, etc.) The moods were recorded together with the responses in order to make the analysis reliable and also to maintain its originality as stated by Seale and Silverman (1997). All interview sessions were done in English. The sessions were later typed in italics in paragraphs and on separate sheets. The sheets were then named to distinguish one interview session from another in a coded format. This format included using interview session numbers and age of respondents. For instance the first interviewee’s responses were labeled as interviewee 1, 45 years whilst the second interviewee’s responses
were labeled as interviewee two, 37 years). The rest of the interviewees’ responses were labeled using the same format.

**Qualitative Analysis Procedure**

Thematic analysis was the analytic method employed for the study. Although other studies (e.g., Ijdens, 2015; Karabey, 2012) have sought to measure cognitive styles and entrepreneurial decision-making quantitatively, measuring variables such as perceptions and meanings attached to entrepreneurship can be done effectively by exploring the themes people use in describing their experiences as entrepreneurs or non-entrepreneurs. Specifically, the process of thematic analysis involves the identification of pattern of recurring themes in a set of transcripts.

The researcher then familiarizes him or herself with the transcript by reading carefully and then gives codes to separate them and then proceeds to group the codes in a hierarchical structure together with the sub themes using a carefully developed thematic code frame. Thus the following procedure was use to analyze the transcripts extracted from the interview sessions.

After the recorded interview sessions were transcribed, the researcher tried to develop concise phrases from the account of the participants and then observed the trend of themes recurring in the responses of the participants. For instance, when questions were asked on the meanings drawn on entrepreneurship, responses of each of the twelve participants was analyzed by generating themes. Majority of the participants (7 of the participants) used phrases which projected entrepreneurship as the intrinsic desires of an individual. That is, an activity which is propelled by an individual’s own thoughts and wishes. The themes used by
the participants to explain their experiences were listed for each question and then were developed into themes. Themes that recurred were grouped in a hierarchical order with the most frequent ones stated first followed by the less frequent ones. They were then arranged into superordinate themes and sub themes in a tabular form. A summary of the main themes and sub themes is presented in table.

**Ethical Considerations for Study One and Two**

In line with strict adherence to ethical guidelines, approval for study one and two were sought from the Ethical and Protocol Review Committee (EPRC) of the College of Humanities, University of Ghana. Four ethical guidelines that were observed for the study and these were informed consent, confidentiality, voluntary participation, and debriefing.

**Acquiring Informed Consent and Debriefing of Participants for both Studies**

Participants were given information sheets about the study. This sheet explained the purpose of the study in words that could easily be understood. The researcher also stated the research procedure, duration of the study and benefits to the participants as well as how confidentiality will be addressed. Verbal and written (signature) consent were given by both participants and their witnesses. Thereafter copies of the said document then sort were kept by both the participant and researcher as evidence (Appendix D). It was also indicated that there were no risks or cost involved if they decide to participate in this research rather participating in the research would help design appropriate training programs for planning and managing businesses. Additionally, the outcome provides general benefits to people who have the passion to start their own entrepreneurial business. With regards to the qualitative study the issue of unequal power asymmetry was discussed between researcher, research assistants and respondents and measures such as giving open responses to interview questions were used as remedies. The researcher and her assistants consciously reminded themselves to view the
responses of participants from different perspectives to reflect their own (participants) within the circumstances of the interview. After the end of the study one and two, participants were debriefed on the outcome of study and the researcher to that opportunity to clarify some misconceptions the participants had experienced during the research process.

Confidentiality of Data

The issue of confidentiality was addressed when participants were told that personal details such as names or initials would not be documented in the study and in cases where interviews were conducted, pseudonyms would be used for identification purposes. Data collected electronically were also being protected with passwords. Consequently, participants were assured that data generated will be kept safely and securely in the universities archives for a minimum of ten years before being destroyed. Measures were also put in place to protect data recorded during interview sessions by deleting the recordings soon after transcriptions.

Voluntary Participation in Study One and Two

Participants were also informed that they had the will to participate in the study and also refuse to answer any questions they were uncomfortable with it or withdraw from the study at any point, if they choose to do so.

Research Rigor

According to Seale and Silverman (1997) in collecting qualitative data, a number of strategies should be adhering to in order to ensure the quality of the work. Krauss (2005) also shares in the same view that rigor in qualitative studies is an essential element for maximizing the potential for generating meaning out of people’s experiences as respondents attach subjectivity to intended meaning of their behaviour.
In this regard, these are the use detailed descriptions of transcriptions techniques, iterative questioning, peer scrutiny and triangulation. These recommendations have also being affirmed by Shenton (2004). In lieu of this, the researcher adopted these strategies in order to enhance the quality of study two. These are the use of detailed transcription techniques, iterative questioning, peer scrutiny and triangulation.

**The use of Detailed Transcription Techniques:** the researcher and the assistants to transcribe data verbatim and to be guided by analytic ideas and transcription symbols in order to increase objectivity of the data made Efforts. Since this study focused on people’s perceptions, experiences and challenges with decisions for entrepreneurial opportunities, it was deemed important to initiate strategies which led to reliable recording as stated by Seale and Silverman (1997).

**Iterative Questioning:** The questions were accompanied with probes to ensure that the participants elicited meticulous responses. Occasionally, the interviewer rephrases the questions in order to avoid discrepancies in the responses given.

**Peer Scrutiny of the Data:** The researcher also made efforts to present the qualitative data to her colleagues and experts in the discourse for their view and to ensure that themes generated were the same. Additionally, the interview guide and data were also submitted to the supervisors for scrutiny and to reach an agreement on the themes generated. The accuracy of the data was also investigated through the same process. As postulated by Shenton (2004) this strategy enables investigator strengthen his or her arguments in the light of the comments.
**Triangulation:** The researcher collected data from two sources: quantitative and qualitative data that is the administration of questionnaires and in-depth interviews in order to ensure that the source of the information was trustworthy.
CHAPTER FOUR

RESULTS

Introduction

This section presents the results for study one and two. In study one, four hypothesis was formulated to investigate the extent to which demographic factors influenced the choice of entrepreneurial decision-making approaches, cognitive styles and how it affects entrepreneurial decision-making approaches and the moderating effects of psychosocial factors and demographic factors on the relationship between cognitive styles and decision-making. Afterwards, the hypotheses were tested using the Statistical Package for the Social Sciences (SPSS, version 16).

In study two, personal interviews were conducted to explore the perceptions people have about entrepreneurial activities and hence entrepreneurial decision-making. The transcripts obtained from the respondents were analysed using thematic analysis. The section concludes with the summary and discussion of findings for both studies.

Results of study one

Study one examined the impact of cognitive style approaches on entrepreneurial decision-making. Two dimensions of cognitive styles were assessed (i.e. analytic cognitive style and intuitive cognitive style). Entrepreneurial decision-making was also measured with two dimensions (i.e. effectuation and causation). Four specific objectives were examined. This chapter presents findings resulting from the statistical analysis of the data. The results are presented as follows. Preliminary analyses of descriptive statistics, correlations and factor analyses are presented first. After that, test of hypotheses testing is presented next and then a summary of the results is also presented.
**Preliminary Analyses**

This sub-section presents preliminary analyses undertaking in processing the data for inferential statistical analyses. The preliminary analyses have three sections which are factor analyses, descriptive statistics and correlation analysis.

**Factor Analysis**

A factor analysis was conducted to identify the underlying factor structure of the three scales (Cognitive styles index, entrepreneurial decision-making scale and individual cultural values index) whose dimensions were used for the analysis. The main purpose of exploratory factor analysis entails summarization and reduction of data. In this study, it was used to confirm the underlying structure of the selected measures. As recommended by Tabachnick and Fidell (2006), a principal component with varimax rotation was used to examine the extent to which the items were related. Items measuring the same construct were expected to load on the same factor. Eigen values more than 1 and scree plot were used to determine the number of factors to be extracted. The Kaiser-Meyer-Olkin (KMO) test of sampling adequacy and the Bartlett’s test of sphericity were used to examine sampling adequacy, the degree of inter-correlations among the variables and to eliminate weak factors.

**Entrepreneurial Decision-making Scale**

The result showed that KMO measure of sampling adequacy was .766. The Bartlett’s test of sphericity, which examines the degree of inter-correlations among the variables was significant \[\chi^2 = 4635, p < .001\]. Two factors had eigenvalues above 1 and an inspection of the scree plot showed it leveled out after the second factor. Two factors were therefore extracted. The first factor explained 48.964\% the variance whilst the second factor explained 15.984\% respectively accounting for a total variance of 64.948\%. A visual inspection revealed that all items correlated above .30. The loadings in the current study were consistent
with the original scale, which had two factors. The results are summarized in Table 3.

**Entrepreneurial Decision-making Scale**

Table 3: Factor loadings based on an exploratory factor analysis with varimax rotation for 17 items from two components of the Entrepreneurial decision-making scale (N= 272)

<table>
<thead>
<tr>
<th>Items</th>
<th>Component Effectuation</th>
<th>Component Causation</th>
</tr>
</thead>
<tbody>
<tr>
<td>I will ask customers and suppliers to pre-commit to my new venture in order to reduce risks</td>
<td>.893</td>
<td>.012</td>
</tr>
<tr>
<td>I will try to control the future based on predictions of my previously obtained knowledge</td>
<td>.892</td>
<td>.020</td>
</tr>
<tr>
<td>I will only spend resources I have available and I am willing to lose</td>
<td>.882</td>
<td>.236</td>
</tr>
<tr>
<td>I take a clearly pre-defined target as a starting point of the new venture</td>
<td>.875</td>
<td>.059</td>
</tr>
<tr>
<td>I will talk to people I know to enlist their support in making opportunities a reality</td>
<td>.845</td>
<td>.007</td>
</tr>
<tr>
<td>Decisions will be made together with stakeholders based on our competences</td>
<td>.839</td>
<td>.004</td>
</tr>
<tr>
<td>Decisions will be primarily based on minimization of risks and cost</td>
<td>.801</td>
<td>.063</td>
</tr>
<tr>
<td>I will try to identify risks by a thorough competitors analysis</td>
<td>.595</td>
<td>.178</td>
</tr>
<tr>
<td>I will try to be optimistic about the future</td>
<td>.521</td>
<td>.272</td>
</tr>
<tr>
<td>I will allow changes in my planning if needed, even during the implementation process of my new venture</td>
<td>.063</td>
<td>.911</td>
</tr>
<tr>
<td>Before starting my new venture, I will first acquire all resources needed to achieve my target.</td>
<td>-.041</td>
<td>.903</td>
</tr>
<tr>
<td>I will try to identify markets by a thorough market analysis.</td>
<td>.019</td>
<td>.893</td>
</tr>
<tr>
<td>I will always pay attention that my initially defined target will be met.</td>
<td>-.345</td>
<td>.882</td>
</tr>
</tbody>
</table>
Beforehand, I will calculate how many resources I need to achieve the expected returns.

I expect to change my original target when confronted with new findings.

The decisions I make when starting my new venture will be based on the resources I have available.

The uncertainty of a market will not block me since I rely on my own experience to imagine opportunities.

**Cognitive Styles Index**

The result showed that KMO measure of sampling adequacy was .714. The Bartlett’s test of sphericity, which examines the degree of inter-correlations among the variables, was significant [$\chi^2 (300) = 7322.102$, $p < .001$]. Two factors had eigenvalues above 1 and an inspection of the scree plot showed it levelled out after the second factor. The two factors were therefore extracted. The first factor explained 35.023% the variance then the second factor also explained 27.608% respectively accounting for a total variance of 62.631%. A visual inspection revealed that all items correlated above .30. The loadings in the current study were consistent with the original scale, which had two factors. The results are summarized in Table 4.

**Cognitive Style Index**

Table 4: Factor loadings based on a exploratory factor analysis with varimax rotation for 30 items from two components of cognitive style index (N= 272)

<table>
<thead>
<tr>
<th>Items</th>
<th>Component</th>
</tr>
</thead>
<tbody>
<tr>
<td>In my experience, rational thought is the only realistic basis for making decisions</td>
<td>0.626</td>
</tr>
<tr>
<td>To solve a problem, I have to study each part of it in detail</td>
<td>0.407</td>
</tr>
<tr>
<td>I avoid taking a course of action if the odds are against its success.</td>
<td>0.499</td>
</tr>
<tr>
<td>I am inclined to scan through reports rather than read them in detail.</td>
<td>0.062</td>
</tr>
</tbody>
</table>
My understanding of a problem tends to come more from thorough analysis than flashes of insight.

I try to keep to a regular routine in my duties.

The kind of business activity I like best is that which requires a logical, step-by-step approach.

I rarely make ‘off the top of the head’ decisions.

Given enough time, I would consider every situation from all angles.

To be successful in my line of duty.

The best way for me to understand a problem is to break it down into its constituent parts.

I find that to adopt a careful, analytical approach to making decisions takes too long.

I make most progress when I take calculated risks.

I find that it is possible to be too organized when performing certain kinds of task.

I always pay attention to detail before I reach a conclusion.

I make many of my decisions on the basis of intuition.

My philosophy is that it is better to be safe than risk being sorry.

When making a decision, I take my time and thoroughly consider all relevant factors.

I would rather that my life was unpredictable than that it followed a regular pattern.

Most people regard me as a logical thinker.

To fully understand the facts I need a good theory.

I work best with people who are spontaneous.

I find detailed, methodical work satisfying.

My approach to solving a problem is to focus on one part at a time.

I am constantly on the lookout for new experiences.

In meetings, I have more to say than most.

My ‘gut feeling’ is just as good a basis for decision-making as careful analysis.

I am the kind of person who casts caution to the wind.
I make decisions and get on with things rather than analyze every last detail  
I am more at home with ideas rather than facts and figures

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>I make decisions and get on with things rather than analyze every last detail</td>
<td>.077</td>
<td>.450</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am more at home with ideas rather than facts and figures</td>
<td>.182</td>
<td>.512</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Individual Cultural Orientation**

The result showed that KMO measure of sampling adequacy was .686. The Bartlett’s test of sphericity, which examines the degree of inter-correlations among the variables, was significant \( \chi^2 (325) = 7140.573, p < .001 \). Five factors had eigenvalues above 1 and an inspection of the scree plot showed it levelled out after the fifth factor. Five factors were therefore extracted. The first factor explained 17.695% the variance, the second factor explained 15.950% variance, the third factor explained 12.080% variance, the fourth factor explained 9.745% variance and the fifth factor explained 9.617% variance respectively accounting for a total variance of 66.087%. A visual inspection revealed that all items correlated above .30. The loadings in the current study were consistent with the original scale, which had five factors. The results are summarized in Table 5.

**Individual Cultural Value**

Table 5: Factor loadings based on a exploratory factor analysis with varimax rotation for 26 items from five factor of individual cultural index (N= 272)

<table>
<thead>
<tr>
<th>Items</th>
<th>Component</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. People in higher positions should make most decisions without consulting people in lower positions.</td>
<td>.482 .073 .051 .017 .206</td>
</tr>
</tbody>
</table>
2. People in higher positions should not ask the opinions of people in lower positions too frequently.  
3. People in higher positions should avoid social interaction with people in lower positions.  
4. People in lower positions should not disagree with decisions by people in higher positions.  
5. People in higher positions should not delegate important tasks to people in lower positions.  
6. It is important to have instructions spelled out in detail so that I always know what I’m expected to do.  
7. It is important to closely follow instructions and procedures.  
8. Rules and regulations are important because they inform me of what is expected of me.  
9. Standardized work procedures are helpful.  
10. Instructions for operations are important.  
11. Individuals should sacrifice self-interest for the group.  
12. Individuals should stick with the group even through difficulties.  
13. Group welfare is more important than individual rewards.  
14. Group success is more important than individual success.  
15. Individuals should only pursue their goals after considering the welfare of the group.  
16. Group loyalty should be encouraged even if individual goals suffer.  
17. It is more important for men to have a professional career than it is for women.  
18. Men usually solve problems with logical analysis; women usually solve problems with intuition.
<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>19. Solving difficult problems usually requires an active, forcible approach, which is typical of men.</td>
<td>-.082</td>
<td>.355</td>
<td>-.290</td>
<td>.423</td>
</tr>
<tr>
<td>20. There are some jobs that a man can always do better than a woman.</td>
<td>.172</td>
<td>-.089</td>
<td>-.244</td>
<td>.574</td>
</tr>
<tr>
<td>21. Careful management of money.</td>
<td>.172</td>
<td>-.089</td>
<td>-.244</td>
<td>-.347</td>
</tr>
<tr>
<td>22. Going on resolutely in spite of opposition.</td>
<td>.257</td>
<td>.024</td>
<td>.271</td>
<td>-.393</td>
</tr>
<tr>
<td>23. Personal steadiness and stability.</td>
<td>.272</td>
<td>-.083</td>
<td>-.244</td>
<td>-.247</td>
</tr>
<tr>
<td>24. Long-term planning.</td>
<td>.273</td>
<td>-.216</td>
<td>-.377</td>
<td>-.157</td>
</tr>
<tr>
<td>25. Giving up today’s fun for success in the future.</td>
<td>.010</td>
<td>.080</td>
<td>.162</td>
<td>.221</td>
</tr>
<tr>
<td>26. Working hard for success in the future</td>
<td>-.231</td>
<td>.257</td>
<td>.127</td>
<td>.266</td>
</tr>
</tbody>
</table>

1 = Power Distance, 2 = Uncertainty Avoidance, 3 = Collectivism – Individualism, 4 = Masculinity-Feminism, 5 = Long Term Orientation

**Descriptive Statistics**

Descriptive statistics were performed to assess the distribution of the data. This was assessed using the skewness and kurtosis values to check distribution of the data and also to detect the presence of outliers. According to Tabachnick and Fidell (2006), a variable is normally distributed when the value for skewness range between ±1.00 and that of kurtosis ranges between ±2.00. In this study, the values of skewness and kurtosis were within normal ranges, which indicated that the data was normally distributed with no outliers. These are shown in Table 6.
**Table 6. Descriptive Statistics, Test for Normality and Reliability indices of variables**
(N=272)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Min.</th>
<th>Max.</th>
<th>M</th>
<th>SD</th>
<th>Skewness</th>
<th>Kurtosis</th>
<th>α</th>
</tr>
</thead>
<tbody>
<tr>
<td>Causation Entrepreneurial</td>
<td>25.00</td>
<td>79.00</td>
<td>62.34</td>
<td>10.73</td>
<td>-1.11</td>
<td>1.16</td>
<td>.84</td>
</tr>
<tr>
<td>Decision-Making</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Effectuation Entrepreneurial</td>
<td>30.00</td>
<td>84.00</td>
<td>62.74</td>
<td>12.13</td>
<td>-1.03</td>
<td>1.28</td>
<td>.88</td>
</tr>
<tr>
<td>Decision-Making</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived Relational Support</td>
<td>9.00</td>
<td>32.00</td>
<td>25.09</td>
<td>4.93</td>
<td>-.749</td>
<td>.684</td>
<td>.79</td>
</tr>
<tr>
<td>Psychological Empowerment</td>
<td>43.00</td>
<td>83.00</td>
<td>66.43</td>
<td>9.93</td>
<td>-.469</td>
<td>.066</td>
<td>.87</td>
</tr>
<tr>
<td>Analytic Cognitive Style</td>
<td>16.00</td>
<td>42.00</td>
<td>32.22</td>
<td>6.31</td>
<td>-.399</td>
<td>-.422</td>
<td>.80</td>
</tr>
<tr>
<td>Intuitive Cognitive Style</td>
<td>2.00</td>
<td>28.00</td>
<td>15.49</td>
<td>5.68</td>
<td>-.544</td>
<td>.299</td>
<td>.82</td>
</tr>
<tr>
<td>Power Distance</td>
<td>5.00</td>
<td>22.00</td>
<td>10.26</td>
<td>4.77</td>
<td>1.02</td>
<td>.126</td>
<td>.79</td>
</tr>
<tr>
<td>Uncertainty Avoidance</td>
<td>10.00</td>
<td>25.00</td>
<td>20.54</td>
<td>4.36</td>
<td>-.914</td>
<td>-.372</td>
<td>.83</td>
</tr>
<tr>
<td>Collectivism Individualism</td>
<td>9.00</td>
<td>29.00</td>
<td>22.62</td>
<td>3.88</td>
<td>-.787</td>
<td>1.15</td>
<td>.84</td>
</tr>
<tr>
<td>Masculinity Feminism</td>
<td>4.00</td>
<td>22.00</td>
<td>11.90</td>
<td>4.13</td>
<td>.317</td>
<td>-.516</td>
<td>.77</td>
</tr>
<tr>
<td>Long Term Orientation</td>
<td>11.00</td>
<td>30.00</td>
<td>25.22</td>
<td>4.08</td>
<td>-1.14</td>
<td>1.61</td>
<td>.78</td>
</tr>
</tbody>
</table>

From Table 6, it was observed that the skewness values of all the variables ranged between - .399 and 1.02 and the values of kurtosis ranged between -.567 and 1.61. The values for skewness and kurtosis were within the accepted limit which shows that the data is normally distributed. With regards to reliability levels, the Cronbach alpha values range between α = .77 and α = .88. This means that all the scales are highly reliable.

**Correlation Matrix**

The relationships between the variables were assessed using Pearson-Product Moment correlation (Pearson r). The correlation matrix helped to assess the relationship among the
variables in order to know the variables to be included in the model testing. The results are presented in Table 7. Causation entrepreneurial decision-making was positively related to analytical cognitive style but not intuitive cognitive style. It was also related to psychosocial factors: psychological empowerment and all the dimensions of cultural orientations: uncertainty avoidance, masculinity and feminism, long term orientation and power distance except collectivism Individualism. However, Causation entrepreneurial decision-making was negatively related with power distance. Effectuation entrepreneurial decision-making was also positively related to analytical cognitive style but not intuitive cognitive style. It was also related to some psychosocial factors including perceived relational support, psychological empowerment, uncertainty avoidance, masculinity and feminism and long term orientation and negatively with power distance.
Table 7: Correlation Matrix among the Variable

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>.797**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>.010</td>
<td>.198**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>.214**</td>
<td>.268**</td>
<td>.048</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>.265**</td>
<td>.300**</td>
<td>.091</td>
<td>-.150*</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td>.096</td>
<td>.013</td>
<td>.083</td>
<td>-.137*</td>
<td>-.432**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td>-.125*</td>
<td>.010</td>
<td>-.283**</td>
<td>.015</td>
<td>-.020</td>
<td>-.392**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td>.207**</td>
<td>.192**</td>
<td>-.006</td>
<td>.115</td>
<td>.035</td>
<td>.243**</td>
<td>-.203**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td></td>
<td>.114</td>
<td>.227**</td>
<td>.631***</td>
<td>.245**</td>
<td>.004</td>
<td>-.040</td>
<td>-.248**</td>
<td>.103</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
<td>.343**</td>
<td>.464**</td>
<td>.316**</td>
<td>.252**</td>
<td>.086</td>
<td>.021</td>
<td>-.024</td>
<td>.119*</td>
<td>.134*</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td></td>
<td>.399**</td>
<td>.484**</td>
<td>.015</td>
<td>.249**</td>
<td>.214”</td>
<td>.015</td>
<td>-.097</td>
<td>.168**</td>
<td>-.027</td>
<td>.051</td>
<td>1</td>
</tr>
<tr>
<td>12</td>
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<td>.136*</td>
<td>.178**</td>
<td>-.015</td>
<td>.434**</td>
<td>-.307”</td>
<td>.153*</td>
<td>-.010</td>
<td>-.057</td>
<td>-.019</td>
<td>.411”</td>
<td>-.059</td>
</tr>
</tbody>
</table>

* = p < .05, ** = p < .01 (2-tailed).
Test of Hypotheses

A series of hierarchical multiple regression analyses were conducted to test the predictors and moderators of entrepreneurial decision-making. Before conducting the analyses, multicollinearity assumption under multiple regression analysis was tested using variance inflation factor (VIF) and Tolerance values. Tabachnick and Fidell (2006) states that for a data to pass multicollinearity test, the tolerance values should be greater than .10 and VIF values should be less than 10. In the current study, the tolerance values ranged between .33 and .99 and the VIF values ranged between 1.02 to 5.69, which means that the multicollinearity assumption was not violated (Pallant, 2010; Tabachnick & Fidell, 2007). After checking for the assumption, the hypothesis was tested.

Hypothesis one stated that there will be a significant relationship between demographic factors and entrepreneurial decision-making dimensions, hypothesis two stated that cognitive styles will predict entrepreneurial decision-making. Hypotheses three and four stated that psychosocial factors and demographic factors will moderate the relationship between cognitive styles and entrepreneurial decision-making. The presentation of results for the four research hypotheses is done separately for the dimensions of the dependent variable: causation and effectuation. Therefore a two series of 3-step hierarchical multiple regression models were run to test the predictors and moderators of entrepreneurial decision-making (i.e. causation entrepreneurial decision-making and effectuation entrepreneurial decision-making).

Each model first tests the effect of demographic factors (i.e. age, gender, education and business experience) on entrepreneurial decision-making at step 1. The categorical demographic variables were dummy coded as gender (male = 1 female = 0), education
(tertiary = 1, others = 0) and business experience (has business experience = 1, no business experience = 0).

At step 2, the models then tested the effect of entrepreneurial cognitions (i.e. analytical cognitive style and intuitive cognitive style), psychosocial factors (i.e. perceived relational support and psychological empowerment) and cultural orientations (i.e. power distance, uncertainty avoidance, collectivism-individualism, masculinity-femininity and long term orientation) on each dimension of entrepreneurial decision-making.

At step 3, the models tested the moderating effect of demographic, psychosocial and cultural orientation factors between entrepreneurial cognition and each dimension of entrepreneurial decision-making. The moderation analyses were conducted using the procedures recommended by Baron and Kenny (1986). The continuous predictor and moderator variables were centered as recommended by Jose (2013) to reduce multicollinearity between the main effect and interaction terms. Therefore, the predictor and the moderator variable were first of all centered. The centering was done by subtracting the mean of each variable from the score of each participant (Pallant, 2010; Tabachnick & Fidell, 2007). After that, an interaction term (IV) was created by multiplying the centered IV with the centered moderator variable (MV). The results are provided on Table 8 and 9.

**Predictors and Moderators of Causation Entrepreneurial Decision-Making**

Hypothesis one proposed that demographic variables (gender, age, education and business experience will predict entrepreneurial decision-making approaches. Hypothesis two also proposed that cognitive styles will Cognitive styles of an individual will significantly predict entrepreneurial decision-making approaches. Hypothesis three proposed that psychosocial
factors (i.e. psychological empowerment, perceived relational support and individual cultural orientation) will moderate the relationship between cognitive styles and entrepreneurial decision-making approaches (causation and effectuation). Finally, hypothesis four proposed that demographic factors will moderate the relationship between cognitive styles and entrepreneurial decision-making approaches (causation and effectuation). The results for the four hypotheses are presented in two models: one output for causation entrepreneurial decision-making and another output for effectuation entrepreneurial decision-making.

The model below tests the predictors and moderators of causation entrepreneurial decision-making. The demographic factors are tested at step 1. The effect of entrepreneurial cognition styles, psychosocial factors and cultural orientations on causation entrepreneurial decision is tested at step 2. The moderating factors are tested at step 3. The results are provided on Table 8.
### Table 8: Predictors and Moderators of Causation Entrepreneurial Decision-making

<table>
<thead>
<tr>
<th>Model</th>
<th>B</th>
<th>SE</th>
<th>β</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>37.402</td>
<td>6.308</td>
<td>15.929***</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>-0.042</td>
<td>0.040</td>
<td>-0.030</td>
<td>-1.054</td>
</tr>
<tr>
<td>Males</td>
<td>1.587</td>
<td>0.497</td>
<td>0.074</td>
<td>3.191**</td>
</tr>
<tr>
<td>Has Business Experience</td>
<td>-8.419</td>
<td>0.902</td>
<td>-0.337</td>
<td>-9.331***</td>
</tr>
<tr>
<td>Tertiary Education</td>
<td>-2.976</td>
<td>0.720</td>
<td>-0.132</td>
<td>-4.135***</td>
</tr>
<tr>
<td>2</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Analytic Cognitive Style</td>
<td>1.299</td>
<td>0.126</td>
<td>0.766</td>
<td>10.307***</td>
</tr>
<tr>
<td>Intuitive Cognitive Style</td>
<td>0.280</td>
<td>0.130</td>
<td>0.148</td>
<td>2.147*</td>
</tr>
<tr>
<td>Perceived Relational Support</td>
<td>-0.615</td>
<td>0.097</td>
<td>-0.281</td>
<td>-6.319***</td>
</tr>
<tr>
<td>Psychological Empowerment</td>
<td>0.080</td>
<td>0.049</td>
<td>0.072</td>
<td>1.609</td>
</tr>
<tr>
<td>Power Distance</td>
<td>-0.078</td>
<td>0.095</td>
<td>-0.035</td>
<td>-0.823</td>
</tr>
<tr>
<td>Uncertainty Avoidance</td>
<td>1.104</td>
<td>0.069</td>
<td>0.449</td>
<td>16.099***</td>
</tr>
<tr>
<td>Collectivism Individualism</td>
<td>-0.586</td>
<td>0.144</td>
<td>-0.207</td>
<td>-4.054***</td>
</tr>
<tr>
<td>Masculinity Femininity</td>
<td>-0.750</td>
<td>0.110</td>
<td>-0.288</td>
<td>-6.845***</td>
</tr>
<tr>
<td>Long Term Orientation</td>
<td>0.012</td>
<td>0.136</td>
<td>0.005</td>
<td>0.092</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Analytical x Perceived Relational Support</td>
<td>0.241</td>
<td>0.021</td>
<td>0.384</td>
<td>11.569***</td>
</tr>
<tr>
<td>Analytical x Psychological Empowerment</td>
<td>0.047</td>
<td>0.007</td>
<td>0.365</td>
<td>6.999***</td>
</tr>
<tr>
<td>Analytical x Power Distance</td>
<td>-0.192</td>
<td>0.020</td>
<td>-0.452</td>
<td>-9.679***</td>
</tr>
<tr>
<td>Analytical x Uncertainty Avoidance</td>
<td>0.165</td>
<td>0.021</td>
<td>0.369</td>
<td>7.693***</td>
</tr>
<tr>
<td>Analytical x Collectivism Individualism</td>
<td>-0.370</td>
<td>0.026</td>
<td>-0.260</td>
<td>-14.035***</td>
</tr>
<tr>
<td>Analytical x Masculinity Femininity</td>
<td>-0.014</td>
<td>0.026</td>
<td>-0.040</td>
<td>-0.545</td>
</tr>
<tr>
<td>Analytical x Long Term Orientation</td>
<td>0.042</td>
<td>0.027</td>
<td>0.115</td>
<td>1.563</td>
</tr>
<tr>
<td>Analytical Age</td>
<td>-0.002</td>
<td>0.008</td>
<td>-0.011</td>
<td>-0.225</td>
</tr>
<tr>
<td>Analytical x Male</td>
<td>-0.076</td>
<td>0.087</td>
<td>-0.031</td>
<td>-0.880</td>
</tr>
<tr>
<td>Analytical x Tertiary</td>
<td>-0.400</td>
<td>0.150</td>
<td>-0.115</td>
<td>-2.674**</td>
</tr>
<tr>
<td>Intuitive x Perceived Relational Support</td>
<td>0.137</td>
<td>0.035</td>
<td>0.395</td>
<td>3.900***</td>
</tr>
<tr>
<td>Intuitive x Psychological Empowerment</td>
<td>0.330</td>
<td>0.023</td>
<td>0.341</td>
<td>14.505***</td>
</tr>
<tr>
<td>Intuitive x Power Distance</td>
<td>0.003</td>
<td>0.030</td>
<td>0.007</td>
<td>0.099</td>
</tr>
<tr>
<td>Intuitive x Uncertainty Avoidance</td>
<td>-0.207</td>
<td>0.024</td>
<td>-0.468</td>
<td>-8.471***</td>
</tr>
<tr>
<td>Intuitive x Collectivism Individualism</td>
<td>-0.260</td>
<td>0.021</td>
<td>-0.551</td>
<td>-12.287***</td>
</tr>
<tr>
<td>Intuitive x Masculinity Femininity</td>
<td>-0.119</td>
<td>0.036</td>
<td>-0.250</td>
<td>-3.272**</td>
</tr>
<tr>
<td>Intuitive x Long Term Orientation</td>
<td>-0.133</td>
<td>0.032</td>
<td>-0.275</td>
<td>-4.141***</td>
</tr>
<tr>
<td>Intuitive x Age</td>
<td>0.012</td>
<td>0.010</td>
<td>0.049</td>
<td>1.259</td>
</tr>
<tr>
<td>Intuitive x Male</td>
<td>-0.179</td>
<td>0.105</td>
<td>-0.077</td>
<td>-1.704</td>
</tr>
<tr>
<td>Intuitive x Tertiary</td>
<td>-0.008</td>
<td>0.147</td>
<td>-0.002</td>
<td>-0.053</td>
</tr>
</tbody>
</table>

***=p<.001, **=p<.01, *=p<.05, (2-tailed)

The overall model was found to be significant (F = 124.776, p < .001) and accounted for approximately 64.6% (R² = .646) variance in causation entrepreneurial decision-making. In
step 1, the demographic factors significantly predicted causation entrepreneurial decision-making ($F = 3.601, p < .01$), accounting for 5.2% variance ($R^2 = .052$). As shown in Table 8, gender, education and having business experience had significant effects on causation entrepreneurial decision-making. Males had .074 standard deviations higher causation entrepreneurial decision-making more than females ($\beta = .074, t = 3.191, p < .01$). Those who reported of having business experience reported .337 standard deviations lower causation entrepreneurial decision-making than those without business experience ($\beta = -.337, t = -9.331, p < .001$). Also, those with tertiary education reported .132 standard deviations lower causation entrepreneurial decision-making ($\beta = -.132, t = -4.135, p < .001$).

In step 2, entrepreneurial cognition styles, psychosocial factors and cultural orientations significantly predicted causation entrepreneurial decision-making ($\Delta F= 24.548, p < .001$), accounting for additional 44.2% variance ($\Delta R^2 = .442$). As shown in Table 8, causation entrepreneurial decision-making was predicted by both analytical cognitive style ($t = 10.307, p < .001$) and intuitive cognitive style ($t = 2.147, p < .05$). However, analytical cognitive style accounted for higher variance, with a 1 standard deviation increase in analytical style causing a .766 standard deviation increase in causation entrepreneurial decision-making ($\beta = .776$), while a 1 standard deviation increase in intuitive style causes a .148 standard deviation increase in causation entrepreneurial decision-making ($\beta = .148$). Perceived relational support also had a significant impact on causation entrepreneurial decision-making ($t = -6.319, p < .001$), with a 1 standard deviation increase in support receives from relations decreasing causation entrepreneurial decision by .281 standard deviation ($\beta = -.281$). Three dimensions of cultural orientations (i.e. uncertainty avoidance, collectivism-individualism and masculinity-femininity) also had significant impact. Causation entrepreneurial decision-making was increased by increase in uncertainty avoidance ($\beta = .449, t = 16.099, p < .001$)
but was however reduced by increase in both collectivism-individualism (\(\beta = -.207, t = -4.054, p < .001\)) and masculinity-femininity (\(\beta = -.288, t = -6.845, p < .001\)).

At step 3 of the model, the moderating effect was significant (\(\Delta F = 18.423, p < .001\)), accounting for additional 15.2% variance (\(\Delta R^2 = .442\)). As shown in Table 8, the effect of analytical cognition on causation entrepreneurial decision-making was moderated by the two psychosocial factors (perceived relational support and psychological empowerment), three cultural dimensions (i.e. uncertainty avoidance, collectivism-individualism and masculinity-femininity) and one demographic factor (i.e. education). Specifically, the effect is strengthened by high perceived relational support (\(\beta = .384, t = 11.569, p < .001\)), high psychological empowerment (\(\beta = .365, t = 6.998, p < .001\)) and high uncertainty avoidance (\(\beta = .369, t = 7.693, p < .001\)) but is weakened by high power distance (\(\beta = -.452, t = -9.679, p < .001\)), high collectivism-individualism (\(\beta = -.260, t = -14.035, p < .001\)) and having tertiary education (\(\beta = -.115, t = -2.674, p < .01\)).

The effect of intuitive cognition on causation entrepreneurial decision-making was also moderated by each of the two psychosocial factors (perceived relational support and psychological empowerment) and four dimensions of cultural orientation (i.e. uncertainty avoidance, collectivism-individualism, masculinity-femininity and long term orientation). None of the demographic significantly moderated. Specifically, the effect is strengthened by high perceived relational support (\(\beta = .395, t = 3.90, p < .001\)) and high psychological empowerment (\(\beta = .341, t = 14.505, p < .001\)) but is weakened by high uncertainty avoidance (\(\beta = -.468, t = -8.471, p < .001\)), high collectivism-individualism (\(\beta = -.551, t = -12.287, p < .001\)), high masculinity-Femininity (\(\beta = -.250, t = -3.272, p < .01\)) and long term orientation (\(\beta = -.275, t = -4.141, p < .001\)).

Sample graphs depicting the moderation effect are presented on Figure 1, 2 and 3.
Figure 2 show that analytical cognitive style (ACS) has a more significant impact on causation entrepreneurial when perceived relational support (PRS) is low rather than high.

\[ \text{Causation Entrepreneurial Decision-making} \]

\[ \text{Low ACS} \quad \text{High ACS} \]

\[ \text{Low PRS} \quad \text{High PRS} \]

**Figure 2: Moderation effect of Perceived relational support between analytical cognitive style and causation entrepreneurial decision-making.**

Figure 3 on the other hand shows that analytical cognitive style (ACS) has a more significant impact on causation entrepreneurial when psychological empowerment (PE) is high rather than low.
Figure 3: Moderation effect of Psychological empowerment between analytical cognitive style and causation entrepreneurial decision-making

Figure 4 also shows that the effect of analytical cognitive style (ACS) on causation entrepreneurial decision-making is stronger when power distance (PD) is low rather than high.
Predictors and Moderators of Effectuation Entrepreneurial Decision-Making

Hypothesis one proposed that demographic variables (gender, age, education and business experience will predict entrepreneurial decision-making approaches. Hypothesis two also proposed that cognitive styles of an individual will significantly predict entrepreneurial decision-making approaches. Hypothesis three proposed that psychosocial factors (i.e. psychological empowerment, perceived relational support and individual cultural orientation) will moderate the relationship between cognitive styles and entrepreneurial decision-making approaches (causation and effectuation). Finally, hypothesis four proposed that demographic factors will moderate the relationship between cognitive styles and entrepreneurial decision-making approaches (causation and effectuation). The result for the four hypotheses is presented in two models: one output for causation entrepreneurial decision-making and another output for effectuation entrepreneurial decision-making.
The model below tests the predictors and moderators of effectuation entrepreneurial decision-making. The demographic factors are tested at stage 1. The effect of entrepreneurial cognition styles, psychosocial factors and cultural orientations on causation entrepreneurial decision is tested at step 2 and the moderating factors are tested at step 3. The results are provided on Table 9.

Table 9: Predictors and Moderators of Effectuation Entrepreneurial Decision-Making

<table>
<thead>
<tr>
<th>Model</th>
<th>B</th>
<th>SE</th>
<th>β</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>-60.676</td>
<td>5.698</td>
<td>-10.648***</td>
</tr>
<tr>
<td></td>
<td>Age</td>
<td>-0.061</td>
<td>0.036</td>
<td>-0.039</td>
</tr>
<tr>
<td></td>
<td>Males</td>
<td>-0.484</td>
<td>0.449</td>
<td>-0.020</td>
</tr>
<tr>
<td></td>
<td>Has Business Experience</td>
<td>-14.065</td>
<td>0.815</td>
<td>-0.499</td>
</tr>
<tr>
<td></td>
<td>Tertiary Education</td>
<td>-5.404</td>
<td>0.650</td>
<td>-0.212</td>
</tr>
<tr>
<td>2</td>
<td>Analytic Cognitive Style</td>
<td>1.305</td>
<td>0.114</td>
<td>0.681</td>
</tr>
<tr>
<td></td>
<td>Intuitive Cognitive Style</td>
<td>0.771</td>
<td>0.118</td>
<td>0.361</td>
</tr>
<tr>
<td></td>
<td>Perceived Relational Support</td>
<td>-0.120</td>
<td>0.088</td>
<td>-0.148</td>
</tr>
<tr>
<td></td>
<td>Psychological Empowerment</td>
<td>0.609</td>
<td>0.045</td>
<td>0.488</td>
</tr>
<tr>
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<td>Power Distance</td>
<td>1.301</td>
<td>0.086</td>
<td>0.512</td>
</tr>
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<td>Uncertainty Avoidance</td>
<td>1.012</td>
<td>0.062</td>
<td>0.365</td>
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<tr>
<td></td>
<td>Collectivism Individualism</td>
<td>0.551</td>
<td>0.130</td>
<td>0.172</td>
</tr>
<tr>
<td></td>
<td>Masculinity Femininity</td>
<td>-1.107</td>
<td>0.099</td>
<td>-0.377</td>
</tr>
<tr>
<td></td>
<td>Long Term Orientation</td>
<td>0.571</td>
<td>0.123</td>
<td>0.192</td>
</tr>
<tr>
<td>3</td>
<td>Analytical x Perceived Relational Support</td>
<td>0.339</td>
<td>0.019</td>
<td>0.223</td>
</tr>
<tr>
<td></td>
<td>Analytical x Psychological Empowerment</td>
<td>-0.005</td>
<td>0.006</td>
<td>-0.038</td>
</tr>
<tr>
<td></td>
<td>Analytical x Power Distance</td>
<td>-0.024</td>
<td>0.018</td>
<td>-0.051</td>
</tr>
<tr>
<td></td>
<td>Analytical x Uncertainty Avoidance</td>
<td>0.336</td>
<td>0.019</td>
<td>0.666</td>
</tr>
<tr>
<td></td>
<td>Analytical x Collectivism Individualism</td>
<td>-0.181</td>
<td>0.024</td>
<td>-0.547</td>
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<tr>
<td></td>
<td>Analytical x Masculinity Femininity</td>
<td>-0.096</td>
<td>0.023</td>
<td>-0.423</td>
</tr>
<tr>
<td></td>
<td>Analytical x Long Term Orientation</td>
<td>0.089</td>
<td>0.024</td>
<td>0.215</td>
</tr>
<tr>
<td></td>
<td>Analytical Age</td>
<td>0.015</td>
<td>0.007</td>
<td>0.085</td>
</tr>
<tr>
<td></td>
<td>Analytical x Male</td>
<td>-0.206</td>
<td>0.078</td>
<td>-0.074</td>
</tr>
<tr>
<td></td>
<td>Analytical x Tertiary</td>
<td>-0.659</td>
<td>0.135</td>
<td>-0.167</td>
</tr>
<tr>
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<td>Intuitive x Perceived Relational Support</td>
<td>0.503</td>
<td>0.032</td>
<td>0.288</td>
</tr>
<tr>
<td></td>
<td>Intuitive x Psychological Empowerment</td>
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<td>0.021</td>
<td>0.348</td>
</tr>
<tr>
<td></td>
<td>Intuitive x Power Distance</td>
<td>0.329</td>
<td>0.027</td>
<td>0.667</td>
</tr>
<tr>
<td></td>
<td>Intuitive x Uncertainty Avoidance</td>
<td>0.170</td>
<td>0.022</td>
<td>0.339</td>
</tr>
<tr>
<td></td>
<td>Intuitive x Collectivism Individualism</td>
<td>-0.162</td>
<td>0.019</td>
<td>-0.304</td>
</tr>
</tbody>
</table>
Intuitive x Masculinity Femininity
- .167  .033  -.310  -5.071***
Intuitive x Long Term Orientation
- .063  .029  -.117  -2.195*
Intuitive x Age
  .037  .009  .135  4.314***
Intuitive x Male
  .003  .095  .001  .028
Intuitive x Tertiary
- .203  .133  -.046  -1.527

***=p<.001, ** =p < .01, * = p < .05, (2-tailed)

The overall model was significant (F = 199.157, p < .001), explaining 66.1% (R^2 = .661) variance in effectuation entrepreneurial decision-making.

In step 1, the demographic factors had significant impact on effectuation entrepreneurial decision-making (F = 14.122, p < .001), explaining 17.7% variance (R^2 = .177). As shown on Table 9, only education and business experience had significant effects. Those with business experience reported .499 standard deviations lower effectuation entrepreneurial decision-making than those without business experience (β = -.499, t = -17.255, p < .001). Then, those with tertiary education reported .212 standard deviations lower effectuation entrepreneurial decision-making (β = -.212, t = -8.313, p < .001).

In step 2, entrepreneurial cognition styles, psychosocial factors and cultural orientations significantly predicted effectuation entrepreneurial decision-making (ΔF= 34.483, p < .001), explaining additional 35.4% variance (ΔR^2 = .354). As shown on Table 9, effectuation entrepreneurial decision-making was predicted by both analytical cognitive style (t = 11.465, p < .001) and intuitive cognitive style (t = 6.545, p < .05). A 1 standard deviation increase in analytical style causing a .681 standard deviation increase in effectuation entrepreneurial decision-making (β = .681) and a 1 standard deviation increase in intuitive style causes a .361 standard deviation increase in effectuation entrepreneurial decision-making (β = .361).

Psychological empowerment also had a significant positive impact on effectuation entrepreneurial decision-making (t = 13.631, p < .001), with a 1 standard deviation increase in psychological empowerment increases effectuation entrepreneurial decision by .488 standard deviation (β = -.488). Each of the five dimensions of cultural orientations also had
significant impact. Effectuation entrepreneurial decision-making was increased by high power distance ($\beta = .512$, $t = 15.198$, $p < .001$), high uncertainty avoidance ($\beta = .365$, $t = 16.34$, $p < .001$), high collectivism-individualism ($\beta = .172$, $t = 4.222$, $p < .001$) and long term orientation ($\beta = .192$, $t = 4.644$, $p < .001$) but is decreased by high masculinity-Femininity ($\beta = -.377$, $t = -11.185$, $p < .001$).

At step 3, the moderating effect was significant ($\Delta F = 14.057$, $p < .001$), explaining additional 14.9% variance ($\Delta R^2 = .149$). As shown in Table 9, the effect of analytical cognition on effectuation entrepreneurial decision-making was moderated by the one psychosocial factors (perceived relational support), four cultural dimensions (i.e. uncertainty avoidance, collectivism-individualism, masculinity-Femininity and long term orientation) and three demographic factor (i.e. age, gender, education). Specifically, the effect is strengthened by high perceived relational support ($\beta = .223$, $t = 17.992$, $p < .001$), high uncertainty avoidance ($\beta = .666$, $t = 17.385$, $p < .001$), long term orientation ($\beta = .215$, $t = 3.651$, $p < .001$) and increase in age ($\beta = .085$, $t = 2.09$, $p < .05$) but is weakened by high collectivism-individualism ($\beta = -.547$, $t = -7.620$, $p < .001$), high masculinity-feminism ($\beta = -.243$, $t = -4.096$, $p < .001$), being male ($\beta = -.074$, $t = -2.696$, $p < .01$) and having tertiary education ($\beta = -.167$, $t = -4.869$, $p < .001$).

The effect of intuitive cognition on effectuation entrepreneurial decision-making was moderated by each of the two psychosocial factors (perceived relational support and psychological empowerment), all five dimensions of cultural orientation and age. Specifically, the effect is strengthened by high perceived relational support ($\beta = .288$, $t = 15.910$, $p < .001$), high psychological empowerment ($\beta = .348$, $t = 4.703$, $p < .001$), power distance ($\beta = .667$, $t = 12.349$, $p < .001$), high uncertainty avoidance ($\beta = .339$, $t = 7.683$, $p < .001$) and increasing age ($\beta = .135$, $t = 4.134$, $p < .001$) but is weakened by high collectivism-
individualism (β = -.304, t = -8.461, p < .001), high masculinity-Femininity (β = -.310, t = -5.071, p < .001) and long term orientation (β = -.117, t = -2.195, p < .05).

Sample graphs depicting moderating effects between cognitive styles and effectuation entrepreneurial decision-making are shown on Figures 4, 5 and 6.

Figure 5 shows that intuitive cognitive style (ICS) has a more significant impact on effectuation entrepreneurial when perceived relational support (PRS) is high rather than low.

![Graph showing moderation effect](image)

*Figure 5: Moderation effect of perceived relational support between intuitive cognitive style and effectuation entrepreneurial decision-making*

Figure 6 shows that intuitive cognitive style (ICS) has a more significant impact on effectuation entrepreneurial when collectivist orientation is low rather than high.
Figure 6: Moderation effect of collectivism individualism between intuitive cognitive style and effectuation entrepreneurial decision-making

Figure 7 shows that the effect of intuitive cognitive style (ICS) on effectuation entrepreneurial decision-making is stronger when uncertainty avoidance is high rather than low.
Figure 7: Moderation effect of uncertainty avoidance between intuitive cognitive style and effectuation entrepreneurial decision-making.

Summary of Findings

The findings from the study are summarized below:

1. Demographic factors (age, gender, education, business experience) had significant impact on entrepreneurial decision-making. This supports hypothesis 1 of the study. Specifically:
   a. Males reported higher causation but not effectuation entrepreneurial decision-making.
   b. Those who have business experience reported lower causation and effectuation entrepreneurial decision-making.
   c. Those with tertiary education also reported lower causation and effectuation entrepreneurial decision-making.
2. Cognitive styles (analytical and intuitive) had significant effect on entrepreneurial decision-making. Specifically, both analytical and intuitive cognitive styles were each found to enhance both causation and effectuation entrepreneurial decision-making. This support hypothesis 2 of the study.

3. Psychosocial factors (psychological empowerment, perceived relational support) significantly moderated the effect of entrepreneurial cognition on entrepreneurial decision-making. This supports hypothesis 3. Specifically:
   
   a. Perceived relational support was found to strengthen the effect of each of the two dimensions of entrepreneurial cognition (i.e. analytical and intuitive) on each of the two dimensions of entrepreneurial decision-making (i.e. causation and effectuation).
   
   b. Psychological empowerment also moderated the effect of each of the two dimensions of entrepreneurial cognition (i.e. analytical and intuitive) on causation but failed to moderate the effect of analytical cognition on effectuation entrepreneurial decision.
   
   c. Dimensions of cultural orientations also significantly moderated the effect of entrepreneurial cognition on entrepreneurial decision-making.

4. Demographic factors (age, gender, education, business experience) also significantly moderated the effect of entrepreneurial cognition on entrepreneurial decision-making. This supports hypothesis 4
As shown in the model (Fig 8) above, both analytical cognitive styles and intuitive styles each lowers the choice of causation entrepreneurial decision-making. It also shows that cultural orientations (uncertainty avoidance, masculinity/feminism, collectivism/individualism and power distance weakens the effect of intuitive cognitive styles on the choice of causation decision-making approaches while uncertainty avoidance weakens the effect of analytical cognitive styles on causation entrepreneurial decision-making. The model also shows that Perceived relational support and psychological empowerment strengthened the effect of both analytical and intuitive styles on causation entrepreneurial decision-making. It was also shown that four demographic factors (age, gender, education and business experience influenced the relationship between both cognitive styles and causation entrepreneurship decision-making approaches.
As shown in the model (Fig. 9) above, both analytical cognitive styles and intuitive styles each lowers the choice of effectuation entrepreneurial decision-making. It also shows that perceived relational support and cultural orientations (masculinity/feminism, collectivism/individualism and power distance weakens the effect of intuitive cognitive styles on the choice of effectuation decision-making approaches while collectivism /individualism weakened the effect of analytical cognitive styles on effectuation entrepreneurship decision-making. The model also shows that all four demographic factors (age, gender, education and business experience influenced the relationship between both cognitive styles and effectuation entrepreneurship decision-making approaches.
As shown on the model (Figure 10), analytical cognitive style and intuitive cognitive style each enhances both causal and effectual entrepreneurial decision-making. Perceived relational support and psychological empowerment strengthen the effect of analytical cognitive style on causal entrepreneurial decision-making while perceived relational support enhances the effect of analytical cognitive style on effectual entrepreneurial decision-making. Uncertainty avoidance and masculinity/feminism orientations weaken the effect of intuitive cognitive style on causal entrepreneurial decision-making while collectivism/individualism and power distance strengthen the effect of analytical cognitive style on effectual entrepreneurial decision-making.

Fig 10. Overall Observed Model
Discussion for Study One

Relationship between Demographic Factors and Entrepreneurial Decision-Making

The first hypothesis was to examine the effect of demographic factors on the choice of entrepreneurial decision-making.

Firstly, the results indicated that males compared to females will choose causation decision-making over effectuation decision-making. This means that males prefer making decisions in entrepreneurial businesses based on a predetermined plan and are able to map up strategies for an expected return (causation) and not on the basis of experimentation as seen in effectuation decision-making. This is as a result of the fact that most men in the Ghanaian society are having a predetermined way of doing business. For example, some societies have their trade carved out for them like selling, carpentry and even engaging in hardware. These trades have a defined outcome instead of engaging in a trial and error ventures. From the sample, this was heavily noticed as some suggested that their relations put them in the trade. This finding is consistent with studies that have reported that gender plays a significant role in the choice of strategies for decision-making in entrepreneurial businesses (e.g., Asamani & Opoku Mensah, 2013; Yeboah Assuamah et al., 2013). Neneh (2014) and Khefacha and Belkacem (2015) also reported that males exhibited higher intentions towards entrepreneurial activities compared to females.

On the contrary, the relationship between males and the choice of causal decision strategies are inconsistent with studies that found that gender significantly influences the choice of effectuation decision-making in enterprises (e.g., Smolka et al., 2017). Similarly, the finding was inconsistent with studies that report that age and education but not gender are the determinants of choosing effectuation entrepreneurial decision-
making over causation entrepreneurial decision-making. This is explained by the fact that, being a male or female does not matter the type of business to engage in. In fact the findings make pronounced argument that individuals try to make decisions that will help them to survive regardless of the type of business. (Francioni, et al., 2015; Groves et al., 2011; Ijdens, 2015; Minola et al., 2015). Women, compared to men preferred predefined means (causation) in making decisions on entrepreneurial businesses relative to experimentation means (effectuation) (Mordi et al., 2010).

Secondly, it was found that attaining tertiary education lowers an individual’s ability to choose only a causal approach or an effectual approach in decision-making for entrepreneurship which implies that an individual will either opt for both approaches or choose other options of decision-making which is not captured in this study. The finding is inconsistent with Idjens (2015) who reported that people with tertiary education are likely to choose effectual decision-making strategies. Similarly, Ssendi (2013) also reported that discouraging formal education amongst women negatively impacts entrepreneurial behaviour.

Thirdly, the study reported that people with business experience had a lower preference for both dimensions of entrepreneurial decision-making (causation and effectuation). This was consistent with studies found that business experience significantly influenced student’s decision to partner others in entrepreneurship businesses (Khefacha & Belkacem, 2015; Opoku Frimpong, 2014).

The observed relationship between business experience and entrepreneurial decision-making was inconsistent with Engel et al. (2017) who found that past career management practices significantly influenced approaches to entrepreneurial decision-making. Vershinina et al. (2017) also found that experienced entrepreneurs
compared to novice entrepreneurs, preferred causation decision-making when planning for their businesses.

Experience from a business is important to the survival of an enterprise in that, it helps the individual to map up strategies to steer the affairs of the business in the right direction. Experiences come about out of continuous practice over a given period of time that culminates to having a successful venture. The sample chosen for the study might have not been aware that the decision-making process involves the two approaches that is causation and effectuation. However, the experience gathered by the entrepreneurs has influenced other approaches to decision-making which is not captured in the present study.

**Relationship between Cognitive Styles and Entrepreneurial Decision-Making**

The second hypothesis was to examine whether the cognitive styles (analytical and intuitive) will significantly predict entrepreneurial decision-making. The outcome of the results showed that cognitive styles significantly influenced entrepreneurial decision-making approaches. Specifically, both analytical and intuitive cognitive styles were each found to enhance both causation and effectuation entrepreneurial decision-making with analytical styles enhancing causal and effectual decision-making approaches more than intuitive styles.

This finding implies that analytical thinkers who have the intention to start a business have a higher tendency to process information logically or orderly. From the sample, the individuals with organized way of operating the business showed much understanding of the industry in which they operated in. In addition, their business setups had support staff well-dressed and showed much of professionalism and that was quite impressive. This assertion is consistent with Kickul et. al. (2009) who
discovered that both analytical and intuitive thinkers can opt for both dimensions of entrepreneurial decision-making approaches based on a personal assessment of their capability to perform a business task.

Okyireh and Okyireh (2017) also observed that a direct relationship exist between both cognitive structures and entrepreneurial decision-making to the extent that people with either analytical or intuitive thinking patterns can adjust from casual to effectuation decisions depending on the conditions for establishing the business. This also implies from the sample that, the individuals set up businesses with an aim or a goal and more often, entrepreneurs who show orderliness or suddenness in thinking have the flexibility to make decisions either through maximizing on returns or perhaps be competitive. It is paramount to note that, individuals who engage in entrepreneurial activities do so for survival and therefore, any decision that can inure to the benefits of the business is taken seriously. This explanation accounts for the reason why decisions are taken depending on the environment, social and cultural changes that occur in the operating of the business.

Furthermore, Adomako et al. (2018) found that a positive relationship exists between people’s ability to discover and process business ideas using decision-making strategies. Hence such strategies enhance the success of newly created ventures.

The use of both causation and effectuation decision-making by the two groups of thinkers (analytical and intuitive) also implies that the two decision-making approaches mutually reinforce each other in performing businesses successfully. This is consistent with Smolka et al. (2016) who reported that a combination of causal and effectual decision-making strategies was a strong predictor of venture performance. However, this finding was inconsistent with Harms and Schiele (2012) who reported that it is an entrepreneur’s of cultural factors, linguistic abilities and structural
differences and not cognitive style that determine the choice of causation or
effectuation strategies. Waardenburg (2016) also investigated the relationship
between cognition styles, casual and effectual decision-making and entrepreneurial
success. The findings indicated that analytical cognitions significantly correlated with
causal decision-making but not with intuition and effectuation. This is contrary to the
finding that each of the cognitive styles (analytic and intuitive) can predict the choice
of decision-making strategies. This suggests who processes information an organized
manner is likely to choose goal driven strategies in decision-making. The reason that
accounts for the findings from this study is that the analytical thinkers might have
received prior information on the type of business to engage. Groves et al. (2011)
further report, that a balance between the two cognitive styles determines an
individual’s approach to entrepreneurial decision-making

**Moderating role of Psychosocial Factors on the Relationship between Cognitive
Styles and Entrepreneurial Decision-making.**

The third hypothesis anticipated that psychosocial factors (i.e. psychological
empowerment, perceived relational support and individual cultural orientation) will
moderate the relationship between cognitive styles and entrepreneurial decision-
making approaches. The study reported that psychosocial factors significantly
moderated the effect of entrepreneurial cognition on entrepreneurial decision-making.
Specifically, perceived relational support was found to strengthen the effect of each of
the two dimensions of entrepreneurial cognition (i.e. analytical and intuitive) on each
of the two dimensions of entrepreneurial decision-making (i.e. causation and
effectuation).
Psychological empowerment also strengthened the effect of each of the two dimensions of entrepreneurial cognition (i.e. analytical and intuitive) on causation but it did not influence analytical styles and effectuation. This is inferred from the sample that individuals have different orientations in terms of business ideas in varied entrepreneurial activities and hence influences business outcomes. More importantly, the community is made up of people with different cultural backgrounds and hence, this might have an effect on the choice of business to operate as well as value system to adopt in engaging in entrepreneurial activity.

Finally, dimensions of cultural orientations also significantly reduced the effect of analytical and intuitive thinking on the dimensions of entrepreneurial decision-making. The sample has different cultural inclinations and that the tendency of an individual’s cultural orientation reduces the probability that an individual will process information in organized manner or depend on abrupt insights. Additionally, cultural orientation the extent to which people will opt for goal oriented strategies or experimental approach in decision-making.

The observed effect of perceived relational support on both cognitive styles and entrepreneurial decision-making approaches implies that an individual’s perceptions of support from relatives, peers, business partners- through the sharing of ideas, advice or any form of support - will increase or strengthen the propensity of affecting the individual’s ability to combine both causal (goal driven strategies) and effectual (experimental strategies) decisions in enterprises.

This finding is similar to Ullah et al. (2012) who opined that perceptions about support from significant others compel analytical thinkers to adopt causal and effectual entrepreneurial decision-making. It is also consistent with Okyireh and Okyireh (2017) who reported that arrangement scripts (establishing networks and
perceptions of support) influence analytical thinkers to engage predefined methods (causation) in decisions in entrepreneurial businesses. Denanyoh et al. (2015) also found that tertiary students found perceptions of family support very significant in entrepreneurial intentions. Perceptions of support from stakeholders are essential through sharing of ideas, resources and business plans results in positive new venture performance (Adomako et al., 2018).

Secondly, from the results, the moderating effect of psychological empowerment implied that an individual’s beliefs of his or her sense of meaning, competency levels, impact on the business and self-determination can compel him or her to choose both decision-making approaches and this is consistent with Adomako et al. (2016) who observed that psychological factors optimism, self-determination and control in SMEs enhanced cognitive styles for planning, knowing and creating activities employed in entrepreneurial decisions. Psychological factors such as confidence and self-efficacy (psychological empowerment) influenced cognitive perspectives on entrepreneurial decision-making (Jyoti et al., 2011). Psychological empowerment did not influence the relationship between analytical thinking and effectuation decisions. This is due to the fact that, individual’s businesses have been exposed to different range of options for deciding on opportunities. Hence, it may be more efficient than the options captured in the study. This assertion is consistent with Kirkwood (2009) who used varied approaches in deciding the financial resources of businesses.

Thirdly, it was observed that some cultural dimensions moderated the relationship between both analytical and intuitive styles and approaches to entrepreneurial decision-making. Specifically, Uncertainty avoidance and individualism vs
collectivism had a weakening effect on analytical thinkers and the ability to choose a causation and effectuation approach respectively whilst cultural orientations (uncertainty avoidance, masculinity vs femininity, collectivism and power distance) weakened the effect on the ability of intuitive thinkers to choose either dimensions of entrepreneurship decision-making.

The observed moderating effect of the cultural dimensions on analytical styles and entrepreneurial decision-making approaches was consistent with studies which reported that orientations of collectivism or individualism can affect analytic thinking in ideas for economic activities (e.g., Asitik, 2015; Shinnar et al., 2012). The moderating effect of uncertainty avoidance and institutional collectivism on self-motivation for entrepreneurship startups were also reported (Minola et al., 2015). These findings were however inconsistent with Hang (2015) who found that other cultural dimensions, for example long term orientation, moderated the relationship between analytical styles and causation. Similarly, Sayed (2017) also observed that the status of an entrepreneur in terms experience rather moderates the extent to which analytical or intuitive thinkers will choose either entrepreneurial decision approaches.

The observed moderating effect of cultural orientations on intuitive styles and both dimensions of entrepreneurial decision-making was also consistent with Mordi et al. (2010) who found out that societies in which masculinity stands in opposition to feminism compel members who are intuitive thinkers to adopt either causation or effectuation strategies in entrepreneurial businesses. Consequently, an individual’s knowledge of how power is distributed in society (power distance) strengthens the use of analytical thinking in causal decision-making strategies (Idjens, 2015). In line with some previous studies, it was observed that uncertainty avoidance strengthens the
relationship between intuitive thinking and causal decision-making (Francioni et al., 2015; Vershinina et al., 2016).

In contrast to these findings, some studies have reported that out of the cultural dimensions developed by Hofstede (1980), collectivism vs individualism cultures have been rated as most influential in the choice of entrepreneurial decision-making approaches (e.g., Hang, 2015; Shinnar et al., 2012). The difference between the findings of the past studies and the current one is that, the former assessed the influence of cultural orientations on a national level and the latter investigated the impact of cultural orientation on an individual level.

**Moderating role of Demographic Factors on the Relationship between Cognitive Styles and Entrepreneurial Decision-making.**

It was proposed that demographic characteristics (age, education, gender, business experience) would moderate the relationship between cognitive styles and entrepreneurial decision-making. The outcome of the analysis showed that demographic factors significantly moderated the effect of entrepreneurial cognition on entrepreneurial decision-making. Specifically, demographic factors (age, male and tertiary education) moderated the relationship analytical styles and effectuation decision-making whilst age strengthened the relationship between intuitive thinking and effectuation decision-making approaches. This implied that the age, gender and level of education of an analytical thinker influences the tendency to choose predetermined and goal oriented strategies in decision-making for their businesses (causation decision-making) which is similar to previous studies (e.g., Idjens, 2015; Yeboah Assuamah et al., 2013) who found that gender plays a significant role in
determining the mindset and cognitive structures of non-entrepreneurs. Khefacha and Belkacem (2015) reported that old aged individuals adopt cognitive styles for effectual entrepreneurial decisions compared to young aged individuals. Pounder and Devonish (2016) released that high education attainment results in the choice of cognitive perspectives that increase venture success. Neneh (2015) reported that gender and entrepreneurship education in tertiary institutions is significantly related to decisions to start a business. Contrary to these findings, Opoku-Frimpong (2014) reported that the level of education and business experience significantly moderated the relationship between venture creation and joint partnerships in businesses.

**Study Two**

This study was undertaken to explore the perceptions community participants have about entrepreneurial activities as well as the potential challenges of entrepreneurial decision-making. Community participants were people who resided in the selected research settings (Madina, Libya quarters, New road, Redco Flats and Madina Estate). Globally, most studies have focused on factors that influence entrepreneurial behaviour (e.g., Shelby, 2017; Ssendi, 2013). However, these researchers failed to capture the perceptions people attach to such businesses. Adomako et al. (2015) postulated that several uncertainties surround the setting and management of businesses and such businesses only survive when the owners show attitudes of persistence and optimism. This assertion is also shared by Afutu–Kotey et al. (2017) who gleaned from some narratives on formation of entrepreneurial businesses that they are either necessity driven or opportunity driven. Ssendi (2013) also gathered from extracts of interview sessions with some rural entrepreneurial women in
Tanzania that when cultural orientations discouraged the education of women it negatively affects entrepreneurial decisions.

Although studies have been initiated to explore perceptions of people about entrepreneurial activities, it is still inadequate as these studies do not capture perceptions of entrepreneurial activities from the perspective of people in communities and whether the challenges faced in entrepreneurial businesses are either gender-driven or culture-driven (e.g., Abrebrese, 2015; Adom, 2015). Besides it is also important to note that extant literature on perceptions of past experiences on future decision-making remains under researched in Ghanaian communities painting a gloomy picture of the nature and pattern of entrepreneurial experiences. In view of these gaps identified in literature, study two was conducted to explore questions which were not captured in the study one.

**Findings**


Table 10: Summary of the superordinate and sub themes generated

<table>
<thead>
<tr>
<th>SUPERORDINATE THEMES</th>
<th>SUBTHEMES</th>
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<td>1. Perceptions attached to entrepreneurial activities</td>
<td>Self-motivation</td>
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<td>Survival</td>
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<td></td>
<td>Risk-taking</td>
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<td>Networking</td>
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<td>Self-determination</td>
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<td>2. Past experiences for future entrepreneurial decision-making</td>
<td>Optimism</td>
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<td>3. Potential challenges in decision-making for entrepreneurial businesses</td>
<td>Gender related challenges</td>
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<td></td>
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<td>Financial challenges</td>
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<td>Skills related challenges</td>
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Perceptions attached to entrepreneurial activities

The participants in this study spoke about the perceptions attached to entrepreneurial activities. Eleven participants out of twelve shared their views on this superordinate theme. The subthemes that emerged were Self-motivation, Survival, Risk-taking, Networking and Self-determination.
Self-Motivation

This theme was emerged from the narratives of participants. Majority of the participant’s perceived entrepreneurship as an activity, which can be managed solely from an individual’s own, inspired thoughts. The responses of these participants reiterated the popular adage that “each one for himself, God for us all”. Thus, it implies that entrepreneurship overall is intrinsically motivated and that people look at success stories of others and try to emulate them. In the quotes below a manager shared his perception:

“I was working as a civil servant in Accra and saw how people were struggling and not making time for family and so because of job, I decided to do something on my own. This type of work came about when I was reading a book titled McDonalds, the story made me learn a lot on making successful business and so am sure my inspiration came from there.” (Male, 45 years)

From the above quote, this participant was motivated by reading a book and learned to initiate her own business. Below, a trader and a seamstress also shared their perception:

“My mother took us through some internal training when we were young and so in growing up there has always be a strong motivation to do something for myself.....yes that one business I can call my own and control with no instructions from anyone.. so as I was saying that is the belief I have about this business”...... (Female, 36 years)

“I and my husband worked in the public service for more than seven years in the formal sector..... had to adhere to rules from your work place concerning your
conducted at work otherwise you are sanctioned. I was a cleaner and he was a clerk.....he decided we start something on our own in a place where no rules exists and we can control the activities in the business......the reasons for starting the business were acceptable to me so I told myself I need to keep body and soul together to let this new business work because it is for us and no one else ......(Female 2, 37 years).

Gleaned from the personal accounts of interviewees 2 and 8 above, one being a trader and the other being a seamstress, it is noted that another reason for self-motivation was from that fact that activities in the business are controlled by themselves thus making them bosses of the business. This suggests that having the freedom to operate without restrictions in itself is intrinsically motivating for an individual and is also fundamental for managing an entrepreneurial business activity. Additionally, another participant who is a driver described his source of motivation as an inner joy which when cultivated by others will let the business succeed. His narrative is stated below:

“For me, I think it is self-work and you should have the inner joy to make the business work...when I talk about job b3333 you understand.........This attitude will take you far in the job to the extent that others in your area will come and learn from you....”
(Male, 38 years)

Survival

Another sub-theme that emerged was “survival”. It was gleaned from the transcripts of nine participants. The participants perceived entrepreneurship as a means of
sustaining themselves and their families in terms of boosting their wealth and then providing their basic needs. The narratives of two participants are stated below:

“Ok, my experience in this job are many but you see it has taught me to manage for my children......... As for this business if you make small mistake, everything you have toiled for will just varnish and people might not feel for you the way you will feel. You know this is my hope to feed and cloth the family .No one ooo! No one can help you ooooo….. all I can say is the family lives on these cloths I sew. It is my work and with it, I have to make sure my family is ok…” (Female, 37 years)

In another vein, a sales attendant who had completed her secondary education and decided to work to make money for her livelihood had this to say:

“.........., it is all about business, making money to satisfy your basic needs and expanding the business, getting customers and the necessary advise to keep the business. My sister, for the past five years i pay my rent, bills, transport and food all come from it..........(Female, 27years)

The experiences narrated above suggest that the essence of the entrepreneurial businesses is to satisfy the fundamental needs of individuals and their families. It also reiterates the belief about the obligations of parents and priorities attached to certain family needs as explained by Maslow’s hierarchy of needs. The hierarchy of needs states that physiological needs such as food, shelter and clothing are fundamental before other needs as presented in the circumstances above. It is therefore imperative that people go against odds to fulfill their financial obligations towards the family.
Another participant also spoke about how entrepreneurship helps in providing the basic needs of the family to the extent that it enhances the relationship amongst family members especially spouses to whom they give money for the upkeep of the house.

“(Sigh) I know that when you do your own work, it is entrepreneurship but you don’t only control it, it is for a purpose. Let me ask you ...why do we take part in such a business? It is done so that we can feed our families even though the business may not be stable, you know that at least something will come into our pocket........Our wives are happy when you give them some coins as chop money and this behaviour will let them give you love and respect. ....” (Male, 29years)

A summary of the personal accounts of their perceptions of entrepreneurial activities cited suggest that when the family’s needs are satisfied it further enhances or bonds the relationships between the spouses themselves and their children too.

**Risk Taking**

Ten out of twelve participants described their perceptions of entrepreneurial activities as a risk- taking venture. Entrepreneurship activities, from their narratives are depicted as posing some insecurity which has the possibility of succeeding or failing. More importantly, it implies that perceptions of risk attached to businesses is a globally phenomenon which makes it crucial for business set-ups to weigh the pros and cons before engaging in such activities. Excerpts of a sales boy who once worked in an auto spare parts shop shared his experience:
“Hmmm……. i think entrepreneurship can be dangerous sometimes which can spoil your business. As I told you earlier on, the business can put you into trouble …some of the customers may pretend they are angels when they are not ……….Ahhhhhh!!!!!!!.I was once tricked to give some items in my madam’s shop on credit and the person never showed up again. …….. It became so burden on me so I was thinking and i am praying that as i am sitting at the shop with not bad intentions but he is trying to commit theft against my life whatever he is going to use it for wont bring him any benefit ………. but as a matter of fact so far as i trust God he is not going to use the car for long. He did not come back to pay for it so since then i work and pay for it……. Such people can collapse your business or cause harm to the business” (Male, 34years).

From the quote above, it is assumed that the risky nature of the business can sometimes compel the entrepreneur to seek consolation in religious beliefs to cope with the situation.

Another participant a driver lamented about his experience of the uncertainties in his business. He said:

“……the way the business is you can’t say you know everything about it unless you start the transport business with a home use bus which no one has used in Ghana before….my vehicle was not like that ….sometimes the car can break down when you have people in it especially in a place where you don't get help the passengers can give pressure to pay their lorry fare..........imagine if you have used all the fare for petrol for the journey what will you do? How will you give their money to them?
…..at times too the place the bus breaks down can cause your live especially when you are going on a long journey, I pray the bus does not stop near a thieves can time you and rob you of your items……." (Male, 38years).

The narratives of the sales boy and driver implies that some hazards exist when engaging in entrepreneurial businesses especially in the transport business and its related activities. Additionally, it is also implied from the narratives that an entrepreneur’s personal assessment of the risky nature of his business can affect their relationship with the people they transact business with as they may perceive them as potential threats to the success of the business.

Networking

Networking as a sub-theme emerged from the narratives of six of the participants. These participants were of a view that the ability to have a wider social group or networking greatly influenced the chances of success in entrepreneurial business. In addition, a strong relationship with friends and family could result in a profitable business due to the diverse backgrounds of such people. Excerpts of the interview session with an electrician and a bar operator is cited below respectively:

“Yes I got this experience from some friends and I must say that I was working with him because he introduced me to the work by giving me all the activities in the business, how to maintain the customers and where to get the items very cheap for profit……. In the same way, if I have problem I see them for advice and this is where I get a lot of ideas…….” (Male, 29years)
“I believe that entrepreneurship is about learning from people who are skilled in the area....I quite remember that once I attended some training organized by some people years back. Later I heard it was women’s world banking who planned everything and that is where I got my ideas for the business.... but nowadays nothing of that sort is done...so how will people understand the work.......Where will they get the training from?(Female, 63 years)

Besides the belief that receiving training or seeking advice from skilled people was as good as getting it from one’s own family members as one participant a trader by profession said that, she got the experience from her grandmother and she further suggests that knowledge from family members for a business activity should not be ignored it is equally helpful.

Yes, my grandmother had a provision and hardware shop and when I wanted to operate a similar business I talked to her and she said “doing this business small.. small can let me keep money for a bigger shop. Hmmm .....this talk has helped me plenty infact more than what my friends told me to do ooooooohhh......my sister never forget when your family gives you advice it is good like when the person is not in your family...........”(Female, 35 years)

We can glean from the narratives above that networking is crucial to the success of a business. However, advice from family members seem more prominent than support from formal bodies and experts who were not family members. Perhaps this was attributed to the mentality that individuals who are directly related to an individual by
blood seek their welfare more favourably than others who are not related (Asitik, 2015).

**Self-determination**

Self-determination was another sub-theme that emerged in the interviews. Extracts from the narratives of ten participants suggest that they acquired the spirit of determination which motivated them to defy all odds in their quest to reach their career goals. Globally it is assumed that at a certain stage of an individual’s life he or she should engage in an income generating activity for his or her livelihood and when this period passes, hardship sets in hence, an individual may adopt different strategies to reach the expected end (Boateng et al., 2014). This situation is not different from what happens in the Ghanaian context, as it is evident in the excerpts of some participants’ responses. Below are quotes from their responses:

“Day in day out I am trying hard to make some money because of that I am a mechanic and a driver at the same time so it was through repairing of people’s car that I became a taxi driver. I have learnt the two jobs because I want people to know that I am serious with what I do and it has expanded my business… These two jobs when one is common I do it ……. Sometimes when people come to me with car problem too I repair it……..anytime people don’t bring their car for repairs, others see me for taxi driving services …….with things like this you always have to force and force so that your hand can go into your mouth…….” (Male, 38 years)
This view is also shared by another participant, a mechanic, as he spoke of how determined he is to specialize in his business and his willingness to seek alternative means in order to reach maximum satisfaction.

“I have learnt a lot of handiwork skills like masonry, electricals ……but none was good for me until I learnt the way to fix cars. I saw an improvement in my life when I started learning how to repair cars for now it is good but when a new business comes again I will learn that one too so that things will not be hard for me……As for life it is like that you have to change and change until you are satisfied” (Male, 29 years).

It is gleaned from the narratives above that a spirit of self-determination yields benefits such as progress in life, provision of one’s own needs and job satisfaction. Accordingly it sends a message that when you don't have self-determination then an entrepreneurship career is not an option for you.

**Past experiences for future entrepreneurial decision-making**

This was the second major theme from the interviews. Participants were asked …..All twelve participants in this study spoke about their decisions towards the setting up of entrepreneurial businesses in the future. This generated sub-themes such as Optimism, Resilience and Customer service.

**Optimism**

Eleven participants shared their thoughts on decisions for future business set-ups by describing the procedure in which the activities will be done. They placed strong emphasis on using their past experiences to build their future businesses. Thus, being
hopeful that their past positive experiences will enable them to manage those businesses well. This implies that optimism is crucial to the development of entrepreneurial decisions and stimulating budding entrepreneurs with enthusiastic thoughts about entrepreneurial careers can enhance venture creation intentions (Adomako et al., 2015).

A quote from an interview session with a trader who has been selling for the past six years is stated below:

“...I can do it very well because I have gathered a lot of experience in my current enterprise and so I will get more ideas to help me operate the new business. As you can see me by the roadside, tomorrow I will be in a container small! Small! it will happen......” (Female, 36 years).

A mechanic and a driver also re-echoed similar thoughts by expressing their belief in their ability to improve their performance over a certain period in a future business as depicted in the extracts below:

“As I had started this business a lot have happened in it so I have got enough experience which will make me succeed........ all the mistakes have been corrected now and so I think I will perform well next time when I get the opportunity to set up another fitting shop.....” (Male, 29 years).

“I am using my car for transport business and it is not easy .....i know inside the business well, well. This is my tenth year of doing the transport business so if I will do another business, I will consider some things first that is taking the particulars of the driver his ID card, passport picture and a guarantor so that when something
happen to my cars i can trace person fast before my business collapses” (Male, 38 years)

The responses of the above interviewees suggest that they are hopeful of success in future businesses. Additionally, the narratives suggest that success in their current business forms the baseline for getting positive thoughts for another business venture and also influence the factors one will consider in future decisions (Adom, 2014). Furthermore, when entrepreneurs make mistakes in their current enterprises, it serves as a lesson for improving future businesses (Afutu – Kotev et al., 2017).

Customer service

While the theme “optimism” demonstrated the zeal some participants showed for future businesses based on their past experiences, others perceived the management of a business clientele as crucial for decision-making. Holding the belief that customers play a pivotal role towards businesses, seven participants expressed their views on the strategies they will use to keep a cordial relationship with customers in their future businesses. Presently, the participants have made painstaking efforts to attract and maintain customers in their existing businesses which has yielded an increase in profits and the marketing of services. Here are quotes from two participants:

“Well from my experience in the business where I suffered to get people to like my items, i will first establish a relationship with the customer and from there try to talk to them on what they need so that I can supply to them and look for ways to get them satisfied…..as I have said this is always on my mind and I pray that I never forget that customers should always be the first to be considered……”(Male, 29 years).
“the making of a business in my view depends on three things: customer care, standards, and money. Customers should always be thought of when planning for another business. As for me, I have managed to provide standards my customers like based on their complains and it has resulted in an increase in daily sales...... As is always said customers are always right without them we are nothing and my future business will look at that” (Male, 45 years)

The responses described above suggest that entrepreneurs have a clear purpose for the establishment of businesses and how to get those objectives achieved. Boadi, Boateng, Hinson and Opoku (2007) observed that, most businesses have the popular view of customer first though there may be other aspects of the business which may require equal attention. The informants took to the path of enhancing customer relationship from the perspective of satisfying their demands for goods and services (Afutu-Kotey et al., 2017).

Resilience

The narratives on past experiences for future entrepreneurial decision-making suggested that six of the participants had developed the spirit of resilience where through their entrepreneurial experience have acquired attitudes of toughness in the midst of problems. Extracts from their narratives suggest that issues that come with developing the business and managing it has resulted in the hardy characters they possess and they are of the view that it will help them decide for future businesses. A bar operator shared her experience:
“Infact I was in the civil service and I had to back out to do this business and I did and succeeded. At the start of my business, I told myself that nothing comes easy especially when there was change of location, it affected slightly but am still feeding my family” (Female, 63 years).

The participant (bar operator) was very emphatic that despite the challenge of citing the business in a poor area compared to the previous location, she is still managing to survive and feed the family as well. Clearly this point made by the participant shows the extent to which the challenges faced in business can change the personality characteristics of an individual either for the better or for the worse. Hence a personal assessment of people’s ability to manage entrepreneurial careers is a necessity (Engel et al., 2017).

Another participant, a graduate assistant, also spoke of how her experience of working with an entrepreneur who groomed her for the business has toughened her for a similar task. She shares her experience:

“Looking at where I am coming from, I have really struggled to make money especially when I did some work for my madam, the problems that I got (paaaaa).... Now I am not worried at all because whatever the problem is be it money, labour or materials I can handle it I am not afraid at all........” (Female, 28 years).

The participant’s use of “paaaa” in the quote is an Akan language which symbolizes the intensity with which she encountered problems with her madam. Although she
describes the nature of the problems, she does so to show how it has strengthened her
for managing her own business in the future.

Potential Challenges in Decision-making for Entrepreneurial Businesses

Eleven participants in this study spoke about the potential challenges in
entrepreneurial decision-making. Gender-related challenges, Cultural elements
(language and ethnicity), Market fluctuation, Financial challenges, and Skills-related
challenges were themes that emerged from the narratives.

Gender-related Challenges

When the participants were asked about the challenges they are likely to face in
decision-making, ten of the participants perceived gender related issues as a
challenge. Their narratives suggest that gendered roles are paramount to
entrepreneurial success to the extent that when men and women perform duties in
enterprises perceived as acceptable by society, it can affect the business outcomes.
However, this view may change from society to society (Dzisi, 2008). Here is a quote
from a restaurant manager:

“I have seen that the duties assigned to men and women play is very important
because when customers come and a male is serving a male, sometimes they make a
request for female to come and serve them. The customers tell me this work is for
women and they work differently than the men so they (women) understand them
more” (Male, 45 years).

Another participant a bar operator also said that the impact of gender roles on
business success is centered on the conduct of a particular sex (i.e. females) when
they are employed in businesses they create situations which destroys the relationship between the owner of the business and the customers and this further also leads to unintended actions such as a high sense of job insecurity. The quote is stated below:

“......this sort of business, some are saying the female workers are better but with my experience, I don't like working with female workers because they give me a lot of problems. Some of the problems are that they are always in contact with customers and they relate with them well for sometime then suddenly their attitudes change. They can leave the job without notice and this makes it difficult for me to manage the customers until another worker is employed “ (Female, 63 years)

Extracted from the quotes is the belief that issues of gender roles are more pronounced in some enterprises than others as the above experiences are shared by participants who have existing business in a similar industry (i.e. service industry). This implies that there is the belief that females possess some qualities that impacts the performance of service industries compared to men. Hence one’s capabilities for entrepreneurial activities should align with a society’s ascribed work roles for gender.

Another male participant who is a mechanic spoke of his strong convictions about the stereotypical nature of his work and the belief that people of the opposite sex are incapable of engaging in such businesses:

"the work i am doing is a man’s work and so a few women are involved in this .It is often difficult for women to engage in this kind of venture...Any woman who attempt it ayayaayah!!!! people will laugh at her papaapa........(Male, 29years).
From the quote above, gender stereotypes pose as challenge especially when men and women swap roles in business circles, it can lead to mockery by members of a society. More importantly, males prefer females to be in charge of certain jobs and once there is a change in gender roles, it leads to low patronage of goods and services.

**Culture (Language & Ethnicity)**

Nine out of eleven participants also narrated how they felt that some cultural elements such as language and ethnicity, could influence entrepreneurial businesses. From their views, it is gleaned that speaking the same language with stakeholders of a business or being a multilingual matters when making decisions about business ventures. Here are some of the excerpts from the participants which suggests that language plays a crucial role in entrepreneurial businesses. A sales boy shared his experience:

“In starting a business, culture is very important you know we have different people with different languages so I think it is good to learn other languages for the sake of your business, because it’s not all the customers who can speak your mother tongue. .... learning other languages will open other opportunities through the way you express yourself to the customers who come to your business... (Male, 34 years)

Another participant, a restaurant manager, also intimated that learning a few words of another language can attract people from that area to patronize your business.

“Most of my friends are Ewes and so when I speak the same language with them they keep coming and I speak a little Dagaati too and this attracts northners to my business” (Male, 45years)
The views held by these two participants suggest that language is key and positively impacts business outcomes. Furthermore, the participants opine that speaking of same language tends to help the fortunes of the business and this ideology is held by majority few people.

The same participant who is a restaurant manager shared his view on ethnicity:

“………most often I want to do business with my countryman than others because we share a lot of things together. We speak the same language and we have the same belief too. I also believe when I do business with them I am helping them because we have the same roots and he is my brother as well” (Male, 45 years)

Even though ethnicity impacts entrepreneurial decisions, it can be conditional at times. In a case where the business partner on the other side does not disclose that he is an indigene from the entrepreneur’s hometown, business transactions remain normal. This is a featured in the responses of a mechanic:

“my problem is with how to handle my business partners……. sometimes it helps when you work with someone from your hometown because they understand you better but at other times too it doesn’t help. I think it is 50-50. Not everyone is interested in exhibiting his or her mother tongue the moment they come to you for business they will speak a universal language like twi ….”(Male, 29years)

The above quotes imply that there are some ethnic groups that share in the above statement regarding ethnicity. The respondent makes it unequivocally clear that same
roots or same language with an individual makes easier for business transactions. It also confirms the belief that doing business with a member of an entrepreneur’s tribe indirectly accumulates wealth for their tribe since the individual is seen as having the same roots as the entrepreneur. In addition, the statements from the restaurant owner also implies that Ghanaian culture is sympathetic to the fact that, businesses thrive well when people act similarly be it where they come from or common language. In the Ghanaian parlance it is said that “adze wo fie aa oye” literally meaning “when good things happen in the family it is good”. This belief permeates almost all cultural inclinations as seen in this context. Hence, the concept of brotherliness is seen in the setting of same language or same ethnicity.

**Market Fluctuation**

Market fluctuation emerged as one of the themes that describe the potential challenges in decision-making for future entrepreneurial activities. This theme is different from the cultural elements because it explains the patterns that exist in the returns from entrepreneurial businesses. Seven out of eleven participants spoke of the unstable nature in which customers patronize goods and services which further affects how they make decisions towards future expansion.

Excerpts of the responses of two participants is shown below:

“…..hmmm! At times the customers don't buy from the shop. The whole day no one sets foot in the shop and it makes me worried about doing another business ooooo!!!. You know what, doing this business involves money and if the sales is not coming in plenty too you can get into trouble especially when it is a bank that helped you to
get the money for it they will come disturbing you to pay back... I think I will look at this problem of changes in the sales i make before I think of starting another business........ ” (Male, 29 years)

“ As for such businesses I know for sure that you will not always get people coming for things. Today if it is good for you tomorrow it will be bad...It is like the weather when one day it rains another day the sun will sunshine.......that is what you have to deal with before you make any move” (Female, 41 years)

The narratives presented above imply that the factors that make people perform business functions cannot be predicted, as they are not within the control of the business owner. For example, when interest rates go up or when there are natural consequences, demand for certain goods tend to go down which negatively impacts on the business. This implies that certain factors account for the dwindled sales in such businesses.

Another participant, a seamstress, spoke of the intensity of the fluctuation by narrating the period in which the unstable patterns in sales generation last suggesting it could be orchestrated by a competitor. The seamstress showing missed feelings share her view:

“Sometimes the market is on and off in that you can sit for about a week and you don’t sell anything. Hmmm! It is a burden for me oooo! You even think someone who has the same business as you has planned it like that is why they are not coming. At times too it goes well for us people walk in with their fabrics every minute to ask for new styles to be sown for them........ i try to make nice with them so that they can come again another time ..... .” (Female, 37 years).
This narrative expresses a participant’s frustration of the duration of sluggishness of sales, which can be very worrying and demotivating as well. Besides, there are some peak sales pattern that turns to be rewarding when environmental factors tend to be positive.

**Skill-related challenges**

This theme described the participants’ view on the requisite skills, capabilities and attitudes required to create and manage a business venture. While the previous theme “market fluctuation” was centered on the returns obtained from business, the theme “skilled-related challenges” referred to the human resources invested in the business. In this regard, eight of the participants believed that an individual’s knowledge and competencies about a business venture is fundamental in decisions for future businesses. Therefore, if it is not addressed it can become a challenge. A participant share his experience:

“*I believe skill is a challenge..... someone will come and expect to see a star or a known face who is good and so when the person does not meet anyone good with the job he or she becomes disappointed and you will lose him. As I have put in a lot of things to manage food joint I want the customers to stay and so I am careful with the people I choose as workers …”* (Male, 45 years).

Another participant intimated that even though it is good, hiring skilled labour poses a challenge because of financial implications. This belief is related to the problems entrepreneurs face when developing small and medium scale businesses (Dzisi, 2008). The participant, a bar operator said:
It is good when you employ workers with the expertise for the job because I don't take skilled labour. Why? Because, a skilled labourer wants to fix his own salary or benefits. But when I look at my setup I can't so I have to take workers who are ready to learn the job then manage it like that” (Female, 63 years).

From the narratives presented above, it can be gleaned that hiring of skilled labour is essential to the survival of a business. However, it does pose a lot of challenges when it comes to remuneration. They agree that requisite skills are needed to help the business grow but cannot afford to hire them on the basis of cost and sustainability. In Ghana, most small and medium scale businesses do not hire experienced people to help manage businesses and that has consistently impeded the growth of SMEs’ in the country (Boateng et al., 2014).

Financial challenges

The informants were aware of the existence of financial problems and how it posed as a challenge to decision-making in the business. Six informants out of eleven emphatically shared their experiences of how inadequate funds have negatively impacted their business presently. Hence, their wish to address this challenge before exploring opportunities in the future. The informants further explained that the monetary issues ranged from operational costs through to the payment of goods and services by customers.

Here are some of the narratives depicting some of the participants’ view:

“The cost of a container is an issue. Besides getting a location for a container can take a year and when you get it too, renting that land for the space can be costly...
see ooo when you settle on the place then you have to fill the container with the goods to attract people...........it also depends on how much you have with the “susu” people” so you really have to think of how much money you have before planning on what to do the next time.......”(Female, 35 years)

“the main problem I have is money because some customers come to repair their cars but don't have money so you have to do it and later the person will pay.....i can say that some will pay and others too don't fulfill their promise when the car is fixed for them .Location too is a problem....because getting one, means you have to spend...as for this business you have to consider certain things before doing it again......” (Male, 29 years)

Another informant a seamstress said that the items she purchases for her sewing are expensive so she records them and this helps her to apportion the right fee for her sewing services so that she doesn't run a loss. She said:

“......I buy the things I use on weekly basis and as I buy I write their prices in my notebook.......i need to make sure that my capital is not lost in the business and.......i record it so that I can charge the customers a fee that when I take out the cost of the items used for sewing clothes , I will know my profit.......” (Female, 37 years).

Looking at the chronicle shown above, it is clear that financial resources of a business cannot be overemphasized, as it is one of the major pillars to the survival of a business.. Lack of financial resources is detrimental to the start or collapse of a business. Additionally, the location of a business is a factor but this depends on the funds available to the entrepreneur. This means that getting a good location comes
with high charges especially when the place is a commercial area and most entrepreneurs can’t afford them (Adom, 2015). In Ghana, it has been observed that small businesses struggle to survive as a result of lack of injection of capital by the owners themselves or banks failing to lend to business operators due to myriad of factors such as lack of continuity, record keeping and poor decision-making (Dzisi, 2008).

Differences in the responses of Male and Female Participants with respect to the Themes generated.

With reference to the themes generated, some differences were observed in the responses of the male and female participants. Three superordinate themes were generated perceptions attached to entrepreneurial activities, Past experiences for future entrepreneurial decision-making and Potential challenges in decision-making for entrepreneurial businesses.

Perceptions attached to Entrepreneurial Activities.

Both male and female participants demonstrated divergent views on the sub themes. A close look at their responses of the male participants showed that the perceptions about entrepreneurship activities were attributed to internal factors such as their assessment of their own capabilities to excel in the business. In line with this view they demonstrated enthusiastic thoughts on how their businesses emerged and predicted success right from the onset. For instance they used terms like “inner joy” “this attitude will take you far” “making successful business” etc. The female
participants on the other hand highlighted external factors such as strict rules from previous work settings, apprenticeship experience from relatives, decision of spouses which they had no control of as the means from which they experienced entrepreneurial activities.

**Past experiences for future entrepreneurial decision-making**

Some differences were observed in the responses of the gender in that the males saw the past entrepreneurial experiences as a means of establishing new businesses upon the satisfaction of some basic business requirements. For example, the male participants asserted that factors such as proper operating activities, logistics and good customer relationships were sole determinants of future business establishments. Contrary to this view, the female participants demonstrated a sense of ambitiousness in their responses on future enterprises, they believed that they could manage any business no matter the challenges and requirements. Their thoughts also demonstrated the zeal to exercise total control over the business and preserve until they attain success in their business. In this regard they used phrases like “I will get more ideas”, “nothing comes easy” to express their views on the establishment of future businesses.

**Potential challenges in decision-making for entrepreneurial businesses**

There were slight differences in the responses of both sexes when this theme emerged. Majority of the male participants were very assertive about the roles men and women play in business establishment (gender related challenges). In terms of cultural elements (language) they exhibited broadminded attitudes by saying that people should not restrict themselves to specific language but learn to be multi lingual so as...
to reach a wider populace in their business. Comparatively, the female participants on this issue expressed a lot of frustration on their inputs into the business as well as the benefits accrued from the business. Their responses showed that most of the challenges the faced as entrepreneurs were centered on financial management, location and sales.

Discussion of Findings for Study Two

The interview session formed the core part of study two and was used to explore other questions, which were not captured in study one. These issues were: how the participants perceive entrepreneurial activities, perceptions of past experiences for decision-making.

Perceptions attached to Entrepreneurial Activities

As discussed in previous chapters, entrepreneurship stems from several ideological perspectives and beliefs such as the ability to manage a business, adapt to competitive markets, the use of network ties and the personality characteristics of an individual (Cunningham & Lischeron, 1991; Landstrom, 1998; Simpeh, 2011). This view was widely shared by some of the participants who took part in the in-depth interviews as they expressed their views on what entrepreneurship meant to them.

Firstly, the participants expressed their thoughts about entrepreneurial activities as a work which can be sustained by an individual’s attitudes of self-motivation. This meant that the person involved must have intrinsic motives and passion to operate the business by assessing the business outcomes. As observed by Urban (2008, 2010) an individual needs to develop cognitive structures which will make him or her friendly
towards venture creation opportunities. In addition, it is evident that for someone to think of entrepreneurship as a means of work, issues of the worth of the business to the operator (individual) need to be established first before other things follow. Therefore, the individual has to be motivated inherently in every sense to be ready to face the task ahead even in difficult times (Dzisi, 2008).

Other participants also opined that the source of their intrinsic motives for engaging in an entrepreneurial business was the nature of the flexible work schedules where the operator can control their own time and the management of the activities within the business. Therefore, when the business excels, their objectives are achieved. This implies that the working lifestyles of individuals in the sample have changed and therefore engage in entrepreneurship with the aim of leaving a legacy and life-long sustenance. This finding is in line with Cardon and Kirk (2015) who observed that the passion for finding and inventing a business significantly influences an entrepreneur’s personal assessment of his capabilities to develop the business. Hamilton and De Klerk (2016) also reported that independent motives such as the liberty to dictate one’s own working hours and other intrinsic motives influence decisions to act entrepreneurial.

Secondly, the theme “survival” emerged from the participants’ narratives. It was observed that the informant viewed entrepreneurial activities as a means of satisfying their needs and that of the family’s. In the narratives, the participants indicated that when people engage in entrepreneurial activities they earn an income for fulfilling their obligations towards the family. In this regard, entrepreneurial activities are sustained in order to attain tangible rewards. This finding is consistent with studies by Dzisi (2008) Hamilton and De Klerk (2016). Ssendi (2013) also found that rural female entrepreneurs viewed entrepreneurial activities as a means to sustain their
families and reduce poverty. Adom (2015) also observed the significant role entrepreneurial businesses play in helping the managers performing their financial obligations towards family members.

Entrepreneurship is seen as a means of survival and therefore the issue of risk associated with such activities was also paramount in the experiences of the participants and is consistent with literature (e.g., Asamani & Opoku Mensah, 2013; Mordi et al., 2010).

Generally, the participants were of the view that, entrepreneurial activities are a gamble and the chances of success cannot be assured. This implies that the decision to embark on an entrepreneurial career may expose an individual to some risks during the operation of the business or the outcome. The nature of the risk is also not static but changes from business to business. However, the issue of uncertainty remains the priority for all entrepreneurs. It must be noted that the in Ghana, people hold the global view of calculated risks in establishing businesses and this tends to impede on the propensity for success (Jyoti et al., 2011; Karabey, 2012; Pounder & Devonish, 2016). Acheampong (2017) also found the nature of entrepreneurial business compels people who have high risk taking propensities to opt for manufacturing enterprises such as bottling and cannery companies, making of building materials and making of car parts whilst people with low risk propensities but are innovative opt for service enterprises such as managing restaurants, telecommunication services, Hair artistry and others. Hence an entrepreneur’s personal characteristics can influence his or her choice of entrepreneurial business. Although studies have supported this claim, other studies observed contradictory findings. Vershinina et al. (2017) found that when entrepreneurial activities are carefully planned by forecasting uncertainties in the
future coupled with specific goals, risk is eliminated.

Furthermore, networking according to the participants was critical to the success of the business. Some participants believed it as an opportunity to utilize their network ties to develop a career, which they could manage on their own and subsequently consult these relations for advice to enhance their business. This meant that, contacting people with business ideas were very possible hence impacting positively on the development and maintenance of the business (Jyoti et al., 2011; Khefacha & Belkacem, 2015; Ullah et al., 2012). In addition, no business survives without proper network of friends, family and experts, as they are the people who play a crucial role towards the success of the business (Aberbrese, 2015). Family members, social institutions and experts give technical advice such as where to locate the business, manage operations as well as distribute finished goods (Ullah et al., 2012). Adom (2015) opined that the members of an entrepreneur’s network are present at different processes of the business to give emotional support and psychological support for any eventualities that may occur.

Networking as theme was also consistent with Adomako et al. (2018) who reported that social networking moderates the relationship between a person’s ability to identify a business opportunity and the success of the business as networking enables the entrepreneur to interact with and receive information from suppliers, customers, distributors and other stakeholders.

The participants’ narratives showed that entrepreneurship was an activity managed by people who had a sense of self-determination. From the narratives, it was observed that, people who consider the opportunities available, identify the processes involved and then proceed to manage the business. Hence doing the business starts with a self-
reflection of the individual on his capabilities and the willingness to seek alternatives to make the business survive. During the reflection mood, if it emerges that the individual has the autonomy to opt for career alternatives which are feasible, he does so to enhance the performance of his business (Okyireh & Simpeh, 2016; Shelby, 2017). Furthermore, it implies that an entrepreneur’s thoughts about independence when making decisions can influence entrepreneurial persistence (e.g., Adomako, et al. 2018). Kirkwood (2009) also observed that the performance of business venture depends on the explicit nature of business plans.

**Past Experiences for Future Entrepreneurial Decision-Making**

The participants’ perception of entrepreneurial activities influence plans for future businesses. The narratives showed that the participants had optimistic thoughts from experiences in the past which they believed was a milestone for developing future businesses. Thus being hopeful that when the past experiences are positive, it will enable them manage other businesses that will be initiated. Again, the theme “optimism” from the narrative suggests that, new ideas have been developed from past mistakes and this will lay a solid foundation for the management of new businesses in the same industry. Moreover, being optimistic indicates hopefulness of sustaining the existing business until ideas for future business are implemented and many studies have confirmed it (e.g., Adomako et al., 2016; Shelby, 2017).

Another theme that emerged from the narratives of the participants was “resilience”. In exploring the extent to which past experiences can determine the decision to start businesses in the future, participants believed that developing a resilient character is critical to the survival of the business. For instance an inference from the participants’ account showed elements of frustration in management procedures of the business
and how the strategies are adopted to overcome the challenges in order to improve the
performance of the business. Other participants also alluded to the fact that their
relationship with their business counterparts resulted in the formation of resilient
personalities which will help them to accomplish similar tasks in the future. Hence
when the entrepreneur is able to stand the test of time amidst challenges in venture
creation it affects the success of the business (Chu, 2015). The issue of resilience in
entrepreneurship is also consistent with studies which have shown that people resort
to resilience strategies when managing business activities in order to enhance
performance (e.g., Abebrese, 2015; Adomako et al., 2016). Chu (2015) found that
entrepreneurial resilience involves preserving existing structures for adaptability in
the business environment in order to ensure continuous planning.

In exploring the extent to which past experiences affect future decisions, the
participants indicated that their relationship with customers was crucial and can affect
the way business plans will be made towards the future. From their perspective,
customers who patronized their services impacted their business in several ways such
as the brand of the business, profit margin and the sustenance of the business
generally. This finding was consistent with studies which observed that customers
were the main dictators of small and medium scale expansions (Boateng et al., 2014;
Kwamega et al., 2015) and this view seems to hold the foundations of business set-
ups.

Customer care is significant in the success of a business and this is because, customer
care at the end of the supply chain of businesses and hence any discrepancy in the
customer culture can have dire consequences on business enterprises (Abebrese,
2015; Valmohammadi, 2011). In this regard, the management of customer care is seen
as a skill and must continuously be improved to ensure optimal performances in small
and medium scale businesses especially in the service industries (Adom, 2015).

**Potential Challenges in Decision-Making for Entrepreneurial Businesses**

The participants also envisaged that they will encounter challenges when making decisions concerning their businesses. Based on their past experiences, they recounted challenges that were related to gender, culture (language and ethnicity), skills, market fluctuation and financial obligations. They further narrated that these challenges could affect the sustenance of their career as entrepreneurs. The themes are expounded below.

Gender-related challenges present diverse dialogues in entrepreneurship as the issues are related despite the different types of businesses. In Ghana, gender issues tend to be one of the most common phenomena in the area of stereotypes as opined by the participants. Males prefer to see females in the frontline of business activities such as playing a mediating role between the enterprise and distributing goods and services. This tends to arouse the interest of clients whilst the males purchase the goods on offer. These assertions according to the participants hinder the success of the business as customers’ turns to prefer the opposite sex in rendering of services. Hence, it is suggested that perceptions about specific gender roles and its impact on business outputs cannot be overlooked especially in cases where these roles dictated by society are abused by the occupants to create setbacks for the businesses (Shinnar et al., 2012). These characteristics found in the Ghanaian setting also make avowals that gender related issues are dominant in the entrepreneurial discourse (Dzisi, 2008; Mordi et al., 2010). Although some studies have discounted this claim by stating that perceptions of the duties assigned to individuals depend mainly on the remuneration attached, the way and manner individuals adapt to these roles has pronounce consequences for the business (Adom, 2015).
In addition to gender-related issues, cultural elements such as language and ethnicity impact the operation of businesses in Ghana. The participants’ experiences of language as a challenge make it unblemished that same language tends to foster some interconnection amongst people with similar mother tongue. However, it must be emphasized that lack of a common language impedes the operations of the business and again limits the potential customers of the enterprise. This notion according to some participants is important in making the business flourish. Some studies (Klyver et al., 2008; Shelby, 2017) acknowledge the fact that, same language between people help to make transactions easier and faster. Again, ethnicity also has some connection with business survival as articulated by the participants and it is believed the members of the same ethnic enclave have the tendency to explore business opportunities together (Canedo et al., 2014). The narrative expressed on ethnicity mean that, once there’s a common ground such as tribe or ethnicity, business can thrive and a lack of it can adversely hurt the business in the long term. Contrary to this view, other participants assessed the impact of ethnicity as average. This was because the impact of ethnicity can be unassuming when the identity of the client with whom the business owner interacts with fails to disclose his town of origin (Shelby, 2017).

The participants also perceived the issue of unstable sales from services and goods as a challenge in decision for future businesses. Thus the theme “market fluctuation” emerged. According to Kwamega et al. (2015), uncertainty of market demands for goods hinders the operations of small businesses. Consequently, businesses fail when the market forces such as inflation, high cost of product or high tax regime work against the smooth running of the enterprise (Khefacha & Belkacem, 2015). This finding was also consistent with Shelby (2017) who reported that the demand and supply of goods determine pattern of scales in a business therefore an increase in the
demand for the goods will increase sales and vice versa hence the changing patterns in sales.

The participants also foresaw financial resources as a potential challenge in decision-making. The narratives reported earlier suggest that all the participants agreed that capital is necessary to start a business and to strategize in order to enhance productivity. They also shared their experiences on documenting their business procedures in order to ensure that profits were made. Consistent with this finding, Amatucci and Crawley (2011) observed that financing of a business continues to be a challenge in the existence of small and medium scale enterprises across continents. Furthermore, Ssendi (2013) revealed that access to financial resources was crucial to formation of business and hence inadequate funding posed as a treat in the management of the entrepreneurial businesses.

The last challenge opined by the participants reveal the lack of requisite skill in making the business thrive despite the existence of other challenges. Hiring of skilled labour especially among small businesses poses problems and several studies (e.g., Boateng et al., 2014; Okyireh & Okyireh, 2017) have revealed this problem. This is not different from the participant’s problems as well. From the narratives presented, hiring of skilled labour was essential to the survival of business. However, it posed a challenge in terms of remunerating support staff. Staff with knowledge and expertise in the business field made demands for salaries which the business owners could not afford to pay on the basis of cost and sustainability. This finding was consistent with studies, that have reported that most small and medium scale businesses do not hire
experienced people to help manage their businesses and that has consistently impeded the growth of SMEs’ in the country (e.g., Boateng et al., 2014).
CHAPTER FIVE
DISCUSSION

Introduction

This section of the research presents the background of the entire research work including a summary of the findings for study one and two. The findings are then discussed in relation to the literature and theoretical framework. The implications of the findings for theory and practice in the field of social psychology, work psychology and entrepreneurship studies are also highlighted. This section concludes with the contributions of the study as well as its limitations.

Summary of Findings for Quantitative Study

Study one was to examine four objectives; the first one was to examine the extent to which demographic factors will influence choice of entrepreneurial decision-making. The major findings were that, males reported higher causation as compared to females. This is to say that males exhibited a lot of action oriented approach by being definite of the potential outcome of their respective businesses. In addition, males have the ability to make businesses work but don not have the required skill to adjust to environmental factors such as competition. Furthermore, males ability to drive the business with goals oriented strategies were seem to be more than females and this is due to the type of job they engaged in. Males generally have passion to succeed and therefore, steps are normally taken to achieve any vision that is set. This assertion is very common in Ghana as it is observed that, males tend to work very hard to make ends meet.

The second findings of objective one was that those with business experience reported lower causation and effectuation entrepreneurial decision-making approaches. It is
evident from the study that experienced business people exhibited lower tendencies of using both approaches in decision-making. This is to suggest that, there might be other factors of consideration for decision-making which is not captured in the current study. More importantly, this finding also means that experienced business people act largely on the job experience which tends to help them. Again, it is often said in business-circles that experience on the job is much better as it helps to predict and solve any mishaps that the business might encounter.

The third finding of first objective one was that those with tertiary education also reported lower causation and effectuation entrepreneurial decision-making. The study discovered that, the higher one’s level of education is, the less likely that the individual will use formalized way of operating a business or using an experimental based approach. It can be deduced that, education adds value to an individual and hence, the ability to use self-thought procedures in managing a business is high.

Objective two was to examine the extent to which cognitive styles affect entrepreneurial decision-making approaches. The findings of the study show that individuals with analytical thinking styles, that is, individuals who uses logical step by step analysis adopts both causation and effectuation decision-making approaches. For example, an individual who processes information in a logical manner has the tendency to choose an experimentation approach or a goal directed approach to making decisions about the business. Beside, those with intuitive thinking styles had a higher chance of opting for both effectuation and causation. Intuitive thinkers often acquire sudden ideas which help them to manage their businesses. In addition, these thinkers do not have a formalized way of managing businesses but rather take solace in the fact that ideas come as and when it’s needed. Decisions are often taken on impulse basis and might negatively affect the smooth operation of the business.
The third objective was to assess the moderating role of psycho-social factors, that is, psychological empowerment, perceived relational support and individual cultural orientation. Specifically, perceived relational support was found to strengthen the effect of analytical and intuitive styles on the dimensions of entrepreneurial decision-making.

Perceived relational support influence the prediction of analytical and intuitive styles to the extent that, higher perceptions of relational support influence higher tendency to choose entrepreneurial decision-making. This explanation suggests that, the more perceived relational support an individual has, that is, support from family and friends, the higher the tendency to detect whether an individual will detect the ability to use logical reasoning or intuitive thinking. More importantly, the role of relational support in business enterprise is deemed important as such system helps and enables an individual to be content and confident about the success of a business. Moreover, perceived relational support highly predicted causation and effectuation decision-making among individuals. The study revealed that entrepreneurs tend to have higher strategic alliances and are able to predict the future when the support from family and friends is high. In fact these supports foster a backbone for the entrepreneur in having a successful business enterprise. With the effectuation being high, entrepreneurs often achieve set goals as well as being able to detect a possible profit from an enterprise when friends and families support is high. This is to say that, the success of an entrepreneur largely depends on support from society, friends, families as well as well-wishers.

Psychological empowerment strongly moderated the effect of each of the two cognitive styles on causation but failed to moderate the effect of analytical thinking on effectuation decision-making. This implies that the ability to be competent and
dedicated to the business can influence the ability to make decisions that protects the
business from failure. Again, an individual is able to harness existing knowledge to
the advantage of the business so long as the principle and values of the entrepreneur is
not in jeopardy. Furthermore, an individual who possess strong personal values and
determination is largely to make decisions either in logical or abruptly manner. This is
to say that decisions made are not stagnant due to the flexibility that the individual
has.

Dimensions of cultural orientation (uncertainty avoidance, individualism vs
collectivism, masculinity vs femininity and power distant) also significantly moderate
the effect of cognitive styles on dimensions of entrepreneurial decision-making. That
is, first, uncertainty avoidance and individualism and collectivism had a weakening
effect on analytical thinkers and the ability to choose causation and effectuation
decision-making approaches. In explaining the concept, entrepreneurs who minimize
insecurity, prefer personal achievements as well as those who prefer social benefit
have a less tendency to make decisions on goals that affect the business.

Second, uncertainty avoidance, masculinity vs femininity, individualism and power
distance weakened the effect on the ability of intuitive thinkers to choose either
dimensions of entrepreneur’s decision-making. In explaining these findings,
entrepreneurs who minimize anxiety, those who also believe in fairness of gender
roles and others who also believe in unequal distribution of power like families have a
reduced tendency to use sudden insights in making decisions.

The fourth objective was to assess the moderating role of demographic factors on
cognitive styles and entrepreneurial decision-making. It was found that age, gender-

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effectuation decision-making whilst age strengthened the relationship between intuitive thinking and effectuation decision-making. In explaining the findings, age strengthened the relationship between logical reasoning and decisions that are taken suddenly. This means that the older an individual is in a business, the higher the ability to choose strategic alliances in deciding for a business.

Males according to the finding weakened the relationship between analytical and effectuation. This is to suggest that males have a reduced tendency to be analytical in decision-making and also have a reduced tendency to opt for controlling an unpredictable future.

Tertiary education weakened the relationship between analytical and effectuation. This implies that an individual with a tertiary education may not opt for logical decisions in a business enterprise as well as exploiting possibilities.

Age strengthened the relationship between intuitive thinking styles and effectuation. This suggests that the ability to make sudden decisions as well as controlling of loss in a business is due to the age of the individual. In addition, the older an individual is, the better it is in managing an enterprise.

Summary of Findings for Qualitative Study
This study constituted the qualitative phase of the research and it explored the participant’s perception of entrepreneurial decisions and experiences. Participants’ experiences were categorized into themes; first, participants attached mixture of happiness and negative feelings to entrepreneurial activities. While some participants saw it as opportunity to be determined and motivated from their experiences, others felt it was the only means by which their families had to survive. Additionally,
thoughts concerning risk taking and building networks with experts were also inferred from the participant’s responses. The narratives mentioned also describe how perceptions of past entrepreneurial experiences influenced decisions towards future venture creation. Feelings of hopefulness towards success and the determination to withstand adversities with future businesses were paramount in the narratives. Additionally, excerpts of the interview sessions prove that some participants considered maintenance of customer service as the core of future entrepreneurial decision-making.

Decisions for entrepreneurial businesses were also difficult as participants recounted potential challenges involved. Participants highlighted issues related to “Gender”, “Cultural elements (language and ethnicity)”, “Market fluctuation”, “Financial and skills needed for performing the businesses.

Discussion and Relatedness of Findings to the Theoretical Framework

Study one confirmed the entrepreneurship Network theory by Klyver et al. (2008) which explains that the social relationships that an individual has and interactions with in with in his or her network, influence their attitudes or actions. Concerning this assertion, the findings of the present study showed that participants’ perception of receiving support from their relations, peers and significant others strengthen the choice of both entrepreneurial decision approaches. The same assumption was reiterated in the qualitative study (study two) when networking emerged as a theme in how participants perceived entrepreneurial activities. From these findings, it is imperative that networking plays a pivotal role in decisions for entrepreneurial businesses.
Both study one and two partly confirmed the social cognition model by Bandura (2001) which states that behaviour, cognitive and situational factors interact operatively and serve as determinants of each other. However, the observed relationship was a directional one and not reciprocal. Regarding this theoretical assumption, the results of study one affirmed a directional relationship because behaviour (act of decision-making) was influenced by situational factors (culture and perceived relational support) and cognitive factors (thinking styles and psychological empowerment) also influenced the approach to decision-making in a directional manner and not a reciprocal one. Additionally, the responses of the participants in the study two confirmed a directional relationship where cognitions (experiences) affect behaviour (decision-making).

For instance in study two, participants narrated their perceptions about entrepreneurship as a means of survival, a risk taking venture and opportunity to establish networks based on the direct and indirect experiences. The participants also narrated situational factors such as gender role perceptions, financial resources, ethnicity and language among others as factors that threaten decisions for future businesses. Other narratives also suggest that the participants’ thoughts were influenced by their experiences. Consequently, the situational factors affects the tendency to engage (behaviour) in entrepreneurial activities which is partly consistent with Bandura’s social cognitive theory. According to Asitik (2015) and Forkuoh et al. (2012) people’s cognition and the situation factors determines the line of action they take in entrepreneurial business opportunities.

**Linkages between Study One and Two**
This thesis is a two-fold study conducted separately to investigate the determinants of entrepreneurial decision-making. Although these two studies are independent of each other, study one sought to investigate factors that were under researched in quantitative entrepreneurial decision-making. Study two on the other hand was done to explore the perception attached to entrepreneurial activities either through direct and indirect experiences, the extent to which past entrepreneurial experiences influence future decision-making and the potential challenges involved.

As noted earlier, study one examined the relationship between cognitive styles and entrepreneurial decision-making and the moderating effects of psychosocial factors and demographic factors. Study one was conducted in order to fulfill the recommendations made in previous quantitative studies (e.g., Idjens, 2015). Study two was undertaken to explore the perceptions attached to past entrepreneurial activities and hence entrepreneurial decision-making. Based on the findings, the two studies complemented each other. For instance, study one reported that cognitive styles (analytic and intuitive) significantly influenced an individual choice of causal or effectual decision-making strategies with both psychological and social factors making an impact on the decision-making process. Comparatively, demographic factors (age, education, business experience and gender) were found to significantly enhance entrepreneurial decision-making approaches.

Study two also found that themes such as optimism, resilience, customer service were the experiences the participants narrated and hoped to transfer from their past experiences to decisions for future businesses. Additionally, the responses of the participants added to the findings of study one. For instance, study one, reported the moderating effects of cultural orientations - power distance, uncertainty avoidance, masculinity versus feminism and collectivism vs. individualism as strengthening or
weakening the relationship between cognitive styles and entrepreneurial decision-making and study two also gleaned additional findings from other aspects of culture. In this regard cultural elements - language and ethnicity were described as potential challenges in entrepreneurial decisions. Additionally, from the narratives in study two, it was gleaned that self-determination and motivation emerged as people’s perceptions of entrepreneurial activities and this harnesses the fact that psychological empowerment is an aspect that can foster or inhibit decisions towards entrepreneurial businesses. This is because previous studies (e.g., Spreitzer, 2007; Thomas & Velthouse, 1990) as noted earlier conceptualized psychological empowerment as having four characteristics namely self-determination, meaning, impact and competency for a task.

**Contribution to Knowledge**

The present study adopted a pragmatic approach in achieving the research aims and objectives. Pragmatic epistemology assumes that actions by individuals have outcomes that are often predictable (Creswell & Plano Crack, 2011; Stake, 2000). This means that the research adopted a mixed methods approach using statistical tools and the generation of themes (thematic approach) to understand entrepreneurial cognitions. The study is different compared to previous ones that have adopted either a positivist approach or an exploratory approach (Boateng et al., 2014; Shelby, 2015). A combination of the two approaches paved the way for investigating the discourse to the core (Creswell & Plano Crack, 2011; Stake, 2000).

In a decade and over, researchers have conducted entrepreneurial studies using statistical approaches, which result in non-significant relationships (e.g., Kebaili et al., 2017; Pounder & Devonish, 2016). This is because fixed instruments or sets of
questions have been designed to assess the construct globally, ignoring the cultural
correctly, the researcher
enables the researcher understand what is going on and become immersed in it or
move into the culture or organization being studied as well as experience being a part
of it (Smith & Osborn, 2003). As postulated by Ormerod (2005) looking at the
restrictive nature of positivism concerning the measurement of variables in a social
setting, the use of a mixed method which analyses both quantitative and qualitative
data in a single study either concurrently or sequentially became imperative and
consequently the greatest strength of the current study.

Also, the study sampled participants who are entrepreneurs and non-entrepreneurs.
This makes the study unique in entrepreneurial literature as it allows for the collection
and comparison of people with different levels of business experience especially from
the qualitative phase of the study.

Another contribution of the study is the preliminary assessment of cognitive styles of
the participants of the study using the cognitive style index. This assessment was done
to present an overview of the thinking patterns of people situated in the LaNMMA
municipality and to aid in the design of appropriate interventions for obstacles
towards entrepreneurial decision-making. Referring to studies reviewed on
entrepreneurial cognitions in chapter two, an assessment of this nature was not
incorporated in their preliminary assessment (e.g., Ijdens, 2015; Karabey, 2012).
Again, the findings on cultural orientations - masculinity and feminism, power
distance, uncertainty avoidance having varying moderation effects on cognitive styles
adds to literature in psychology and entrepreneurship. This is because majority of the
studies have focused on cultural orientation-collectivism and individualism leaving the other dimensions of Hofstede’s model under researched.

The outcome of the study suggests that perceptions of relational support strengthened the relationship between analytical and intuitive styles and both approaches to entrepreneurial decision-making - causation and effectuation. This implies that the intention to make decisions about a business by both analytical thinkers and intuitive thinkers is dependent on the amount of support they perceive their peers and relatives will give to them. Additionally, receiving support from significant others positively enhances an analytical thinker or intuitive thinker’s potential to choose decision-making strategies for their businesses.

The study also shows that orientations towards the assessment of allocation of gender roles (masculinity versus feminism) and the use of social norms to alleviate the unpredictability of future events (uncertainty avoidance) influences how intuitive thinkers will choose goal-driven (causation) decisions for entrepreneurial businesses. Additionally, the findings of the studies on assessing cultural orientations on an individual level compared to studying cultural orientations at the national level buttresses the reports from Markus and Kitayama (1991) that on the individual level, these cultural dimensions may differ based on the type of socialization an individual is exposed to and that similar patterns exist in the Ghanaian context.

The study also unravels the effects of other cultural elements: language and ethnicity as key components of future decisions for entrepreneurial businesses. It is evident from the study that same language and ethnic backgrounds increase business communication between people and also help to seal potential opportunities. Besides,
the study further revealed that one’s native language helps to make transactions very easy when two parties are involved. This is because business owners and natives from the same hometown are able to establish long lasting business relationship and that helps to create a good rapport.

The essence of networking is also highlighted in the study, which is unprecedented. According to the participants, businesses are established with the intention to network as a means of getting contact or getting to know people. More importantly, the study showed that network circles tend to influence the business positively and the current literature does not have adequate research in the area.

The study also contributes to the theoretical underpinnings of the work. Even though the social cognitive theory guides the research in entrepreneurship with economy such as Ghana, it does not sufficiently account for that context. The social cognitive theory states that there is a reciprocal interaction between cognitions, behaviour and situational factors. This theory does not state the quantum of effects by the three aspects on each other. In view of this, the results of the current study added value to this theory by highlighting the experiences of an individual as a core component of situational factors of the cognition-situation – behaviour relationship.

Finally, the study also augments studies undertaken in developing and developed countries on entrepreneurial behaviour. For instance evidence from entrepreneurial studies in Ghana have highlighted the magnitude of determinants and challenges to entrepreneurial decision-making and this study has done same (e.g., Boateng et al., 2014; Okyireh & Okyireh, 2017). However, it extensively highlights on types of cognitions and approaches to entrepreneurial decision-making and this initiates a new angle of research on entrepreneurial cognitions in the Ghanaian context.
Limitations of the study

Despite the strengths of the study some limitations were identified. The population of the study could have been expanded to include a lot more participants and therefore it cannot be generalized to reflect the opinions of a larger municipality in Ghana. In addition, the use of a single municipality in the Greater Accra Region may not also give a broader scope of understanding the dynamics of the population. Due to the nature of qualitative studies the findings cannot be generalized to the experiences of inhabitants of other societies as a small sample size was used.

It is important to note that, the study used accessible literature from both electronic and non-electronic sources, and this might also influence the outcomes.

The use of only in-depth interviews was used instead of focus group discussion and this might not have captured rich insights into their experiences.

Recommendations for Future Research and Practice

Recommendations for Future Research

The results of the study are essential for both future research and practical implications. In terms of future research scholars in psychology and entrepreneurship may conduct a longitudinal study periodically by studying the cognitive styles of people in a society and how it impacts approaches to decision-making in entrepreneurial businesses in order to assess changes in their thinking patterns over a specific period for example 2 years or 5 years. Additionally, a comparative analysis between different societies in the Greater Accra region or across other regions in
Ghana may also yield interesting findings. Furthermore, a quasi-experiment can be done in a way groups of people will be assessed on cognitive styles and decision-making and then subsequently given some training on entrepreneurial management and then post tested on decision-making strategies. In this way, researchers can investigate whether approaches to entrepreneurial decision changes after training programs have been implemented.

The findings of this study also suggest that attention should be paid to other approaches to cognitive styles such as heuristics, mental scripts, sense breaking etc. (Businetz & Barney, 2000) and how they impact entrepreneurial decision-making. In this way, the dynamics of entrepreneurial cognitions and their effect on decisions will be analyzed in the Ghanaian context.

**Recommendations for Practice**

Research is essential in enhancing lives positively and hence engenders new and improved ways of accomplishing tasks. The entrepreneurial cognition discourse has been widely assessed and this has resulted in profound findings in the quest to achieving a means to an end approach. It is evident that the cognitive styles of people can change the decision-making strategies of prospective entrepreneurs. To emphasize this point, entrepreneurs who are analytical or intuitive thinkers can switch between making goal driven decisions (causation) or means-based decisions (effectuation) depending on the contextual factors. This means that entrepreneurs who are able to have formalised thoughts on business enterprise or those who are able to act on impulse are able to predict the outcome of a business depending on the type and place of business. It is recommended that individuals with the intention of engaging in
entrepreneurial business ought to be flexible in decision-making so as to adjust to changing environmental factors that might beset the business.

In addition, entrepreneurs who hire support staff in businesses should make it a mandatory to know about experiences the new recruit has and a possible impact on the business they are yet to be engaged in. The current study laid claim to the fact that business experiences help in mitigating minor errors that might occur at the work place.

More importantly, perceptions of support from friends, family and members of a business community as well as an entrepreneur’s personal assessment of his or her business values, competencies and impact (psychological empowerment) on a business can facilitate the choice of appropriate decision-making strategies. The same finding is also gleaned from the narratives of participants in study two as network systems are described as crucial to the survival of the businesses.

Additionally entrepreneurs need to assess the cultural values, beliefs and orientations of a society before establishing a business facility in that society in order to enhance business performance. In throwing more light on this, certain areas of society are noted for certain kinds of business and hence, care must be taking in the citing of a business in relation to the cultural dynamics of the people. When this is strictly adhered to, businesses thrive well and it encourages effective participation of members in the society.

There must be training programs that will seek to empower both registered and unregistered entrepreneurs. Globalization has tickled the slow pace of decisions that are made regarding entrepreneurial discourse and therefore, better ways of maximizing resources ought to be available. Consequently, the results of the study
have also highlighted how cognitive styles impact decision-making in developing economies and this information will aid in the designing of appropriate interventions to assist people with intentions of entrepreneurial career but are somehow challenged.

In addition, businesses ought to consider people who are multi-lingual as this enhances and retain communication with business partners from different ethnic backgrounds. This is evident in the study as the Ghanaian context is faced with issues of this nature hence when the language is multi-dimensional; it helps increase the customer base of entrepreneurs. In line with this finding, prospective entrepreneurs in the Ghanaian context should initiate steps to recruit people who speak different local languages.

**Conclusion**

The present study used two methods, that is, a quantitative approach and a qualitative approach to examine entrepreneurial cognitions in Ghana. The quantitative phase of the study examines the relationship between cognitive styles of people and approaches on entrepreneurial decision-making. The qualitative study explored the experiences of decision-making of entrepreneurs and non-entrepreneurs. Both studies complement the understanding of entrepreneurial cognitions in Ghana specifically, in the La Nkwantanang municipality in Ghana.

The findings of the study and the discussions show that the phenomenon of entrepreneurial decision-making is context specific and it differs across cultures. People may possess unique thinking patterns that compel them to engage in decisions for entrepreneurial businesses but the ability to undertake the business is dependent on the perceptions of support from relations, peers and experts in the business, cultural
orientations of the society and the individual own assessment of their levels of psychological empowerment to do the business.

Furthermore, it is concluded that psychosocial factors such as a sense of meaning or values for a job influence the propensity of choosing a competitive strategies or initiate steps to control unpredictable outcomes in the business. Though education reduced the tendency to choose goal driven and experimental strategies, it does not mean that education is not important. This is due to the sample that was used for the study.

More importantly, business experience reduced the tendency to choose goal driven decisions and experimental approach in deciding to establish businesses.

The nature of an individual’s information processing abilities can influence the choice of decision-making strategies. Some strategies for enhancing entrepreneurial activities in Ghana may include stakeholders having business incubator models to train and nurture young entrepreneurs in diverse ways. Again, formal and informal training centers have to use modern technologies not forgetting the intuitive thinking styles of entrepreneurs in order to harness their full potential.
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APPENDIX A: QUESTIONNAIRE

Section A
Demographic Data

1. Your age: ..........

2. Gender: Male [ ] Female[ ]

3. Level of education: [ ] Basic education [ ] secondary [ ] Tertiary [ ]
   Other

4. Marital status: Single [ ] Married [ ] in a relationship [ ] Divorced [ ]
   Separated [ ] other [ ]

5. Religion: Traditional [ ] Christianity Orthodox [ ] Christianity Charismatic [ ]
   Islamic [ ] others, please specify...........................................

6. Do you have a business experience: Yes [ ] No [ ] If No skip to Section B

7. Where did you get the business experience?

   Personal part time business [ ] Family members’ business [ ] other [ ]

8. Occupation........................................
### Section B

**Perceived Relational Support measure**

Instructions: We are interested in how you feel about the following statements. Read each statement carefully. Indicate how you feel about each statement.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Very Strongly Disagree</th>
<th>Strongly Disagree</th>
<th>Mildly Disagree</th>
<th>Neutral</th>
<th>Mildly Agree</th>
<th>Strongly Agree</th>
<th>Very Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. My family and friends show me that they love me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>2. My family and friends allow me to decide as often as possible</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>3. My family and friends criticize my opinions about religion, philosophy of life or social engagement.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>4. If I decide to be an entrepreneur my family members will support me</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>5. If I decide to be an entrepreneur my friends will support me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

### Section C

**The Psychological empowerment measure**

This questionnaire lists four cognitions regarding an individual’s ability to engage in a particular activity. Please tick the most appropriate answer for each item.

<table>
<thead>
<tr>
<th>Cognition</th>
<th>Very Strongly Disagree</th>
<th>Strongly Disagree</th>
<th>Mildly Disagree</th>
<th>Neutral</th>
<th>Mildly Agree</th>
<th>Strongly Agree</th>
<th>Very Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I am confident about my ability to do an entrepreneurial activity.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>2. I am self-assured about my capabilities to perform an entrepreneurial activity.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>3. I have mastered the skills need for an entrepreneurial activity.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>4. I have significant autonomy in determining how I will do my entrepreneurial activity.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>5. I can decide on my own about doing an entrepreneurial activity.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>6. I have considerable opportunity</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>
for independence on how I will do my entrepreneurial activity.

7. My impact on what happens in the entrepreneurial activity will be large. 1 2 3 4 5 6 7

8. I will have a great deal of influence over what happens in my entrepreneurial activity. 1 2 3 4 5 6 7

9. I have a significant influence over what happens in the entrepreneurial activity. 1 2 3 4 5 6 7

10. The entrepreneurial activity I will do will be very important to me. 1 2 3 4 5 6 7

11. My entrepreneurial activity will be personally meaningful to me. 1 2 3 4 5 6 7

12. The entrepreneurial activity will be meaningful to me. 1 2 3 4 5 6 7

SECTION D`: Entrepreneurial Decision-making measure

Below you can find statements designed to identify your own approach in starting a business. Please indicate to what extend you agree or disagree with each statement. The response options are: Very strongly disagree-7, strongly disagree-6, mildly disagree-5, neutral-4, mildly agree-3, Strongly agree-2, very strongly agree-1

1 2 3 4 5 6

1 Decisions will be primarily based on analysis of potential future returns.

2 I will always pay attention that my initially defined target will be met.

3 I will try to identify markets by a thorough market analysis.

4 I will allow changes in my planning if needed, even during the implementation process of my new venture.

5 Before starting my new venture, I will first acquire all resources needed to achieve my target.
<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>Beforehand, I will calculate how many resources I need to achieve the expected returns.</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>I expect to change my original target when confronted with new findings.</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>The uncertainty of a market will not block me since I rely on my own experience to imagine opportunities.</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>The decisions I make when starting my new venture will be based on the resources I have available.</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>I don’t easily open up to new business opportunities</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Decisions will be made together with stakeholders based on our competences.</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>I take a clearly pre-defined target as a starting point of the new venture.</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>I will try to be optimistic about the future</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Decisions will be primarily based on minimization of risks and costs.</td>
<td></td>
</tr>
</tbody>
</table>
### SECTION E: Individual cultural value scale

The following questions will ask your views on several cultural orientations. Please be as honest and accurate as you can throughout. Try not to let your response to one statement influence your responses to other statements. There are no "correct" or "incorrect" answers. Answer according to your own feelings, rather than how you think "most people" would answer.

<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. People in higher positions should make most decisions without consulting people in lower positions.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. People in higher positions should not ask the opinions of people in lower positions too frequently.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. People in higher positions should avoid social interaction with people in lower positions.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. People in lower positions should not disagree with decisions by people in higher positions.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. People in higher positions should not delegate important tasks to people in lower positions.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. It is important to have instructions spelled out in detail so that I always know what I’m expected to do.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. It is important to closely follow instructions and procedures.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8. Rules and regulations are important because they inform me of what is expected of me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9. Standardized work procedures are helpful.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
10. Instructions for operations are important.  

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 Careful management of money.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>21. Going on resolutely in spite of opposition.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>22. Personal steadiness and stability.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>23. Long-term planning.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

11. Individuals should sacrifice self-interest for the group.  

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>12. Individuals should stick with the group even through difficulties.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>13. Group welfare is more important than individual rewards.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>14. Group success is more important than individual success.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>15. Individuals should only pursue their goals after considering the welfare of the group.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>16. Group loyalty should be encouraged even if individual goals suffer.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>17. It is more important for men to have a professional career than it is for women.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>18. Men usually solve problems with logical analysis; women usually solve problems with intuition.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>19. Solving difficult problems usually requires an active, forcible approach, which is typical of men.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
Section F: The Cognitive style index

People differ in the way they think about problems. Below are 38 statements designed to identify your own approach. If you believe that a statement is true about you, answer T. If you believe that it is false about you, answer F. If you are uncertain whether it is true or false, answer ?. This is not a test of your ability, and there are no right or wrong answers. Simply choose the one response which comes closest to your own opinion. Work quickly, giving your first reaction in each case, and make sure that you respond to every statement. Indicate your answer by completely filling in the appropriate oval opposite the statement:

<table>
<thead>
<tr>
<th></th>
<th>T True</th>
<th></th>
<th>? Uncertain</th>
<th></th>
<th>F False</th>
</tr>
</thead>
</table>

1. In my experience, rational thought is the only realistic basis for making decisions.
2. To solve a problem, I have to study each part of it in detail.
3. I am most effective when the business involves a clear sequence of tasks to be performed.
4. I have difficulty collaborating with people who ‘dive in at the deep end’ without considering the finer aspects of the problem.
5. I am careful to follow rules and regulations at work.
6. I avoid taking a course of action if the odds are against its success.
7. I am inclined to scan through reports rather than read them in detail.
8. My understanding of a problem tends to come more from thorough analysis than flashes of insight.
9. I try to keep to a regular routine in my duties.
10. The kind of business activity I like best is that which requires a logical, step-by-step approach.
11. I rarely make ‘off the top of the head’ decisions.
12. I prefer chaotic action to orderly inaction.
13. Given enough time, I would consider every situation from all angles.
14. To be successful in my line of duty.
15. The best way for me to understand a problem is to break it down into its constituent parts.

24. Giving up today’s fun for success in the future.
16. I find that to adopt a careful, analytical approach to making decisions takes too long.
17. I make most progress when I take calculated risks.
18. I find that it is possible to be too organised when performing certain kinds of task.
19. I always pay attention to detail before I reach a conclusion.
20. I make many of my decisions on the basis of intuition.

21. My philosophy is that it is better to be safe than risk being sorry.

22. When making a decision, I take my time and thoroughly consider all relevant factors.
23. I get on best with quiet, thoughtful people.
24. I would rather that my life was unpredictable than that it followed a regular pattern.
25. Most people regard me as a logical thinker.

26. To fully understand the facts I need a good theory.
27. I work best with people who are spontaneous.
28. I find detailed, methodical work satisfying.
29. My approach to solving a problem is to focus on one part at a time.
30. I am constantly on the lookout for new experiences.
31. In meetings, I have more to say than most.
32. My ‘gut feeling’ is just as good a basis for decision-making as careful analysis.
33. I am the kind of person who casts caution to the wind.
34. I make decisions and get on with things rather than analyze every last detail.
35. I am always prepared to take a gamble.
36. Formal plans are more of a hindrance than a help in my business activity.
37. I am more at home with ideas rather than facts and figures.
38. I find that ‘too much analysis results in paralysis’.

**APPENDIX B: INTERVIEW GUIDE**

**INTRODUCTIONS**

1. Introduction of interviewers

2. Introduction of Research: Factors that influence decisions towards entrepreneurial activities is key in determining how an individual can undertake entrepreneurial
business. I will explore the meanings you attach to entrepreneurship. Also, I will explore how your perceptions will influence your decisions towards future venture creation as well as potential challenges you are likely to face when making decisions on business start-ups or starting a business.

3. Introduction of recorder

4. Participant signs informed consent form

5. Switch recorder on Background Information

Background Information of participants

1. Age......................

2. Gender

3. Religion................

4. What is your marital status? ..........................

5. What is your occupation?..............................................

Main Questions and Prompts

1. Have you been exposed to entrepreneurial activities before?
   - Where did you get this experience? It is from your family, Community, School etc.? 
   - How did you find this experience?

2. Can you share your thoughts on what entrepreneurship is all about?

3. Can you share with me some of your experiences if you have ever engaged in an entrepreneurial activity or assisted someone to run such a business.
   - What type of entrepreneurial activity was it?
   - What role did you play in this entrepreneurial activity?

4. What factors will you consider before starting a business?
➤ How important are these factors to the management of this business? Do you feel it will or will not have an impact on the outcomes of the business? If yes how? If no how?

➤ To what extent are these factors influenced by your previous exposure to these entrepreneurial activities?

5. How has your thoughts about entrepreneurship influenced your decision-making process?

➤ In terms of registering the business, managing customers, financing the operations of the business and marketing of outputs?

6. Do you think your status (nascent entrepreneur or experienced) have any influence on your thoughts on how to take decisions on entrepreneurial activities?

7. What are some of the challenges you think you are likely to face when you were deciding on starting a business?

➤ Do you feel that these challenges are gender related? If yes how? If no how?

➤ Apart from gender issues what else? Are the challenges skills related?

8. How does your culture influence your thoughts about entrepreneurial decision-making?

In my view, culture is the way of life of a group of people and this includes elements such as ethnic background, language, practices, beliefs, values, symbols etc..
- Which of these elements of culture influence your thoughts about entrepreneurial decision-making? And in what ways?

- Culturally are there any labels/Stereotypes used in describing people who venture into entrepreneurship?

- What are some of these labels?

APPENDIX C: ETHICAL CLEARANCE
My Ref. No ……………………

Ms Marijke Akua Adobea Okyireh
Department of Psychology
University of Ghana
Legon

Dear Ms. Okyireh,

ECH 051/16-17: ENTREPRENEURIAL COGNITIONS: ASSESSING THE RELATIONSHIP BETWEEN COGNITIVE STYLES AND PSYCHOSOCIAL FACTORS ON THE ENTREPRENEURIAL DECISION MAKING

This is to advise you that the above reference study has been presented to the Ethics Committee for the Humanities for a full board review and the following actions taken subject to the conditions and explanation provided below:

Expiry Date: 13/12/17
On Agenda for: Initial Submission
Date of Submission: 17/10/16
ECH Action: Approved
Reporting: Bi-Annually

Please accept my congratulations.

Yours Sincerely,

Rev. Prof. J. O. Y. Mante
ECH Chair

CC: Dr. Maxwell Asumeng, Department of Psychology

Tel: +233-303933866
Email: ech@ug.edu.gh | ech@issert.edu.gh
APPENDIX D: CONSENT FORMS - Quantitative measures

UNIVERSITY OF GHANA

Ethics Committee for Humanities (ECH)

PROTOCOL CONSENT FORM

Section A - BACKGROUND INFORMATION

<table>
<thead>
<tr>
<th>Title of Study:</th>
<th>ENTREPRENEURIAL COGNITIONS: ASSESSING THE RELATIONSHIP BETWEEN COGNITIVE STYLES AND PSYCHOSOCIAL FACTORS ON ENTREPRENEURIAL DECISION-MAKING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principal Investigator:</td>
<td>OKYIREH MARIJKE AKUA ADDOBEA</td>
</tr>
<tr>
<td>Certified Protocol Number</td>
<td>ECH 051 16-17</td>
</tr>
</tbody>
</table>

Section B - CONSENT TO PARTICIPATE IN RESEARCH

General Information about Research

The study is aimed at understanding the different information processing styles an individual adopts to choose activities when planning to step up business. The study will also examine types of culture, support from relations and empowerment needs and it’s effects on decisions when planning to set up businesses.

The study is being conducted amongst people in the Ga-East municipality in the Greater Accra region. The study will adopt a cross sectional exploratory method in collecting
information from participants. This includes semi-structured interviews and completion of quantitative questionnaire on the research variables. The completion of the questionnaire is expected to take about 40 minutes to 1 hour, whiles the interview would take about 30 minutes.

**Benefits/Risk of the study**

There are no known risks to you if you decide to participate in this research study, nor are there any costs for participating in the study. The information you would provide will help design appropriate training programs for planning and managing businesses. The information collected may not benefit you directly, but what I learn from this study should provide general benefits to people who have the passion to start their own entrepreneurial business and researchers.

**Confidentiality**

**Ethical Considerations**

Data or information obtained would remain confidential and your privacy would be protected at all time including any identifying information. Note that it is your right to remain anonymous. I understand that to facilitate the interviewer’s job, the interview will be recorded. However, the recording will be destroyed as soon as it has been transcribed. There would be identification with codes only to aid in follow-ups, where necessary. At no period will the data collected in the study be released to anybody beyond those working on the research project (The researcher, two research assistants, and the thesis supervisors). And any information about the study released would be in aggregate without individual identification. Each participant would be given the questionnaire to be
completed on their own (with the help of the researcher or his assistants, if necessary) without being required to write down names, initials or any sign that could be used for any identification purposes.

Compensation

I understand that there would be no compensation for participating in the quantitative phase of the study. However a token will be given to participants in the qualitative study if the process extend beyond an hour.

Withdrawal from Study

I also understand that I have the freedom to withdraw from the study at any time without consequence or prejudice to me, and I can refrain from answering any questions or group of questions that I do not want to without penalty.

Contact for Additional Information

For any information about the project, I can contact the principal investigator, Mrs Marijke A. Adobea Okyireh of the Department of Psychology, University of Ghana, Legon, on 0242122281 or email- xmar_akua@yahoo.co.uk.

If you have any questions about your rights as a research participant in this study you may contact the Administrator of the Ethics Committee for Humanities, ISSER, University of Ghana at ech@isser.edu.gh / ech@ug.edu.gh or 00233- 303-933-866.

ccv
"I have read or have had someone read all of the above, asked questions, received answers regarding participation in this study, and am willing to give consent for me, my child/ward to participate in this study. I will not have waived any of my rights by signing this consent form. Upon signing this consent form, I will receive a copy for my personal records."

_______________________________________________
Name of participant

_______________________________________________
Signature or mark of participant      Date

If volunteers cannot read the form themselves, a witness must sign here:
I was present while the benefits, risks and procedures were read to the volunteer. All questions were answered and the volunteer has agreed to take part in the research.

_______________________________________________
Name of witness

_______________________________________________      Date
Signature of witness /Mark                      Date
I certify that the nature and purpose, the potential benefits, and possible risks associated with participating in this research have been explained to the above individual.

_________________________________________________
Name of Person who Obtained Consent

___________________________________________  _____________
Signature of Person Who Obtained Consent                                            Date

Appendix E
Factor Analysis for Entrepreneurial Decision-Making

<table>
<thead>
<tr>
<th>KMO and Bartlett’s Test</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Kaiser-Meyer-Olkin Measure of Sampling Adequacy.</td>
<td>.733</td>
</tr>
<tr>
<td>Approx. Chi-Square</td>
<td>7849.015</td>
</tr>
<tr>
<td>Bartlett's Test of Sphericity</td>
<td>df</td>
</tr>
<tr>
<td></td>
<td>Sig.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Communalities</th>
<th>Initial</th>
<th>Extraction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decisions will be primarily based on analysis of potential future returns.</td>
<td>1.000</td>
<td>.834</td>
</tr>
<tr>
<td>I will always pay attention that my initially defined target will be met.</td>
<td>1.000</td>
<td>.890</td>
</tr>
<tr>
<td>I will try to identify markets by a thorough market analysis.</td>
<td>1.000</td>
<td>.866</td>
</tr>
<tr>
<td>I will allow changes in my planning if needed, even during the implementation process of my new venture</td>
<td>1.000</td>
<td>.836</td>
</tr>
<tr>
<td>Before starting my new venture, I will first acquire all resources needed to achieve my target.</td>
<td>1.000</td>
<td>.818</td>
</tr>
<tr>
<td>Beforehand, I will calculate how many resources I need to achieve the expected returns.</td>
<td>1.000</td>
<td>.863</td>
</tr>
<tr>
<td>I expect to change my original target when confronted with new findings.</td>
<td>1.000</td>
<td>.836</td>
</tr>
<tr>
<td>The uncertainty of a market will not block me since I rely on my own experience to imagine opportunities.</td>
<td>1.000</td>
<td>.811</td>
</tr>
<tr>
<td>The decisions I make when starting my new venture will be based on the resources I have available.</td>
<td>1.000</td>
<td>.731</td>
</tr>
<tr>
<td>I don't easily open up to new business opportunities</td>
<td>1.000</td>
<td>.815</td>
</tr>
<tr>
<td>Decisions will be made together with stakeholders based on our competences</td>
<td>1.000</td>
<td>.708</td>
</tr>
<tr>
<td>I take a clearly pre-defined target as a starting point of the new venture</td>
<td>1.000</td>
<td>.850</td>
</tr>
<tr>
<td>I will try to be optimistic about the future</td>
<td>1.000</td>
<td>.794</td>
</tr>
<tr>
<td>Decisions will be primarily based on minimization of risks and cost</td>
<td>1.000</td>
<td>.926</td>
</tr>
<tr>
<td>I will talk to people I know to enlist their support in making opportunities a reality</td>
<td>1.000</td>
<td>.832</td>
</tr>
<tr>
<td>I will only spend resources I have available and I am willing to lose</td>
<td>1.000</td>
<td>.857</td>
</tr>
<tr>
<td>I will study expert predictions on the direction the market is “heading”, to determine what course of action my new venture will follow</td>
<td>1.000</td>
<td>.780</td>
</tr>
<tr>
<td>I start my new venture without defining a clear target.</td>
<td>1.000</td>
<td>.659</td>
</tr>
<tr>
<td>My first priority is reaching my pre-set target without any delay</td>
<td>1.000</td>
<td>.638</td>
</tr>
<tr>
<td>I will focus on early identification of risks through market analysis</td>
<td>1.000</td>
<td>.925</td>
</tr>
<tr>
<td>I will ask my private network to help me out with starting my new venture</td>
<td>1.000</td>
<td>.853</td>
</tr>
<tr>
<td>My planning will be set before I start the implementation process and cannot be altered afterwards</td>
<td>1.000</td>
<td>.856</td>
</tr>
<tr>
<td>I will try to identify risks by a thorough competitors analysis</td>
<td>1.000</td>
<td>.794</td>
</tr>
<tr>
<td>I will ask customers and suppliers to pre-commit to my new venture in order to reduce risks</td>
<td>1.000</td>
<td>.892</td>
</tr>
</tbody>
</table>
I will try to control the future based on predictions of my previously obtained knowledge

Extraction Method: Principal Component Analysis.

Factor Analysis for Cognitive Styles

KMO and Bartlett's Test

| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | .714 |
| Approx. Chi-Square                              | 7322.102 |
| Bartlett's Test of Sphericity                  |
| df                                             | 300 |
| Sig.                                           | .000 |

Communalities

<p>| In my experience, rational thought is the only realistic basis for making decisions | 1.000 | .884 |
| To solve a problem, I have to study each part of it in detail | 1.000 | .884 |
| I am most effective when the business involves a clear sequence of tasks to be performed | 1.000 | .745 |
| I have difficulty collaborating with people who ‘dive in at the deep end’ without considering the finer aspects of the problem | 1.000 | .804 |
| I am careful to follow rules and regulations at work | 1.000 | .881 |</p>
<table>
<thead>
<tr>
<th>Statement</th>
<th>Factor Load</th>
<th>Communality</th>
</tr>
</thead>
<tbody>
<tr>
<td>I avoid taking a course of action if the odds are against its success.</td>
<td>1.000</td>
<td>.862</td>
</tr>
<tr>
<td>I am inclined to scan through reports rather than read them in detail.</td>
<td>1.000</td>
<td>.773</td>
</tr>
<tr>
<td>My understanding of a problem tends to come more from thorough analysis than flashes of insight.</td>
<td>1.000</td>
<td>.825</td>
</tr>
<tr>
<td>I try to keep to a regular routine in my duties.</td>
<td>1.000</td>
<td>.860</td>
</tr>
<tr>
<td>The kind of business activity I like best is that which requires a logical, step-by-step approach</td>
<td>1.000</td>
<td>.855</td>
</tr>
<tr>
<td>I rarely make ‘off the top of the head’ decisions.</td>
<td>1.000</td>
<td>.760</td>
</tr>
<tr>
<td>I prefer chaotic action to orderly inaction.</td>
<td>1.000</td>
<td>.749</td>
</tr>
<tr>
<td>Given enough time, I would consider every situation from all angles.</td>
<td>1.000</td>
<td>.892</td>
</tr>
<tr>
<td>To be successful in my line of duty.</td>
<td>1.000</td>
<td>.864</td>
</tr>
<tr>
<td>The best way for me to understand a problem is to break it down into its constituent parts.</td>
<td>1.000</td>
<td>.733</td>
</tr>
<tr>
<td>I find that to adopt a careful, analytical approach to making decisions takes too long.</td>
<td>1.000</td>
<td>.832</td>
</tr>
<tr>
<td>I make most progress when I take calculated risks.</td>
<td>1.000</td>
<td>.862</td>
</tr>
<tr>
<td>I find that it is possible to be too organized when performing certain kinds of task.</td>
<td>1.000</td>
<td>.867</td>
</tr>
<tr>
<td>I always pay attention to detail before I reach a conclusion.</td>
<td>1.000</td>
<td>.859</td>
</tr>
<tr>
<td>I make many of my decisions on the basis of intuition.</td>
<td>1.000</td>
<td>.824</td>
</tr>
<tr>
<td>My philosophy is that it is better to be safe than risk being sorry.</td>
<td>1.000</td>
<td>.861</td>
</tr>
<tr>
<td>When making a decision, I take my time and thoroughly consider all relevant factors.</td>
<td>1.000</td>
<td>.900</td>
</tr>
<tr>
<td>I get on best with quiet, thoughtful people.</td>
<td>1.000</td>
<td>.832</td>
</tr>
<tr>
<td>I would rather that my life was unpredictable than that it followed a regular pattern.</td>
<td>1.000</td>
<td>.895</td>
</tr>
<tr>
<td>Most people regard me as a logical thinker.</td>
<td>1.000</td>
<td>.848</td>
</tr>
<tr>
<td>To fully understand the facts I need a good theory.</td>
<td>1.000</td>
<td>.778</td>
</tr>
<tr>
<td>I work best with people who are spontaneous.</td>
<td>1.000</td>
<td>.807</td>
</tr>
<tr>
<td>I find detailed, methodical work satisfying.</td>
<td>1.000</td>
<td>.877</td>
</tr>
<tr>
<td>My approach to solving a problem is to focus on one part at a time.</td>
<td>1.000</td>
<td>.882</td>
</tr>
<tr>
<td>I am constantly on the lookout for new experiences.</td>
<td>1.000</td>
<td>.825</td>
</tr>
<tr>
<td>In meetings, I have more to say than most.</td>
<td>1.000</td>
<td>.842</td>
</tr>
<tr>
<td>My ‘gut feeling’ is just as good a basis for decision-making as careful analysis.</td>
<td>1.000</td>
<td>.899</td>
</tr>
<tr>
<td>I am the kind of person who casts caution to the wind.</td>
<td>1.000</td>
<td>.867</td>
</tr>
<tr>
<td>Statement</td>
<td>Factor 1</td>
<td>Factor 2</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
<td>----------</td>
<td>----------</td>
</tr>
<tr>
<td>I make decisions and get on with things rather than analyse every last detail</td>
<td>1.000</td>
<td>.829</td>
</tr>
<tr>
<td>I am always prepared to take a gamble</td>
<td>1.000</td>
<td>.860</td>
</tr>
<tr>
<td>Formal plans are more of a hindrance than a help in my business activity</td>
<td>1.000</td>
<td>.880</td>
</tr>
<tr>
<td>I am more at home with ideas rather than facts and figures</td>
<td>1.000</td>
<td>.766</td>
</tr>
<tr>
<td>I find that ‘too much analysis results in paralysis’</td>
<td>1.000</td>
<td>.869</td>
</tr>
</tbody>
</table>

Extraction Method: Principal Component Analysis.
Factor Analysis for Individual Cultural Values

<table>
<thead>
<tr>
<th>KMO and Bartlett's Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kaiser-Meyer-Olkin Measure of Sampling Adequacy.</td>
</tr>
<tr>
<td>Approx. Chi-Square</td>
</tr>
<tr>
<td>Bartlett's Test of Sphericity</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Communalities</th>
<th>Initial</th>
<th>Extraction</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. People in higher positions should make most decisions without consulting people in lower positions.</td>
<td>1.000</td>
<td>.726</td>
</tr>
<tr>
<td>2. People in higher positions should not ask the opinions of people in lower positions too frequently.</td>
<td>1.000</td>
<td>.807</td>
</tr>
<tr>
<td>3. People in higher positions should avoid social interaction with people in lower positions.</td>
<td>1.000</td>
<td>.760</td>
</tr>
<tr>
<td>4. People in lower positions should not disagree with decisions by people in higher positions.</td>
<td>1.000</td>
<td>.875</td>
</tr>
<tr>
<td>5. People in higher positions should not delegate important tasks to people in lower positions.</td>
<td>1.000</td>
<td>.666</td>
</tr>
<tr>
<td>6. It is important to have instructions spelled out in detail so that I always know what I’m expected to do.</td>
<td>1.000</td>
<td>.668</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>It is important to closely follow instructions and procedures.</td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Rules and regulations are important because they inform me of what is expected of me.</td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Standardized work procedures are helpful.</td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Instructions for operations are important.</td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>Individuals should sacrifice self-interest for the group.</td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>Individuals should stick with the group even through difficulties.</td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>Group welfare is more important than individual rewards.</td>
<td></td>
</tr>
<tr>
<td>14.</td>
<td>Group success is more important than individual success.</td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td>Individuals should only pursue their goals after considering the welfare of the group.</td>
<td></td>
</tr>
<tr>
<td>16.</td>
<td>Group loyalty should be encouraged even if individual goals suffer.</td>
<td></td>
</tr>
<tr>
<td>17.</td>
<td>It is more important for men to have a professional career than it is for women.</td>
<td></td>
</tr>
<tr>
<td>18.</td>
<td>Men usually solve problems with logical analysis; women usually solve problems with intuition.</td>
<td></td>
</tr>
<tr>
<td></td>
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<td></td>
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<tr>
<td>---</td>
<td>---</td>
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</tr>
<tr>
<td>19. Solving difficult problems usually requires an active, forcible approach, which is typical of men.</td>
<td>1.000</td>
<td>.881</td>
</tr>
<tr>
<td>20. There are some jobs that a man can always do better than a woman.</td>
<td>1.000</td>
<td>.816</td>
</tr>
<tr>
<td>21. Careful management of money.</td>
<td>1.000</td>
<td>.855</td>
</tr>
<tr>
<td>22. Going on resolutely in spite of opposition.</td>
<td>1.000</td>
<td>.824</td>
</tr>
<tr>
<td>23. Personal steadiness and stability.</td>
<td>1.000</td>
<td>.879</td>
</tr>
<tr>
<td>24. Long-term planning.</td>
<td>1.000</td>
<td>.897</td>
</tr>
<tr>
<td>25. Giving up today's fun for success in the future.</td>
<td>1.000</td>
<td>.848</td>
</tr>
<tr>
<td>26. Working hard for success in the future</td>
<td>1.000</td>
<td>.755</td>
</tr>
</tbody>
</table>

Extraction Method: Principal Component Analysis.