Understanding Individual's Innovative Behaviours: Integrated Personality Traits and Social Capital Perspective

فهم السلوكيات الإبتكارية للأفراد: نظرية تكامل السمات الشخصية ورأس المال الإجتماعي

by

MOHAMED NASAJ

A thesis submitted in fulfillment

of the requirements for the degree of

DOCTOR OF PHILOSOPHY IN BUSINESS MANAGEMENT

at

The British University in Dubai

August 2020

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Thesis Supervisor

Dr. Sulafa Badi

Approved for award:

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Name	Name
Designation	Designation
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Abstract

The aim of this study is to investigate the antecedents of individuals' innovative behaviours in the service sector using integrated approach that examines the phenomena from both psychological and sociological perspective.

This study has adopted three compound personality traits (Proactive, Intrapreneurial, and Self-monitoring) to be investigated as antecedents of individuals' innovative behaviours. In addition, network building ability has been selected to be investigated as an antecedent of individuals' innovative behaviours that represent the social capital perspective. The research will test the effect of network building ability on the relation between the selected personality traits and individuals' innovative behaviours. Furthermore, the study examines each stage of the individuals' innovation behaviour as a separate construct (Idea generation, Idea promotion, and Idea realisation) rather than a single construct that combine these three behaviours.

A quantitative approach was adopted, and data was collected via survey, structural equation modelling was used to analyse 417 completed questionnaires from employees working in the United Arab Emirates service sector.

The study found that high self-monitors were more likely to have high network building ability, which in turn helps in supporting their innovative work behaviour. Hence, the study confirmed that the self-monitoring relationship with individuals' innovative behaviours is mediated by network building ability. Similar results have been found for the relationship between intrapreneurial personality trait and individuals' innovative behaviours that is network building mediates the relationship between the two. In terms of proactive personality relationship with individuals' innovative behaviours, the study found that network building also acts as a mediator of the relationship.

نبذة مختصرة

الهدف من هذه الدراسة هو التحقق من المتغيرات التي تؤثر على السلوكيات الإبتكارية للأفراد في قطاع الخدمات باستخدام نهج متكامل يفحص الظواهرالعلمية من منظور نفسي واجتماعي.

تبنت هذه الدراسة ثلاث سمات شخصية مركبة وهي: الشخصية الاستباقية (Proactive) والشخصية رائد الأعمال الداخلي (Intrapreneurial) ، وشخصية المراقبة الذاتية (Self-monitoring) ليتم التحقق من تأثيرها على السلوكيات الإبتكارية للأفراد. بالإضافة إلى ذلك ، تم اختيار القدرة على بناء الشبكات الإجتماعية كممثل عن منظور رأس المال الاجتماعي ليتم دراستها كعامل مؤثر على السلوكيات الإبتكارية للأفراد.

سيقوم البحث باختبار تأثير قدرة بناء الشبكات الإجتماعية على العلاقة بين السمات الشخصية المختارة والسلوكيات الإبتكارية للأفراد. علاوة على ذلك ، تفحص الدراسة كل مرحلة من مراحل سلوك الابتكار الفردي على أنها بنية منفصلة (توليد الأفكار وترويج الأفكار وإدراك الأفكار) بدلاً من تمثيلها مجتمعة كمتغير واحد يجمع بين هذه السلوكيات الثلاثة.

تم اعتماد نهج كمي تحليلي ، وتم جمع البيانات عن طريق الاستبيان ، وتم استخدام نموذج المعادلة الهيكلية لتحليل 417 استبيانًا مكتملاً تم جمعهم من الموظفين العاملين في قطاع الخدمات في دولة الإمارات العربية المتحدة.

ووجدت الدراسة أنه من المرجح أن يتمتع الأفراد ذو الشخصية المتصفة بالمراقبة الذاتية بقدرات عالية في بناء الشبكات الإجتماعية ، مما يساعد بدوره في دعم سلوك العمل الإبتكاري لدى هؤلاء الأفراد. ومن ثم ، أكدت الدراسة أن العلاقة بين السلوكيات الإبتكارية للأفراد و شخصية المراقبة الذاتية تتوسطها قدرة الفرد على بناء شبكات إجتماعية . تم العثور على نتائج مماثلة للعلاقة بين باقي الشخصيات المختارة بالدراسة و السلوكيات الإبتكارية للأفراد حيث أن قدرة الفرد على بناء شبكات إجتماعية تلعب دور الوسيط في هذه العلاقات.

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List of Abbreviations

AIC	Akaike Information Criterion
AVE	Average Variance Extracted
BFF	Big Five Factor
BFI-1	Big Five Inventory-1
BFI-2	Big Five Inventory-2
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index
CMB	Common Method Bias
EFA	Exploratory Factor Analysis
GCC	Gulf Cooperation Council
GFI	Goodness of Fit Index
IBIG	Innovative Behaviours- Ides Generation
IBIP	Innovative Behaviours- Idea Promotion
IBIR	Innovative Behaviours- Idea Realisation
IFI	Incremental Fit Index
IPT	Intrapreneurial Personality Trait
KMO Test	Kaiser-Meyer-Olkin Test
MNCs	Multi-National Corporations
NBA	Network Building Ability
NFI	Normed Fit Index
NNFI	Non-normed Fit Index
PPT	Proactive Personality Trait
RMR	Root Mean Square Residual
RMSEA	Root Mean Square of Approximation

RSMS	Revised Self-Monitoring Scale
SEM	Structural Equation Modelling
SMEs	Small and Medium Enterprises
SMS	Self-Monitoring Scale
SRMR	Standardized Root Mean Square Residual
TLI	Tucker-Lewis Index
UAE	United Arab Emirates

Chapter One: Research Introduction

The aim of this chapter is to provide the reader with a comprehensive introduction of the study's main topic, research problem background, and main objectives. This chapter will attempt to highlight the importance of the research and the main questions that the study will be trying to answer.

The study identified gaps in service innovation literature will be discussed along with a debate of the study originality will be presented supported by a state of art literature.

In addition, a discussion of the study context choice will be provided, and an overall view of the adopted research methodology in the study will be introduced with a brief explanation of the data collection process and the adopted statistical tests and the software that is used in the data analysis.

1.1. Background to the Research Problem

The service sector, also called as the tertiary sector, is defined by Cambridge dictionary as "the part of a country's economy that is made up of businesses that provide services". So basically companies that provide tangible goods are not included and it will be under what we call the manufacturing sector. Examples of the service sector industries will be tourism, hospitals, teaching, training and banking, whereas industries such as cars, cloths and equipment are examples of the manufacturing sector.

The service sector constitutes a slightly higher than 50 % of developed countries economies GDP (Ratny, Arshad & Gaoliang 2017) and it has a critical role in growing economies (Un & Montoro-Sanchez 2010). Additionally, service organisations have higher employees' numbers than the manufacturing organisations (Un & Montoro-Sanchez 2010). Therefore exploring the service sector phenomena will not only reflects on the service industries but also on a national level economic performance and the entire humane race (Zainal & Matore 2019). On the other hand, understanding how to manage innovation effectively has gained an enormous attention from organisations since it contributes greatly to the organisational existence and ability to compete in the market (Shalley & Zhou 2008; Andersson, Lindgren & Henfridsson 2008; Omachonu & Einspruch 2010; Ratny, Arshad & Gaoliang 2017).

However, previous innovation literature concentrated more on manufacturing industries rather than service industries (Li & Hsu 2016). Although service organisations exhibit different characteristics from manufacturing organisations (Drejer 2004), yet our current

understanding of service sector innovation is still based on manufacturing sector innovation with limited number of studies that focus on the innovation in the service sector (Rubalcaba 2007; Un & Montoro-Sanchez 2010). In their service sector innovation literature review, Snyder et al. (2016) pointed out that service innovation as a concept is still fuzzy and not clearly defined in literature. The paucity of studies that examine innovation in the service sector compared to manufacturing sector was stated by many scholars in literature (Lee et al. 2014; Lai et al. 2016; Li & Hsu 2016; Javed et al. 2017; Bani-Melhem, Zeffane & Albaity 2018). Hence, the study will investigate the innovation in the service sector to improve our understanding of the innovation phenomena in the service sector. Service innovation usually defined as actions that create value for customers, employees, employers, and society via presenting novel and/or enhanced services, service's processes, or even a new service business models (Ostrom et al. 2010).

Change in organisations rests on individuals' behaviours; therefore, individuals' innovative behaviour is a crucial element of organisational innovation (Zainal & Matore 2019). Employees' creativity which is the ability of suggesting novel ideas, products, and procedures is the heart of employees' innovation (Coelho & Augusto 2010). Employees' innovation contains creativity and extends it to the implementation of these novel ideas, products, and procedures (Scott & Bruce 1994; Janssen 2000; Wu, Parker & De Jong 2014).

In a swiftly changing world, organisations should function as hubs for creativity and innovation to guarantee their survival, effectiveness and continuous competitiveness in their markets (Oldham & Cummings 1996; Omachonu & Einspruch 2010). Therefore, organisations need personnel who are creative can generate new ideas, products and processes, and they have the ability to track their implementation in practice (Van de Ven 1986; Scott & Bruce 1994).

Individuals' Innovative Behaviours (IIB) has many definitions in literature. For example, it is "…the intentional creation, introduction and application of new ideas within a work role, group or organization" (Janssen 2000, p. 288). According to Janssen (2000) innovation occurs mainly in three stages; the first stage is the idea generation stage in which the individuals identify a problem and engage in creating new ideas. The second stage is the idea promotion stage in which the individuals try to develop support for their novel ideas and secure the required approvals in their organisations. The third stage is idea realisation in which the new idea will be transformed into useful and applicable solutions. The same idea of dividing the individuals' innovative behaviour into stages is also presented by Scott and Bruce (1994) as well since they referred to the idea generation stage and the implementation stage of the individual's innovation process. Nonetheless, previous studies in literature considered the individuals' innovative behaviours as a single construct (Scott & Bruce 1994; Yuan & Woodman 2010) or a multi-dimensions construct (Janssen 2000; Rodrigues & Rebelo 2019) that exhibits the individuals' innovative behaviours in the three stages of the innovation process nonetheless measured as one variable.

Defining the employees who are more probably to innovate in their organisations has engrossed organisational scholars for decades, yet it is still to be an area of major enquiry.

Two main different perspectives are distinguishable in the existent literature that clarifies the mechanisms by which some employees may outperform their peers in innovative work behaviour: a behavioural perspective and a social deterministic perspective. Indeed, there is a continuing debate on whether employees' innovation is best explained by individual's differences or social determinism (Snyder & Deaux 2012).

The first perspective is of psychological nature in which psychologists were interested in how the individual's differences may explain innovation behaviours in organisations. Numerous researches have attempted to find a relationship between an individual's personality types or traits and their creativity and innovation (George & Zhou 2001; Madjar 2008; Raja & Johns 2010; Woods et al. 2017), linking types such as conscientiousness and openness to experience to individuals' innovative behaviours in organisations (George & Zhou 2001; Madjar 2008; Raja & Johns 2010). However, the majority of the researches were adopting the Big Five Factor Personality Type Model (Goldberg 1990; McCrae & John 1992) as antecedents of individual's innovative behaviours (George & Zhou 2001; Madjar 2008; Chen, Wu & Chen 2010; Olakitan 2011; Williamson, Lounsbury & Han 2013; Madrid et al. 2014; Abdullah, Omar & Panatik 2016; Woods et al. 2017).

The use of the Big Five Factor (BFF) Model has been criticised in literature since the model doesn't have a standard and unified definition in literature; therefore, some sub traits overlap between the factors based on the scholar's study (DeNeve & Cooper 1998). In addition, Day and Schleicher (2006) debated two more critique points evaluating the excessive use of the Big Five Factor (BFF) model in literature, the first point is that the exclusive dependence on the Big Five Factor model left out other personality traits that are not captured by the Big Five Factor model. The second point is that to use only cognitive ability in anticipating job performance across all job' types at all stages and in all types of organisations that propose Conscientiousness personality type as a universal antecedent for all work-related constructs to the degree that few researchers began to call it as the Big One personality type (Schmidt & Hunter 1992). Therefore, the study will adopt a selected compound personality traits from previous personality literature because in personality theory literature it was stated that the prediction of compound personality traits that are more principally custom-made to the outcome may outperform the prediction produced by primary personality type such as the Big Five Factor model (Hough & Schneider 1996; Viswesvaran, Deller & Ones 2007; Hammond et al. 2011).

The study has identified three compound personality traits that are not captured by the Big Five Factor model to represent the psychological perspective of the study in examining the antecedents of individuals' innovative behaviours (IIB).

The first selected personality trait is Self-Monitoring Personality (SMP) (Snyder 1974), self-monitoring personality trait is defined by the degree that the individuals control, observe, regulate, and adjust their behaviour according to other people's perceptions of them. Individuals who are high self-monitors are usually described as workplace 'chameleons' (Mehra & Schenkel 2008), 'good actors' (Sasovova et al. 2010), and 'social pragmatists' (Gangestad & Snyder 2000) since they constantly alter their behaviours and switch their self-

presentations to match the social situation they are in (Snyder 1979). On the other hands, low self-monitors who are described as 'true-to-themselves' (Mehra & Schenkel 2008) or as principled (Day & Schleicher 2006) share their real emotions, follow their own beliefs and values, and not essentially worried about their social situation (Snyder 1974; Barrick, Parks & Mount 2005). Testing the relationship among self-monitoring personality trait and the three stages of individuals' innovative behaviours will be the first study in literature that examines these relations.

The second personality trait is Intrapreneurial Personality Trait (IPT) (Pinchot 1985). In literature, individuals with intrapreneurial personality trait are described as tasks self-appointed, self-determined, goal setters, self-initiative, self-confident and action oriented (Pinchot 1985). Intrapreneurial individuals combine both vision and action (Zhu, Djurjagina & Leker 2014). Few limited studies investigated the relationship between intrapreneurial personality trait and individuals' innovative behaviours such as Amo and Kolvereid (2005) who found a positive significant relation between the two; however, this study will further conduct an in-depth analysis of this relation by examining the relation of intrapreneurial personality trait with each stage of individual's innovative behaviours unlike Amo and Kolvereid (2005) who examined individuals' innovative behaviours as a single construct.

The third personality trait is Proactive Personality Trait (PPT) (Bateman & Crant 1993). Proactive individuals are equipped with the capability to adjust their social and non-social environment as a result of personal and situational motives. They are generally defined as individuals who are not restricted by their situational limits, initiate change in their environments, search for novel opportunities, plan in advance, take actions, and solve problems (Bateman & Crant 1993; Cant 1996). In literature, the relation between proactive personality traits and individuals' creativity and innovation has been investigated and found to mainly link proactive personality trait to creativity and innovation (Grant & Ashford 2008; Fuller & Marler 2009; Gong et al. 2012; Zhu, Djurjagina & Leker 2014; Giebels et al. 2016; Tai & Mai 2016; Pan et al. 2018; Rodrigues & Rebelo 2019). All the previous studies examined individuals' innovative behaviour as a single construct, but in this study a more in-depth analysis will be conducted by examining the relation of proactive personality trait with each stage of individuals' innovative behaviours.

The second perspective that attempts to interpret the individuals' innovative behaviours is the sociological perspective that attributes the individuals' behaviours to their social ties and networks (McFadyen & Cannella 2004; Obstfeld 2005; Perry-Smith & Shalley 2003; Perry-Smith 2006; Zhou et al. 2009), since sociologists consider people as a social creatures who typically alter and adapt their behaviours depending on the situation and their social environment (Snyder & Deaux 2012). Therefore, sociologists are preoccupied with how social structures may influence innovation. For example, what are the influence of the number and the strength of the individual's exchange relationships on the individuals' innovative behaviours? (McFadyen, Semadeni & Cannella 2009; Schweisfurth & Raasch 2015), or the individual social network density (Obstfeld 2005; Perry-Smith 2006; Zhou et al. 2009) with no regards of the individual's differences and the influence that may have on the individual's innovative behaviours. Nonetheless, the outperformance of the individual to their

peers might not be only because of differences in their networks, but it might also be because of individual's differences in personality traits (Mehra, Kilduff & brass 2001).

In sociology literature social capital is the largest growth area in organisational network research (Borgatti & Foster 2003). The relation between social capital and innovation has been explored in previous literature at the organisational level (Landry, Amara & Lamari 2002; Akçomak & Ter Weel 2009; Chen & Zhou 2017; Thompson 2018) and at the individual level (Zheng 2010; Xerri & Brunetto 2011; Moustaghfir et al. 2013) a positive relation between the individuals' social capital and their innovative behaviour has been found since the individuals may activate different parts in their social capital based on the nature of the task they are willing to perform in their innovation behaviour process (Perry-Smith & Mannucci 2017). The study selected Network Building Ability (NBA) (Ferris et al. 2005) from the social capital theory that measures the individual ability to build networks since it has been used in literature as a representative of social capital theory as in the well-recognised work of Thompson (2005).

Network building ability was defined as the individuals' ability to create allies and connect themselves to others who are in influential positions and have power in their society (Ferris et al. 2005). Network building ability will be tested as a mediator of the relation between the three selected personality traits (Self-monitoring, Intrapreneurial, and Proactive) and the three stages of individuals' innovative behaviours. By combining these theoretical Psychological and Sociological perspectives this study proposes a fine-grained understanding of the avenues by which innovation occurs in organisations.

1.2. Research Problem Statement

The core of innovation is about generating and implementing new ideas, and in any organisation the working individuals are the ones who develop, implement, and modify these novel ideas (Van de Ven 1986); therefore, understanding the individuals' innovative behaviours is very critical to the success of effective innovation management in organisation (Scott & Bruce 1994). Hence this study aims to further explore the antecedents of the employees' innovative behaviours. Since the previous innovation literature have focused more on manufacturing sector rather than service sector, this study will be focusing on the service sector to address this paucity of research in the service sector in literature.

In order to understand individuals' behaviours, psychologists start from the roots of behaviours, which is the inner force of human being that is his or her personality traits that forms the drivers of the individual's behaviours; whereas, sociologist will build on the view that observes the individuals as social creatures who usually adjust and adapt their behaviours based on the situation and their social environment (Snyder & Deaux 2012). Therefore, these two schools in literature (Sociology and Psychology) usually investigated phenomena from opposing theoretical perspectives (Tracy, Robins & Sherman 2009). However, even though

these two schools in literature start their analysis from different points of view, they more and more began to discover themselves in more mutual grounds (Snyder & Deaux 2012). Hence, integrated perspective between the two may enrich each other and offers a better understanding of the studied phenomena (Snyder & Deaux 2012; Tasselli, Kilduff & Menges 2015; Baer et al. 2015; Landis 2016; Kilduff & Lee 2020).

The topic of the employees' innovative behaviours is one of the most investigated topics in literature. The previous researches that explored the innovation behaviours were looking into this phenomenon from psychological perspective by examining personality traits impact on individuals' innovation behaviours (Raja & Johns 2010; George & Zhou 2001; Madjar 2008). Others looked into individuals' innovative behaviours from sociological perspective by studying the influence of social capital, network positions, characteristic, and roles on individuals' innovative behaviours (Bettencourt & Brown 2003; Burt 2004; McFadyen & Cannella 2004; Obstfeld 2005; Perry-Smith 2006; Zhou et al. 2009; McFadyen, Semadeni and Cannella 2009; Schweisfurth & Raasch 2015). Only few but growing studies looked into this phenomenon from both perspectives (Baer et al. 2015; Tasselli, Kilduff & Menges 2015; Fang et al. 2015). These kinds of studies that examine individuals' innovative behaviours from both perspectives (Psychological and Sociological perspectives) enrich both psychological and sociological literatures since they highlight the joint effects of social properties and individual agency in determining employees' innovative behaviours (Anderson, Potočnik & Zhou 2014).

Finally, previous innovation literature considered the individuals' innovative behaviours as a single construct (Scott & Bruce 1994; Yuan & Woodman 2010) or a multi-dimensions construct (Janssen 2000; Rodrigues & Rebelo 2019) that measure the individual's innovative behaviours as one variable only. Nevertheless, a recent call in literature for more in depth analysis were made for each stage of the individuals' innovative behaviours since each stage might require different types of antecedents and skills (Niu 2014; Wisse, Barelds & Rietzschel 2015; Woods et al. 2017; Rodrigues & Rebelo 2019)

Based on the above discussion, the study's main problem statement will be: To explore a complete set of antecedents and test their influence on each stage of the individuals' innovative behaviours in the service sector using an integrative psychological and sociological perspective.

1.3. Research Novelty and Contributions

In innovation literature, there are limited studies, yet promising ones that investigated the coevolution of psychological and sociological perspective and how they influence each other, and if this influence is a recursive one between the two perspectives. For example, Schulte, Cohen and Klein (2012) suggested that the team states and the team social network ties coevolve through a reciprocal and co-occurring process. Kurt Lewin (1938) has proposed that

the psychological events are based on the individual inner state along with his environment and their relative importance varies based on the situation. Therefore, to understand people, we need to look at them as individuals and as social beings, i.e. to understand their personality traits and situation (Kilduff & lee 2020). As a result, an integrated perspective between social theory and personality theory may offer a better understanding of the studied phenomena (Snyder & Deaux 2012). Integrating the psychological concept of personality traits and the sociological concept of social capital in explaining employees' innovative behaviours will attend to a gap in literature identified by several studies such as Anderson, Potočnik and Zhou (2014), Baer et al. (2015), Fang et al. (2015), Tasselli Kilduff and Menges (2015) and Kilduff & lee (2020).

The study aims to investigate the innovation in the service sector rather than the manufacturing sector which will attend to a call for research made by many scholars to address the paucity of innovation research in the service sector such as (Lee et al. 2014; Lai et al. 2016; Li & Hsu 2016; Javed et al. 2017; Bani-Melhem, Zeffane & Albaity 2018). In addition, a special call to further investigate the individuals' innovative behaviours in the service sector was identified and encouraged by Sharma et al. (2012), Danaei and Iranbakhsh (2016), Li and Hsu (2016), Bani-Melhem, Zeffane and Albaity (2018).

By testing the selected three compound personality traits instead of traditional Big Five model, the study attempts to answer a call for research identified by Abdullah, Omar and Panatik (2016) recent work in which a clear call for a comprehensive study examining the personality traits and individuals' innovative behaviours were introduced: "From the review of past researches on the relationship of innovation behaviours and personality, it is found that past researches didn't make serious and authentic attempts to address the effect of personality on innovation behaviours" (Abdullah, Omar & Panatik 2016, p.180).

This study will have an original contribution in running in-depth analysis of each stage of the three stages of individuals' innovative behaviours as identify by Janssen (2000): Idea generation, idea promotion, and idea realisation. This separation in analysis will answer a recent call to differentiate between the three stages of innovation behaviours since each stage might requires different predictors and antecedents (Niu 2014; Wisse, Barelds & Rietzschel 2015, Woods et al. 2017; Rodrigues & Rebelo 2019). This approach offers additional insight into the mechanisms involved across the multiple and discontinuous activities leading to innovation in service organisations.

Integrating social capital perspective into the relation of intrapreneurial personality trait and individual's innovative behaviours will address the suggestions made by Blanka (2018) and Lang and Baltes (2019) since this combination will be more dynamic and recommended approach, and will not just answers the typical question of 'who is the intrapreneur?', but rather it indicates to what the intrapreneur does as well.

As per proactive personality trait Pan and et al. (2018) suggested -after examining the relation between proactive personality trait and creativity- that researchers should pay more attention to the role of social perspective on the relation between proactive personality trait and

creativity since the previous literature has overlooked this role. In addition, as a conclusion of examining the relation between proactive personality trait, Big Five Model and individual's innovative behaviours Rodrigues and Rebelo (2019) stated that "future research should rely upon multidimensional measures of innovative performance, allowing a more fine-grained analysis of the innovation process, which is required to advance understanding of the role of the big five and of proactive personality trait in each phase of this process. Notwithstanding its theoretical and practical merits, this question remains greatly underdeveloped in the literature." (Rodrigues & Rebelo 2019, p.6), which is a clear call for examining the relation between proactive personality trait and each stage of the individuals' innovative behaviour separately.

Finally, this study will be the first empirical study that examines the relationship between self-monitoring personality trait and individuals' innovative behaviours.

1.4. Research Aim and Objectives

The aim of this study is to expand our knowledge of the individuals' innovative behaviours in the service sector by adopting the coevolution theory of the psychological - sociological perspective as the lens in which the study will utilise to investigate the antecedents of each stage of the individuals' innovative behaviours: idea generation, idea promotion and idea realisation behaviours.

In order to achieve the study's main aim, a set of objectives have been identified:

- Investigating the influence of network building ability on the relation between self-monitoring personality trait and each stage of the individuals' innovative behaviours.
- Investigating the influence of network building ability on the relation between intrapreneurial personality trait and each stage of the individuals' innovative behaviours.
- Investigating the influence of network building ability on the relation between proactive personality trait and each stage of the individuals' innovative behaviours.

1.5. Research Questions

This study integrates the psychological concept of personality traits: Self-monitoring, Intrapreneurial, and Proactive personality trait with the sociological concept of social capital theory namely Network Building Ability to explain the individual's innovative behaviours. Therefore, the study main question will be:

What is the impact of individuals' personality traits, social capital on each stage of individuals' innovative behaviours?

Based on the study's main question, a set of sub questions was derived that the study will attempt to answer as well such as:

- ✓ What is the influence of self-monitoring personality trait on each stage of the individuals' innovation behaviours?
- ✓ What is the influence of intrapreneurial personality trait on each stage of the individuals' innovation behaviours?
- ✓ What is the influence of proactive personality trait on each stage of the individuals' innovation behaviours?
- ✓ What is the influence of network building ability on each stage of the individuals' innovation behaviours?
- ✓ Does network building ability mediate the relation among the three selected personality traits (Self-monitoring, Intrapreneurial, and proactive) and each stage of the individuals' innovation behaviours?

1.6. Research Context

The study selected to collect its data from The United Arab Emirates (UAE) service sector that form 53.11% of the country GDP in 2019 as published by Statista research organisation in July 2020 report, therefore the United Arab Emirates proposes an outstanding prospect to examine individuals' innovative behaviours in the service sector. especially after the announcement made by His Highness Sheikh Mohammed Bin Rashed Al Maktoom, the Vice President, Prime Minister of the United Arab Emirates and Ruler of Dubai naming the year 2015 as the year of innovation in UAE. This announcement acted as a new engine for drastic changes in the strategies, operations, processes and behaviours of governmental department along with the semi- government and private sectors.

These drastic changes triggered stimulation for scholars around the world to investigate the innovation practices and its effects on the UAE, and a new trend of innovation related topics examination using UAE as a context has emerged in the last few years in literature (Rodrigues, Sarabdeen & Balasubramanian 2016; Bani-Melhem, Zeffane & Albaity 2018; Nasaj & Al Marri 2018; AlShamsi & Ajmal 2018. Al-Hawari, Bani-Melhem & Shamsudin 2019; Bashir et al. 2020).

In the Global Innovation Index (2019), The United Arab Emirates demonstrated itself as the most lucrative business market in the Gulf Cooperation Council (GCC) region by occupying the rank 36 worldwide, and ranking number one innovative economy in the GCC region (Dutta, Lanvin & Wunsch-Vincent 2019).

The United Arab Emirates has a service-driven economy (Augustine 2016). Hence, the service sector in UAE was the core of the scholars focus while examining the innovation in UAE (Rodrigues, Sarabdeen & Balasubramanian 2016; Bani-Melhem, Zeffane & Albaity 2018; Nasaj & Al Marri 2018; AlShamsi & Ajmal 2018. Al-Hawari, Bani-Melhem & Shamsudin 2019; Bashir et al. 2020). Therefore, the study carefully chose to investigate the individuals' innovative behaviours in The United Arab Emirates' service sector as the context of the study since it offers a unique opportunity to study innovation phenomena in a country that depends on its service sector for their economy with a special focus on innovation.

1.7. Research Methodology Overview

According to Bryman and Bell (2015) the academic research can adopt one of these two approaches: deductive or inductive approach. The decision of choosing the right approach will be depending on the nature of the research. In inductive approach, the findings is inducted by generalisations out of observations while the deductive approach will deduct a hypothesis based on established literature about a theoretical consideration and then testing it (Bryman & Bell 2015; Saunders, Lewis & Thornhill 2016).

Based on the nature of the study's objective that is to test the relationship among personality traits, network building, and individuals' innovative behaviours, a set of hypotheses will be developed based on previous literature; therefore a deductive approach will be more suitable for this research. Quantitative method analysis will be used as the research methodological approach since it is more appropriate than qualitative methodological approach with the deductive nature of the study (Gibbs 2002).

According to Easterby-Smith et al. (2012) conducting a research without depending on a research philosophy will have a negative influence on the research results and quality; therefore, the study will adopt positivism research philosophy since it is appropriate to the nature of the research that depends on facts and building hypotheses based on recognised theories in literature (Saunders, Lewis & Thornhill 2016; Remenyi & Williams 1998).

The researcher in this study will collect the study data from an external position in which his impact on the data sources is insignificant that goes in line with the positivism approach (Bryman 2012). The study will use survey as a tool to collect its data; the variables measurements scales will be selected from previous literature to enhance the measurement scales reliability and validity. In addition random sampling technique will be used in collecting the survey data. The study will conduct multiple statistical tests using SPSS software version 22.0 to test the reliability and validity of the data; furthermore, common bias method will be tested to ensure that the collected data has no common bias issues. A descriptive data analysis will be conducted followed by a set of statistical tests to validate the collected data and test its reliability such as Cronbach's alpha, factor analysis, Harman one factor common bias method test, KMO and Bartlett tests. The study will operationalize its

conceptual framework using Structural Equation Modelling (SEM) in order to test the study's hypotheses via AMOS software version 22.0. Final results will be reported and discussed.

1.8. Chapter Summary

The main objective of this chapter was to introduce the study main topic to the readers; therefore the first section was allocated to provide an introduction of the chapter. The second section was dedicated to introduce the research problem background in which the overall scope of the study was discussed with a brief explanation of the study variables along with definitions of the main constructs of the research. The third section introduced the research problem statements with key points that will be investigated in the study. The study novelty and original contributions to literature were discussed in section four with supported literature. The fifth section discussed the study main aim and objectives in which three main objectives were identified. Section six addressed the research questions based on the research main objectives and five main questions were explained and introduced as the study main questions. The study choice of context was discussed and justified in section seven. Section eight discussed the adopted research methodology with a brief explanation of the research design.

After establishing the research aim and main objectives along with the research questions that form the introduction of the study, the next chapter will be tackling the study theoretical background with more in depth literature review of the study's studied variables.

Chapter Two: Research Theoretical Background

The study aims to broaden our current understanding of the individuals' innovative behaviours, in addition to address the paucity of research on service sector innovation as opposed to manufacturing sector. Furthermore, this research is an attempt to contribute to the coevolution theory of the sociological and psychological perspectives in understanding individuals' innovative behaviours in the service sector. A model combining the two perspectives will be discussed to interpret individual's innovative behaviours. Therefore, the theoretical background chapter of the study aims to provide a comprehensive knowledge of the study examined phenomena along with an informative explanation of the used terminology and the variables included in the research for the readers. Hence, this chapter will be discussing the previous literature of innovation in the service sector in the first section. The second section will be exploring the individuals' innovative behaviours literature, and then moving to explain the predictors of individuals' innovative behaviours: personality traits (Self-monitoring, Intrapreneurial, and Proactive personality trait) and social capital (Network building Ability) in the following third and fourth sections. Finally, the fifth section will be discussing the integration of personality traits and social capital perspective.

2.1. Innovation in Services

Service sector plays an important role in developing economies (Un & Montoro-Sanchez 2010); the service sector formed more than 50 % of countries GDP (Ratny, Arshad & Gaoliang 2017). For example, the services sector offers employment to more than 70% of the working population in the United States; moreover, the service sector in the European Union averagely illustrates 67.5% of total production (Un & Montoro-Sanchez 2010). Hence, investigating the service sector phenomena has a high significant value not only on the service sector industries but also on the national and international level economic performance. This importance of the service sector motivated the scholars to investigate the service organisations' characteristics, kinds, and determinants of innovation. In addition, the number of employed people by service organisations is higher than organisations in the manufacturing sector (Un & Montoro-Sanchez 2010). However, our understanding of innovation in the service sector organisations is still grounded on innovation of manufacturing organisations, and the numbers of studies examining the service innovation is still limited (Rubalcaba 2007; Un & Montoro-Sanchez 2010). As stated clearly by Drejer (2004) service organisations demonstrate different attributes from manufacturing organisations. Therefore, further investigation of the service sector innovation is required.

High technological upsurge, globalisation, and organisational growth have added more challenges for service organisations to be competitive (Ratny, Arshad & Gaoliang 2017). Offering new services will have several positive results on organisations such as profit's increase, new customers, increase customers' trustworthiness, and releasing new prospective markets (Storey & Easingwood 1999). In nowadays business environment, the focus of competitive advantage has shifted from quality to innovation. Since innovation allows organisations to change rapidly and innovate new processes, products and markets that will protect the firms from the business volatile environment (Zehir et al. 2012).

At the end of the 20th century, innovation was a lustrous topic to talk about or to refer to in managing organisations or gaining competitive advantage over business competitors, and over the last two decades innovation management became more radiant topic for researchers (Gatignon et al. 2002; Damanpour 1987). Lately, innovation management becomes a must for any organisation to be able to exist and compete in the market; the rapid pace of technological advancement has contributed to a large extent at this end (Omachonu & Einspruch 2010). In addition, Léger et al. (2007) pointed that interests in organisational innovation has increased rapidly in the last two decades, and it becomes essential for economic development especially in developing countries.

Creativity and innovation have been defined in literature from different perspectives; Anderson, Potočnik and Zhou (2014, p.4) have tried to define the two concepts in integrative way: "Creativity and innovation at work are the process, outcomes, and products of attempts to develop and introduce new and improved ways of doing things." Anderson, Potočnik and Zhou (2014) classify the idea generation stage as the creativity stage whereas innovation usually refers to create novel ideas and implement them as well (Oldham & Cummings 1996; Shalley & Zhou 2008). Although creativity and innovation definitions have been introduced a lot in literature, still there is an absence of common agreement among the scholars about the two. For example, some scholars argue that there is a difference between the two (Oldham & Cummings 1996; Rank, Pace & Frese 2004). Whereas, other researchers explained that creativity is not restricted to idea generation stage only; it can happen in the implementation stage as well, so the relationship between innovation and creativity is more like a cycle shape or reoccurring between the two (Paulus 2002).

The innovation process is a thought-provoking subject for researchers; however, most of the scholars in the literature focused more on manufacturing sector rather than service sector (Li & Hsu 2016) and in developed countries with limited concentration on developing countries since the innovation process might be different in developing countries compared to developing countries (Léger et al. 2007). In addition, Service innovation is poorly understood as stated by Gadrey and Gallouj (2002). Additionally, in more recent literature review that was done by Snyder et al. (2016) in which 1046 academic research was examined, Snyder et al. (2016) declared that the concept of service innovation is still fuzzy and poorly defined in literature. The same idea was presented by other scholars who pointed to paucity of research investigating the service sector innovation compared to manufacturing sector (Lee et al. 2014; Lai et al. 2016; Javed et al. 2017; Bani-Melhem, Zeffane & Albaity 2018).

Therefore, the focus of this study will be on the service sector to enhance our understanding of the innovation of services. In addition to address the paucity of these types of research in innovation literature as discussed earlier.

2.1.1. Innovation in the Service Sector

Due to the fast-changing market environment innovation has become a key factor that influences service organisations performance (Campo, Díaz & Yagüe 2014).

Initially, the study differentiates between service innovation and innovation in the service sector since other sectors like manufacturing sector might offer services to their customers. For example, car manufacturing companies may offer their customers services that are related to their products such as maintenance, buying or selling used cars and registration of new cars, so any new changes in these services that stimulate innovation or use of innovative services might be classified as service innovation. Whereas, innovation in services refers to the innovative changes within the service activity, processes of delivery, or the service itself (Rubalcaba 2007). This research will focus on innovation in the service sector rather than service innovation.

Coombs and Miles (2000) explained that in service sector literature there are three types of approaches to define innovation in services: the first approach suggests examining innovation in service sector in a similar way to that of the manufacturing sector, the second approach suggests seeing innovation in service sector as a different domain from innovation in manufacturing sector; therefore, service sector innovation analysis requires new theories and modules, this approach was supported in more recent literature review done by Li & Hsu (2016) arguing that one of the main differences between the two sectors is job characteristics which was the focus of scholars investigating innovation in the service sector. The third approach proposes to have a holistic and integrated approach to analyse innovation both in service sector and in manufacturing sector. This research will adopt the second approach that looks into innovation of services as a distinctive field that is different from manufacturing sector.

Service is usually a process and experience based where the human aspect generally plays an important role in delivering the services. Service can be best defined as follows; it is a process which involves an interface with a customer; however through human or technological interactions (Bitner, Ostrom & Morgan 2008). Unlike tangible goods, services have a dynamic nature, and usually seen as a set of activities that create value for both the customers and the service providers and these activities create a clear characteristic of services which is their process nature (Gronroos 2000). Innovation management has become a necessity for service sector organisations to compete and strive in the markets (Ratny, Arshad & Gaoliang 2017). The same point was stressed by Un and Montoro-Sanchez (2010)

because they stated that innovation is vital for organisations to have competitive advantage, especially for service organisations.

The concept of innovation in services initially was introduced by the traditional perspective of innovation which is based on technological breakthroughs (Schumpeter 1934). This perspective limited innovation in services to merely implementing new technology confines the scope and influence of the concept; moreover, it obstructs theoretical development since innovation in services includes a much broader perspective (Snyder et al. 2016). Actually, another studies described innovation in services as activities that generate value for customers, employees, business owners, and communities by introducing novel and/or improved services, the processes of delivering the services, or even a new service business models (Ostrom et al. 2010). Scholars built on Schumpeter (1934) and came up with the Schumpeterian perspective of innovation in services (Gallouj & Savona 2008). Schumpeterian perspective stresses on recombinative innovations as a core to innovation in services, and usually appears in new organisations (Gallouj & Weinstein 1997). Another recent definition of innovation in services based on the Schumpeterian view is introduced by Toivonen and Tuominen (2009, p. 893). "Service innovation is a new service or such a renewal of an existing service which is put into practice and which provides benefit to the organization that has developed it; the benefit usually derives from the added value that the renewal provides the customers."

Analysing innovation in the service sector is not an easy job as declared by Gallouj and Weinstein (1997); they attributed these difficulties for two main reasons. The first one is that innovation theory has been established fundamentally on the basis of analysis of technological innovation in manufacturing activities; the same point has been presented by Sundbo (1997) as well. The second reason is that the fuzzy natures of the services activities outputs make it mostly hard to measure through traditional economic methods like productivity or to identify enhancement or change on the qualitative level. Sundbo (1997) agreed to the difficulty of measuring and managing service innovation; however, he attributed these difficulties to the role of Intrapreneurs (Pinchot 1985) in the organisations that refers to bottom-up innovation process (Amo & Kolvereid 2005), the innovation is initiated by the working individuals in the organisations rather than the top management. This reference clearly points at the humanistic aspect of the innovation analysis in the service sector.

Gallouj and Weinstein (1997) further elaborated that these two points have created two main sets of studies in the service sector; the first one is technology-oriented service innovation research for example (Randhawa & Wilden 2018) and service-oriented service innovation research for example (Calabrese et al. 2018). Based on this discussion, Gallouj and Weinstein (1997) suggested a new service innovation theory that looks into the innovation characteristics of the products (defined as a set of service characteristics of services or products) in terms of final, technical and process characteristics. This perspective may present an inspiring basis for the researches of service sector innovation because this perspective is satisfactorily flexible to contain both goods and services without losing any of the specific features of service sector innovation (Gallouj & Weinstein 1997). Nonetheless,

recent innovation researches suffer from materiality bias as argued by Gallouj and Savona (2009) where they pointed that disregarding the immaterial features of the service industry might lead to inaccurate measurements of the economic impact and performance of the service sector. In addition, disregarding the differences between the service sector and manufacturing or production sectors leads to underrating the innovation's influence in the service sector.

In a recent review of the service innovation literature done by Snyder and et al. (2016), which included 1046 articles, they pointed that "research still struggles to answer the most basic question: What is service innovation?" (Snyder et al. 2016, p.4). Snyder et al. (2016) tried to introduce new four categories in which these categories offer a definition of the service innovation. These categories are Firstly, degree of change that is usually classified as radical (new core characteristics) or incremental (improvements to existing core characteristics) (Gallouj & Weinstein 1997). Secondly, type of change; however it is related to the product or to the process of delivery (Pearson 1997). Thirdly, newness that means it is a totally new service to the market, or it exists in the market before but it is new to the organisation (Mansury & Love 2008). Fourthly, means of provision that refers to the way of implementing the new changes; however through technology or organisational arrangement (Van der Aa & Elfring 2002). However, Snyder et al. (2016) concluded their research stating that service innovation categorisations seem to disregard both customer value and financial performance, and they call for further investigation for the influence or the role of customer value and financial performance on innovation in the service sector.

Miles (2008) investigated patterns of innovation in service sector among different types of organisations, and the term "on-the-job innovation" was introduced by him as a description of the innovation in the service organisations in which the innovation is usually realised by the employees while they are performing their jobs. Mainly it happens in the workplace to solve work-related problems or to improve service processes (De Jong & Den Hartog 2010).

Organisations usually create new products and services in order to match an existent or potential customer needs (Forsman 2011). Service innovation is considered an important aspect of organisation's success and having the ability to compete in the market (Komaladewi et al. 2012). One of the essential characteristic of innovation of the services is the interaction with the customer (Sundbo & Gallouj 2000). Service innovation usually concentrates on service weaknesses or defaults in order to find innovative solutions and win more customers (Miles, Miles & Snow 2006) since the main aim of service innovation is to provide innovative solutions for the customers (Hertog, Van der Aa & De Jong 2010). Innovation in the service sector has been seen from different perspectives in literature for examples researchers like (Sebastiani & Paiola 2010; Gallouj 2002) agreed that innovation of services is usually relate to employees' behaviours and organisations rather than technological improvements whereas researchers like Barras (1990) and Laukkanen et al. (2007) stressed the importance of technology in service innovation. One of the main challenges in innovation of services is that it is not hard to imitate by other competitors because it is tough to get a patent on service innovation as in the case of products and goods innovation (Sundbo 1997). The innovation in the service sector usually concentrates on the customer needs and

expectations as the source of service or process innovation (Hertog, Van der Aa & De Jong 2010). Other scholars criticise the customer focus approach as a source of innovation since this will limit the innovation to the current services rather than taking the innovation to the next curve of the innovation cycle, unlocking new or even unknown needs for customers (Slater & Narver 1998; Sadikoglu & Zehir 2010).

Based on the above literature, we can see clearly that individuals' innovative behaviours is very vital in contributing to the innovation of services due to the humanistic aspects that goes along with the service delivery, which makes a lot of scholars argue that it is hard to separate the service from its delivery process (Danaher & Mattsson 1994; Bitner, Ostrom & Morgan 2008). Hence, this study will aim to investigate the predictors of individuals' innovative behaviours.

2.1.2. UAE Service Sector Innovation

The service sector forms 53.11% of the United Arab Emirates GDP in 2019 as published by Statista research organisation in July 2020 report. United Arab Emirates has a service-driven economy (Augustine 2016), and with the local government efforts to stimulate and support innovation in all sectors which created an excellent prospect for researchers to examine innovative in the UAE service sector. This section will aim to provide an overview of previous studies addressing innovation in UAE service sector.

Scholars have investigated the innovation practices, phenomena and its effects in UAE service sector. Suliman and Al-Shaikh (2007) have explored the relationship of emotional intelligence and work outcomes. After surveying 500 employees from 19 organisations in the United Arab Emirates service sector they found a significant differences between individuals' perceptions of emotional intelligence, conflict and readiness to create and innovate.

Bani-Melhem, Zeffane and Albaity (2018) is another study that addressed the innovation in UAE service sector, their research aimed to identify determinants of individuals' innovative behaviour. Their study sample was collected from 328 employees from hotels in the United Arab Emirates. Bani-Melhem, Zeffane and Albaity (2018) examined the effects of workplace happiness, co-worker support and job stress on individuals' innovative behaviour, along with the mediation role of coworker support and job stress. Their findings illustrate that workplace happiness has a stronger significant relationship with individuals' innovative behaviour; in addition co-worker support has a mediating role on the relation between workplace happiness with individuals' innovative behaviour.

Another study that aimed to investigate the determinants of individuals' innovative behaviour in UAE service sector is the work of Al-Hawari, Bani-Melhem & Shamsudin (2019); they tested if work engagement has a role of a mediator on the relationship between workplace happiness and individuals' innovative behavior in the service

sector. In addition they attempted to examine the co-worker socialising and the service climate of the organisation moderating effect on the relation between work engagement and individuals' innovative behaviour. Al-Hawari, Bani-Melhem & Shamsudin (2019) found that there is a relation between workplace happiness and work engagement and individuals' innovative behaviour in the service sector. In addition they found that service climate negatively moderated the relationship between work engagement and individuals' innovative behaviour, whereas co-worker socialising positively moderated the relationship between work engagement and individuals' innovative behaviour in the service sector.

The relation between quality management and organisations' innovation performance in UAE service sector has been investigated by Nasaj and Al Marri (2018). Their research aimed to examine the influence of soft and hard quality management practices on organisational innovative performance. Nasaj and Al Marri (2018) results showed both soft and hard quality management have a significant relation with innovation performance, however soft quality management demonstrate a higher correlational value with organisations' innovative performance than hard quality management.

Innovation performance at the individual level has been investigated by Mumtaz and Parahoo (2019). Their study aimed to examine the role of employee differences: self-efficacy and growth need strength as antecedents of individuals' innovative performance. They collected their data from 354 employees working in the UAE service sector. Mumtaz and Parahoo (2019) results revealed a significant relationship between self-efficacy and growth need strength and individuals' innovative performance.

All of the above discussed researches and many more conducted in the United Arab Emirates service sector offers a great opportunity for further innovation related topic research to be investigated in this region.

2.2. Innovation Behaviours

One of the most important topics in literature is innovation since innovation is not only contributing to the organisational survival but rather to the society, nation, and the whole human race (Zainal & Matore 2019). Innovation in literature has been defined in many definitions. One of the definitions of innovation is that innovation is a new use of knowledge, methods, ideas and skills that produce unique capabilities and enhance organisation's competitiveness (Andersson, Lindgren & Henfridsson 2008). Innovation in literature usually is defined as "change, invention, and the creation of opportunities that are essential to the survival, success, growth, and excellence of a better civilization" (Zainal & Matore 2019, p. 2870). Hence, innovation is very important not only on the organisational level, because innovation contributes to organisational survival and competitiveness, but also on the individuals' level as well, in order to be successful and grow their careers (Zainal & Matore

2019). Individuals' innovative behaviour is a key factor of organisation's innovation because organisational change depends on behaviours. Individuals' innovative behaviour is an essential element that contributes to the success and survival of the organisation (Zainal & Matore 2019). Individuals' innovative behaviours among various levels of innovation are considered as a keystone of organisational innovation (Janssen, Van de Vliert & West 2004), due to its critical role for organisational success in service sector, and therefore it was explored by many researchers (Yuan & Woodman 2010). Even though the first focus was on talent innovators, researchers start to realise that ordinary employees contribute to innovation in the service sector (Weiermair 2006). Such an early focus on talent innovators only rather than all employees might justify the interest of scholars in analysing the talent innovator personality which was the focus of several studies in innovation literature such as Raja and Johns (2010) and Madrid et al (2014) that investigated the relation between the Big Five personality types model and the individuals' innovative behaviour. Later, the potential role of ordinary individuals' contribution to their organisations' innovation is more acknowledged in literature (Kesting & Ulhøi 2010; Cadwallader et al. 2010). Based on the previous discussion this research will focus on the individual level in the service sector. In addition, focusing on the individuals' innovative behaviours in the service sector was identified and encouraged by Sharma et al. (2012).

Talking about innovation behaviours, we usually refer to multilevel behaviours of Individuals (Scott & Bruce 1994), teams (Widmann & Mulder 2018), and organisations (Jimenez-Jimenez & Sanz-Valle 2008) that aim to enhance the innovation of the organisations. Researches that focus on team creativity or innovation are valuable since organisations have shifted inescapably to more team-based structures and will usually relay on teams to develop and implement innovative solutions (Anderson, Potočnik & Zhou 2014). Pandeya, Gupta and Gupta (2019) is one of the study that investigate the team innovative behaviour, their data was collected from 336 employees forming 66 teams from12 business organisations in India, Pandeya, Gupta and Gupta (2019) found that team learning mediates the relationship between spiritual climate and team-level innovative behaviours. Another recent article that examined the team innovative behaviour is Vandavasi et al. (2020), in which they examined the influence of knowledge sharing among team members and team's innovative behaviour. Their analysis consists of 64 management teams and 427 individuals from 26 different hotels in the hospitality industry in Taiwan. Vandavasi et al. (2020) found that knowledge sharing has both direct and indirect effects on the team's innovative behaviour. Other scholars have examined the team's innovative behaviour relation with other business related variables. Zhou and Verburg (2020) found that team's innovative work behaviour mediates the relation between openness of entrepreneurs and performance. Team trust was found that it moderate the relationship between team's innovative work behaviour and team performance (Hughes et al. 2018).

Hülsheger, Anderson and Salgado (2009) conducted a literate review of team-level antecedents of creativity and innovation. They explored the last 30 years published articles and identify 15 team-level variables related to creativity and innovation. Their literature review included 104 studies. Their results showed that team process variables: vision, task

orientation, and external communication illustrated the strongest relationships with creativity and innovation, whereas team composition and structure revealed weaker relationships with creativity and innovation.

Crossan and Apaydin (2010) conducted a literature review for the last 27 years of innovation at organisational level published articles; their literature review included 525 articles. Crossan and Apaydin (2010) suggested a multi-dimensional framework of organisational innovation by relating leadership, innovation as a process and as an outcome. They also proposed measures of determinants of organisational innovation. Their framework is illustrated in the below figure 1.

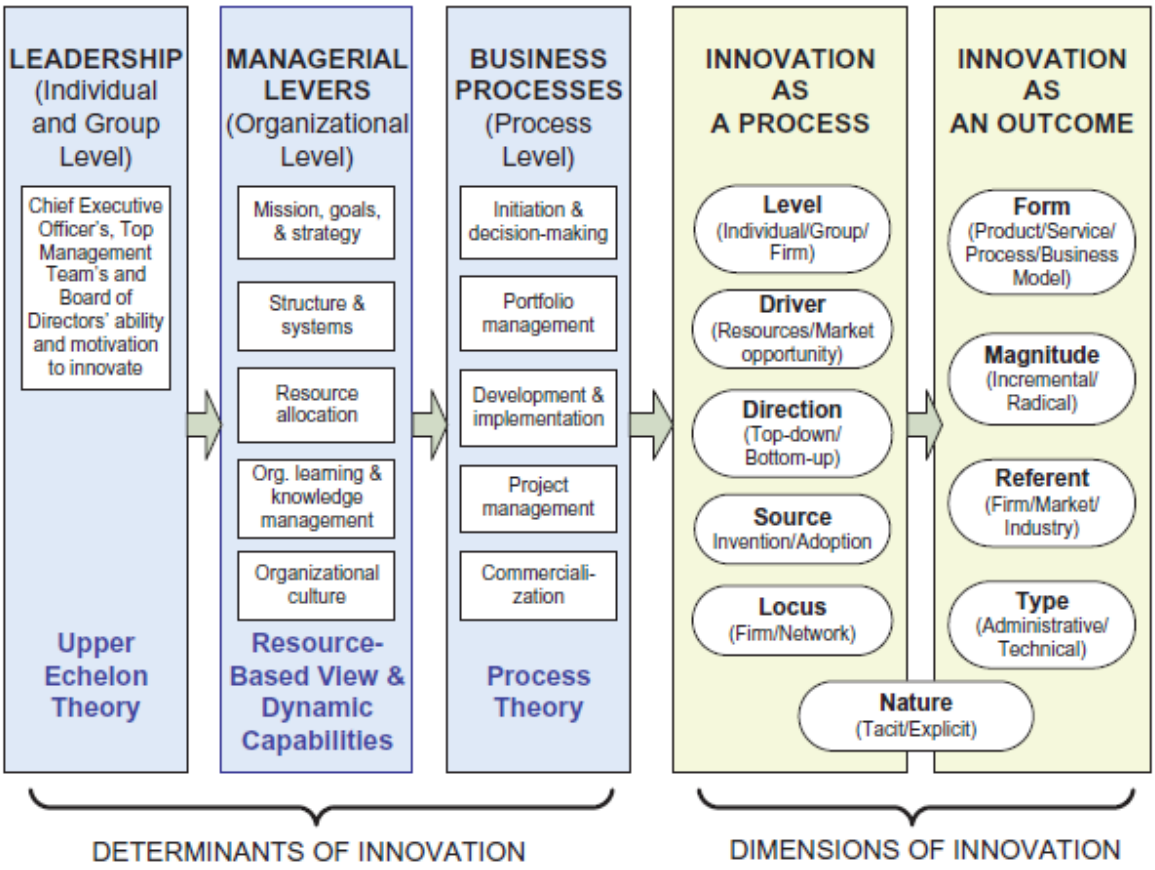

Figure1: Multi-Dimensional Framework of Organisational Innovation (Crossan & Apaydin 2010, p. 1167)

Another study that focused on innovation at the organisational level is Jiménez-Jimenez, Valle, and Hernandez-Espallardo (2008) in which they examined the relationships between market orientation, organisational learning, innovation and performance, their research data was collected from 744 organisations from wide range of industries in Spain. Jiménez-Jimenez, Valle, and Hernandez-Espallardo (2008) stated that both market orientation and organisational learning is related to organisational innovation, however organisational learning has a higher impact on innovation than market orientation. In addition they found

that organisational innovation mediates the relation between market orientation and organizational performance.

Since the study main focus is the individuals' innovative behaviour the following section will be dedicated to discus in details the individuals' innovative behaviour literature.

2.2.1. Individual's Innovative Behaviours

Individual's innovative behaviours in literature draw less attention compared to team or organisational innovation (Li & Hsu 2016). Individuals' innovation behaviours are defined as the individuals' behaviours that contribute to develop new products, new markets, or improve business processes in their organisations (Amo 2005). Individual's innovative behaviour speaks of a complex set of behaviours that aim to generate, promote, and realise new ideas in the workplace (Scott & Bruce 1994; Janssen 2000; Madrid et al. 2014), and these behaviours were recognised as beneficial behaviours for organisational functioning (Yuan & Woodman 2010). Individuals' innovative work behaviours require a readiness to challenge the status quo in workplace (Yuan & Woodman 2010) and to make effort for adopting novel ideas (Kanter 1988; Van de Ven 1986). In recent study done by Bani-Melhem, Zeffane and Albaity (2018) it was clearly pointed that individual's innovative behaviours are more expected in customer service-oriented organisations since the nature of customer expectation keep changing which requires employees with innovative orientation to satisfy their customers. This goes in line with the definition of individuals' innovative behaviours as the individual's inner creativity outward expression to develop novel products through a process in which individuals generate and implement original ideas to develop performance or to solve work-related issues (Janssen, Van de Vliert & West 2004).

Innovation depends on new ideas and employees are the developers, carriers, implementers, and modifiers of these ideas (Van de Ven 1986). Understanding individual's innovative behaviours is very important to successfully manage innovation in organisation (Scott & Bruce 1994). Individuals' innovative behaviours contribute to the organisational entrepreneurship (top – bottom innovation) and to the organisational market competitiveness (Amo 2010). Therefore, understanding individuals' innovative behaviour and what might predict these behaviours are very important topic in literature (Bani-Melhem, Zeffane & Albaity 2018). However, few studies explored individuals' innovative behaviours in the service sector (Danaei & Iranbakhsh 2016; Li & Hsu 2016; Bani-Melhem, Zeffane & Albaity 2018). This deficiency in investigating innovation behaviours at the individual level in literature can be attributed to the idea that studies on innovation have focused more on macro-level parameters (Cainelli et al. 2006; Ottenbacher 2007; Camion & Monfort-Mir 2012) rather than examining innovation at the individual level (Danaei & Iranbakhsh 2016; Li & Hsu 2016; Bani-Melhem, Zeffane & Albaity 2018).

In a recent literature review of individuals' innovative behaviours in the service sector done by Li and Hsu (2016), in which they examined 143 articles from 56 reputable journals, and they found that there are three main approaches that represent individuals' innovative behaviours in the service sector: assimilation, differentiation and synthesis approaches. Assimilation approach concentrates on the similarities of innovation between the service sector and manufacturing sector (Drejer 2004). The focus of this approach is on technology adoption and intellectual property patent (Li & Hsu 2016). In other words, assimilation approach considers the nature of individuals' innovative behaviours essentially is the same in service and manufacturing organisations (Hu 2010). The differentiation approach perspective is opposite to that of the assimilation one since it focuses more on the particularity of services because services have unique features of employee's innovation such as focusing on processes, stressing on the role of frontline employees, highlighting customer-employee relations, inspired or motivated by customers and dependence on the individuals' experiences (Li & Hsu 2016). Synthesis approach integrates the similarities and differences of innovation between service and manufacturing sectors adopting a multi-dimensional perspective (Li & Hsu 2016). This study will adopt the differentiation approach that sets clear and unique attributes for the innovation in the service sector since in manufacturing sector individual's innovative behaviours are based on technology, but in services individual's innovative behaviours have a higher tendency to perform organisational and commercial innovation (Castro, Montoro-Sanchez & Ortiz-De-Urbina-Criado 2011).

Scott and Bruce (1994) explained that the individuals' innovation process usually occurs in three stages; the first stage includes problem recognition and developing new or adapted solutions or ideas, in the second stage the individuals will try to gather supporters and build coalition of sponsors who champion their novel idea or solution, and in the third stage the individuals will implement their idea or solution, test it, and make it ready for mass diffusion. Hence, the individuals' innovative behaviours refer to a discontinuous set of activity that we expect the individual to do in any combination and at any stage (Scott & Bruce 1994). The individual's innovative behaviours are also seen as discretionary behaviours by the individuals involved and are not essentially part of their job expectations or related to their formal appraisal and reward processes (Organ 1990). Empirically, individuals' innovative behaviours is usually measured in literature as a single construct that either combines the behaviours across the three stages or assumes a focus on only one stage (Scott & Bruce 1994). For example, George and Zhou (2001), Madjar (2008) and Raja and Johns (2010) examined the relationship between employees' personality types and creativity; however, some scholars like Anderson, Potočnik and Zhou (2014) argued that this unification between innovation and creativity is not helpful in offering a more nuanced understanding of the complex nature of innovation behaviour in organisations, given the distinctly different behaviours involved in each of the three stages. The idea of separating innovation behaviours from creativity is clearly stated by Madrid et al. (2014) since they clearly differentiated between the two because they came up with a conclusion that individuals' work innovative behaviours include creativity but is not limited to it because it exceeds it to promote and realise the novel ideas.

Another scholar, Onne Janssen (2000) explained that the individuals' innovative behaviours talk about "the intentional creation, introduction and application of new ideas within a work role, group or organization" (Janssen, 2000; p. 288). According to Janssen (2000), in the idea generation stage, innovative individuals will recognise a problem and become involved in the creation of new ideas and the generation of novel solutions. In the idea promotion stage, those individuals attempt to cultivate support for their innovative ideas and secure the necessary approvals across the organisation. Finally, the idea is transformed into useful and applicable solutions, during the idea realisation stage in which new and innovative ideas are systematically introduced, applied and evaluated in practice.

Basically, the individuals' innovative behaviours refer to the individuals' participation in producing and implementing novel ideas and approaches in their work place, and obviously these behaviours are vital for new product and service innovation (Wu, Parker & De Jong 2014). Another definition of individuals' innovative behaviour is provided by Anderson, Potočnik and Zhou (2014) as behaviours that intend to develop new and improved approaches to existing products, processes and practices in organisations. Therefore, individuals' innovation behaviours are positively related to organisational creativity (Woodman, Sawyer & Griffin 1993). Many studies looked at different antecedents and predictors of individual's innovative behaviours; however, a lot of these studies considered the individuals' innovative behaviours as a single construct (Scott & Bruce 1994; Yuan & Woodman 2010; Rodrigues & Rebelo 2019), which demonstrates the common individuals' behaviours in the three stages of the innovation process.

In more recent studies such as Niu (2014), Wisse, Barelds & Rietzschel (2015), Woods et al. (2017) and Rodrigues and Rebelo (2019), a call for more in depth analysis was made since considering the relation of different variables to innovation behaviours is represented in a single construct that combined the three stages in one dimension may not be sufficient to capture the multi-dimensional complexity of innovation behaviours. Thus, these scholars were asking to examine innovation behaviours as multi-dimensional construct as suggested by Janssen (2000) idea generation, promotion and realisation since these stages might independently be affected by different antecedent variables.

In a recent study done by Rodrigues and Rebelo (2019) in which they tried to answer the calls of studying the relation between proactive personality trait and individuals' innovative behaviours stages separately. Unfortunately, they couldn't do it since they found strong correlations between these three stages in their data that preventing their use as independent criteria. Rodrigues and Rebelo (2019) concluded that "Hence, future research should rely upon multidimensional measures of innovative performance, allowing a more fine-grained analysis of the innovation process, which is required to advance understanding of the role of the big five and of proactive personality trait in each phase of this process. Notwithstanding its theoretical and practical merits, this question remains greatly underdeveloped in the literature." (Rodrigues & Rebelo 2019, p.6)

2.3. Personality Traits

When we talk about personality traits we usually talk about human characteristics, emotions, type of thoughts and behaviours that are constant over time and interpret individuals' behaviours in various situations (Barrick, Parks & Mount 2005). In other words, once an individual have a certain personality type or trait due different factors in his grow up it is more likely not to be changed during his life time.

Personality traits act as a uniting concept that offers meaning, direction and explanation of the individuals' behaviours tendencies (Morris, Davis & Allen 1994). It has widely been used as a valid predictor of individuals' job performance (Leutner et al. 2014); Leutner and et al. (2014) stated that usually narrow traits are more predictive than the wider Big Five personality types of employees' entrepreneurial behaviours.

One of the definitions of personality is introduced by Robbins and Judge (2015) as "the sum total of ways in which an individual reacts to and interacts with others" (Robbins & Judge 2015, p. 175). Robbins and Judge (2015) further explained that personality is often characterised by the measurable traits an individual displays that describes the "enduring characteristics of an individual's behaviour" (Robbins & Judge 2015, p. 177). For instance, we may describe a person as organised, passionate, helpful, pessimistic or fearless. What is determined personality? Is it nature or nurture? This kind of debate was initially asked by psychologists; however, recently the widely held perspective is that personality is the outcome of both heredity (i.e., genes) and environmental factors (culture, family, friends and society) (Robbins & Judge 2015).

A brief explanation of the used terminology that describes personality such as type, traits and compound in this study will be clarified in this paragraph. In general, traits have been classified into three main classes. Firstly, there are the instrumental traits that describe behaviours which mainly have an influence on the environment such as need for achievement. Secondly, we have the cognitive traits that describe behaviours that largely include constituents of processing information or ideas like locus of control. Thirdly and finally, we have the affective traits that refer to behaviours that have a solid emotional constituent like well-being and empathy (Buss & Finn 1987). Personality trait usually used to describe a single characteristic of the individual's personality such as honest, organize, and friendly, whereas personality type is referring to a group of traits that combine together to form a type of personality for example, Conscientiousness personality type is usually associated with a group of personality traits such as reliable, organised, precision, responsible, persistence, thorough, and efficient (Goldberg 1990), in terms of compound personality traits they have been defined as traits that are comprised of basic personality traits that do not all covary (Hough & Schneider 1996).

2.3.1. The Big Five Personality Model

The Big Five Factor (BFF) model of personality types (Goldberg 1990; McCrae & John 1992) has been extensively used in literature due to its robustness and consistency in explaining the human personality. It is composed of five broad personality types: Conscientiousness, Openness to experience, Agreeableness, Extraversion, and Neuroticism which have their place at the top of the personality hierarchy and then a group of 60 sub traits at the bottom of the structure (George & Zhou 2001). One of the challenges in using the Big Five Factor is that we do not have a standard and unified definition in literature of the Big Five Factors since we can see some sub traits overlap between the factors based on the researchers study (DeNeve & Cooper 1998).

In a recent study, some of these personality types were named differently such as Negative Emotionality instead of Neuroticism and Open-Mindedness instead of Open to experience (Soto & John 2017). In their study Soto and John (2017) developed a new scale for measuring the Big Five Factors which is Big Five Inventory-2 (BFI-2) that represents a major revision of the old Big Five Inventory-1 (BFI-1) that aims to enhance reliability and validity of personality measures and offers bigger bandwidth, fidelity, and prediction strength.

However, the excessive use of the Big Five model in literature was criticised by Day and Schleicher (2006) for two main reasons; the first reason is that the exclusive reliance on the Big Five personality's type model excluded all of other personality characteristics that are not captured by the Big Five personality's types. The second reason is that only to use cognitive ability in anticipating job performance across all tasks' types, at all levels, and in all kinds of organisations that nominate Conscientiousness as an omnipresent predictor for all work-related variables to the extent that some scholars start to name it as the Big One (Schmidt & Hunter 1992).

In addition, it was stated in personality theory literature that compound personality traits that are more particularly custom-made to the outcome might outperform the prediction yielded by primary personality traits such as the ones used in the Big Five Factor (BFF) model (Hough & Schneider 1996; Viswesvaran, Deller & Ones 2007).

The same idea that supports the use of compound personality trait as predictor of individual's behaviour was presented by Hammond and et al. (2011). They concluded their meta-analysis of investigating the categories that influence employees' innovative behaviours with four categories: individual's differences, intrinsic motivation, job characteristics, and contextual influences. In addition, they found that personality traits have a significant relationship with individuals' innovative behaviours; however, the relationships are not as strong as for job characteristics or motivation. Hence, Hammond and et al. (2011) considered this finding to be a novel contribution of their study since past researchers did not take in their accounts the compound nature of personality traits. Researches were naturally focussed on a single

personality factor although Ones et al. (2007) stated that compound personality factors are more valid predictors than single personality of individuals' behaviours.

Hence, even though in the following sub-sections the study will provide a concise definitions for each one of the Big Five Factors personality types, the main aim of this study is to investigate other distinct personality traits in the literature that are not captured by the Big Five Factor personality model. The study selected three distinctive personality traits that will be the core of this study that focuses on personality traits. The three personality traits are Self-Monitoring personality trait, Intrapreneurial personality trait and Proactive personality trait. These personality traits will be discussed in details in the following sections. Whereas in the following paragraphs a brief explanation for each personality type of the Big Five Factor personality model will be discussed.

Conscientiousness is usually described by sub traits such as reliable, organised, precision, responsible, persistence, thorough, efficient, and risk avoidance (Goldberg 1990), so it is usually associated with task-oriented behaviours and control-related personality traits (DeNeve & Cooper 1998). Hence, Conscientiousness was seen as consistent predictors of performance (Meyer, Dalal & Bonaccio 2009). Woods et al. (2017) stated that Conscientiousness personality type might predict individuals' innovative behaviours.

Openness to experience is the most debated personality type because it usually refers to intelligent, cultural, creative, and cognitive complexity traits, so it is not quite obvious which traits to be included (DeNeve & Cooper 1998). Goldberg (1990) associated Open to experience personality type with traits such as insight, imaginative, cultured, open-minded, curious, sophisticated, original, intelligent, and Creative. Several studies have investigated the relation between Open to experience and individuals' innovative behaviour and found that there is a significant relation between the two and Open to experience might be considered a predictor of individuals' innovative behaviours such as Madrid et al. (2014) and Woods et al. (2017)

Extraversion refers to traits that concentrate on amount and strength of relationships, positive emotionality, the level of energy, and enjoyment pursuing (DeNeve & Cooper 1998). The two main constituents of Extraversion are sociability and ambition (Raja & Johns 2010). Extraversion is usually associated with the following traits: optimism, talkativeness, humour, enthusiasm, sociability, assertiveness, Candour, and energetic (Goldberg 1990).

Unlike Extraversion, Agreeableness refers to traits that are associated with the quality of human's relations rather than quantity, and behaviours that are related to interpersonal interfaces (DeNeve & Cooper 1998). Thus, Agreeableness is linked to traits such as forgiving, leniency, friendly, courteous, flexible, generous, cooperative, warm, trusting, and good-natured (Goldberg 1990; McCrae & John 1992).

Neuroticism and sometimes refers to as Emotional Stability classifies traits related to adaptation or lack of adaptation with the individual environment (DeNeve & Cooper 1998). It was frequently linked to negative emotions (Penley & Tomaka 2002), and was described with following traits: sad, self-pitying, suspicious, anxious, and nervous (McCrae & John 1992).

2.3.2. Self- Monitoring Personality Trait

Introduced in the 1970s by Snyder (1974), self-monitoring personality trait describes people's extent of self-observation and self-control of their expressive behaviours and self-presentation in social settings. Self-monitoring is defined by the degree that the individuals control, observe, regulate, and adjust their behaviours according to other individual's perception of them (Snyder 1974). High self-monitored individuals are usually described as socially ambitious, present a positive image of themselves, aim to impress others, and constantly adjust their behaviours according to their social situation; however, low self-monitored individuals behave according to their own believes and values rather than their social situation and do not care about their social image or prestige (Snyder 1974; Barrick, Parks & Mount 2005).

Described as workplace 'chameleons' (Mehra & Schenkel 2008) and as 'good actors' (Sasovova et al. 2010), or even as 'social pragmatists' (Gangestad & Snyder 2000) high self-monitoring individuals continuously amend their behaviours to suit the social situation; they are experiencing and control their self-presentations to fit the situation and context they are facing. High self-monitoring individuals are highly image-conscious and often seek distinctive social recognition (Snyder 1979). In contrast, 'true-to-themselves' (Mehra & Schenkel 2008) or also described as principled (Day & Schleicher 2006) low self-monitors are known to express their true emotions, follow their own beliefs and values, and they are not necessarily concerned with the social situation; furthermore, they have limited regard to the views placed upon them by others (Snyder 1974; Barrick, Parks & Mount 2005).

A more recent study done by Kilduff and Lee (2020) explained the self-monitoring theory as a theory that contains two contrasted kinds of prototypical individuals. The low self-monitoring individuals who can be described as somewhat unresponsive to situational forces, lack the behavioural and attitudinal appropriateness, and they usually have a habit of looking within for cues to decide how to behave in accordance with own beliefs and values. On the other hand, the high self-monitoring individuals adapt their behaviours according to the social situation and endeavour to show the appropriate response. Based on this classification, Kilduff and Lee (2020) resembled the low and high self-monitored individuals to a similar concept offered by sociological theory that is under socialised individual (low self-monitor) who assesses and behaves without reference to other actors, and the over socialised (high self-monitor) individual who has engraved collective values and beliefs. By drawing this resemblance between self-monitoring personality theory and sociological theory, Kilduff and Lee (2020) claimed that self-monitoring theory has special relevance for social network research.

The way in which self-monitored individuals adjust their behaviours to suit the situation they are in is described by Ickes et al. (2006) as a set of processes followed by the self-monitored individuals; Firstly, the preference of high self-monitors for obviously defined situations, secondly, the self-monitored individuals effective use of scripts regarding typical situations, thirdly, the self-monitored individuals ability to create an effective plan of action ahead of the social encounter, fourthly, the self-monitored individuals ability to utilize other individual's behaviour as a basis of more instantaneous cues to further lead and reshape their own words and actions. These processes enable individuals, who are high self-monitored to regulate attitudes and behaviours in order to promote successful interactions with diverse groups of people (Gangestad & Snyder 2000; Ickes et al. 2006).

High self-monitoring individuals are skilful communicators who can deliver socially appropriate impressions both verbally and nonverbally (Snyder 1974). With the ability of not only altering their emotional displays to the needs of others but rather detecting the emotions being displayed by others (Toegel, Anand & Kilduff 2007), high self-monitors while they are in unstructured social interactions among strangers have a habit of speaking first and to use conversational skills to break the silence with others (Ickes et al. 2006). In addition, high self-monitors insert positive effect into social interactions by using humour to boost the spirits of others (Turner 1980).

Day et al (2002) analysed 136 articles in literature that address self-monitoring personality trait; they concluded that self-monitoring personality trait is a valid and related variable to organisations, and theorist and researchers should be encouraged to explore its contribution to the success of the organisations. Furthermore, this has really helped to draw the attention of scholars to consider self-monitoring as a predictor of work-related outcomes. This argument was supported by more recent literature review done by Kudret, Erdogan and Bauer (2019) in which they pointed that 75% of self-monitoring literature was published after Day et al (2002). Their findings are demonstrated in the Figure (2) below.

Figure 2: Number of publications on self-monitoring over the years (based on a literature search in Web of Science™ using self-monitoring as the search term).

Figure 2: Kudret, Erdogan and Bauer (2019) Self-Monitoring Publications

Self-monitoring theory was defined in literature as "A theory of expressive control. It examines variations in the extent to which individuals are willing and able to control their public expressions, and shape their public appearances" (Kudret, Erdogan & Bauer 2019, p.5).

Gangestad and Snyder (2000) characterised self-monitoring by a status enhancement motive. In other words, self-monitoring individuals crave to achieve and improve status within social structures.

In personality literature, self-monitoring personality trait's relation with other personality traits has been examined. For example, a positive relation has been found between self-monitoring and goal orientation (Cellar et al. 2011), emotional intelligence (Livingstone & Day 2005), self-awareness (Kulas & Finkelstein 2007), and work holism (Mudrack & Naughton 2001). Few studies in literature have investigated the relation between self-monitoring personality trait and the Big Five Factor personality type model. Self- monitoring personality trait seems to have a significant and positive relation with Extraversion (Bono & Vey 2007; Wolf et al. 2009; Wilmot et al. 2016) and with Openness to experience (Wolf et al. 2009; Wilmot et al. 2016), but not significantly related to Neuroticism (Bono & Vey 2007).

Kudret, Erdogan and Bauer (2019) concluded after examining 112 articles in their literature review about self-monitoring personality trait that studies proposed self-monitoring as a distinctive personality trait even though it shares conceptual space with Extraversion and Openness to experience. Self-monitoring is widely considered to be a personality trait variable, yet it is not will reflected in the Big Five Factor model (Day et al. 2002). In literature, self-monitoring was represented as a personality trait (Lennox & Wolfe 1984; Snyder & Gangestad 1986); whereas other scholars debated that we can consider self-monitoring as a skill (Schleicher & Day 2002), and irrespective of this discussion, self-

monitored as a personality trait is clearly not a substitute of one of the Big Five Factor personality types (Barrick, Parks & Mount 2005).

Another construct that apparently associated with self-monitoring is emotional intelligence, which is one of the variables that have been tested as antecedent of employees' readiness for innovation as in the work of Suliman and Al-Shaikh (2007) in which they found that employees with higher levels of emotional intelligence seems to have higher levels of readiness to create and innovate. Nonetheless, a distinction should be made between the two since emotional intelligence generally refers to the individuals' ability of being aware of their feelings and the feelings of others as well as to utilise these feelings as guidance for their thinking and behaviours (Salovey & Mayer 1990). Hence, we can distinguish between the two in a sense that a high emotional intelligence individuals usually care about their own as well as other people's feelings; whereas high self-monitoring individuals will usually focus more on other people than themselves (Mehra & Schenkel 2008).

In one of the interesting studies in literature done by Fang et al (2015) they run a meta-analysis of personality trait and social networks, and they stated that network centrality position mediates the relationship between self-monitoring and performance. To put it differently, self-monitoring may offer advantages while developing strategic relationships with implications for one's performance; however, an opposing perspective to the relation between self-monitoring and job performance starts to emerge as well. For example, in their study, Semadar, Robins, and Ferris (2006) did not find a significant relationship between self-monitoring personality trait and supervisor-rated managerial job performance. In another study Ozcelik (2013) found that surface acting (changing the expression of emotions without changing individual's actual emotions) and self-monitoring was positively related, and that surface acting had negative effects on role performance.

Studies that investigate the relations and positions that usually self-monitoring individuals occupy in their networks already exist in literature. For example, it has been stated that self-monitoring personality trait predicts social network positions, particularly brokerage positions. For example, Oh and Kilduff (2008) found that high self-monitored individuals may occupy positions as brokers between disconnected social worlds. Their results came after studying 162 Korean expatriate entrepreneurs in Canada who tend to occupy direct brokerage or indirect brokerage positions based on the size of their network. Similarly, Mehra, Kilduff & Brass (2001) found that High self-monitors act as brokers in social networks. In addition, they stated that self-monitoring and network variables -however investigated disjointedly and simultaneously- predict workplace performance. Sasovova et al. (2010) reached similar results in their study; they found that High self-monitors are more likely to occupy brokerage positions in friendship networks through connecting to new friends who are relatively strangers -unknown by previous friends- which will effectively increase the number of structural holes in their networks.

In this study, we take the view of Snyder and Gangestad (1986) and consider self-monitoring a persistent feature of an individual's personality trait that shows association with tendencies to behave in a particular way.

To sum it up, a self-monitoring personality trait is found to offer an individual many positive outcomes in the workplace such as higher career mobility and swift cross-company promotions (Kilduff & Day 1994), brokerage opportunities (Sasovova et al. 2010), leadership emergence in groups (Ellis 1988) and superior performance (Deeter-Schmelz & Ramsey 2010). However how these individuals innovate is still unknown, especially after it has been stated that they might occupy boundary spanning (Mehra & Schenkel 2008) and brokerage position in their network (Oh & Kilduff 2008; Sasovova et al. 2010; Burt 2012) which is a position that is linked with innovation (Landis 2016).

2.3.3. Intrapreneurial Personality Trait

Intrapreneurship as a term was firstly used in literature by Macrae (1976) in his article in The Economist journal about the "coming entrepreneurial revolution". The term itself intrapreneur is derived from intra corporate entrepreneur (Pinchot & Pellman 1999), and it focuses on the individual independent initiatives inside their organisations (Amo & Kolvereid 2005). Intrapreneurs have the ability of transferring ideas into reality (Pinchot & Pellman 1999). The desired result of intrapreneurship is innovation behaviours among individuals within their organisations (Amo & Kolvereid 2005). One of the studies that investigated the relationship between innovations and entrepreneurial employees' activities at a national level is Stam (2013) in which he debated that the knowledge and innovation are principally linked to intrapreneurship.

Block and MacMillan (1993) stated that intrapreneurship refers to bottom-up innovation in organisations in which the employees start the process. The same has been restated by more recent studies such as Rigtering and Weitzel (2013), Sinha and Srivastava (2013), and Lang and Baltes (2019). In 1992, The American Heritage Dictionary added the word 'intrapreneur' to its dictionary describing it as "a person within a large corporation who takes direct responsibility for turning an idea into a profitable finished product through assertive risk-taking and innovation". This definition indicates that intrapreneurs exist in only large organisations; however, a later study has debated that the notion of intrapreneurship can exist in SMEs regardless of the size or the age of the company (Baruah &Ward 2015).

Intrapreneurship has developed - as an organisational principle - significantly over the years; hence, many companies have now adopted intrapreneurial initiatives to gain different benefits since an innovation culture achieved via such intrapreneurial initiatives that involve behaviours that usually exceed expectations and influences the course of the organisation (Neessen et al. 2019). These intrapreneurial initiatives can lead to substantial organisational improvement in terms of organisational performance, innovativeness, profitability and competitiveness (Lang & Baltes 2019; Baruah &Ward 2015). Another definition of Intrapreneurship is that intrapreneurship "describes the innovation practice within an organisation through which employees undertake new business activities and pursue different opportunities." (Baruah &Ward 2015, p.1). In a more recent literature review conducted by

Neessen et al. (2019), they did an in depth analysis of 106 articles from the literature, and they came up with a unified definition of intrapreneurship that integrated the differences between the organisational and individual's aspects of intrapreneurship as the following: "Intrapreneurship is a process whereby employee(s) recognize and exploit opportunities by being innovative, proactive and by taking risks, in order for the organization to create new products, processes and services, initiate self-renewal or venture new businesses to enhance the competitiveness and performance of the organization." (Neessen et al. 2019, p.551).

De Jong and Wennekers (2008) attempted to summarise the Intrapreneurs' characteristics based on the previous literature definitions. The first characteristic is that intrapreneurs are proactive employees with a robust need for action. Intrapreneurs do not need to be requested to take an initiative, so De Jong and Wennekers (2008) described intrapreneurs as 'self-starters'. In fact, intrapreneurs commonly do not even request for permission and may disregard disapproval and other negative feedbacks about their ideas. The second characteristic of intrapreneurs is that they concentrate on chasing an opportunity regardless of the current resources. The third and the final characteristic of intrapreneurs is that they are in everlasting pursue of original ideas that stray from the status quo.

The heart of intrapreneurship is to gain innovation in every aspect and then transform these innovative ideas into business value (Ping et al. 2010). Pinchot (1985) added to this definition in the sense that intrapreneurship also indicates a method of organising large businesses through which work can become an ecstatic expression of employees' contribution towards the society.

Intrapreneurship as a concept originally started as an explanation of the innovation process within big organisations has nowadays completely evolved into a major strategy consideration and action plans for any organisation regardless of their size (Baruah &Ward 2015; Mohanty 2006; Antoncic & Hisrich 2003; Antoncic & Hisrich 2001).

Amo and Kolvereid (2005) has pointed that there is a paucity of empirical studies on intrapreneurship. In addition, most past studies targeted the firm as the unit of analysis and were not capable of clarifying variations in individuals' innovative behaviour in organisations. Still after 13 years Blanka (2018) investigated the previous literature in the field of Intrapreneurship on the individual level between 2005 and 2016. She found only 32 articles addressing this topic. Hence, she stated that studies focusing on individual intrapreneurial employees are rare and that intrapreneurship research is an emerging field in literature. In addition, in a recent literature review done by Lang and Baltes (2019), they analysed 239 articles in the field of Entrepreneurial Employees (Intrapreneurs). They found that most of the publications that discussed Intrapreneurship are in 2017 which indicates that the Intrapreneurship is still important and that there is no saturation in the literature that makes Intrapreneurship a worthwhile research field. Lang and Baltes (2019) provided another evidence of their debate by realising that recently the quantitative approaches have increased, suggesting that research on entrepreneurial employees is maturing with further examinations to be required.

Innovation's adaptation in the intrapreneurship literature is firstly wanted from inside the adaptation unit, and the real question that deserves our investigation is how intrapreneurs overcome resistance from surroundings (Pinchot & Pellman 1999; Amo & Kolvereid 2005). It will be noteworthy to differentiate between intrapreneurial behaviours and innovation behaviours. De Jong and Wennekers (2008) drew a comparison between the two behaviours. Both intrapreneurial behaviours and innovation behaviours refer to innovative initiatives; they are more business related than individuals' own work, and both involve overcoming barriers and taking risk. However, when the innovation is about refining individuals' own job, or when no barriers or risks are involved, these cases will be more of managerial innovative behaviour than of an entrepreneurial nature. Another different is that intrapreneurship may involve tasks that are not innovative but imitative; meanwhile the focus is on opportunity pursuit and including a big amount of creativity and initiative to achieve it. For example, opining new branch for the company in new areas or new country.

The next section will discuss the differences between the two concepts Intrapreneurship and Entrepreneurship.

2.3.3.1. Intrapreneurship versus Entrepreneurship

Intrapreneurship and entrepreneurship basic difference is that intrapreneurship is an innovative activity that occurs within a large established organisation whereas entrepreneurship is an innovative activity that is followed in a new organisation that is just starting up (Ibrahim 2016).

Intrapreneurship is a well-known field of organisational management research with a remarkable history of around 35 years. Intrapreneurship is often associated with entrepreneurship; however, its place as a unique organisational concept is clearly documented in many contributions from researchers all over the world.

Intrapreneurship has been described as a special sort of entrepreneurship which shares many of its main behavioural characteristics (Bosma, Stam & Wennekers 2010). Other scholars described intrapreneurship as entrepreneurship within an existing organisation (Antoncic & Hisrich 2001; Antoncic & Hisrich 2003; Ping et al. 2010). Veronica, Anca and Răzvan (2013) described intrapreneurs as the domestic entrepreneurs since they chase the interest of their organisation while keeping their focus on innovation and creativity. Whereas other researchers like Morris and Kuratko (2002) have underlined some main differences between these two conceptions. For example, an entrepreneur is taking the risk and sole responsibility when it comes to start-up entrepreneurship whereas the organisation takes the risk on behalf of an intrapreneur. The organisation usually owns the concept and intellectual rights in the case of intrapreneurship unlike the case of entrepreneurs in which they own their innovations. Morris and Kuratko (2002) also stated that organisations with an intrapreneurial culture are more flexible for management errors but potential rewards for individual entrepreneurs are

unlimited. Hence, intrapreneurs have to depend on their organisational structure and management policies. So intrapreneurs may take risky decisions utilising resources of the organisation in which they work, whereas for entrepreneurs, they have to depend on and use their own resources. In other words, unlike entrepreneurs the intrapreneurs use the organisation existing resources, and essentially work within their organisations, in addition they function within their organisations own policies and bureaucracy (Camelo-Ordaz et al. 2012; Baruah & Ward 2015).

Molina and Callahan (2009) summarized their comparison between intrapreneurs and entrepreneurs with three main differences. First, intrapreneurs take risk by utilising the resources of their organisation whereas entrepreneurs take risky decisions utilising their own resources. Second, intrapreneurship occurs within an organisation by its individuals, while entrepreneurship primarily externally focused. Third, entrepreneurs favour to create implicit knowledge in new companies, whereas intrapreneurs innovate within the organisational policies, language, procedures and bureaucracy.

Martiarena (2013) presented another comparison between intrapreneurs and entrepreneurs that is intrapreneurs demonstrate higher levels of risk aversion and lower levels of expected earnings than entrepreneurs.

After establishing these main differences between these two concepts, the road for further research in Intrapreneurship and Entrepreneurship is now clearer and confusion free (Antoncic & Hisrich 2003).

In their recent literature review of Entrepreneurial Employees, Lang and Baltes (2019) stated that various terms have developed describing entrepreneurial employee roles such as corporate entrepreneur, intrapreneur, internal entrepreneur, promoter and champion, and these terms lack a clear distinction. However, they presented an assumption that the corporate entrepreneur assigned to the formal role and the intrapreneur to the informal role. This separation between the two concepts is supported as well by Amo (2010) who has pointed that corporate entrepreneurship and the intrapreneurship concept are closely linked; however, they are not the same. Other researcher differentiate between corporate entrepreneurship and the intrapreneurship by describing corporate entrepreneurship as innovation process originated from the top-down within an organisation or how organisations stimulate innovation, whereas intrapreneurship is bottom-up approach linked to the intrapreneurial behaviour of employees (Amo & Kolvereid 2005; Amo 2010; Rigtering & Weitzel 2013; Sinha & Srivastava 2013).

2.3.3.2. Intrapreneurial Personality Trait

Intrapreneurship as a personality trait was initially presented by Gifford Pinchot (1985). He has developed 12 measures that identify if the individual is intrapreneur or not, and he described the traits of this personality as tasks self-appointed, self-determined, goal setters,

self-initiative, self-confident and action oriented. Another study that attempted to identify the characteristics of intrapreneurs described them as a combination of thinker, doer, planner, and worker, so basically they have the vision and the action (Zhu, Djurjagina & Leker 2014). Sinha and Srivastava (2013) stated that the intrapreneurial personality trait contains traits like proactiveness, pursuit of opportunity, self-determination, confidence, risk-taking, defying rules and a dislike of bureaucratic systems. Sinha and Srivastava (2013) investigated the relation between the Big Five personality types and intrapreneurial orientation. They found that Neuroticism, Agreeableness and Conscientiousness have a significant negative relation with intrapreneurial orientation whereas there is no significant relationship of Extraversion and Openness to Experience with attitude towards intrapreneurship.

Pinchot (1985) new scale facilitated drawing the attention of other scholars to investigate the intrapreneurial behaviours and personality trait of the employees such as Amo and Kolvereid (2005); Floyd and Wooldrigde (1999) and Pinchot and Pellman (1999).

Amo and Kolvereid (2005) tested the relation between intrapreneurial personality trait of 634 business graduates working in different jobs and organisations in Norway and their innovative behaviours. They found a significant relationship between the two; however, they called for further improving the measures of intrapreneurial personality trait. In addition, they pointed to the generalizability limitation of the findings since they collected their data from a relatively homogenous sample of alumni. They raised the question if their findings will hold in different cultures and among individuals with different educational backgrounds. Finally they encouraged further research focusing on innovation behaviour in organisations at the individual level.

2.3.4. Proactive Personality Trait

In literature, the first time proactive personality trait was presented by (Swietlik 1968), but his work did not attract that much attention of other scholars until the seminal work in early 1990s of Bateman and Crant (1993) was published and offered researchers a scale and a clear definition of proactive personality trait.

Proactive personality trait has its origins in interactionism which ‘‘argues that situations are as much a function of the person as the person’s behaviour is a function of the situation” (Bowers 1973, p.327), and social cognitive theory (Bandura 1986) which states that the individual, surroundings, and behaviour constantly impact each other.

The main characteristic of proactive personality trait is that individuals have the ability to intent to alter their social and non-social environment due to personal and situational reasons. Proactive individuals usually described as people who are not limited by their situational constrains, initiate change in their surroundings, look for new opportunities, plan in advance, action takers, and problem solvers (Bateman & Crant 1993; Cant 1996). Whereas non-proactive individuals usually referred to as passive people who will generally react to, adopt

and endure their existent environment (Bateman & Crant 1993; Cant 1996). Hence, Bateman and Crant (1993) stated that proactive personality trait is an instrumental trait since it effects the environment.

Fuller and Marler (2009) stated that individuals with high proactive personality trait usually pursue their ideas and suggestions to bring change, and take charge to translate them into reality. Parker, Bindl and Strauss (2010) identified three main features for proactive employees: change oriented, self-starting, and future focussed. Therefore, proactive employees might have the ability to predict future outcomes, and they are motivated to take actions to gather resources for implementing constructive changes (Gong et al. 2012).

In addition, Fuller and Marler (2009) in their literature review found that proactive personality trait is a compound personality trait of the Big Five personality type model, yet it is not caught by the Big Five only. The same was stated by Hough (2003) the compound personality trait has been identified as ‘‘Compound personality traits are comprised of basic personality traits that do not all covary” (Hough & Schneider 1996, p. 57). In addition, compound personality trait has a tendency to be correlated with more than one dimension of the Big Five (Hough & Oswald 2000). Proactive personality trait was found to consistently relate to Conscientiousness and Extraversion (Major, Turner & Fletcher 2006); however, another study found that proactive personality trait is related to Openness to experience and Neuroticism (Crant & Bateman 2000). Therefore, proactive personality trait is indeed a compound personality trait that is not fully captured by the Big Five personality type. The same idea was found in a more recent literature review done by Spitzmuller et al. (2015) on 122 studies; they stated that although proactive personality trait positively related to general personality types such as Conscientiousness, Extraversion and Openness to experience, and negatively to Neuroticism, proactive personality trait can be distinguished from the Big Five personality types collectively. Rodrigues and Rebelo (2019) contributed to the same debate in their work since they attempted to examine proactive personality trait criterion validity and incremental validity over the Big Five model in predicting individuals’ innovative behaviours. They found that proactive personality trait is a valid non-redundant predictor compared with the Big Five model when predicting innovation performance. In fact, they concluded their study suggesting that proactive personality trait represents a valid and meaningful predictor of innovative performance. Rodrigues and Rebelo (2019) called for further investigation of the relation between proactive personality trait and different stages of individuals’ innovative behaviours.

After analysing 107 studies in their literature review, Fuller and Marler (2009) found that individuals who are linked to proactive personality trait have the ability of drawing the attention of individuals with high power in their networks, mange to secure powerful employees sponsorship, able to associate to voice and taking charge behaviours, establish fine relationships with their superiors, can track opportunities across organisational borders, and entice sponsors and resources. In addition, Fuller and Marler (2009) declared that proactive personality trait has a better predictive validity than the Big Five Factor personality type model in predicting job performance and individuals’ decisions.

Individuals' success is driven usually by personality traits that echo a willingness to change and considered to be a competitive advantage for the individuals' companies (Seibert, Crant & Kraimer 1999; Fugate, Kinicki & Ashforth 2004). Hence, proactive personality trait has fascinated the scholars to be investigated in different fields; therefore proactive personality trait was tested as a predictor of individual behaviours.

Proactive Individuals are likely to involve in proactive behaviours (Seibert, Kraimer & Crant 2001). Empirically speaking, that is not surprising bearing in mind that proactive personality trait is "a stable disposition to take personal initiative in abroad range of activities and situations" (Seibert, Kraimer & Crant 2001, p. 847) and that proactive behaviour includes ''taking initiative in improving current circumstances or creating new ones" (Crant 2000, p. 436). Therefore, proactive individuals enact their surroundings via proactive behaviour.

Proactive individuals are likely to involve in building networks (Thompson 2005) Social networks building is defined as ''individuals' attempts to develop and maintain relationships with others who have the potential to assist them in their work or career" (Forret & Dougherty 2004, p. 420). This involvement is explained by the benefits social networks offer like accessing information or resources, identifying opportunities, and social capital (Thompson 2005).

Proactive individuals most likely attempts to create positive social relationships with their superiors for the sake of getting information associated with evolving problems and opportunities, so proactive individuals might perform their jobs in a better way (Li, Liang & Crant 2010). This means proactive individuals appreciate the importance of creating relationships with individuals who manage resources in the organisation (Thompson 2005). Role theory proposes that individuals with proactive personality trait are probably to cultivate very good relationships with their superiors because of their personal initiative in the initial phases of the relationship (Fuller & Marler 2009).

Since proactive employees have a habit of vigorously track opportunities to identify novel ways of doing things that backing innovation and creative outcomes (Seibert, Kraimer & Crant 2001). Hence the relation between proactive personality trait and creativity or proactive personality trait and innovation has been investigated in literature.

In literature, proactive personality trait has a positive relation with individual's creativity (Gong et al. 2012; Kim, Hon & Crant 2009; Fuller & Marler 2009; Grant & Ashford 2008; Crant 1996). Employees' creativity refers to the ability of creating valuable, useful, and novel ideas, procedures, products, services or processes by employees that work together in a complex social system (Woodman, Sawyer & Griffin 1993). Kim, Hon and Crant (2009) stated that proactive employees are effective at searching for better ways to do things on the work, in another words generate new ways of doing their job. In addition, proactive individuals have a tendency to suggest new ways to achieve work objectives and create new ideas to improve performance. The same idea was supported by Tai and Mai (2016) since they tested the relationship between proactive personality trait, organisational context, and employees' creativity that lead to corporate innovative capability however for Multi-national

Corporations MNCs or local companies in Vietnam, Tai and Mai (2016) found that the more proactive the employees are the more likelihood that they will generate novel ideas and be creative and eventually contribute to their organisational innovative capability. In a more recent study that investigated the relation between proactive personality trait and creativity, Pan et al. (2018) collected their data from 247 employees and their direct supervisors from 54 work teams in China, and they attempted to answer the question of 'how does proactive personality trait promote creativity?' In order to answer this question, Pan and et al (2018) examined the role of formal and informal leadership on the relation between proactive personality trait and creativity. They found that informal leadership mediates the relation between proactive personality trait and creativity when formal leadership is high; therefore, formal leadership will moderate the relation between informal leadership and creativity. Alikaj, Ning and Wu (2020) is one of the interesting recent studies in literature that examines the relation between proactive personality trait and creative behaviour of the individuals with a focus on the role of employees thriving at work on this relation. They collected their data from 438 employees and their supervisors, they found that employees thriving at work have the role of full mediator between proactive personality trait and creative behaviour that somehow present a new debate in literature that proactive personality trait has no direct relation with creative behaviour and the relation is mediated by other variables.

Pan and et al (2018) pointed that most research have not integrated the social perspective while explaining the relationship between proactive personality trait and creativity that overshadows the social benefits derived from a proactive personality trait, and they concluded their research by calling for further investigation for the creativity of proactive personality trait via social perspective.

Proactive personality trait is also linked to feeling responsible for productive change, or redefining performance through making efforts to improve situations, develop new procedures, and rectifying general problems (Fuller, Marler & Hester 2006). Therefore, it makes a sense to link proactivity to innovative behaviours, and indeed several studies in literature tested this relationship. For example, Giebels et al. (2016) examined the relationship between proactive personality trait and innovation behaviours of 166 employees working in a municipality in Netherlands. They found that a task conflicts mediates the positive relation between a proactive personality trait and individuals' innovative behaviour.

Different mediators or moderators that play intermediary role over the relation between proactive personality trait and individuals' innovative behaviours have been investigated in literature. For example, the role of organisational support and psychological empowerment on the relationship between proactive personality trait and individuals' innovative behaviours was tested by Yildiz, Uzun and Coşkun (2017). After collecting 436 questionnaires from employees in white goods sector operating in Turkey, they found that psychological empowerment plays the role of a moderator of the relation between proactive personality trait and individuals' innovative behaviours. Whereas, the moderation role of organisational support on the relation between proactive personality trait and individuals' innovative behaviours was not significant. Yildiz, Uzun and Coşkun (2017) stated that proactive personality trait is a strong predictor of individuals' innovative behaviours; however, the

fundamental processes through which proactive personality trait individuals' innovate in their organisations are still to a large extent unknown.

Purba and Paundra (2018) is another study that examined the relationship of proactive personality trait and innovation behaviours. They tried to find how entrepreneurs innovate in Indonesia. After they examined 307 micro-entrepreneurs in Jakarta, they found that proactive personality trait mediates the relationship between core self-evaluations and individuals' innovative behaviours which means that proactive personality trait has a significant relation with the individuals' innovative behaviours.

This study is distinguished from previous work in literature in mainly two points; the first point is although previous studies adopted Janssen (2000) scale for measuring individuals' innovative behaviour as this study; however, all of the previous studies considered the three stages of innovation as one construct unlike this study in which its aim is to run more in depth investigation for the relation between proactive personality trait and each stage of the individuals' innovative behaviours separately as recommended by Niu (2014), Wisse, Barelds and Rietzschel (2015), Woods et al. (2017), and Rodrigues and Rebelo (2019) since each stage might require different antecedent. The second point is that the study aims to integrate network building ability as a mediator of the relationship between proactive personality trait and individuals' innovative behaviours that contribute to the integrative perspective of psychology and sociology in interpreting individuals' innovative behaviours.

2.3.5. Individuals'' Innovative Behaviours and Personality Traits

The study has selected three personality traits: self-monitoring, intrapreneurial and proactive personality traits to be tested as antecedents of individuals' innovative behaviours. The section will provide a summary of the relation known among the three personality traits and the individuals' innovative behaviour to support the selection of these particular personality traits.

The relationship between self-monitoring personality trait and individuals' innovative behaviour has not been tested directly in previous literature, however previous studies found that self-monitoring may occupy brokerage positions in their networks (Mehra, Kilduff & Brass 2001; Oh & Kilduff 2008; Sasovova et al. 2010), and such a position has been related to innovation in sociology literature. Therefore self-monitoring personality trait has earned the scholars' attention to be investigated as antecedent of individual's innovative behaviours.

The second selected personality trait is intrapreneurial personality trait, this personality trait has been described as tasks self-appointed, self-determined, goal setters, self-initiative, self-confident and action oriented (Pinchot 1985). In addition intrapreneurial personality trait combines both vision and action (Zhu, Djurjagina & Leker 2014). And these attributes can be easily linked to innovation. Therefore few studies examined the relationship between intrapreneurial personality and individual's innovative behaviours, a positive significant

relationship between intrapreneurial personality and individual's innovative behaviours have been found (Amo & Kolvereid 2005). This study aims to run more in-depth analysis of the relation between intrapreneurial personality trait and each stage of individual's innovative behaviours. In addition, testing the effect of social capital into the relation of intrapreneurial personality trait and individual's innovative behaviours, as in the case of this study, is suggested by two recent intrapreneurial personality trait literature review done by Blanka (2018) and Lang and Baltes (2019).

The third selected personality trait is proactive personality, previous research linked proactive personality trait to creativity and innovation (Grant & Ashford 2008; Fuller & Marler 2009; Gong et al. 2012; Zhu, Djurjagina & Leker 2014; Giebels et al. 2016; Tai & Mai 2016; Pan et al. 2018; Rodrigues & Rebelo 2019). However, all the previous research investigated individuals' innovative behaviour as a single construct, whereas this study examines the relationship of proactive personality with each stage of individuals' innovative behaviours as clearly suggested by Rodrigues and Rebelo (2019).

Pan et al. (2018) recommended paying more attention to the role of social perspective on the relation between proactive personality and creativity (idea generation), which will be addressed in this study.

2.4. Social Science

The interdisciplinary approach named Social Network was developed mainly by sociologists around 1960s, and then it was developed more by scholars of sociology and social psychology into a mature discipline that attracts other researches from different fields to investigate it. In their review of the network paradigm in organisational research, Borgatti and Foster (2003) stated that the number of social network studies in management increased radically especially after the year 2000 onwards. Borgatti and Foster (2003) defined network as "a set of actors connected by a set of ties. The actors (often called "nodes") can be persons, teams, organisations, concepts, etc." (Borgatti & Foster 2003, p.992)

The core of the network analysis is the nodes being individuals, teams or organisations, and the type of relations they build when interacting with other nodes (Coulon 2005). Wasserman and Faust (1994) defined social network as a limited set of nodes that are connected to each other through set of relationships that have a defined content, so basically the network theory tries to enlighten the potential influences of diverse structural properties on the actors (Badi, Wang & Pryke 2017).

2.4.1. Social Network Terminology

In literature of social network theory, a set of unified understanding of its terminology has been developed (Badi, Wang & Pryke 2017) which it will be briefly explained in this chapter.

A social network terminology will basically consist of nodes or actors, ties, ego, alters, and networks. Table 1 will provide a brief definition of these terms.

Term	Definition
Node / Actor	It might be individual, team or organisation, or concept that form the basic element of the network
Tie	What connects two nodes together it might be dichotomous (present or absent) and it usually measured by directed / undirected and valued / unvalued
Network	A set of Nodes and the set of relations that applied to these nodes, and any additional information about these nodes and the ties among them. Networks can be homogeneous (one type of nodes) otherwise it will be called heterogeneous
Ego	The node that have a special focus on, or the study interested in
Alters	The nodes that have relations with the ego (not the ego itself)
Network Size	The total number of nodes
Relational data	The set of relations of a network

Table1: Social Network Terminology Definitions (Wasserman & Faust 1994; Hanneman & Riddle 2005; Coulon 2005)

In general, social network researches main focus is to study the relationships among nodes or actors and the relations that connect the individuals on different types of relations such as advice, friendship and dislike (Tasselli, Kilduff & Menges 2015). Scholars have differentiated between the information about the node and its social structure in which the node is located in. For example, Wellman (1997) stated that behaviours can be influenced by the structural limitation rather than the inner forces of the node that presents one point of view that sociology theories somehow neglect is the role of the inner force of the actor that might influence his environment, and affect the amount and type of relationships that this actor is creating in his or her network. However, voice in literature was pointing to the importance of inner force of the actor (i.e. personality traits) in shaping their behaviour. For example, Doreian (2001) suggested the integration of the two factors (structural limitation and inner forces) to interpret individuals' behaviours. The same idea was supported by

Carrasco et al. (2008) since they stated that in social network analysis the main focus usually will be to understand how the social structure assists or limits cognitions, opportunities, and behaviours. Thus, individual's behaviours could be interpreted through personal characteristics along with social structural characteristics that integrate the interactions among the social network actors.

The same fallacy of the structural network perspective was pointed to by Kilduff and lee (2020) since they stated that social networks contain ties among interacting actors; however, the structuralism perspective still denies this emphasis on individuals to the extent that the research that integrates attributes of individuals has been demonised and even described as dead end because the common believe for sociologist is that network patterns are supposed to be created from social structure rather than human agency. Hence, this study aims to integrate the inner force of the individuals (Personality Traits) perspective along with his social capital perspective in interpreting individuals' innovative behaviours.

2.4.2. Social Capital Perspective

The term social capital was introduced in the economy filed by Loury (1977) to refer to the social relationship of the individuals that can create a set of resources for the individual, and these resources vary from one individual to another. Consequently, social capital basically is different from human capital since human capital is mainly concerned with the knowledge and the skills of the individuals whereas the social capital will be focusing on the relationship among these individuals. In other words, social capital will be concerned more with the ties among the actors rather than the actors themselves (Gamst 1991).

Social capital perspective was defined by Lin, Fu and Hsung (2001) as individuals' social relationships that counted as resources implanted in a social structure that could be used or mobilised to achieve a desired outcome. In their definition, Lin, Fu and Hsung (2001) acknowledged three basics of social capital. Firstly, Embeddedness that refers to the resources embedded in a social structure. Secondly, Opportunity that talks about the accessibility to such social resources. Thirdly, Mobilisation that refers to the usage of these social resources.

Pierre Bourdieu is acknowledged in literature as the first scholar who introduced a systematic analysis of social capital, Bourdieu defined social capital as:

"The aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance or recognition" (Bourdieu 1985, p. 248).

So as per Bourdieu's definition, we can see that he separated social capital into two main foundations: the first one is the social relationship that permits actors to have access to

resources owned by their connections, and the second one is the volume and quality of those resources.

James Coleman is one of the most recognisable scholars who contributed to the transfer of social capital concept from its economist use to sociologist use as well. Coleman (2000) introduced the definition of social capital as a sociological concept. He defines social capital as a variety of different entities that has mainly two shared elements: aspects of social structure and facilitation of specific activities of actors within this structure (Coleman 2000). In their literature review of the network research, Borgatti and Foster (2003) stated that social capital is the biggest growth area in organisational network research. The social capital perspective is about the value of connections (Borgatti & Foster 2003). Furthermore, Coleman (2000) explained the three principles that create the social capital: obligation, expectation and trustworthiness among actors in the social structure.

In describing how the social capital is expected to have return, two theoretical concepts are identified: The first one is the social capital capacity that assumes that the larger the network the higher the return, so this approach is linking between the accessed social capital and potential return (Lin 2008). Whereas the second approach is the actual use of social capital that assumes the better we utilise our capital the higher the return and this approach is known as mobilised social capital (Lin 2008). For a better understanding of this classification, Accessed social capital vs. Mobilized social capital an example of finding a job will be adequately explains the differences, so an actor can use a large number of other actors to help him find a job (Accessed Social Capital) or simply goes to one tie who has a special position in the society in order to use the tie's wealth or authority in helping to find a job (Mobilised Social Capital).

Lin (2008) tried to clarify the difference between social capital and social network. It is true that the two terms are related, yet they are not the same and each one has its own level of analysis since social capital is not about binding or bridging ties, in other words what create the relationship among the actors and how these relationship is created whereas the nature and characteristics of social network is actually what binds or bridge ties.

Chen and Zhou (2017) attempted to examine the relation between social capital and innovation behaviours at the firm level. They tested the mediation role of internal (within the organisation) and external social capital (outside the organisation) of entrepreneurs and their innovative behaviours. Chen and Zhou (2017) found that internal social capital have a negative mediation role on the relation between entrepreneurs' self-efficacy and innovation behaviours whereas external social capital did not play a mediating role on the relation between entrepreneurs' self-efficacy and innovation behaviours.

In contemporary social science, there is a continuous debate of the use of two important terms in sociology: Structures and Agency. When a relation between two actors is powerful or important it is usually described as structural relation (Sewell 1992). In other words structure is associated with the relations inside the social network rather than the actors themselves.

Whereas the term Agency is associated with actors who perform certain actions and thus produce an effect on the social environment (Burkitt 2016).

The social structures takes a long time to be established (Burkitt 2016) and it seems to be hard to change by the human actors (Sewell 1992). Giddens (1981) suggests the term “structures dual” since he debated that Structures are “both the medium and the outcome of the practices which constitute social systems" (Giddens 1981, p. 27). To say it differently, Structures outline individuals’ practices, but it is also individuals’ practices that create and reproduce structures. According to Giddens (1981) structures consist of rules and resources of the social network.

The employees’ network of relationships with others is their social resources (Thompson 2005), and these resources define the degree to which an employees can obtain information, have impact, and effectively device changes as stated by social capital theory (Coleman 2000; Brass 2001; Burt 2009). Therefore, the larger the network that the employees build the more they can access information and find support from their network. Hence the ability to build network has attracted many studies investigating different phenomena (Thompson 2005; Ferris et al. 2005).

2.4.3. Network Building Ability

The concept of network building ability is initially introduced by Ferris et al. (2005) as a significant political skill that assists the individual to create allies and connect himself to others who are in influential positions and power in their society. This indicates that individuals who have a high network building ability will usually mange to cultivate a large network and will have the benefit of building relationships with influential people in their society and decision makers in their work which creates their network support for getting things done and achieve their goals and objectives (Ferris et al. 2005).

The outcome of network building ability is closely related to a foundational concept that is social capital which was defined by Lin et al. (1999) as “resources embedded in a social structure that is accessed and/or mobilized in purposive actions” (Lin et al. 1999, p. 35). Lin, Fu and Hsung (2001) assume human agency by which a focal individual instrumentally and purposefully builds relationships that allow them access to the valuable resources. Through network building, the individuals configure their network structures to add value to their work performance by gaining access to information, acquiring influence or effectively implementing change (Coleman 1988; Zhou et al. 2009; Burt 2009). Indeed, studies have shown that social capital can afford an individual a plethora of privileges, such as leadership (Brass 2001; Balkundi & Kilduff 2006), career success (Seibert, Kraimer & Liden 2001; Zhao & Yiu 2018), improved performance (Moran 2005; Shah, Levin & Cross 2018) and creativity (Chen, Chang & Hung 2008; Merlo et al. 2006). Hence, network building is a key ability to achieve these favourable outcomes.

What type of social capital is best to support an individual's innovative work behaviour? This idea was explored by Perry-Smith and Mannucci (2017). According to their work, the social needs of innovators have changed across the different phases of the 'idea journey'. During the idea generation phase, the cognitive flexibility needed by individuals to recombine diverse knowledge into novel ideas is largely enabled by weak social network ties. Those non-frequent acquaintances and friends-of-friends bring desperate and non-redundant information and knowledge needed to spur creativity (Perry-Smith & Mannucci 2017). In the idea promotion stage, Perry-Smith and Mannucci (2017) underlined the role of a network rich in structural holes (Burt 1992) to support the championing of the new idea and to cultivate influence and legitimacy. The final stage, idea implementation, requires shared understanding and vision among organisational members. This task could be successfully supported by innovators being embedded in a dense well-connected network (Coleman 1988) whilst also benefitting from external ties outside the team (Tortoriello & Krackhardt 2010). Hence, according to Perry-Smith and Mannucci (2017), the social network needs of innovative individuals often change across the innovation cycle, and a paradox may seemingly exists by which ties that have worked to support innovation at one stage may hinder it in another stage. Ultimately, as Perry-Smith and Mannucci (2017) postulate, innovators of ideas successfully navigate the innovation cycle by resolving this paradox through activating different parts of their social networks at different stages. This social transitioning requires innovators with the ability to continually change their interpretations and shift their focus across the different innovation phases (Perry-Smith & Mannucci 2017).

Thompson (2005) introduced the network building ability adopted from the work of Ferris et al. (2005) as a mediator between the individual's personality traits namely proactive personality trait and job performance in his attempt to analyse the relation between proactive personality trait and job performance from the social capital perspective. This study will follow a similar approach to examine network building ability as a mediator between the individuals' personality traits and their innovative behaviours, since the aim of the study is to integrate the social perspective with the psychological perspective to interpret the individuals' innovative behaviours.

2.5. Integrated Psychological and Sociological Perspective (Co-evolution Theory)

Interpreting individuals' behaviours have been viewed in literature from mainly two perspectives. The first one is the psychological perspective that looks at the roots of the individuals' behaviours which is the inner force of human beings. These forces are powered by the individuals' personality traits that act as drivers of the individual's behaviours (Snyder & Deaux 2012). The second perspective is the sociological view that considers the individuals as social creatures who habitually regulate and acclimatise their behaviours according to the situation and their social environment (Snyder & Deaux 2012). In other words, sociologist and psychologists generally inspect phenomena from opposing theoretical

perspectives and different methodologies (Tracy, Robins & Sherman 2009). Nevertheless, sociologist and psychologists' views start their analysis from different points of view; they more and more started to discover that they have a mutual ground (Snyder & Deaux 2012). To illustrate further, individuals' personality traits might motivate them to behave in a certain manner that makes them involves in a specific situation that again might influence their behaviours; therefore, integration between sociologist and psychologists views can enrich each other and enhance our understanding of the investigated phenomena (Snyder & Deaux 2012). The same point was referred to by Mehra, Kilduff, and brass (2001) since they stated clearly that the outperformance of an individual to his peers might not be just because of differences in their networks, but also because of having different individual's personality traits. Actually, the debate of whether a research in social network should consider the individual's differences of actors as an element that offers explanatory power for comprehending who inhabits advantageous network positions, and who benefits from such positions (Kilduff & Brass 2010).

Tasselli, Kilduff and Menges (2015) presented a fine discussion in their literature review regarding the type of relations between individual differences and social network positions. They attempted to answer the questions of "Do people make the network? Or does individuality emerge from network patterning? Or is it that people and networks coevolve?" (Tasselli, Kilduff & Menges 2015, p.1367). Therefore, they raised the point that some scholars debate the idea that certain personality traits unusually drive the individuals to occupy certain positions in their networks. For example, high self-monitoring personality trait (Snyder 1974; Snyder 1979; Snyder & Gangestad 1986) may drive the individuals to occupy a central position in their network (Mehra, Kilduff, & Brass 2001) or structural hole positions (Oh & Kilduff 2008) that points to the idea that individuals personality traits decide the type and position they occupy in their network. However, other scholars presented a different debate in which they stated that network positions such as degree centrality, betweenness and centrality may create a social personality for the individuals that occupy such a position (Burt 2012). In other words, regardless of which individual occupies a structural position, the position itself provokes certain behaviours. However, this perspective assumes that any individual regardless of their personality types will create develop similar attitudes and behaviours if they occupy the same position (Burt 1982).

The interrelated mechanism between the individuals' differences and their social network -in the sense of which is influencing which- is a new rising question concerning the micro foundations of organisational social networks (Tasselli, Kilduff & Menges 2015). The importance of integrating the psychology and sociology perspectives was stressed by Landis (2016) since each perspective offer us an interpretation of behaviours that the other perspective doesn't. In other words, each one of these perspectives complements each other. Kilduff and Lee (2020) agreed to the value of integrating the two perspectives and to the importance of the individual/social network integration concept, which brings personality theory into social network studies and this will help to enhance our understanding of the studied phenomena.

In a recent meta-analysis review, Fang et al. (2015) examined the relation between individuals' personality trait and network positions and their influence on work outcomes. They raised a question about the integration of personality traits and social network positions in explaining work outcomes in the sense that do personality attributes add value to the clarification of individuals' performance when social network positions is taken into account (and vice versa)? As well as, if network positions play the role of a mediator of the relationship between personality traits and work outcomes? These questions are considered as an on-going debate in literature (Balkundi, Kilduff & Harrison 2011). After analysing 138 independent samples from previous literature, Fang and et al. (2015) stated that both individuals' personality characteristics and the positions they occupy in their social networks are related to work outcomes. Therefore they suggested a model that contains both personality traits and network positions as predictors for individuals' work outcomes since personality traits explained unique variance in individuals' work outcomes not captured by network position, and vice versa. In addition they found that network positions partially mediate the relation between personality traits and work outcomes.

There are few studies in literature, yet promising ones that investigated the coevolution of social network and human psychology and the way they impact each other, and if the nature of this impact is a recursive one. Schulte, Cohen and Klein's study (2012) is an example of these studies since their study's findings debated that team states and team social network ties coevolve through a reciprocal and co-occurring process. Psychological instances are found on the individual inner state along with his surroundings and their relative importance differs according to the situation (Kurt Lewin 1938). Burt (2009) stated that individuals are active in pursuing a fit between whom they are and the positions they occupy in their networks which is a clear reference to the co-relation between the individuals' attributes and their surroundings. Hence, to understand people we need to examine them as an individual and as a social being. To put it differently, to understand their personality traits and their environment an integration between social view and personality traits view may present a better understanding of the studied phenomena (Snyder & Deaux 2012).

Based on the above discussion, the study will develop a conceptual model that offers a novel integrative perspective to explain how individuals innovate in organisations by combining the two theoretical domains of individual differences (i.e., personality traits) and social capital (i.e., network building ability). By combining these theoretical perspectives, this study offers a fine-grained understanding of the avenues by which innovation occurs in organisations.

2.6. Chapter Summary

The aim of this chapter is to present basic definitions of the research main examined variables and to discuss relevant literature to the study main objective that is to investigate the predictors of individual's innovative behaviours utilising an integrated perspective that contains personality trait and social capital. Therefore, the research theoretical background

was discussed in this chapter, so the first section was to introduce the concept and previous literature of innovation in the service sector in which a stress on the paucity of such research was discussed and the main approaches adopted in investigating innovation in the service sector compared and contrasted with the innovation in the manufacturing sector, with a clear reference to the adopted approach in this research.

In the second section, individuals' innovative behaviours were defined and selected literature that is within the study scoop was presented and discussed. The main points of this section were to identify the study level of analysis that is the individual level as opposed to team and organisational levels; additionally a focus on the importance of the individuals' innovative behaviours on the organisational performance was highlighted. In addition, different antecedents of individuals' innovative behaviours from both psychological view and sociological view were discussed, and a reference to the most common measures used in literature was also presented.

The third section was specified to discuss personality theories, introduction of the theory was discussed and explained, then the section move on to highlight the Big Five Factor personality model that is one of the most used model in literature; however, the study main focus was more on the new emerging compound personality traits that are not captured by the Big Five model. Three personality traits was chosen from literature namely Self-monitoring, Intrapreneurial, and Proactive personality trait, each one of these personality traits was discussed in details and relevant previous literature was explored and discussed since they constitute the psychological element in the study.

The fourth section covered the sociological view of the study, and an explanation of the social theory was presented and discussed with a special focus on the social capital theory, and more specifically network building ability that represents the sociological element of the study.

The last section discussed the adopted theory of integrating both the psychological and sociological perspective in interpreting phenomena. Since the research aim is to contribute to the coevolution theory of the sociological and psychological perspective in understanding individuals' innovative behaviours in the service sector.

Since the study theoretical background of the research is established, the next chapter will be aiming to develop a conceptual framework and build up the research main hypotheses that will help in answering the research main questions.

Chapter Three: Literature Review

Following the build-up of the study theoretical background, this chapter will explain the logic of building the research hypotheses, and the study conceptual framework will be discussed and developed; therefore, in the first section the study main focus construct individual's innovative behaviours will be discussed highlighting the main focus of the research in examining the individuals' innovative behaviours separately rather than examining the three stages of individuals' innovative behaviour as one construct. This separation aims to identify the relationship of each stage with its antecedents individually, which will provide a more in-depth analysis to improve our understanding of the individuals' innovative behaviours as previously discussed in the theoretical background.

In the second section, the role of network building ability on the relation between personality traits and individuals' innovative behaviours will be explained. In the third section, the relation between the selected personality traits from the literature identified in chapter 2 of the study namely self-monitoring personality trait, intrapreneurial personality trait and proactive personality trait along with network building ability role will be discussed as antecedents of individuals' innovative behaviours. Sub-sections for each personality trait will be discussed, and three hypotheses for each personality trait will be developed to cover the relation between the personality trait, network build ability and three individual's innovative behaviours: idea generation, idea promotion, and idea realisation.

In the last section, an overall conceptual framework will be illustrated that contain the nine hypotheses of the research.

3.1. *Individual's Innovative Behaviours*

Individuals' innovative behaviour has been defined in literature as behaviours that aim to produce new and improved ways of doing things (Anderson, Potočnik & Zhou 2014). Innovation is a process that contains three stages: idea generation, idea promotion, and idea realisation (Janssen 2000; Scott & Bruce 1994), but usually these three behaviours are measured as a single construct (Scott & Bruce 1994). This approach might not be adequate to capture the multi-dimensional complexity of innovation behaviours. The same debate has been stated in a recent call by new studies to examine innovation behaviour as a multi-dimensional construct (idea generation, promotion and realisation) since these stages may separately be affected by different antecedent factors (Niu 2014; Wisse, Barelds & Rietzschel 2015; Woods et al. 2017; Rodrigues and Rebelo 2019).

Several studies have examined the relation between personality types or traits and creativity of the employees (George & Zhou 2001; Madjar 2008; Raja & Johns 2010), which is slightly different from examining the innovative behaviours since creativity will be more linked to come up with new ideas or ways of doing things whereas innovation will be more about generating and implementing these novel ideas (Anderson, Potočnik & Zhou 2014). Creativity is usually associated with the first stage (idea generation) more than the other stages. This study will aim to adopt the three stages of individuals' innovative behaviours as the main focus of the study. The three stages have been clearly identified by Janssen (2000) as follows:

Idea Generation: In this stage, an individual will try to create new ideas, will search for new ways of doing things, and will generate novel solution for problems.

Idea Promotion: The individual in this stage will try to gather support for his novel ideas, will acquire required approvals, and will motivate important members in his organisation for the innovative idea.

Idea Realisation: This stage refers to transforming novel ideas into useful applications, introducing original ideas into the work place in a systematic way, and evaluating the utility of the new ideas.

Although studies like Woods and et al (2017) and Rodrigues and Rebelo (2019) used Janssen (2000) individuals' innovative behaviour scale; nonetheless, this study aims at original contribution by studying each stage of the three innovation stages as a separate behaviour and not as one single construct in order to enhance our understanding of the predictors relations with each behaviour by itself and not combined by the other behaviours as previous research done to examine the individuals' innovative behaviours.

3.2. The Role of Social Network Building Ability

One of the most studied theories in sociology literature is social capital perspective that was clearly defined by Lin, Fu and Hsung (2001) as "resources embedded in a social structure that are accessed and/or mobilized in purposive actions" (Lin, Fu & Hsung 2001, p. 29). Based on this definition, Lin and his colleagues have identified three elements of social capital, namely resources embedded in a social structure (Embeddedness), accessibility to such social resources (Opportunity), and use of these social resources (Mobilisation). These social resources contain Individual's network of relationships with others (Thompson 2005). These relationship networks define the extent to which an individual can have access to information, have influence, and effectively implement changes as suggested by Social capital theory (Coleman 2000; Brass 2001; Burt 2009), because the larger the network that the individuals can create the more they can access information and find support from their network. Network building is a key ability to establish larger network and be able to take advantages of these networks. Network building ability has been tested as mediator of the relationship

between proactive personality trait and job performance by Thompson (2005), and he clearly recommended for further investigation of the role of social capital for proactive personality trait since social capital perspective offers a valuable theoretical perspective through which to examine individuals' behaviours.

Network building ability construct is initially developed by Ferris et al (2005) as a key political skill that helps the individual to seek allies and link himself to other individuals who occupy positions of influence and power in their societies, so basically an individual with high network building ability will have the advantage of creating relationship with influential people in their network and decision makers in their work and get their network support for getting thing done (Ferris et al. 2005).

Perry-Smith and Mannucci (2017) stated that during the early idea generation phase innovators of new ideas need cognitive flexibility to competently combine an array of knowledge into a new successful combination. The innovators of new ideas could be socially supported during this stage by weak network ties that bring together diverse viewpoints and perspectives (Perry-Smith & Mannucci 2017).

Based on the above discussion, network building ability will be investigated in this study as a mediator between the selected personality traits and individuals' innovative behaviours

3.3. Personality Traits' Relations with Individuals' Innovative Behaviours

The relationship between personality types or traits and innovation is a complex one, and it is mainly influenced by the contextual variables in the study (Anderson, Potočnik & Zhou 2014). In literature, examining individual's differences in relation to innovation behaviours reveals contradictions in its finding about the relationship of personality traits and innovation (Woods et al. 2017). Anderson, Potočnik and Zhou (2014) have identified a gap in the literature in the relationship between personality type or traits and innovation by stating that only few studies have focused on the relationship between personality traits and innovation behaviours or creative ideas implementation, hence Anderson, Potočnik and Zhou (2014) called for researches that examine the personality traits as a predictors of individuals' innovative behaviours.

In their state of art review, Anderson, Potočnik and Zhou (2014) scan the literature from 2002 to 2013, and they have indicated that only a small number of articles has investigated the relation between the Big Five personality types and creativity, and these studies have different findings regarding how the Big Five personality types interact with contextual elements to improve or hinder innovation.

Most of the studies in literature that examine the relation between personality types or traits and creativity or innovation behaviours were mainly focused on the Big Five personality types, but they vary in the mediators or the moderators of the relationship. For example, Raja

and Johns (2010) have used job scope as a mediator between Big Five personality types and employees' creativity. Another study done by (Woods et al. 2017) stated that work tenure is a mediator of the relationship between personality types and innovation in fact, they stated that Open to experience and Conscientiousness are the most two personality types that predict individuals' innovative behaviours where Openness to experience is positively related to individuals' innovative behaviours with high work tenure as a mediator whereas high Conscientiousness employees will exhibit high innovative behaviour with the moderating role of low work tenure.

The Big Five personality types have been used excessively in literature as predictor of individuals' behaviours. Day and Schleicher (2006) critiqued the over use of the Big Five model since the exclusive reliance on the Big Five personality types left out all of other personality traits that are not seized by the Big Five personality types. In addition, using only cognitive ability in predicting job performance across different levels of analysis for all the tasks in different types of organisations introduced Conscientiousness personality type as a universal predictor for all work-related constructs to the degree that few scholars began to call it as the Big One (Schmidt & Hunter 1992); moreover, using single personality trait to test the prediction of a phenomena is recommended by Leutner and et al. (2014) since they have stated that usually single traits are more predictive than the wider Big Five personality types of employees' behaviours.

Thus, the main aim of this study is to investigate other distinct personality traits in the literature that are not captured by the Big Five personality model: Self-monitoring personality trait, Intrapreneurial personality trait, and Proactive personality trait.

3.3.1. *Self-Monitoring Personality Trait, Network Building Ability and Individuals' Innovative Behaviours*

Investigating the relation between self-monitoring personality trait and innovation behaviours will be very interesting since this will be the first study according to the research knowledge that examines the relationship between the two variables. Individuals who are associated with self-monitoring personality trait are usually defined by the degree that they control, observe, regulate, and adjust their behaviours according to other individuals' perception about them (Snyder 1974). High self-monitored individuals are typically defined as socially ambitious, presenting a positive image of themselves, aiming to impress others, and constantly adjusting their behaviours according to their social situation. In the other hand, low self-monitored individuals act according to their own believes and values, but not according to their social situation. In addition, they do not pay attention to their social representation or prestige (Snyder 1974; Barrick, Parks & Mount 2005). Self-monitoring is considered to be a personality trait construct, yet it is not reflected well in the Big Five personality model (Day et al. 2002), so based on the above literature, we can conclude that individuals who are high in self-monitoring are very good in adapting to their social situation

and imitate other individuals' behaviours whereas the core of innovation is novelty rather than the ability to imitate. In addition, it is very important for high self-monitoring individuals to maintain their social prestige and always try to impress others, and this end can be highly associated with risk aversion since they will not be willing to take the risk of being rejected for their new ideas. This will raise the question of how usually these individuals who are high self-monitors innovate?

De Vet and de Dreu (2007) have explored the benefits of brainstorming sessions in groups for idea generation, they examined self-monitoring individuals relationship with idea generation in brainstorming sessions, they found that 'thinking aloud' in a group brainstorming meeting may limit creativity, especially for self-monitoring individuals who have usually high sensitivity to others' expectations of them and mainly pre-occupied with conformity and meeting others' expectations (Snyder 1974) that might limit self-monitoring individuals creativity. And indeed de Vet and de Dreu (2007) found that self-monitoring individuals have a negative relationship with creativity.

On the other hand, studies of high self-monitoring individuals have found that these individuals can build strategic social relationships that may work to their advantage in terms of innovative work behaviour. Mehra, Kilduff and Brass (2001) and Mehra and Schenkel (2008) found that high self-monitors often occupy central and boundary-spanning positions in their organisation's social network. High self-monitors were also found to enjoy brokerage positions in networks rich in structural holes: the voids among disconnected clusters (Burt 1992).

In a longitudinal study that examines friendship ties in a radiology department in the Netherlands, Sasovova et al. (2010) found that high self-monitors are more likely to forge new friendships than low self-monitors particularly with relative strangers, and hence often occupy new bridging positions among their social ties as their networks grow in size. Wang, Hu and Dong's (2015) study concurs with Sasovova et al.'s (2010); high self-monitors were more likely to develop close relationships with a diverse range of co-workers as well as their supervisors; therefore, high self-monitors are often embedded in open and sparse networks that are rich in structural holes. Thus, this embeddedness may result in innovation advantages as numerous studies have underlined the effect of bridging disconnected actors on an individual's innovative work behaviour (Burt 2004; Hemphälä & Magnusson 2012; Tortoriello 2015).

Consequently, the ability to build social network relationship may mediate the relationship between a high self-monitoring individuals and innovation generation. Burt (2004) argued that a strong link between individuals who span the structural holes between groups and their ability to generate new ideas. Burt (2004) highlights the homogeneity of ideas and opinions in densely connected networks.

Individuals spanning networks are more exposed to heterogeneous ideas and diverse points of view. Those occupying structural holes were also found to be better positioned to benefit from external knowledge on innovation generation (Tortoriello 2015); being embedded in a

large network of social relationship will provide the individual with access to a large pool of information, advice and support. This embeddedness, in turn, may increase their capacity to develop new ideas (Baer et al. 2015).

In addition, low self-monitoring individuals usually behave as per their own believes and values regardless of their social situation. This might give these individuals the ability to take risks of making mistakes since they are not worried about other individuals' perception or opinions of them (Day et al. 2002); however, this has a down side that low self-monitoring individuals might usually be perceived as rude which will affect their social network, and that is why the study debates the important role of network building ability and its effect on the relation between self-monitoring individuals and idea generation stage, in which it will compensate the down side of being low in self-monitoring personality trait and provides the individuals with the advantages of building large network in which they can access new information and external resources that might help them identify new opportunities for innovation (Baer et al. 2015).

Based on this discussion, the study proposes that self-monitoring personality trait will be related to idea generation with the existence of network building ability; therefore, the following hypothesis is formulated:

H1: Network building ability mediates the relationship between self-monitoring personality trait and idea generation stage.

The second stage of the individuals' innovative behaviours is idea promotion in which the innovative individual champions the idea through socialising and building a supporting coalition in favour of their novel venture. This individual cultivates potential allies and sponsors with the power needed to push the idea forward within the organisation (Kanter 1988). Idea promotion also includes acquiring money, time, expertise and political support. Whilst promoting their ideas, innovators must articulate convincing arguments of the ideas' benefits to the organisation (Perry-Smith & Mannucci 2017). Perry-Smith and Mannucci (2017) debated that advocating a new idea requires influential individuals who are perceived by decision-makers as legitimate and competent individuals. This process is best smoothed by a network that is rich in structural holes (Perry-Smith & Mannucci 2017). A feature of the networks within which high self-monitoring individuals were found is embedded (Wang et al. 2015; Sasovova et al. 2010).

The ability to influence others is also required in idea promotion stage. In Caldwell and Burger's (1997) study, self-monitors were found to utilise a variety of social influence strategies in the workplace including rational persuasion. High self-monitors are known to speak with greater facility than low self-monitors and could engage in conversation on almost any topic with little preparation (Dabbs et al. 1980). We can thus predict that high self-monitors are able to socialise more easily and build enduring relationships in favour of their novel ideas pursuit. Having network building ability will be supportive at this end; hence, the study presents the following hypothesis:

H2: Network building ability mediates the relationship between self-monitoring personality trait and idea promotion stage.

In the third stage, we have idea realisation; in which the innovative ideas will be transformed into applications and will be evaluated. It also involves the implementation of an idea through the production of a model, prototype, or a service offering that can be introduced in practice within the work environment or the market (Kanter 1988). While this task can be achieved by a single individual, complex innovations may require the efforts of a large team with multiple knowledge and skills to be realised (Kanter 1988). Individuals with high self-monitoring personality trait will have the advantage of being able to adapt to their social situation (Snyder 1974), and by doing so they facilitate building a shared understanding and vision among their co-workers regarding the new changes surrounding the implementation of the novel ideas, which is very important to be able to implement new ideas as discussed by Perry-Smith and Mannucci (2017) who debated that implementing a new idea is driven by a shared understanding and vision among organisational members. According to Perry-Smith and Mannucci (2017), network closure (Coleman 1988) and external ties outside the team (Tortoriello & Krackhardt 2010) are best to support idea implementation. In this third stage, network building ability may also mediate the relationship between self-monitoring and idea realisation. Based on these arguments, the study proposes the following:

H3: Network building ability mediates the relationship between self-monitoring personality trait and idea realisation stage.

Based on the above discussion, a conceptual framework is developed to illustrate the relationship among self-monitoring personality trait, network build ability and individuals' innovative behaviours; and it is presented in Figure (3). The model combines the psychological concept of personality trait, particularly self-monitoring personality trait, and the social-psychological concept of network building ability to explain the innovation behaviours of individuals in service organisations. The study's approach adopted to collect data and to test the conceptual framework and hypotheses is explained in the methodology chapter.

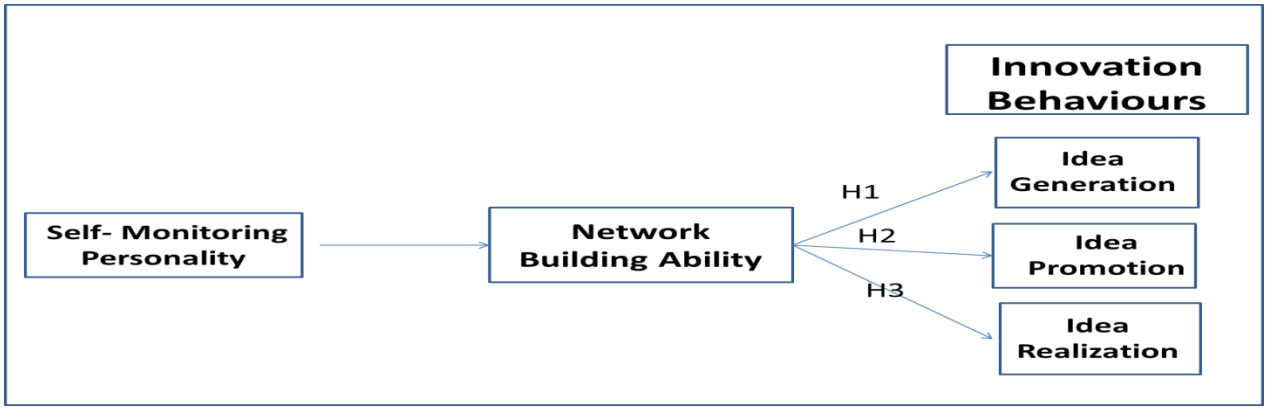

Figure 3: Conceptual Framework of Self-monitoring Personality Trait, Network Building and Individuals' Innovative Behaviours

3.3.2. *Intrapreneurial Personality Trait, Network Building Ability and Innovation Behaviours*

In previous literature entrepreneurship in organisations was presented in three main levels: organisational level (Covin & Slevin 1991; Camelo-Ordaz et al. 2012), team level (Gapp & Fisher 2007; Iacobucci & Rosa 2010), and individual level (Martiarena 2013; Douglas & Fitzsimmons 2013). These three perspectives lead to the establishment of different concepts tackling entrepreneurship in organisations; therefore, new concepts were emerged like corporate entrepreneurship, corporate venturing, entrepreneurial orientation and intrapreneurship that created some confusion as a clear classification was missing (Christensen 2005); hence, Intrapreneurship definition as a concept is not consistent in literature (Amo & Kolvereid 2005; Christensen 2005; Blanka 2018). In addition, the main focus of Intrapreneurship studies was on the organisational level rather than the individual level as stated clearly by De Jong and Wennekers (2008) After reviewing previous works in literature, It is found that the literature is biased towards the organisational level while individuals are somewhat ignored. De Jong and Wennekers (2008) said that all researches of entrepreneurship in existing organisations failed to identify who are the individuals behind the intrapreneurial process, what is their role, and how can their behaviours be effectively managed? Hence, in this study the focus will be on the individual level of employee's entrepreneurship namely the intrapreneurial personality trait of the employees.

In his seminal work, Pinchot (1985) identified a clear measure that tests if the individual is an intrapreneur or not, and he defined the traits of this personality as tasks self-appointed, self-determined, goal setters, self-initiative, self-confident and action oriented. In addition, intrapreneurs have been described as a combination of thinker, doer, planner, and worker (Zhu, Djurjagina & Leker 2014).

This personality trait has drawn the attention of few and limited studies in literature examining its influence on the individual level as clearly stated in a recent literature review done by Blanka (2018). One of these studies is Amo and Kolvereid (2005) who examined intrapreneurial personality trait relation with the individuals' innovative behaviours and based on their findings. They stated that there is a positive relation between the intrapreneurial personality trait and individuals' innovative behaviour, and they called for more in depth exploration of the dimension of intrapreneurial personality trait and further refinement of its measures. In a later study, Amo (2010) suggested a combined perspective between intrapreneurship bottom-up innovation and corporate entrepreneurship top-bottom innovation in explaining the innovative behaviours of the employees, and he pointed that future researches should consider the role of mediators or moderators in explaining the innovation process.

Amo and Kolvereid (2005) and Amo (2010) examined the innovation behaviours of the individuals as one combined construct; whereas, this study will look at individuals'

innovative behaviour as a multidimensional construct that contains three stages: idea generation, idea promotion, and idea realisation based on the work of Janssen (2000). Furthermore, the study will test the antecedents of each stage of the individuals' innovative behaviour separately and not as a combined construct. In addition, this study will investigate the mediation role of network building ability.

Janssen (2000) has defined idea generation stage as the stage where the individual will create new ideas, search for new methods of doing things, and generate novel solution for problems. Since Intrapreneurs are considered to have broad mind-set that supports them to work together and generate ideas across organisational borders (Hagedorn & Jamieson 2014; Menzel, Aaltio & Ulijn 2007). The same result was found in Zhu, Djurjagina and Leker's (2014) research since they stated that there is a positive relation between Intrapreneurs and creativity (idea generation).

In addition, innovation's adaptation in the intrapreneurship literature is originally wanted from the employee and not top management, and the real question that deserves our exploration is how intrapreneurs overcome resistance from surroundings to pursue their ideas implementation (Pinchot & Pellman 1999; Amo & Kolvereid 2005).

Baruah and Ward (2015) stated that based on the incubated nature of Intrapreneurship, it needs commitment from top-management to guarantee its survival and growth. The same idea has been supported by Lankinen et al. (2013) since they debated that Managerial commitment is the key for addressing intrapreneurial challenges, especially the ones that involves a high degree of risk propensity; thus, both top management and middle management play an important role in supporting and encouraging intrapreneurship.

In her literature review of Intrapreneurship at the individual level, Blanka (2018) debated that Intrapreneurs are proactive in establishing relationship and build networks inside and outside the organisation. These relations enable Intrapreneurs to be open-minded, discover business opportunities and develop brokering competencies. Hence, studies should focus on the whole network of intrapreneurial employees. The same idea was emphasised by De Jong and Wennekers (2008) because they pointed to the important role of social capital in the intrapreneurs' active search for information. Moreover, in their literature review of the Intrapreneurship articles Neessen et al. (2019) concluded that intrapreneurship of the individual employee is usually measured by three behaviours: innovativeness, proactiveness and risk-taking; however, this is not enough and they suggested to include networking to this scale and test if one behaviour, for example: Networking, can compensate the low score of other behaviours.

Individual's network is defined by relationships and trusting ties (Granovetter 1973). Network theory explains that the ties to different people or the social capital of the individual reside in these relationships (Coleman 1988).

Since network building ability will help the individuals to build their network, and the more the individuals have ties the more they can create a pool of trusted information which contributes to new ideas generation and improve innovation (Milliken, Bartel & Kurtzberg

2003). To put it differently, the larger number of connections the individual has the more opportunity to access diverse information from various sources of knowledge that will enable him or her to identify new opportunities that will facilitate generating new ideas (Baer et al. 2015).

Blanka (2018) in her literature review of intrapreneurship on the individual level identified a gap in literature and called for studies to further examine the operational relationship between intrapreneurial personality trait and innovation behaviour with the integration of social capital perspective, so as an answer to Blanaka's (2018) call of research and the study integrated perspective of psychology and sociology, we debate that building network ability will mediate the relationship between intrapreneurial personality trait and idea generation behaviour. Based on the above discussion, the study can hypothesise the following:

H4: Network building ability will play the role of a mediator in the relation between intrapreneurial personality trait and idea generation stage.

The second stage of the innovation process is idea promotion stage, and it was defined by Janssen (2000) as the stage in which the employee will be involve in social activities to identify friends, supporters, and sponsors surrounding an idea, or to form a coalition of devotees who guarantee the necessary power behind the novel idea.

Pinchot and Pellman (1999) pointed that intrapreneurs usually obtain resources from wherever they can and will choose individuals to be in the venturing team based on their knowledge and dedication. In other words, intrapreneurs will be engaged in networking activities since networking was defined by Thompson (2005) as the individuals' attempts to develop and maintain relationships with others who have the potential to assist them in their work or career.

Networks offer many beneficial advantages like accessing information or resources, identifying opportunity, and social capital (Thompson 2005). Idea promotion stage is about the innovative employees who support their novel idea by socialising and building a supportive coalition to their ideas, the employees identify allies and backers who have the required power to advance their ideas within the organisation (Kanter 1988).

Securing money, time expertise and political support are parts of promoting new ideas; hence, innovators must have the ability to be convincing in their arguments of the ideas' welfares to the organisation (Perry-Smith & Mannucci 2017). Promoting a new idea necessitates influential individuals who are perceived by decision-makers as legitimate and competent individuals (Perry-Smith & Mannucci 2017), and the best way to achieve this is through a network that is rich in structural holes (Perry-Smith & Mannucci 2017); consequently, intraperneurs must engage in networking activities to secure their needed resources since having a lot of trusted connections will facilitates diffusing new ideas (McFadyen & Cannella 2004). Trust among the intraperneurs, their colleagues and mangers will benefit to have more cooperation, ease task coordination, smoother knowledge transfer

and securing the required resources for implementation (Obstfeld 2005; McFadyen, Semadeni & Cannella 2009).

Based on the above discussion, network building ability will have a role in mediating the relation between intrapreneurial personality trait and idea promotion stage; hence, the study creates the following hypotheses:

H5: Network building ability will play the role of a mediator in the relation between intrapreneurial personality trait and idea promotion stage

Idea realisation is the third and last stage in the innovation process. The aim of this stage is to produce a prototype or model of the new idea that can be implemented and practiced within a job role, a team or the whole company (Kanter 1988). Simple innovations can be completed by individuals only. On the other hands, to complete complex innovations, a teamwork process is required, grounded on a variety of specific knowledge, competence, and work roles (Kanter 1988).

Intrapreneurial personality trait is described as a combination of thinker, doer, planner, and worker, so individuals who are high in intrapreneurial personality trait have the vision and the action (Zhu, Djurjagina & Leker 2014). Sinha and Srivastava (2013) declared that the intrapreneurial personality trait consists of traits such as proactiveness, pursuit of opportunity, self-determination, confidence, risk-taking, defying rules and a dislike of bureaucratic systems. These traits are easily associated with individuals' innovative behaviours (Amo & Kolvereid 2005); however, Baruah and Ward (2015) stressed the importance of the commitment from top-management to support the innovation of the intrapreneurs. In a similar debate, Lankinen et al (2013) stated that managerial commitment is critical for facing intrapreneurial challenges.

Both top management and middle management have an important role in supporting and encouraging intrapreneurs. In addition, Blanka (2018) debated that Intrapreneurs are proactively seeking to establish relationship and build networks inside and outside their companies. These relations allow Intrapreneurs to be open-minded, discover business opportunities and develop brokering competencies; this brokering competency helps the individual to collect data from inside and outside the organisation taking the role of a gatekeeper in networking terminology, and then combinations of different pieces of knowledge obtained by a broker through networking can easily be translated into innovation (Bjornali & Støren 2012).

Perry-Smith and Mannucci (2017) declared that realising a new idea is guided by shared understanding and vision among the individuals within the company. Hence, network closure (Coleman 1988) and external ties outside the team (Tortoriello & Krackhardt 2010) are best to support idea application. In addition, individuals' network will assist them to have their colleagues' cooperation, smooth task coordination, easier knowledge transfer, and obtaining the required resources for implementation (Obstfeld 2005; McFadyen, Semadeni & Cannella

2009). Based on the above discussions, the study suggests that network building ability will mediate the relation between intrapreneurial personality trait and idea realisation behaviour, so the following hypothesis was created:

H6: Network building ability will play the role of a mediator in the relation between intrapreneurial personality trait and idea realisation stage

A conceptual framework is developed based on the above discussion to demonstrate the relation among intrapreneurial personality trait, network build ability and individuals' innovative behaviours; the model is presented in Figure (4). The model contains the psychological concept of personality trait, principally intrapreneurial personality trait, and the social-psychological concept of network building ability to explain the innovation behaviour of individuals in service organisations. The method followed in collecting data and testing the conceptual framework and hypotheses is clarified in the methodology chapter.

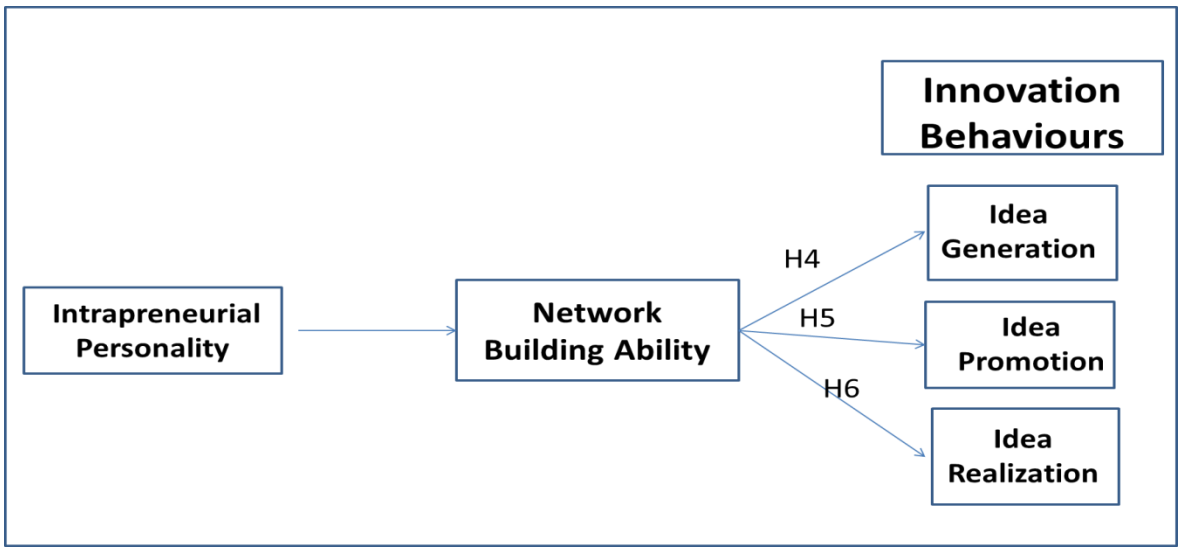

Figure 4: Conceptual Framework of Intrapreneurial Personality Trait, Network Building and Individuals' Innovative Behaviours

3.3.3. *Proactive Personality Trait, Network Building Ability and Individuals' Innovation Behaviours*

Proactive individuals are usually seen as not limited by their situational constrains, initiate change in their environment, search for opportunities, plan in advance, action takers, and problem solvers. On the other hand, individuals who are low in proactive personality trait are generally referred to as passive people who they will mainly react to, adopt and endure their existent environment (Bateman & Crant 1993; Cant 1996). In Literature, few studies have focused on only one personality trait such as proactive personality trait and its influence on creativity since individuals with proactive personality trait tends to behave in a way that impact and change their environment (Bateman & Crant 1993). For example, studies like

Grant and Ashford (2008), Fuller and Marler (2009), Gong et al. (2012), Zhu, Djurjagina and Leker (2014), Tai and Mai (2016), and Pan et al. (2018) investigated the relationship between proactive personality trait and creativity. They found that proactive personality trait is related to creativity. Proactive individuals are thought to involve in creative activity because they take the responsibility for improving situations in addition to their motivation to learn new things (Kim, Hon & Crant 2009). Despite Kim, Hon and Crant (2009) found in a longitudinal study a relationship between proactive personality trait and employees' creativity; they called for further investigation to what might mediate this relationship. In a recent study done by Pan et al. (2018) the role of formal and informal leadership as intermediaries of the relation between proactive personality trait and creativity was tested, and Pan et al. (2018) recommended paying more attention to the role of social perspective on the relation between proactive personality trait and creativity since previous literature overlooked this role.

Proactivity may be considered an important predictor for individuals' innovative behaviour (Giebels et al. 2016). The same was stated by Seibert, Kraimer and Crant (2001) since they found that proactive personality trait is related to employees' innovativeness as rated by their supervisors. Rodrigues and Rebelo (2019) contributed to the same end by stating that proactive personality trait is a valid predictor of innovation performance. Purba and Paundra (2018) supported the idea that proactive personality trait is linked to individuals' innovative behaviour because they found that proactive personality trait mediates the relation between core self-evaluations and innovative behaviours. In addition, Yildiz, Uzun and Coşkun (2017) found that proactive personality trait is a strong predictor of individuals' innovative behaviours, and that psychological empowerment plays the role of a moderator between proactive personality trait and individuals' innovative behaviours.

Most of the individuals in organisations except those who belong to top management lack the authority of implementing their new ideas or solutions even though they have the inner force in their personality traits to try to change their environment and take novel initiative. They will not be able to implement these ideas without the support of their management and get other colleagues on board of implementing the new changes. In another words, without being high in network building ability that will assist the employee to have large network that create a pool of trusted information which can contribute to new ideas generation and enhance innovation (Milliken, Bartel & Kurtzberg 2003). To put it differently, with large number of connections, the individuals will have the opportunity to access more diverse information from different sources of knowledge that will allow them to recognise new opportunities in addition to have a higher access to raw materials that will enable them to generate novel ideas (Baer et al. 2015). Hence, from the study's co-perspective angle: the integration of psychology and sociology perspectives, the study can state that network building ability can manifest the relationship between proactive personality trait and idea generation stage.

Thus, for the first stage idea generation, the study may present the following hypothesis:

H7: Network building ability will play the role of mediator in the relation between proactive personality trait and idea generation stage

Janssen (2000) defined the idea promotion stage as the second stage of innovation behaviour. In this stage, the individuals and after generating their new ideas, they will be engage in social activities to allocate friends, backers, and sponsors surrounding an idea, or to form a coalition of supporters who offer the necessary power behind the new idea.

Proactive individuals usually are not limited by their situational constrains; contrarily, they have the ability to start change in their surroundings and search for new opportunities (Bateman & Crant 1993; Cant 1996). Proactive individuals are likely to involve in networking (Thompson 2005). Actually, networking was defined by Thompson (2005) as the employees' efforts to create and maintain relationships with others who have the potential to help them in their work. The same idea was supported by Li, Liang and Crant (2010) since they stated that proactive individuals are expected to try and establish positive social exchange relationships with their supervisors on the purpose of acquiring information related to emerging problems and opportunities. Furthermore, proactive individuals seem to appreciate the value of founding relationships with people who control resources to benefit from what social networks usually offers like having an access to information or resources, opportunity identification, and social capital (Thompson 2005). Fuller and Marler (2009), in their literature review, supported the previous debate since they stated that proactive individuals are likely to advance within organisations because they attract the attention and sponsorship of powerful individuals. These behaviours will facilitate the promotion of the proactive individuals' new idea and help them secure the resource that is needed to implement the new changes.

Proactive people may be mostly effective in marketing their ideas and creating wide support, which debatably promotes successful idea realisation (Swaab et al. 2007; Giebels et al. 2016).

In addition, individuals who have a lot of trusted connection will have an advantage in diffusing new ideas (McFadyen & Cannella 2004). Since trust among actors will help to have more cooperation and this will facilitate task coordination among actors in addition to easier knowledge transfer and securing the needed resources for implementation (Obstfeld 2005; McFadyen, Semadeni & Cannella 2009). Therefore, in the second stage of innovation behaviours namely idea promotion; the more the individuals have larger network the easier will be for them to promote their new ideas.

Based on the above, network building ability will have an essential role in mediating the relationship between proactive personality trait and idea promotion stage; hence, the study presents the following hypotheses:

H8: Network building ability will play the role of mediator in the relation between proactive personality trait and idea promotion stage

The final stage of the innovation process is idea realisation that is producing a prototype or model of the novel idea that can be practiced and applied within a work role, a team or the whole organisation (Kanter 1988).

Individual workers are often capable of completing simple innovations but the completion of more complex innovations usually demands teamwork based on a variety of specific knowledge, competence, and work roles (Kanter 1988).

Proactive personality trait is usually associated with problem solving, decision making, and to plan ahead (Bateman & Crant 1993). Individuals who are high in proactive personality trait are likely to act upon their own ideas or suggestions for bringing about change (Fuller & Marler 2009). Fuller and Marler (2009) in their proactive personality trait literature review concluded that individuals with high proactive personality trait have the ability to pursuit their ideas and suggestions that bring change and take charge to translate these ideas into reality. In addition, Fuller and Marler (2009) stated that proactive individuals have the ability to attract the attention and sponsorship of powerful individuals which will create an obvious advantage to proactive individuals to implement their ideas. In addition, proactive individuals are usually effective in selling their ideas and forming wide support that arguably promotes successful idea realisation (Swaab et al. 2007; Giebels et al. 2016).

Proactive individuals tend to have the will and the ability to adapt to situational cues pertaining to appropriate behaviour (Fuller & Marler 2009); this type of behaviours facilitate structuring a common understanding and vision among their colleagues regarding the novel changes surrounding the implementation of the innovative ideas which is very essential to have the capability of implementing new ideas as debated by Perry-Smith and Mannucci (2017) who stated that implementing a novel idea is driven by common understanding and vision among organisational members. According to Perry-Smith and Mannucci (2017), network closure (Coleman 1988) and external ties outside the team (Tortoriello & Krackhardt 2010) are best to support idea application. In addition, individuals' network will help them to gain their colleagues cooperation that will facilitate task coordination, support easier knowledge transfer, and secure the needed resources for implementation (Obstfeld 2005; McFadyen, Semadeni & Cannella 2009); therefore, we argue that building network ability will mediate the relationship between proactive personality trait and idea realisation. Accordingly, the study creates the following hypotheses:

H9: Network building ability will play the role of a mediator in the relation between proactive personality trait and idea realisation stage

The above discussions lead us to create a conceptual framework to exemplify the relationship among proactive personality trait, network build ability and innovation behaviour, the conceptual framework is presented in Figure (5). The model combines the psychological concept of personality trait, particularly proactive personality trait, and the social-psychological concept of network building ability to explain the innovation behaviour of individuals in service sector. The approach taken in collecting data and testing the conceptual framework and hypotheses is explained in the methodology chapter.

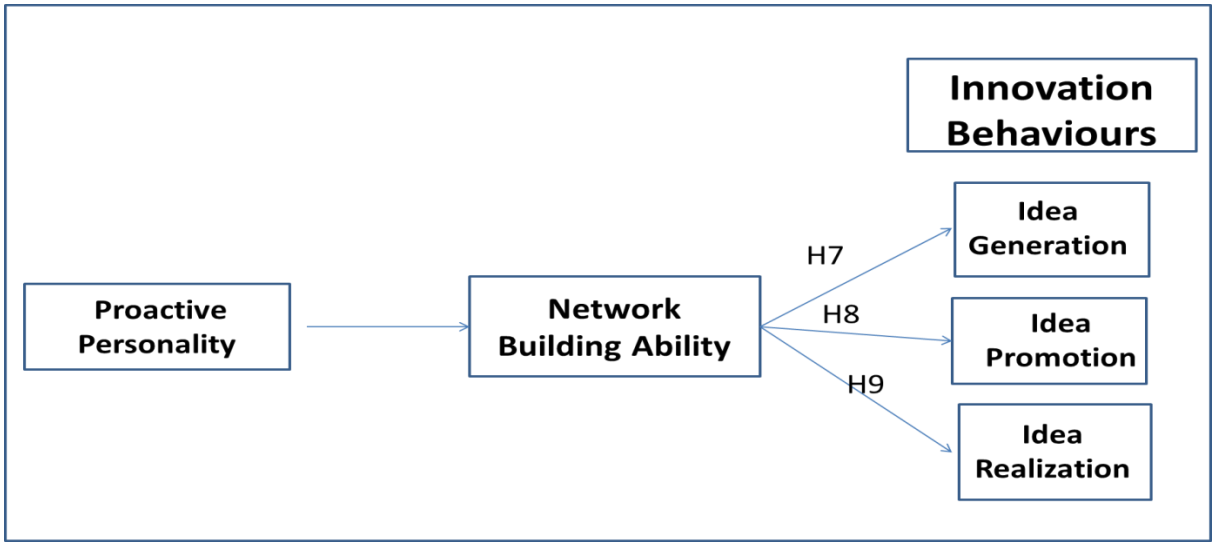

Figure 5: Conceptual Framework of Proactive Personality Trait, Network Building and Individuals' Innovative Behaviours

3.4. Conceptual Framework Summary

This section aims to summarise the overall theoretical framework along with the proposed hypotheses of the study. The below figure (6) represents the overall conceptual framework of the research in which the study hypothesises that network building ability will mediate the relation between the three selected personality traits in this study and the three stages of individuals' innovative behaviours.

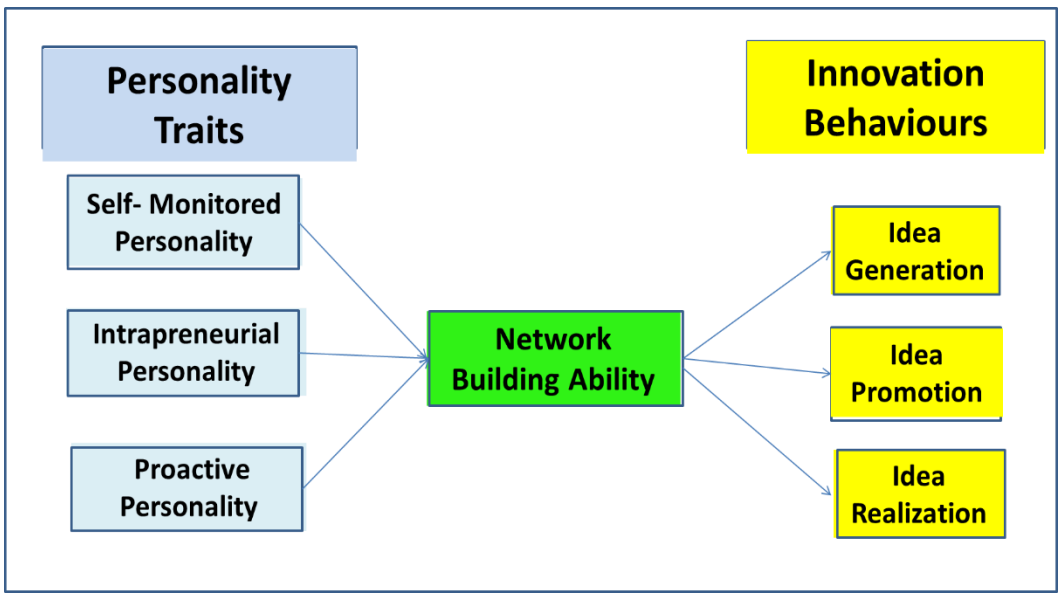

Figure 6: Overall Research Conceptual Framework

In addition, the summary of the research overall hypotheses are illustrated in the below table (2).

Number	Hypothesis
Self-monitoring Personality Trait, Network Building and Innovation Behaviour	
H1	*Network building ability mediates the relationship between self-monitoring personality trait and idea generation stage.*
H2	*Network building ability mediates the relationship between self-monitoring personality trait and idea promotion stage.*
H3	*Network building ability mediates the relationship between self-monitoring personality trait and idea realisation stage.*
Intrapreneurial Personality Trait, Network Building and Innovation Behaviour	
H4	*Network building ability mediates the relationship between intrapreneurial personality trait and idea generation stage.*
H5	*Network building ability mediates the relationship between intrapreneurial personality trait and idea promotion stage.*
H6	*Network building ability mediates the relationship between intrapreneurial personality trait and idea realisation stage.*
Proactive Personality Trait, Network Building and Innovation Behaviour	
H7	*Network building ability mediates the relationship between proactive personality trait and idea generation stage.*
H8	*Network building ability mediates the relationship between proactive personality trait and idea promotion stage.*
H9	*Network building ability mediates the relationship between proactive personality trait and idea realisation stage.*

Table 2: Research Hypotheses Summary

3.5. Chapter Summary

This chapter was designed to build up the research hypotheses and conceptual framework; therefore, in the first section an overall chapter structure and aim was explained. In the second section, individuals' innovative behaviours were discussed and the adopted Janssen (2000) scale of measuring individuals' innovative behaviours was introduced and three

different level behaviours of the individuals' innovative behaviours: idea generation, idea promotion, and idea realisation were discussed. In the third section, the role of network building ability and individuals' innovative behaviour was highlighted through discussing previous literature.

The fourth section was specified to discuss the mediation role of network building ability on the relation between the selected three personality traits (Self-monitoring, Intrapreneurial, and Proactive personality trait) and the three individual's innovative behaviours. Therefore, a sub-section dedicated for building the research hypotheses for each one of the selected personality trait was introduced, three hypotheses testing the mediating role of network building ability on the relation between each personality trait and the three individual's innovative behaviours was created and discussed. A total of nine hypotheses were created to illustrate the study's conceptual framework. The final section was to present the overall research conceptual framework and hypotheses.

Since the research hypotheses are created in this chapter, the next chapter will aim to operationalize the conceptual framework of the research and explain the adopted research methodology to test the research hypotheses and report its findings.

Chapter Four: Research Methodology

In research methodology researchers usually explain the concepts and theoretical rationale that defends the most appropriate research methods adopted for the investigated field (Carr 2006). Hence, this chapter will aim to explain the adopted theories and philosophies in this study, in addition to explain the adopted research methodology, techniques, tools and measures used in collecting and analysing research's data in order to achieve the research objectives and answering the research questions.

The first section will tackle the theoretical background of conducting a research, justifying the use of deductive approach in this research as well as explaining the reasons for adopting positivism as a research methodology. Whereas the following sections will describe in details how the concepts are transformed into researchable entities and the logic behind the design of the research.

Then, the following sections will be addressing the scales that are adopted from literature for measuring the study's variables; a descriptive statistical analysis will be conducted, and the research sample profile will be illustrated.

4.1. Research Philosophy

In general, researches are conducted using one of the two main approaches, either deductive or inductive approach based on the nature of the study. In inductive researches, usually the results or the theory is inducted based on generalisations out of observations, whereas in deductive approaches the researcher will try to deduct a hypothesis building on existent knowledge about a theoretical consideration and then examine it (Bryman & Bell 2015). Since the nature of this study is to examine the relation of different variables with individual's innovative behaviours, the deductive approach will be suitable for the quantitative approach because this study will depends on quantitative approach to examine the collected data as stated clearly by Gibbs (2002) when he compared the differences between qualitative approaches and quantitative approaches, which is mainly associated with the distinction between data deduction and data induction. The quantitative approach is usually conducted via a set of standard statistical tests that help the researchers to validate their hypotheses in order to answer the research questions (Goddard & Melville 2004).

The absence of research philosophy when conducting research will negatively impact research results and quality (Easterby-Smith et al. 2012). This study will adopt positivism research philosophy since positivist researchers usually favour to work with facts and actual data and tend to build their hypotheses using existing theories in literature hence they are

generally described as factual and objective researchers (Saunders, Lewis & Thornhill 2016; Remenyi & Williams 1998). Bryman (2012) stated that researchers who adopt positivism approach usually conduct their studies in objective way through observing reality and separating themselves from the topic of the research, positivists can argue that they are external to the data collection process and their effect on the data sources is negligible. However, it is almost impossible to completely separate the research conceptual framework building, data collection and results discussion from the researcher; therefore it is safer to say that a positivist will try his best to minimise his own influences on his research.

Positivist researchers generally adopt quantitative methods and statistical analysis in their studies (Bryman & Bell 2015). Consequently, as a positivist researcher the research of the study will be independent and neutral when gathering the data and avoid being affected or affecting the research participants.

Saunders, Lewis and Thornhill (2016) summarise the relationship among research paradigms, philosophies and methods in a very nice and clear way by using the onion metaphor as in the figure (7) below.

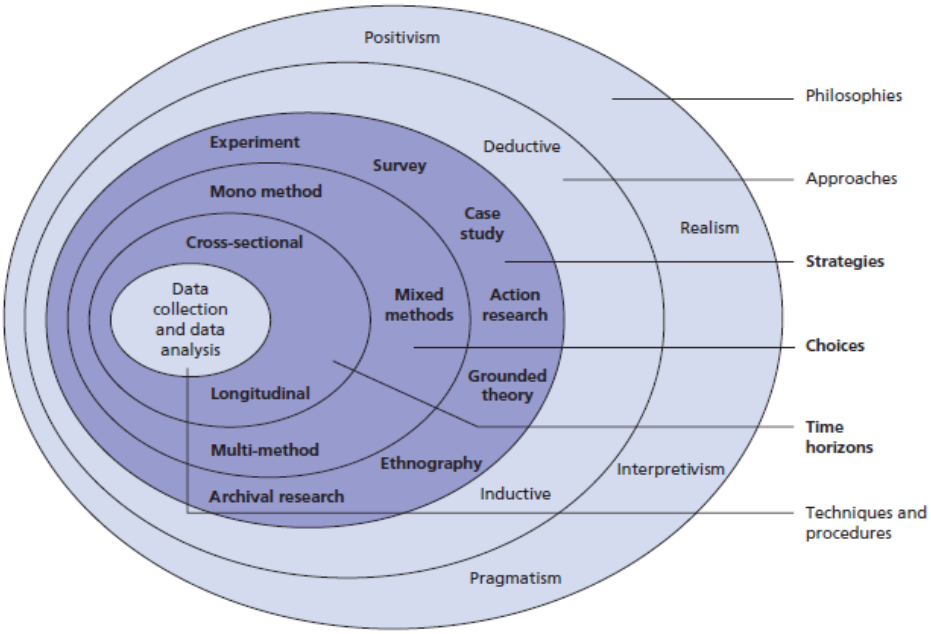

Figure 7: The Research Onion (Saunders, Lewis & Thornhill 2016, p. 124)

4.2. Research Design

Since the study objective is to understand the relation among the intrapreneurial, proactive, and self-monitoring personality traits and network building ability as predictors of individuals' innovative behaviours, the research design will be starting with an intensive literature review that will help building the study conceptual framework and setting the hypotheses. Later, the research will adopt a cross-sectional social survey design, targeting individuals working in the service sector to collect the sample data in which the study will

run the statistical tests such as (Validity and Reliability tests, EFA & CFA tests….) to be able to examine the study's conceptual framework throw running Structural Equation Modelling SEM analysis, so the study can generalise the results to the whole UAE service sector that represents the study population.

In terms of sample size and since this study is mainly adopting Structural Equation Modelling analysis, the study looked into literature that identifies the acceptable number of surveys to adequately run SEM analysis. Some researchers argued that Structural Equation Modelling analysis could perform well even with small samples from 50 to 100 (Bentler & Chou 1987). Other researchers pointed that the minimum accepted sample size to run SEM analysis is (100 – 150) surveys (Tinsley & Tinsley 1987; Anderson & Gerbing 1988; Ding, Velicer & Harlow 1995; Tabachnick & Fidell 2001). Muthén and Muthén (2002) stated that the minimum sample size for conducting Confirmatory Factor Analysis model for normally distributed data is 150 surveys. Different researchers stated that the minimum sample size should be 200 (Hoogland & Boomsma 1998; Boomsma & Hoogland 2001; Kline 2005; Kline 2011). Based on the above, any number of surveys that exceed 200 should provide a sufficient statistical power for data analysis while running that Structural Equation Model.

Statistically speaking, if we aim for 95% confidence index for a population more than 100,000, we should have at least 384 surveys (Saunders 2011).

So the aim of this study is to send at least 1000 surveys for random individuals who work in the service sector in the United Arab Emirates that represents the selected population of the research. The research will adopt Random Sampling Technique in collecting the study's data, a detailed explanation for the data collection process will be provided in section (4.6.1). The study will aim for at least 40% response rate which can at least provide 400 surveys to be able to generalise the study findings over the UAE service sector.

Finally, the research will be ending by reflecting on the new results in the discussion chapter, identifying the contributions of the research along with its practical implication, limitation and future research opportunities.

4.3. Research Questionnaire Design

Researches usually conducted by collecting data from two main sources namely primary data that are collected by the researcher and secondary data that are collected by other or archival data (Sapsford & Jupp 2006). This study will depend on primary data, collected through a survey in which all the variables used in testing the hypotheses of this research are obtained from previous literature in which their scales validity and reliability are tested and proven to be valid and reliable. Therefore no needs to conduct a pilot study to test and verify the study's variables questionnaire.

Saunders, Lewis and Thornhill (2016) considered questionnaires as part of survey research method. They identified questionnaires as a general term that contains data collection techniques, structured interviews, telephone and online questionnaires.

Saunders, Lewis and Thornhill (2016) explained the types of questionnaire as in the below figure (8).

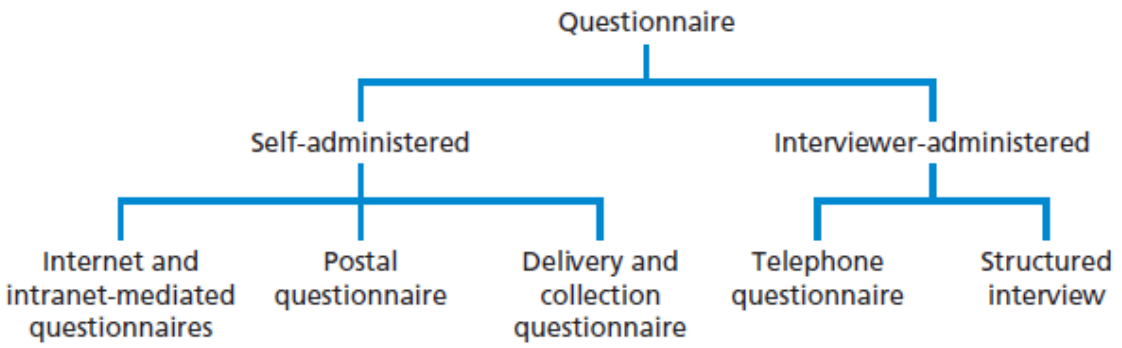

Figure 8: Different Questionnaire Types (Saunders, Lewis & Thornhill, 2016, p. 440)

The study will adopt self-administered online questionnaire that suits the research adopted philosophy: positivism in which the influence of the researcher on the participants is reduced as much as it possible in order to minimise the subjectivity and bias of the researcher in the data collection stage, the downside of this type is that researchers can't get additional feedback from the participants or make sure that the participants are understanding all the questions and answering them properly.

Since the data will be collected from service sector organisations operating in the United Arab Emirates where English language is one of the official languages used in this country, in addition it is widely spread and spoken among locals and expats living in UAE, the questionnaire's items were written in English language and no translation was needed.

The questionnaire was designed using a cover letter to briefly explain the main topic that the study is examining and ensure the confidentiality of participants shared information as well as the contact information of the researcher. The British University in Dubai ethics in collecting data through surveys was followed. The survey starts with demographic information about the participants such as age, educational background, gender, years of experience, and industry field. Then it is followed by the main constructs' items used in this study.

4.4. Research Measures

All the variables in this study are measured by a five-point Likert scale survey questions. The answers will follow the agreement rating type suggested by Saunders, Lewis & Thornhill (2016), which will be ranging from: Strongly agree, agree, natural, disagree, and strongly disagree.

All the measures that were used in this study were based on existing scales from the literature; therefore a pilot survey to test the questionnaire scales and items is not required.

4.4.1. Individuals' Innovation Behaviours

In innovation literature, innovation behaviours on the individual level were measured in more than one scale; one of the most used scales is developed by Scott and Bruce (1994) in which they measured the innovation behaviours as a single construct with six-item survey questions that reflects the three stages of innovation behaviours (Idea generation, building support and idea implementation). A more recent study by Janssen (2000) based on Scott and Bruce (1994) work, a new scale has been developed with nine-item survey questions measured by a 5-point Likert scale. Janssen has clearly specified three items for each innovative behaviours dimension: idea generation, idea promotion, and idea realisation. Janssen (2000) population was food organisation in Netherlands and his sample composed of 170 non-management employees. Janssen (2000) has stressed the importance of the employee's self-evaluation since the employees will have more information about their daily work activity than their mangers because they are more precise than their mangers. In addition, if we asked mangers to evaluate the innovativeness of the employees, they might neglect the real innovation of the employees because they normally evaluate the behaviours that only left an impression on them since innovative behaviours are extremely sensitive to individual's characteristics. Such a scale has recently attracted more attention since there are calls to investigate the different dimensions of the innovation behaviours rather than considering it as a single dimension construct (Niu 2014; Wisse, Barelds & Rietzschel 2015; Woods et al. 2017). The scale has shown a good reliability and validity test results with a Cronbach's (.95) as demonstrated by Janssen (2000). Hence, this study will adopt Janssen (2000) nine-item self-evaluated survey questions measured in five point Likert scale. The exact questions used are attached to the appendices.

4.4.2. Network Building Ability

In their efforts to develop political skills inventory, Ferris et al. (2005) have developed a self-rating six-item scale that usually measures the ability of the individuals to build networks and benefit from the people in their networks to increase their influence on others; Ferris et al. (2005) named this scale network ability and consider it as one of the facets of political skills. The same scale has been used by Thompson (2005), and he named it Network Building Ability (NBA). Thompson (2005) collected his data from Midwestern university alumni, his sample included 126 participants and the scale reliability test was excellent at Cronbach's alpha (.94). Thus, the study adopt the same self-reporting scale in which each item is measured by a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The details of items used can be found in the appendices.

4.4.3. Self-Monitoring Personality Trait

The first scale that measured self-monitoring personality trait was introduced by Snyder (1974), and it consists of 25 items with a true/false responses that the participants need to choose to express if the item's statement describes them or not. A more recent study that was done by Snyder and Gangestad (1986) in which they introduced only 18 items instead of the previous 25, and they debated that the revised scale was more reliable than the original 25-item scale which was introduced by Snyder (1974). Lennox & Wolfe (1984) introduced a third revision of the self-monitoring personality trait scale using only 13 items in their questionnaire to measure self-monitoring personality trait. This scale was recommended by Day et al. (2002) since it showed higher reliability results than the other two scales. However, a more recent literature review that was done by Kudret, Erdogan and Bauer (2019) drew comparison among the three scales used in literature as illustrated in table (3) below.

Author(s)	Scale	Number of Items	Reported Alpha (Day et al. 2002)	Number (Percentage) of Studies Using this Scale in Day et al. (2002)	Number (Percentage) of Studies Using this Scale in Current Review
Snyder and Gangestad (1986)	SMS- Reduced	18 Items	.73	34 Studies (25%)	44 Studies (46%)
Lennox & Wolfe (1984)	Revised Self-monitoring Scale (RSMS)	13 Items	.81	14 Studies (10 %)	34 Studies (36%)
Snyder (1974)	Self-monitoring Scale (SMS)	25 Items	.71	69 Studies (51%)	17 Studies (18%)

Table 3: Summary of the Scales Used to Measure Self-Monitoring Over Time. Kudret, Erdogan and Bauer (2019)

From the table above, we can clearly see that the most used scale nowadays is Snyder and Gangestad's (1986) eighteen-item with good reliability level of this scale. Thus, this study will adopt the Snyder and Gangestad's (1986) eighteen-item scale to measure self-monitoring personality trait with a slight change from their version of true and false answer because the study will use a five-point Likert scale based on the finding of a meta-analysis of self-monitoring at work done by Day et al. (2002) who indicated that the five-point Likert scale format was more reliable than the original true/false scoring format. The details of items used can be found in the appendices.

4.4.4. Intrapreneurial Personality Trait

The study will adopt a self-reported survey questions introduced by Amo and Kolvereid (2005) in which they derived it from Pinchot (1985) work that presents a test "Are you Intrapreneur?" Amo and Kolvereid (2005) collected their data from 634 master degree graduates in business from a college in Norway. The survey consists of 12 questions, and the participants was asked to rate themselves on a five-point numerical scale. The result of the scale reliability test was acceptable at Cronbach's alpha (.62) for explorative research (Hair et

al, 1998) such as the one in Amo and Kolvereid (2005). The details of items used can be found in the appendices.

4.4.5. Proactive Personality Trait

In their seminal work, Bateman and Crant (1993) have introduced a scale for measuring proactive personality trait that consists of 17 items. Bateman and Crant (1993) come up with this scale by studying three samples of students from south-eastern state university through several stages. The first sample was composed of undergraduates and their number was 282, the second sample was created from undergraduates who completed the revised proactive scale and their number was 130 participants. The third sample was composed of MBA working students who completed the proactive personality trait's scale and their number was 134 participants. The reported Chronbach's alpha tests result was (0.88) for the final scale.

More recent studies have tried to use shortened versions of this scale such as the ten-item scale that is developed and validated by Seibert, Crant and Kraimer (1999), or the four-item scale that is developed and used by Wu Parker and De Jong (2014). Because, in this study, proactive personality trait is one of the personality traits that will be focused on, the original scale (Bateman & Crant 1993) that usually demonstrates high validity measures as suggested by Fuller and Marler (2009) will be adopted. Fuller and Marler (2009) examined 107 studies in their literature review and found that the seventeen-item scale is a reliable measurement tool that is undistorted by social desirability. Since they found that the average Chronbach's alpha coefficient of 30 samples used Bateman and Crant's (1993) 17-item original instrument to assess proactive personality trait was (.86) which is a good result that indicates the reliability of this scale. Hence, the study will adopt the seventeen-item self-reported survey questions developed by Bateman and Crant (1993), each item is assessed by a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The details of items used can be found in the appendices.

4.4.6. Control Variables

Employees' demographic characteristics such as age, gender, experiences and education might have a significant effect on employees' perceptions of their jobs which will affect their job's attitude and their process and hence their performance. (Kirkman, Tesluk & Rosen 2004; Pelled, Xin & Weiss 2004), so this study will use several demographic variables listed below.

The gender question will be a dummy variable where male value is 1 and female value is 0. Another variable will be age which will be measured as the following (1= 18-25 years, 2 =

26-33 years, 3= 34-41 years, 4=42-49 years, 5=more than 50 years) since we are expecting to survey employees who are between 18 and 60 years old.

Years of experience are other control variables that will be used in this study which will have the following scale points (1= less than one year, 2= 1-3 years, 3= 3-6 years, 4= 6-10 years, 5= more than 10 years)

The final variable that will be used is education background which will be measured by the following scale points (1= High School, 2= Diploma, 3= Bachelor Degree, 4= Master Degree, 5= PhD degree).

4.5. Research Ethical Considerations

Research Ethics are identified by Flick (2014) as the activities that usually are applied in order to protect the research participants. This study will follow all the ethical guidelines issued by the British University in Dubai. In addition, the confidentiality of the participants and shared information about them or their organisation will remain anonymous during and after the research. Transparency will be taken into consideration in this study, so the main aim of the research and the level of data that they would be sharing will be introduced to all the participants in a written form in the survey's cover letter with a request for their consent to participate in the survey with the ability to withdraw at any time they want as clearly suggested by Flick (2014) in which he stressed that the participants should understand the threats and advantages of partaking in the research, so participants should agree to participate in the study based on information given to them by researchers. In addition, the consent must be given voluntarily by participants in a manner that keeps their dignity and rights.

Finally, honesty will be respected through the whole study starting from collecting and reporting data to the entire tests and results found as an outcome of this analysis in which the researcher will be neutral to all of the study findings.

4.6. Data Collection and Analysis

4.6.1. Research Sample

The data is collected via a questionnaire designed by using Survey Monkey online software, and it is distributed as an online survey to facilitate the data collection from the participants. To guarantee the generalizability of the findings, participants were randomly selected from a wide range of organisations operating in United Arab Emirates service sector. Two

organisations were selected from each of the following sub-sectors: banking, health care, education, hotels, and telecommunication. So in total ten organisations were approached to take part in the study. The data collection was done during the period (June 15 - August 30, 2018) with the assistance of a Human Resource (HR) manager in each organisation, the study's online survey questionnaire was distributed to random employees from different departments (100 survey in each organisation). A random sampling technique also called Probability Sampling Technique was adopted in selecting the participants to reduce the likelihood of bias in the collected data (Kothari 2004). Random Sampling is a sampling technique in which we choose a group of participants (a sample) for research from a larger group (a population). The participants are selected completely by chance and each individual of the population has a known and probably equal chance of being selected in the sample (Kothari 2004).

A total of 523 responses were received, after examining the received questionnaires, the researcher of the study had to delete 106 incomplete responses, so the study ends up with a 417 complete responses, therefore the study has a 41.7% effective response rate. This is, statistically speaking, a good enough number to generalise the results of the study in UAE service sector.

The collected data is analysed using SPSS and Amos programs; the collected data will be described and analysed through various statistical tests to verify the research's hypotheses which will be conducted via reliability and validity tests, common bias test, factor analysis and structural equation modelling analysis.

Descriptive statistics will be used to explain the collected data which gives the readers a clear idea about the research sample. In order to make the descriptive analysis clear and easy to understood, the study will illustrate its results using tables and charts.

4.6.2. Descriptive Statistics

The aim of this section is to introduce a descriptive statistical analysis of the collected data using SPSS program version 22.0, so the reader will have a general understanding of the demographics and general information of the collected data.

4.6.2.1 Gender Distribution

The total number of analysed responses is 417. The breakdown of this number in terms of gender is illustrated in chart (9) below.

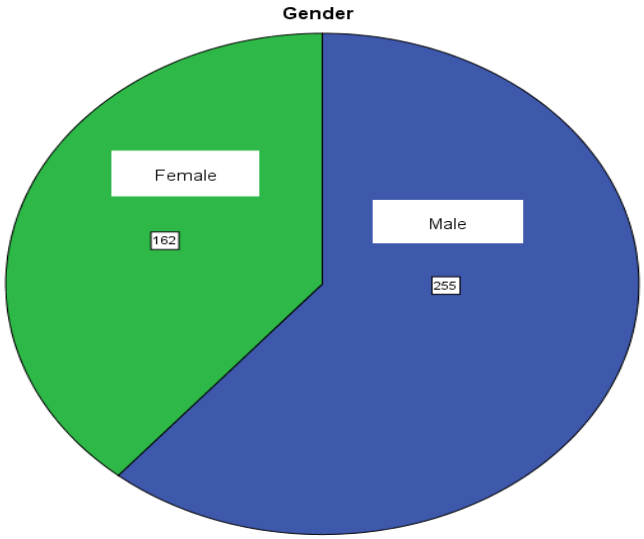

Figure 9: Gender Distribution Chart

So the total number of females participating in the study is 162, which represents 38.85% of the collected data whereas the total number of the participating males is 255, which represents 61.15% of the collected data.

4.6.2.2. Age Distribution

The age breakdown of the participants is illustrated in the figure (10) below.

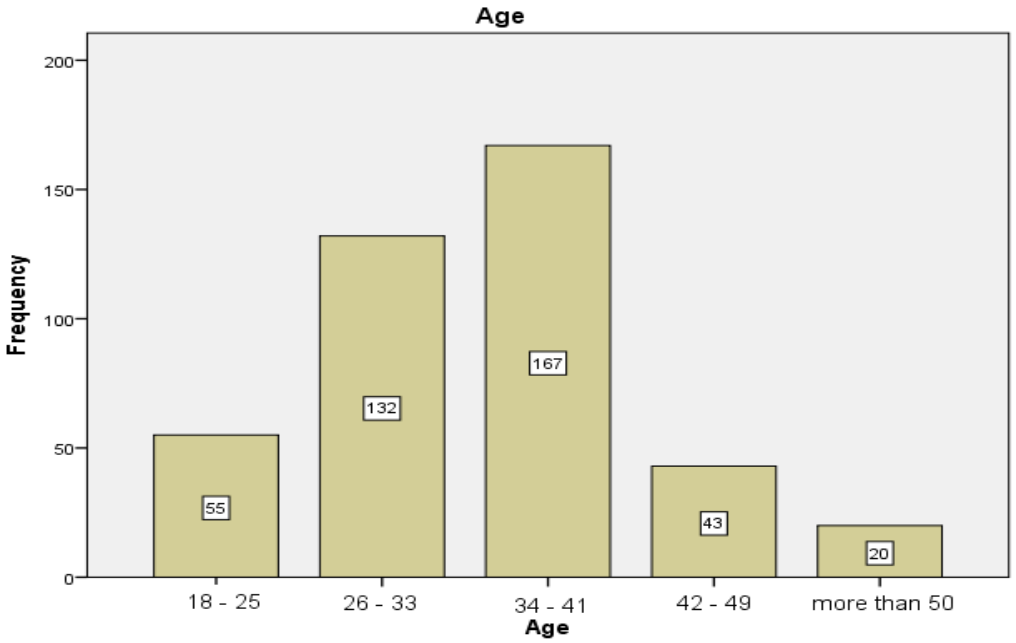

Figure 10: Age distribution Chart

4.6.2.3. Years of Experience Distribution

The years of experience breakdown of the participants is illustrated in the chart (11) below.

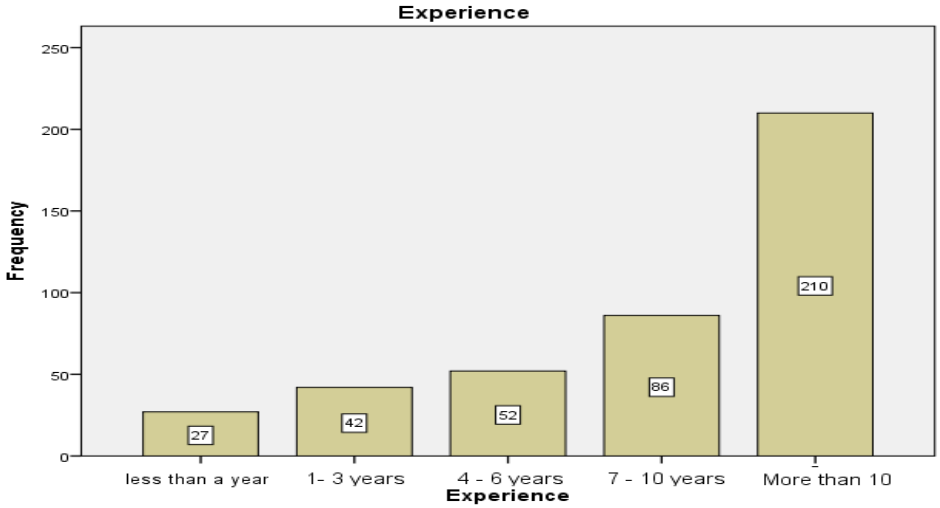

Figure 11: Participants' Experience Breakdown

4.6.2.4. Educational Background Distribution

The participants' educational background is demonstrated in the bar chart (12) below.

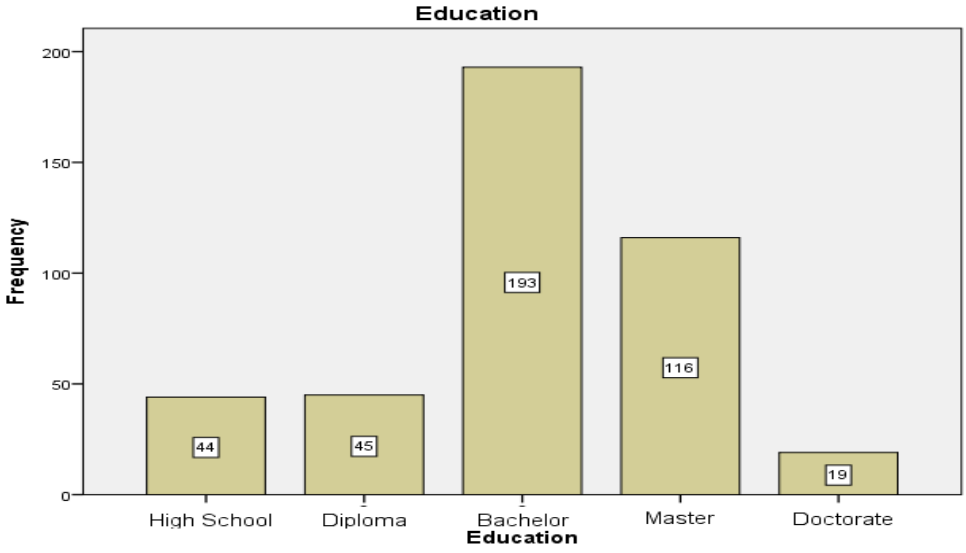

Figure 12: Participants Educational Background Chart

4.6.2.5. Industry Distribution

The chart (13) below demonstrates the data distribution as per industry.

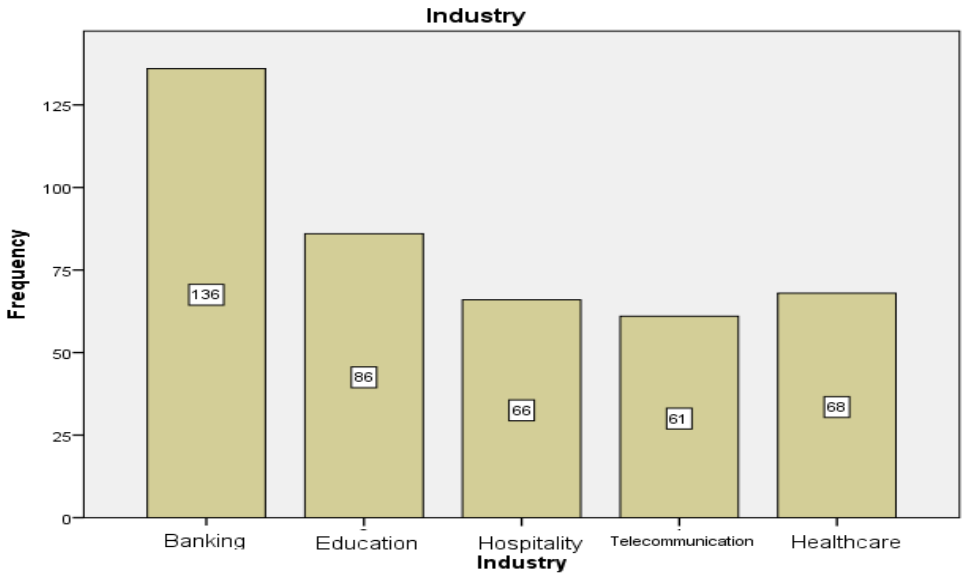

Figure 13: Industry Distribution Chart

4.6.2.6. Participants' Position Distribution

The chart (14) gives an idea about the positions of the participants in their organisations.

Figure 14: Participants' Positions Distribution Chart

4.6.2.7. Research Participants Profile

Based on the descriptive statistics of the control variables, the researcher creates the below table (4) as a summary for the study participants' profile:

Variable	Item	Frequency	Percentage
Sex	Male	162	38.85%
	Female	255	61.15%
Age	18 - 25	55	13.2%
	26 - 33	132	31.7%
	34 – 41	167	40.0%
	42 – 49	43	10.3%
	50<	20	4.8%
Experience	1>	27	6.5%
	1 – 3	42	10.1%
	4 – 6	52	12.5%
	7 – 10	86	20.6%
	10<	210	50.4%
Education	High School	44	10.6%
	Diploma	45	10.8%
	Bachelor	193	46.3%
	Master	116	27.8%
	Doctorate	19	4.6%

Industry	Banking	136	32.6%
	Education	86	20.6%
	Hospitality	66	15.8%
	Telecommunication	61	14.6%
	Healthcare	68	16.3%
Position	Agent / Officer	108	25.9%
	Lower Management	88	21.1%
	Middle Management	166	39.8%
	Top Management	55	13.2%

Table4: Participants' Profile Summary

4.6.2.8. Self-Monitoring Personality Trait Distribution

In order to measure self-monitoring personality trait in this questionnaire 18 questions were used with a five-point Likert scale to examine the percentage of high and low participants' percentage in this personality trait. A mean of the 18 questions is created and frequency analysis was conducted, and the analysis results table is demonstrated in the appendices. The frequency analysis shows that 37.2 % of participants are low in self-monitoring personality trait (their answers mean is less than 3), and only 1.9 % is neutral (their answers mean is 3) whereas 60.9 % of participants are high in self-monitoring personality trait (their answers mean is higher than 3).

4.6.2.9. Intrapreneurial Personality Trait Distribution

Intrapreneurial personality trait was measured by using 12 items with a five-point Likert scale; therefore, in order to have an idea about the collected data in this variable, a mean of the 12 items was created, and then frequency analysis was done to check the percentages of the participants' answers. The analysis table that represents the frequency and the percentage of the answers is located in the appendices. Based on the analysis results, any mean answer is

higher than 3 which means that these participants are high in intrapreneurial personality trait; if it is less than 3, it means that these participants are low in intrapreneurial personality trait, so based on the cumulative percentage, we can see clearly that 32.4% of the participants are low in intrapreneurial personality trait, 2.6% are neutral, but 65% of participants are high in intrapreneurial personality trait.

4.6.2.10. Proactive Personality Trait Distribution

Proactive personality trait measurement scale has 17 questions in the research questionnaire. In which all questions were measured by using the five-point numerical scale to test the percentage of high and low participants' percentages in this personality trait. A mean of the 17 questions is created and frequency test is applied. The results are illustrated in the appendices. The results show that 24.5% of participants are low in proactive personality trait (their answers mean is less than 3), and only 0.2% is neutral (their answers mean is 3) whereas 75.3% of participants are high in proactive personality trait (their answers mean are higher than 3),

4.6.2.11. Network Building Ability Distribution

Six questions are used to measure network's building ability with a five-point numerical scale in order to inspect the percentage of high and low participants' percentage in this variable. A mean of the 6 questions is formed and frequency analysis is done. The results are incarnated in the appendices.

The results illustrate that 21.6 % of the participants are low in network building ability (their answers mean is less than 3), and only 10.6 % of participants are neutral (their answers' mean is 3) whereas 67.9 % of participants are high in network building ability (their answers mean is higher than 3).

4.6.2.12. Individuals' Innovative Behaviours Distribution

Nine items are used to measure the individuals' innovative behaviours by applying the five-point numerical scale in order to inspect the percentage of high and low participants' percentage in this variable. A mean of the nine questions is calculated and frequency analysis is done. The results are represented in the appendices.

The results show that 17.7 % of participants are low in individuals' innovation behaviour (their answers' mean is less than 3) whereas 82.3 % of participants are high in individuals' innovation behaviour (their answers' mean is higher than 3).

4.7. Chapter Summary

Chapter four presented the study overall adopted methodology and research philosophy. In addition to explain the research methodological approach in collecting and analysing research's data, study survey design, measures and sampling technique. This chapter also provided an elementary analysis of the collected data form participants such as descriptive statistics and participants' profile. In the next chapter, the study findings will be discussed

Chapter Five: Research Findings

This chapter will aim to report and discuss the study findings; therefore the constructs' correlations will be addressed in the first section. The second section will be handling the constructs' validity and reliability results. The third section will be discussing the results of factor analysis tests of the study variables. Section four will aim to operationalize the study conceptual framework using Structural Equation Modelling in order to be able to discuss the study hypotheses findings. Finally a chapter summary will be provided

5.1. Constructs Validity and Reliability

Testing the validity and the reliability of the study's questionnaire is a very important step in order to make sure that the researcher and the participants understand the questions in the same way.

Reliability has been explained as the degree of which two indicators or more share their measurement of a specific construct (Hair et al. 2010). According to Saunders, Lewis & Thornhill (2016), internal consistency reliability test talks about the correlation of participants' answers to each item in the questionnaire with other items within the same questionnaire. Cronbach's alpha is usually the most used method due to its easiness of use for internal consistency calculation. Cronbach's alpha reliability test will be used to test the reliability of the constructs that are used in this study because it is the first test to confirm the quality of the questionnaire (Churchill 1979).

In terms of questionnaire validity, researchers usually refer to content validity and construct validity. Content validity talks about the appropriateness of the measurement questions in measuring the examined questions whereas the construct validity refers to the ability of the questionnaire items in measuring the study constructs and variables (Cooper & Schindler 2011). All the constructs that are used in this study are carefully examined and picked from a previous literature, and the researcher chooses the scales that prove its validity and reliability, and it is supported in relevant academic literature in order to guarantee the content's validity of the used questions in the study's questionnaire. However, Construct validity will be examined using factor analysis in addition to two tests that are convergent and discriminant construct's validity tests suggested by Saunders, Lewis & Thornhill (2016).

5.1.1. Reliability Tests

5.1.1.1. Cronbach's Alpha Tests

Reliability displays the degree of correlation among items that create the scale, so the higher the degree of correlation the more the items are measuring the same construct (Pallat 2016). Cronbach's alpha coefficient is counted as the most used indicator of scales internal consistency measure, and generally a value of Cronbach's alpha 0.7 or more shows high degree of reliability (Pallat 2016). One of the benefits of running Cronbach's alpha test is to indicate if we need to exclude one of the items that have low correlation to enhance the model reliability. Since Cronbach's alpha is very sensitive to the number of items in the construct, George and Mallory (2003) have developed a scale for the ranges of Cronbach's alpha results that this study will adopt to evaluate its constructs' reliability. The ranges are illustrated in table (5)

Cronbach's Alpha	Internal Consistency
> 0.90	Excellent
0.80 - 0.89	Good
0.70 - 0.79	Acceptable
0.60 - 0.69	Questionable
0.50 - 0.59	Poor
< 0.50	Unacceptable

Table 5: Cronbach's alpha Ranges, George and Mallory (2003)

In this study, we have mainly seven constructs, three variables that measure different personality traits with the total number of items are 47, six items that measure network building ability, and three more variables that represent the stages of individuals' innovative behaviours with three items in each stage, so the total of 62 items are used in the survey's questionnaire. Cronbach's alpha has been calculated for all of these variables, and the results are illustrated in the below table (6).

The Variables	Number of Items	Cronbach's alpha
Self-Monitoring Personality	18	.97
Intrapreneurial Personality	12	.90
Proactive Personality	17	.97
Network Building Ability	6	.90
Idea Generation	3	.88
Idea Promotion	3	.76
Idea Realisation	3	.74

Table 6: Cronbach's alpha Results

Based on Cronbach's alpha calculation, we have two constructs that have acceptable results that are idea promotion and idea realisation, and three constructs that have good results that are intrapreneurial personality trait, network building ability, and idea generation. However, the remaining two constructs: proactive personality trait and self-monitoring personality trait have excellent results. Overall, we can say that all the constructs on the questionnaire are reliable based on Cronbach's alpha test's results.

5.1.1.2. KMO and Bartlett Tests

Before running factor analysis, two more reliability tests should usually be done. The first one is Kaiser-Meyer-Olkin (KMO) test; this test measures sample adequacy. In KMO test, the more the value close to 1.0 the more reliable the scale is, and it indicates that factor analysis is doable for the data whereas if the value is less than 0.50, it indicates that the scale is not reliable and factor analysis is not doable.

The other test is Bartlett Test of Sphericity that examines the occurrence of correlations. It is based on the hypothesis that says that the correlation matrix is an identity matrix. The significance of this test refers to reliable scales. And the smaller the significance the more reliable scale we have, and it is an indicator that factor analysis can be done (Hair et al. 2010, Field 2005; Morgan et al. 2004). Both tests' results are illustrated in the table (7) below.

Variables	Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy	Bartlett's Test of Sphericity (Significance value)
Self-Monitoring Personality	**.975**	**.000**
Intrapreneurial Personality	**.928**	**.000**
Proactive Personality	**.976**	**.000**
Network Building Ability	**.870**	**.000**
Idea Generation	**.640**	**.000**
Idea Promotion	**.688**	**.000**
Idea Realisation	**.671**	**.000**

Table 7: KMO and Bartlett Tests' Results

The above table demonstrates that KMO values are higher than 0.50 and more close to 1 that means we have good reliable scales, and we can run factor analysis on the collected data (Hair et al. 1998, Field 2005). Based on Kaiser (1974) recommendation, we can accept values greater than 0.50 since his classification for KMO values are illustrated in table (8):

Less than 0.50	**Not acceptable**
Between 0.5 and 0.7	**Good**
Between 0.7 and 0.8	**Great**
Above 0.8	**Superb.**

Table 8: Kaiser (1974) Classification for KMO Values

The result of Bartlett's test of sphericity is (*p* value = .000), which is highly significant and it suggests that the scales are reliable and the original correlation matrix is an identity matrix (Hair et al. 2010).

To sum up, the two conducted tests Kaiser-Meyer-Olkin (KMO) and Bartlett of sphericity test have demonstrated that the used scales are reliable and the factor analysis is appropriate for these data.

5.1.1.3. Common Method Bias Test

The influence of Common Method Bias (CMB) has been recently attracting a huge attention from academic business researchers (Bagozzi 2011; Lance et al. 2010; Williams, Hartman & Cavazotte 2010). Lately, it has become a common opinion that researchers must report on common methods biases in self-reported surveys in nowadays academic business researches (Fuller et al. 2016; Chang, Witteloostuijn & Eden 2010).

CMB occurs when participants' answers systematically vary because of the use of a mutual scaling approach on measures that are derived from a single data source (Fuller et al. 2016), and CMB is one of the many sources of error that possibly leads to weakening the reliability of reported results (Babin & Zikmund 2015).

One of the most used tests to examine common bias method is Harman one factor common bias method test (Fuller et al. 2016). A lot of articles contribute this test to Harman's books (1967, 1976). However, the original books of Harman actually did not clearly come up with the name of the test and his work was mainly based on factor analysis. Truly the name was introduced by the work of Podsakoff and Organ (1986) as a test for common bias method. Harman's single factor test to examine the data common bias is a common test in individuals' innovative behaviours literature because it was reported by many studies such as Madrid et al. (2014). Basically, the concept of this test is to count all the data as a single construct and run exploratory factor analysis as a one factor only. If this assumed one factor explains more than 50% of the collected data, it means that we have a common method bias whereas if it explains less than 50 % of the data it means that we don't have a common method bias (Podsakoff & Organ 1986).

By applying Harman's single factor common method bias test, the results demonstrate that the single factor explains only (24.74%) which is less than 50%, which means that we don't have a common method bias in the data used in this research.

5.2. Factor Analysis

When we have a big number of variables in a research, we usually use factor analysis to help the researchers to identify a few factors that represent most of the variance in the data (Punch 2005). In this technique, although it minimises the number of variables, we will not lose much of the information provided by the used variables (Field 2013). In addition, self-reporting scales running factor analysis gives construct's validity evidence (Hair et al. 1998).

Factor Analysis technique contains two types: Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA). Researchers usually use EFA when they are not sure

about the number or nature of variables, so basically they are exploring the dimensions in the collected data to create a theory. On the other hands, CFA is used to examine pre-set assumptions of the number of variables and which factor is best fit (Schreiber et al. 2006). In other words, factor analysis is data reduction technique.

5.2.1. Exploratory Factor Analysis

Exploratory Factor Analysis (EFA) process is initiated by locating a component that contains a linear combination of variables responsible for as much variation in the unique variables as feasible. The second step is to find the other components that are responsible for as much of the remaining variation as feasible, and each one must be uncorrelated with any other former component. The process finishes when all the related components have been identified, consisting of as much as unique variables.

Principal components analysis with Varimax rotation method is used in extracting the variables when the researcher is exploring the data using SPSS program to eliminate redundant data from the list of variables in order to achieve a controllable subset of components. In addition scree plot diagram will be illustrated for each variable to show how many latent variables can be counted that have a value of Eigen value more than 1. All exploratory factor analysis results and full tables for all constructs can be found in the appendices.

5.2.1.1. Self-Monitoring Personality Trait Exploratory Factor Analysis

The research adopts Snyder and Gangestad (1986) one dimension eighteen-item scale. The EFA analysis of self-monitoring personality trait factors is demonstrated in the table (9) below.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	11.717	65.097	65.097	11.717	65.097	65.097
2	.758	4.212	69.309			
3	.599	3.327	72.636			
4	.567	3.152	75.788			

5	.511	2.840	78.627			
6	.431	2.392	81.019			
7	.400	2.222	83.241			
8	.386	2.144	85.385			
9	.351	1.949	87.335			
10	.317	1.759	89.093			
11	.308	1.708	90.802			
12	.299	1.659	92.461			
13	.269	1.493	93.954			
14	.248	1.379	95.332			
15	.229	1.270	96.603			
16	.226	1.253	97.856			
17	.204	1.133	98.989			
18	.182	1.011	100.000			

Table 9: Exploratory Factor Analysis for Self-Monitoring Personality Trait

The table (12) displays that there are only one factor that has an Eigen value of more than (1) and responsible for 65.097% of the variance.

The scree plot in figure (15) below approves graphically that the curve starts to flatten out and become horizontal after 1 component, then the curve connects the points, which is considered to be the point where Eigen values of less than 1 are plotted (Morgan et al. 2004).

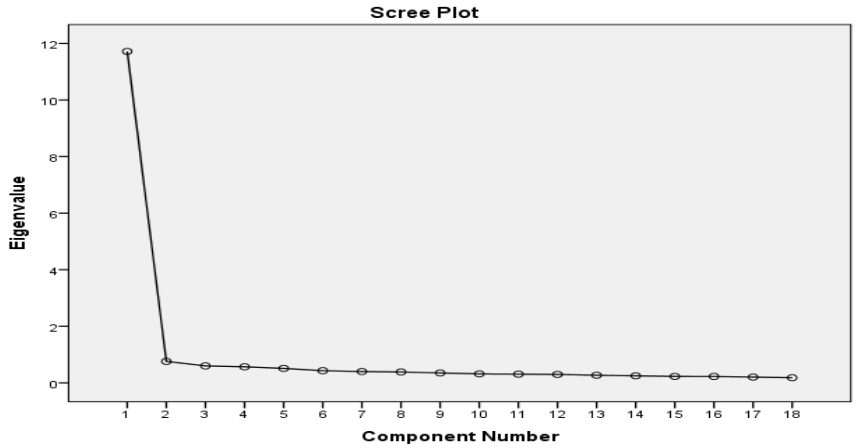

Figure 15: Scree Plot for Self-Monitoring Personality Trait

Table (10) represent the component matrix of proactive personality trait Factors is shown below.

Component Matrix[a]

	Component
	1
SMP01R	.815
SMP02R	.838
SMP03R	.756
SMP04	.815
SMP05	.810
SMP06	.831
SMP07	.758
SMP08	.867
SMP09	.720
SMP10	.799
SMP11	.806
SMP12	.755
SMP13	.796
SMP14	.826
SMP15	.811
SMP16	.835
SMP17	.869
SMP18	.801

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Table 10: The Component Matrix Table of Proactive Personality Trait Factors

Table (13) displays that the entire 18 items are loading on one component and have a loading score that is higher than 0.45, this aligns with the original adopted scale in this study by Snyder and Gangestad (1986).

5.2.1.2. Intrapreneurial Personality Trait Exploratory Factor Analysis

The total variance explained in table (14) illustrates the correlation between factors. The first column displays the components; we have 12 components since the study adopted the scale of Amo and Kolvereid (2005) in measuring intrapreneurial personality trait. The next two columns display three sets of results. The first one is labelled as "Initial Eigen values", which is related to the Eigen value of the correlation matrix and shows which components can stay in the analysis. The next one is labelled as "Extraction Sum of Squared Loadings". It illustrates the sum of the squared loadings for the non-rotated attributes.

EFA analysis is considered for the components with Eigen values of more than 1 while factors with Eigen values of less than 1 are left out (Punch 2005; Field 2005). In the table (11) below, the EFA analysis of intrapreneurial personality trait factors is illustrated, and as we can see clearly there are only one factor that has an Eigen value of more than (1) and responsible for nearly 47.934% of the variance.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.752	47.934	47.934	5.752	47.934	47.934
2	1.000	8.332	56.267			
3	.899	7.493	63.760			
4	.694	5.783	69.543			
5	.612	5.100	74.643			
6	.589	4.909	79.552			
7	.523	4.361	83.913			
8	.500	4.167	88.081			
9	.389	3.243	91.324			
10	.366	3.049	94.373			

11	.352	2.936	97.308			
12	.323	2.692	100.000			

Extraction Method: Principal Component Analysis.

Table11: Exploratory Factor Analysis for Intrapreneurial Personality Trait

The scree plot is recommended in order to offer a graphical picture of the Eigen value for each component extracted in SPSS. The scree plot in figure (16) below clearly demonstrates that the curve starts to flatten out and become horizontal after one component, and then the curve connects the points, which is considered to be the point where Eigen values of less than 1 are plotted (Morgan et al. 2004).

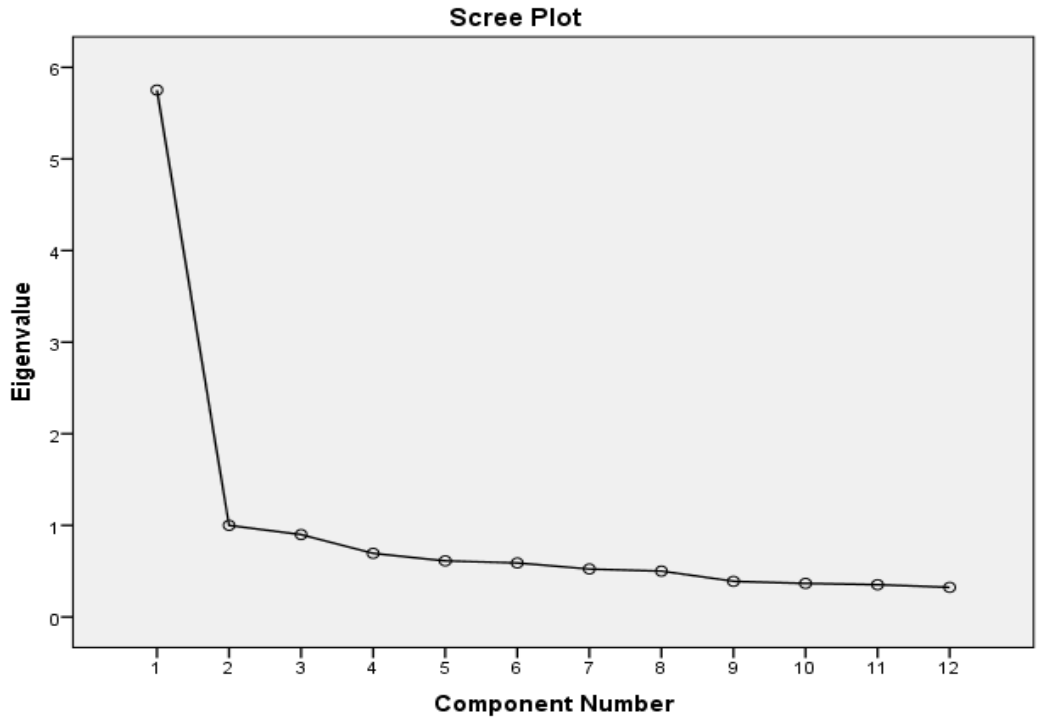

Figure 16: Scree Plot for Intrapreneurial Personality Trait

The rotated component matrix in table (12) displays the extraction of a rotated component matrix, so we can discover which factors have the highest level of influence by presenting the matrix loading scores; these scores can be seen using Varimax rotation. Field (2005) and Morgan et al. (2004) recommended that items loadings with an absolute value greater than 0.45 should be interpreted.

The component matrix table of intrapreneurial personality trait factors is illustrated in table (12) below, which obviously shows that all the 12 items are loading on one component and have a loading score that is higher than 0.45.

Component Matrix[a]

	Component
	1
IntraP01	.750
IntraP02	.742
IntraP03	.773
IntraP04	.782
IntraP05	.624
IntraP06	.562
IntraP07	.722
IntraP08	.583
IntraP09	.769
IntraP10	.649
IntraP11	.711
IntraP12	.588

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Table 12: The Component Matrix Table of Intrapreneurial Personality Trait Factors

Based on the above results, the researcher concluded that all the 12 items that are used in this questionnaire are loading on one factor that represents the intrapreneurial personality trait variable.

5.2.1.3. Proactive Personality Trait Exploratory Factor Analysis

The study adopted Bateman and Crant (1993) one dimension seventeen-item self-reporting questionnaire. The EFA analysis of proactive personality trait factors is illustrated in the table (13) below.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	12.006	70.622	70.622	12.006	70.622	70.622
2	.971	5.710	76.332			
3	.510	3.001	79.333			
4	.423	2.487	81.820			
5	.397	2.336	84.157			
6	.330	1.944	86.101			
7	.299	1.757	87.857			
8	.291	1.714	89.571			
9	.250	1.473	91.044			
10	.234	1.374	92.418			
11	.229	1.350	93.768			
12	.221	1.300	95.068			
13	.206	1.212	96.280			
14	.193	1.135	97.415			
15	.159	.937	98.352			
16	.153	.902	99.254			
17	.127	.746	100.000			

Extraction Method: Principal Component Analysis.

Table13: Exploratory Factor Analysis for Proactive Personality Trait

We can clearly see that there are only one factor that has an Eigenvalue of more than (1) and responsible for nearly 70.622% of the variance.

The scree plot in figure (17) below confirms graphically that the curve starts to flatten out and become horizontal after 1 component, then the curve connects the points, which is considered to be the point where Eigen values of less than 1 are plotted (Morgan et al. 2004).

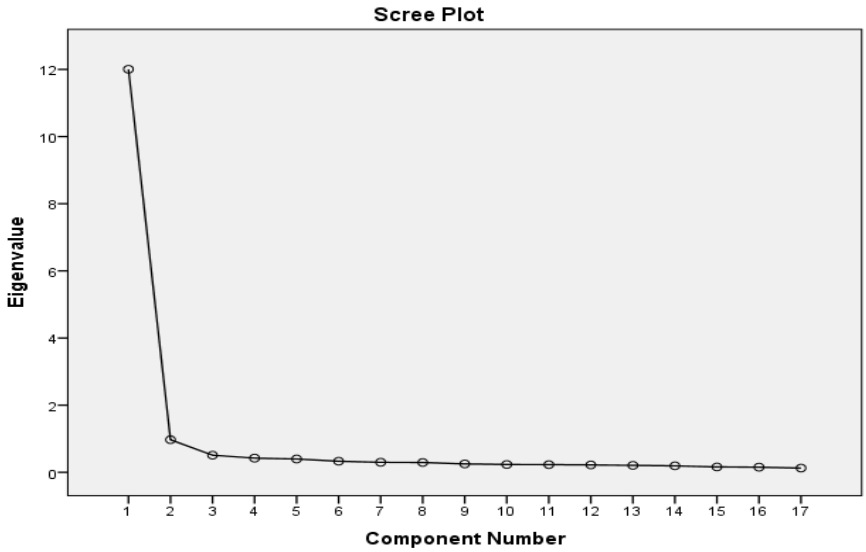

Figure 17: Scree Plot for Proactive Personality Trait

The component matrix analysis of proactive personality trait factors is illustrated below table (14)

Component Matrix[a]

	Component
	1
ProacP01	.908
ProacP02	.785
ProacP03	.766
ProacP04	.815
ProacP05	.823
ProacP06	.903
ProacP07	.804

ProacP08	.886
ProacP09	.826
ProacP10	.839
ProacP11	.807
ProacP12	.853
ProacP13	.840
ProacP14	.844
ProacP15	.857
ProacP16	.807
ProacP17	.906

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Table 14: The Component Matrix Table of Proactive Personality Trait Factors

The table shows that all the 17 items are loading on one component and have a loading score that is higher than 0.45. This aligns with the original adopted scale in this study by Bateman and Crant (1993).

5.2.1.4. Network Building Ability Exploratory Factor Analysis

The research adopted Ferris et al. (2005) one dimension six-item scale. The EFA analysis of network building ability factors is demonstrated in table (15) below.

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.954	65.906	65.906	3.954	65.906	65.906
2	.731	12.183	78.090			
3	.400	6.667	84.757			
4	.373	6.215	90.972			
5	.326	5.425	96.397			

6	.216	3.603	100.000			

Extraction Method: Principal Component Analysis.

Table 15: Exploratory Factor Analysis for Network Building Ability

The table (15) shows that there is only one factor that has an Eigen value of more than (1) and is responsible for 65.906% of the variance.

The scree plot illustrated in figure (18) below supports graphically that the curve starts to flatten out and become horizontal after 1 component, and then the curve connects the points, which is considered to be the point where Eigen values of less than 1 are plotted (Morgan et al. 2004).

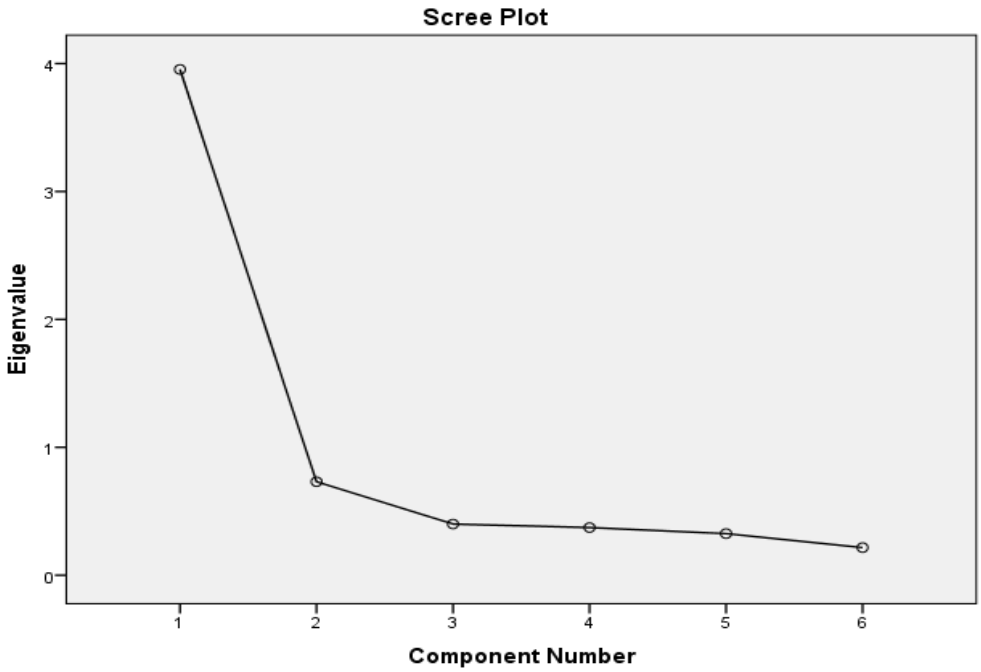

Figure 18: Scree Plot for Network Building Ability

The Component Matrix table of network building ability factor is displayed in the below table (16).

Component Matrix[a]

	Component
	1
NBA01	.777
NBA02	.827
NBA03	.808
NBA04	.857
NBA05	.732
NBA06	.862

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Table 16: The Component Matrix Table of Network Building Ability Factors

The table (16) shows that all the six items are loading on one component and have a loading score that is higher than 0.45. This aligns with the original adopted scale in this study by Ferris et al (2005).

5.2.1.5. Individuals' Innovative Behaviours Exploratory Factor Analysis

The research adopts Janssen (2000) three dimension nine-item scale. The EFA analysis of individuals' innovative behaviours factor is demonstrated in the table (17) below.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings[a]
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	3.489	38.764	38.764	3.489	38.764	38.764	2.557
2	1.858	20.642	59.406	1.858	20.642	59.406	2.665
3	1.177	13.083	72.489	1.177	13.083	72.489	2.487
4	.622	6.914	79.403				
5	.571	6.346	85.749				
6	.445	4.944	90.693				
7	.423	4.696	95.389				
8	.367	4.079	99.467				
9	.048	.533	100.000				

Extraction Method: Principal Component Analysis.

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

Table 17: Exploratory factor analysis for Individuals' Innovative Behaviours

The table (17) shows that there are three factors that have an Eigen value of more than (1), and they are responsible for 72.489% of the variance.

The scree plot demonstrated in figure (19) below supports graphically that the curve starts to flatten out and become horizontal after 3 components, and then the curve connects the points, which is considered to be the point where Eigenvalues of less than 1 are plotted (Morgan et al. 2004).

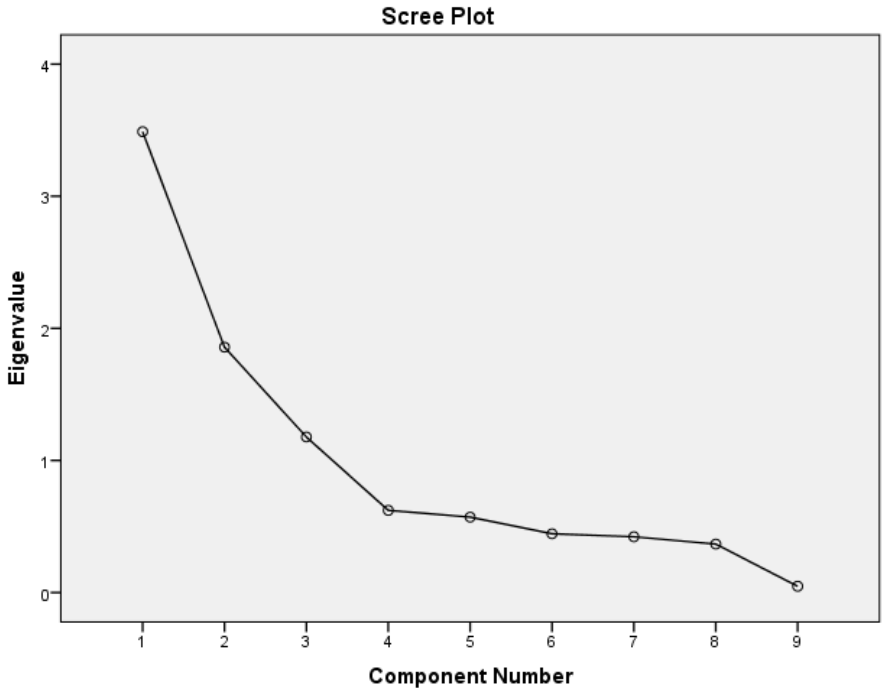

Figure 19: Scree Plot for Individuals' Innovative Behaviours

The Component Matrix table of individuals' innovative behaviours factor is displayed in table (18) below.

Structure Matrix

	Component		
	1	2	3
IBIP04			.803
IBIP05			.836
IBIP06			.820
IBIG01		-.956	
IBIG02		-.967	
IBIG03		-.773	
IBIR07	.763		
IBIR08	.857		
IBIR09	.797		

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization.

Table 18: The Component Matrix table of Individual Innovative Behaviours Factors

The table (18) shows that the nine items are loading on three component, and all have a loading score that is higher than 0.45; items 1,2 and 3 are loading on one component , items 4,5 and 6 are loading on a another component, and the items 7,8 and 9 are loading on a third component. Consequently, this aligns with the original adopted scale in this study by Janssen (2000) in which he classified these components into individuals' innovative behaviours stages that are idea generation, idea promotion, and idea realisation, in which as an original contribution of this study, the researcher will examine each stage and as dependent variable rather than a latent variable for individuals' innovative behaviours construct, arguing that previous studies consider these three stages as one construct even though each one might require different antecedents than the other ones or even have different types of relations with similar antecedents.

5.2.2. Confirmatory Factor Analysis

Researchers conduct Confirmatory Factor Analysis (CFA) when a hypothesised framework is used to estimate a population covariance matrix that is compared with the observed covariance matrix. In other words, the examiner desires to minimise the difference between the estimated and the observed matrixes. The main aim of CFA analysis is to confirm the results found in Exploratory Factor analysis EFA and represent a graph of the hypothesised model to examine how much it fits the observed data. In addition, it validates the used constructs through Convergent and Discriminant tests.

The below graph in figure (20) represents the overall CFA analysis conducted on AMOS for the variables used in this study:

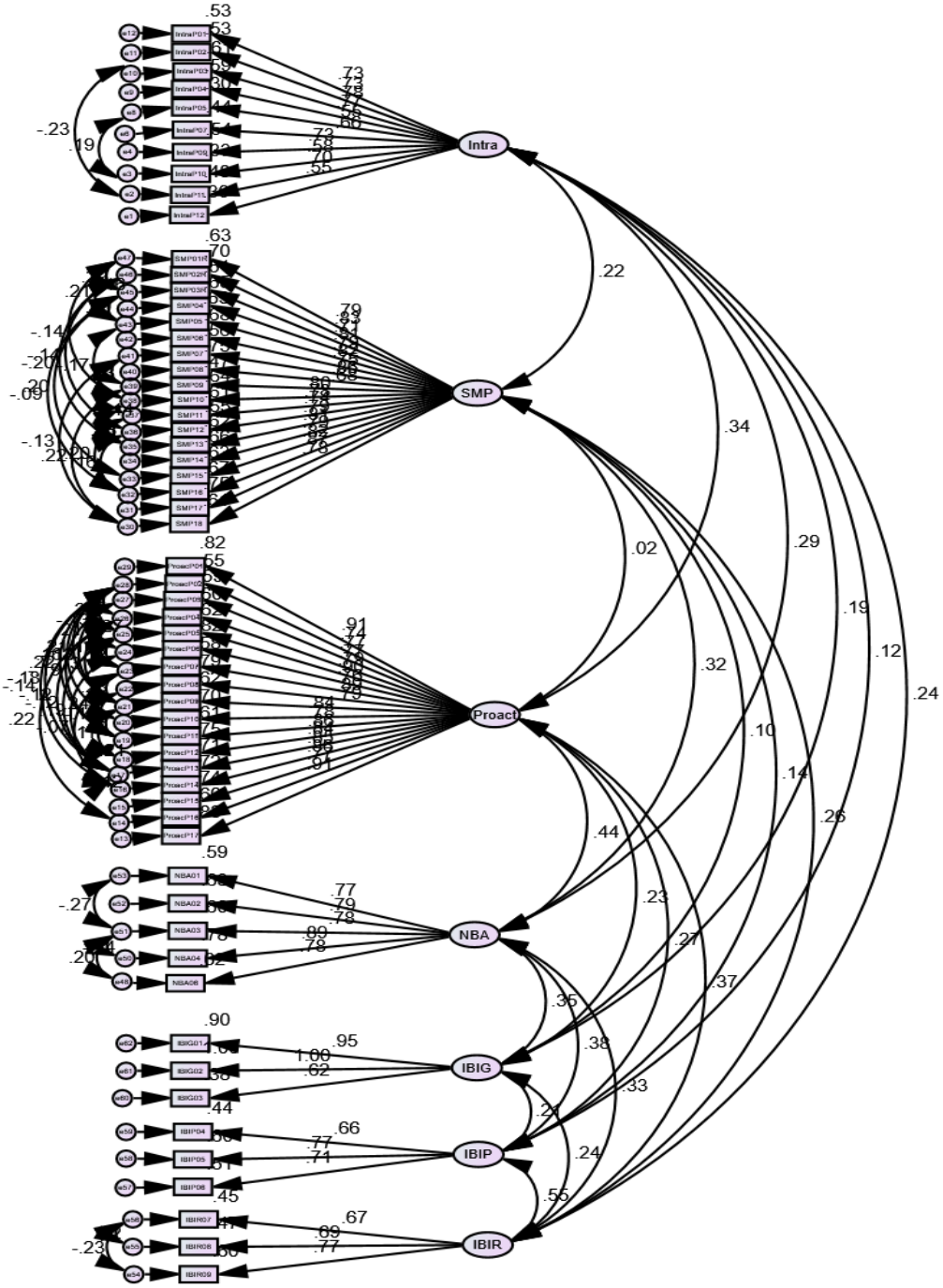

Figure 20: Constructs Confirmatory Factor Analysis

Number “1” is used in the graph to signpost that the regression coefficient has been fixed to 1. The idea of fixing coefficients to a number is to minimise the number of parameters estimated in the model. The values that are different from (1) might be selected, and this will not affect the overall fit of the model; it only affects the variance of the error.

Models are described usually with Chi-square value, degrees of freedom and probability level. Based on Amos analysis, the results of the CFA models are illustrated in the below table (19):

Minimum	was achieved
Chi-square	3265.481
Degrees of freedom	1580
Probability level	.000

Table 19: CFA Model Fit Results (Default model)

Since the degree of freedom is (1580 >1), we can say that the model is over identified. As per Chi-square results, Chi-square by itself commonly is not an adequate indicator especially for large samples since with any inferential procedure that is necessary to get robust and reliable parameter estimates, most likely this will create large chi-square values, which creates statistical significance. Hence, a need to examine additional indices of model fit is required.

Different indices can be examined to decide about the model fitness like the Goodness of Fit Index (GFI), the Comparative Fit Index (CFI), the Incremental Fit Index (IFI), the Normed Fit Index (NFI), the Non-normed Fit Index (NNFI), Tucker-Lewis Index (TLI), the Root Mean Square of Approximation (RMSEA), the Root Mean Square Residual (RMR), the Standardized Root Mean Square Residual (SRMR), and the Akaike Information Criterion (AIC), to name but a few. Each fit indices has different scales and norms for signifying model adequacy (Yu 2002; Schreiber et al. 2006).

Bagozzi and Yi (1988) stated that a single indicator can’t decide the model goodness of fit for the overall theoretical model, so different indicators of the overall model fit must be considered. However, in literature, there is a huge debate regarding which indicator to use (Marsh, Hau & Wen 2004).

In a literature review that had been published in American Psychological Association Journals from 1998 to 2006 of (194) confirmatory factor analysis researches, and to be more specific a 1,409 factor models. Jackson and Gillaspy (2009) found that the most repeatedly fit measures described in these studies were Chi-square ($\chi 2$), CFI, RMSEA, and TLI (89.2%, 78.4%, 64.9%, and 46.4 respectively); whereas, the percentage of reporting other fit measures are ranging from 1.5% to 34% of the reviewed researches.

The Journal of Educational Research between 1989 and 2004 had published a review of CFA and SEM articles in which Schreiber et al. (2006) said that "In general, the authors prefer the TLI, CFI, and RMSEA for one-time analyses" (Schreiber et al. 2006, p.327).

In order to enhance the overall model fit and based on the analysis done on AMOS, the researcher has deleted one item from network building ability which is item number 5 and two items form intrapreneurial personality trait which are item 6 and 8 since they have the weakest loading on their constructs. In addition, a number of errors that belong to the same construct were connected using covariate arrows, based on the results of the modification indices to improve the overall model fit.

Since some constructs' items were deleted the reliability and validity tests for these constructs will be reported after the deletion of these items. The new Cronbach's alpha results for the affected two constructs intrapreneurial personality trait and network building ability are illustrated in the table (20) below

The Variables	Number of Items	Cronbach's alpha
Intrapreneurial Personality	10	.894
Network Building Ability	5	.891

Table 20: Cronbach's alpha Test after Deletion

Based on the table results we can see that both constructs have good results based on George and Mallory (2003) scale.

As per KMO and Bartlett's Test of Sphericity the new results are illustrated in the below table (21)

Variables	Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy	Bartlett's Test of Sphericity (Significance value)
Intrapreneurial Personality	**.926**	**.000**
Network Building Ability	**.838**	**.000**

Table 21: KMO & Bartlett's Test after Deletion

The above table demonstrates that Bartlett's Test is significant and KMO values are higher than 0.50 and more close to 1 that means we have good reliable scales, and we can run factor analysis on the collected data (Hair et al. 1998, Field 2005).

And finally the exploratory factor analysis of intrapreneurial personality trait after deletion is illustrated in the below table (22).

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.163	51.632	51.632	5.163	51.632	51.632
2	.906	9.058	60.691			
3	.708	7.077	67.768			
4	.607	6.069	73.837			
5	.562	5.616	79.453			
6	.523	5.233	84.686			
7	.458	4.585	89.270			
8	.382	3.823	93.093			
9	.365	3.647	96.740			
10	.326	3.260	100.000			

Extraction Method: Principal Component Analysis.

Table 22: Exploratory Factor Analysis for Intrapreneurial Personality Trait after Deletion

The table (22) illustrates that there is only one factor that has an Eigen value of more than (1) and is responsible for 51.632% of the variance.

The rotated component matrix in table (23) displays the extraction of a rotated component matrix, so we can discover which factors have the highest level of influence by presenting the matrix loading scores; these scores can be seen using Varimax rotation. Field (2005) and Morgan et al. (2004) recommended that items loadings with an absolute value greater than 0.45 should be interpreted.

The component matrix table of intrapreneurial personality trait factors is illustrated in table (23) below, which obviously shows that all the 12 items are loading on one component and have a loading score that is higher than 0.45.

Component Matrix[a]

	Component
	1
IntraP01	.761
IntraP02	.750
IntraP03	.783

IntraP04	.791
IntraP05	.621
IntraP07	.710
IntraP09	.772
IntraP10	.648
IntraP11	.720
IntraP12	.599

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Table 23: The Component Matrix of Intrapreneurial Personality Trait Factors after Deletion

The exploratory factor analysis of network building ability after the deletion is represented in the below table (24)

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.493	69.863	69.863	3.493	69.863	69.863
2	.581	11.617	81.480			
3	.380	7.605	89.085			
4	.329	6.581	95.666			
5	.217	4.334	100.000			

Extraction Method: Principal Component Analysis.

Table 24: Exploratory Factor Analysis for Network Building Ability after Deletion

The table (24) shows that there is only one factor that has an Eigen value of more than (1) and is responsible for 69.863% of the variance.

The Component Matrix table of network building ability factor is displayed in the below table (25).

Component Matrix[a]

	Component
	1
NBA01	.805
NBA02	.846
NBA03	.790

NBA04	.879
NBA06	.856

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Table 25: The Component Matrix of Network Building Ability Factors after Deletion

The table (25) shows that all the five items are loading on one component and have a loading score that is higher than 0.45.

To examine the overall CFA model fit Chi-Square value is one of the tested measures since it evaluates the magnitude of discrepancy between the sample and fitted covariance's matrices (Hu & Bentler 1999). If the test has an insignificant result at a 0.05 level, the model has a good fit (Barrett 2007). The table (26) below represents the Chi-Square test results.

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	190	3265.481	1580	.000	2.067
Saturated model	1770	.000	0		
Independence model	59	22120.592	1711	.000	12.928

***NPAR: is the number of parameters in the model**

***CMIN: Chi-square**

***DF: Degrees of Freedom,**

Table 26: CFA Model Fit Results (Chi-Square Test)

Based on table (26) results, we can see that the Chi-Square value is significant which doesn't necessary mean that the model is not fit. This test is very sensitive to the sample size, which is a limitation in this test, because a small sample size does not help the test to differentiate between good fitting models and poor fitting models (Jöreskog & Sörbom 1993). This limitation can be minimised by using relative/normed chi-square ($\chi 2/df$) (Wheaton et al. 1977). The accepted results of relative/normed chi-square ratio is a controversial topic, and it may range from 2.0 (Tabachnick & Fidell 2007) to 5.0 (Wheaton et al. 1977). Generally speaking, 2.0 to 3.0 is usually accepted ratio (Schreiber et al. 2006). Based on the previous discussion, we can find that we have a good fit indicator in this analysis since relative/normed chi-square ratio that we have is (2.067) which is an acceptable results for a good fit model.

The second test that will be utilised is Tucker-Lewis Index (TLI). This test assesses the overall model fit, and it is also called the non-normed fit index or NNFI. Tucker-Lewis Index (TLI) is an incremental fit index that rests on the average size of the correlations in the data. The TLI index scale ranges from 0.0 to 1.0 and the higher value the better fit. Values that are higher than 0.9 were suggested to show a good model fit. Even though Hu and Bentler (1999) suggested that the value of 0.95 and higher is to be considered an indicator of a good fit, Marsh, Hau and Wen (2004) debated that (TLI > .90) is good enough to indicate good model fit and the new more demanding cut-off values (TLI > .95) proposed by Hu and Bentler (1998, 1999) seem to be mostly unobtainable in appropriate practice. Based on the previous discussion, we can say that the results of TLI index in this study (TLI = .911) is an acceptable indicator of a good model fit the results are illustrated in table (27).

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.852	.840	.918	.911	.917
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Table 27: CFA Model Fit Results (TLI, CFI Tests)

A third test that evaluates the overall model fit is The Comparative Fit Index (CFI). CFI index was introduced by Bentler in 1990 (Hooper et al. 2008). It depends on the Normed-fit index (NFI) model that compares the $\chi 2$ significance of the model to the $\chi 2$ of the null model. CFI index scale ranges from 0.0 to 1.0 and the higher value is the better it fits. Results that are higher than 0.9 were initially suggested to indicate a good fit; however, Hu and Bentler (1999) suggested recognising 0.95 to indicate a good fit. Marsh, Hau and Wen (2004) debated that a higher cut-off seems to be mostly unobtainable in appropriate practice, and recommend that 0.90 is good enough to indicate a good fit model. The CFI tests' results in this research is (CFI = .917) which is an acceptable result that indicates a good fit model.

A final test that will be applied to test the model good fit is Root Mean Square Error of Approximation (RMSEA). This test is a highly recommended one since it has the ability for a confidence interval to be calculated around its value (MacCallum, Browne & Sugawara 1996). Root mean square error of approximation (RMSEA) scale ranges from zero to positive infinity. The zero value indicates exact model fit, and the higher the value is the poorer the model fit is.

As an acceptable value of this test to indicate a model is good fit, initial results that are less than 0.08 were suggested to indicate a reasonable model fit, and those that are less 0.05 were

suggested to indicate a close fit (Browne & Cudeck 1993). MacCallum, Browne and Sugawara (1996) proposed 0.01 for excellent fit, 0.05 for good fit and 0.08 for mediocre fit.

More recently there is an agreement that a cut-off value close to 0.06 suggested by Hu and Bentler (1999), or an upper limit of 0.07 suggested by Steiger (2007) is more recommended to be an acceptable indicators of good fit model (Hooper et al. 2008; Chen, Chang & Hung 2008).

The results of Root Mean Square Error of Approximation (RMSEA) in this study has a value of (RMSEA= .051), which is based on the above discussion, is considered a good indicator of the model fitness the RMSEA test results are illustrated in table (28).

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.051	.048	.053	.331
Independence model	.169	.167	.171	.000

Table 28: CFA Model Fit Results (RMSEA Test)

To sum up, based on the four tests applied in this study to test the model fit of the confirmatory factor analysis, the results were (CMIN/DF= 2.067, TLI = .911, CFI, .917, RMSEA = .051) which are satisfactory enough to confirm that the model has a good fit. In other words, the extracted items display good fit to the empirical data.

5.2.3. Convergent and Discriminant Validity

In order to examine construct validity, convergent and discriminant validity of the measurement scales were conducted via confirmatory factor analysis. The assumption of convergent validity is that all the measures of a specific construct should show high correlation with each other (Churchill 1979). The Average variance extracted (AVE) was calculated to examine the convergent validity of the constructs. The cut-off criteria that are more than 0.5 for adequacy of results (Hair et al. 2006) were adopted in this study. In addition, there is a condition of construct reliability that should be 0.7 or higher to guarantee convergent validity and internal consistency (Hair et al. 2006), whereas constructs discriminant validity is the degree to which a construct differs from other constructs (Hair et al. 2006). To examine discriminant validity of the constructs, square root of average variance extracted (AVE) was compared with inter-construct correlations of the constructs. When the square root of AVE is greater than the inter-construct correlation, the constructs discriminant validity is established (Hair et al. 2006). The convergent and discriminant validity test

amongst constructs is illustrated in the below table (29), the diagonal values are representing the square root of AVE, and non-diagonal values are representing the correlations among constructs:

Constructs	IP	SMP	PP	NBA	IBIG	IBIP	IBIR
IP	**0.565**						
SMP	0.22	**0.634**					
PP	0.34	0.02	**0.685**				
NBA	0.29	0.32	0.44	**0.644**			
IBIG	0.19	0.10	0.23	0.35	**0.76**		
IBIP	0.12	0.14	0.27	0.38	0.21	**0.517**	
IBIR	0.24	0.26	0.37	0.33	0.24	0.55	**0.507**

Table 29: Discriminant Validity Test amongst Constructs

Table (29) demonstrates that all of the used scales have tolerable values for average variance extracted higher than 0.5 (Hair et al. 2006), which is an evidence that the convergent reliability is accomplished.

The research adopted Fornell and Larcker (1981) to test discriminant validity. The results show that no issues of discriminant validity in the data, because the Average Variance Extracted was more than the Shared Variance (SV) for respective construct; thus, discriminant validity is achieved.

The second condition of testing construct convergent validity is that Cronbach's alpha should be greater than 0.7, and this was tested earlier and the results are meeting this condition, because all the constructs have the Cronbach's alpha value higher than 0.7 as illustrated in the below table (30).

The Variables	Cronbach's alpha
Self-Monitoring Personality	.97
Intrapreneurial Personality	.89
Proactive Personality	.97

Network Building Ability	.89
Idea Generation	.88
Idea Promotion	.76
Idea Realisation	.74

Table 30: Cronbach's alpha Tests

Based on the previous tests, the convergent and discriminant validity tests among constructs are established, and we can move on to testing the hypotheses using Structural Equation Modelling (SEM) technique.

5.3. Constructs Correlations

The aim of this section is to understand the relation among the variables of the study. The below table (31) will give us an initial insight of the used variables in the study by reporting their means and standard deviations to describe the collected data of the variable statistically.

Variable	Mean	Standard Deviation
Gender	1.39	.488
Age	2.62	.998
Experience	3.98	1.272
Education	3.05	.995
Industry	2.61	1.472
Position	2.40	1.012
Intrapreneurial Personality	3.148	.620
Proactive Personality	3.554	1.073
Self-Monitoring Personality	3.270	1.100
Network Building Ability	3.684	1.078
Idea Generation	4.250	.788
Idea Promotion	4.221	.665

Idea Realisation	4.414	.599

Number of Surveys: 417

Table 31: Variables Means and Standard Deviations

Testing correlations among constructs is a common method to explore the relationship among them, (-1 to +1) is the range of correlation value between two constructs (Pallant 2016). The negative or positive sign in the correlation value refers to the nature of the relationship between the constructs however they have positively related or inversely related (Pallant 2016).

The correlation coefficient value point to the degree of the relationship between constructs and the sign (- /+) refers to the association direction between constructs. Pallant (2016) explanation of the degree of correlation between constructs based on the correlation coefficient value is summarised in the below table 32.

Degree of Correlation	Correlation Coefficient Value
Perfect	1
High	0.50 to 1
Moderate	0.30 to 0.50
Low	less than 0.30
No Correlation	0

Table 32: Degree of Correlation

When discussing correlation three main characteristics are reported correlation strength, direction, and level of significance. The below table (33) illustrates the correlation tests among the study demographic and core variables.

		Gender	Age	Experience	Education	Industry	Position	Intrap	Proact	SMP	NBA	IBIG	IBIP	IBIR
Age	Pearson Correlation	-.213**	1											
Experience	Pearson Correlation	-.330**	.681**	1										
Education	Pearson Correlation	-.134**	.240**	.286**	1									
Industry	Pearson Correlation	.069	.078	.036	.133**	1								
Position	Pearson Correlation	-.079	.331**	.336**	.285**	.310**	1							

Intrap	**Pearson Correlation**	**-.058**	**.233****	**.257****	**.338****	**.223****	**.256****	**1**						
Proact	**Pearson Correlation**	**.050**	**.109***	**.093**	**.150****	**.067**	**.108***	**.323****	**1**					
SMP	**Pearson Correlation**	**-.108***	**-.139****	**-.087**	**-.133****	**-.141****	**-.103***	**.128****	**-.007**	**1**				
NBA	**Pearson Correlation**	**-.075**	**.049**	**.108***	**.056**	**.022**	**.122***	**.263****	**.385****	**.315****	**1**			
IBIG	**Pearson Correlation**	**-.067**	**.112***	**.142****	**.131****	**-.006**	**.055**	**.191****	**.266****	**.126****	**.317****	**1**		
IBIP	**Pearson Correlation**	**-.122***	**.091**	**.153****	**.126***	**.074**	**.117***	**.146****	**.243****	**.124***	**.347****	**.233****	**1**	
IBIR	**Pearson Correlation**	**-.031**	**.007**	**.023**	**.015**	**.003**	**.012**	**.193****	**.304****	**.217****	**.252****	**.292****	**.427****	**1**
****. Correlation is significant at the 0.01 level (2-tailed).**														
***. Correlation is significant at the 0.05 level (2-tailed).**														
Number of surveys (N)= 417														

Table 33: Variables Correlation Results

Pallant (2016) stated that if a significant relationship between the dependent and independent variables is found the regression results will be the best one that can be reached. Since the study dependent variables are the three individuals' innovative behaviours: idea generation, idea promotion and idea realisation. And the independent variables are self-monitoring personality trait, intrapreneurial personality trait, proactive personality trait and network building ability. The main discussion will be to identify the type of correlation relationship among these variables.

Based on the results on the above table there is a low positive significant correlation between intrapreneurial personality trait and idea generation (.191**), similar relationship has been founded for both self-monitoring personality trait (.266**) and proactive personality traits (.126**) and idea generation whereas a moderate positive significant correlation has been founded between idea generation and network building ability (.317**).

In terms of analysing if there is a significant correlation with the study demographic variables (Gender, Age, Years of experience, Level of Education, Industry and Position) and Idea generation behaviour, the results show that there is no significant relationship between idea generation and gender, industry or position, whereas there is a low positive significant correlation with Age (.112*), years of experience (.142**) and level of education (.131**). No moderate or high correlation has been found between idea generation and the study demographic variables. The significant relation between idea generation or creativity with age, years of experience and level of education might be due to the relation of knowing your product and process very well to be able to suggest new ways of doing them.

As per idea promotion and the study's independent variables, the results show a low positive significant correlation with intrapreneurial personality trait (.146**), self-monitoring personality trait (.124*) and proactive personality trait (.243**), whereas a moderate positive significant correlation has been founded with network building ability (.347**).

The relationship between idea promotion and the study's demographic variables illustrated in the table (7) shows that there is no significant relationship between idea promotion and age or industry, whereas there is a low positive significant correlation with years of experience (.153**), level of education (.126*) and position (.117*), and a low negative significant correlation with gender (-.122*). The significant relation between position and idea promotion seems to be supported by the explanation of having higher position means that you may use your authority to influence other people and get them to agree with you and help to market the new idea. In addition the level of education significant relation with idea promotion could be interpreted as usually individuals tends to trust other individuals who have higher academic achievement than those who are lower compared to them. For example If an individual have a BA educational level he might be more influenced with other individuals' opinions and suggestions coming from those who have master or Ph. D level than those who have high school degree only.

Idea realisation relationship with the study's independent variables shows that there is a low positive significant correlation with intrapreneurial personality trait (.193**), self-monitoring personality trait (.217**) and network building ability (.252**), whereas a moderate positive significant correlation has been founded with and proactive personality trait (.304**).

As per the relationship between idea realisation and the study demographic variables, the results show that there is no significant relationship between idea realisation and all the demographic variables of the study. In conclusion, there is no high correlation among the dependent variables and the independent or demographic variables in the study.

The relationship among the three selected personality traits in the study: intrapreneurial personality trait, self-monitoring personality trait and proactive personality trait shows that there is a moderate positive significant correlation between intrapreneurial personality trait and proactive personality trait (.323**) and a low positive significant correlation between intrapreneurial personality trait and self-monitoring personality trait (.128**). In addition there is no significant correlation between proactive personality trait and self-monitoring personality trait. As a summary there is no high significant correlation among the personality traits used in the study conceptual framework.

5.4. Testing the Study Conceptual Framework

Structural Equation Modelling (SEM) is generally used in empirical studies (Lee 2007), and it is mainly used to test conceptual model by examining hypotheses of causal influences (Snoj, Pisnik Korda & Mumel 2004). One of the advantages of using SEM is that it includes

latent variables in the analysis, and it studies the correlated independents, measurement error and multiple latent independents (Byrne 2001). In addition, SEM captures the interactions among the dependent and independent variables (Hair et al. 2006). In addition it has been stated the validity of using SEM as a methodology to test mediation (Preacher, Zyphur and Zhang 2010), furthermore Cheung and Lau (2008) concluded that SEM offers unbiased estimates of mediation and suppression effects, and that the bias-corrected bootstrap confidence intervals perform best in testing for mediation and suppression effects.

Hence, and due to the nature of this study's hypotheses that mainly test the mediating role of network building ability (NBA) on the relation between the personality traits and individuals' innovative behaviours Structural Equation Modelling (SEM) was adopted via AMOS version 23 along with the bootstrapping technique to further test the indirect relations among the variables.

Structural Equation Modelling will be applied via two steps; the first one is to run a CFA for constructs, and the second step is to estimate Structural Equation Modelling for the conceptual model. The created model is estimated in terms of statistical significance and measures of fit, and it may be adjusted if it is necessary (Anderson & Gerbing 1988).

The Structural Equation Model of the study conceptual framework is represented in the below figure (21).

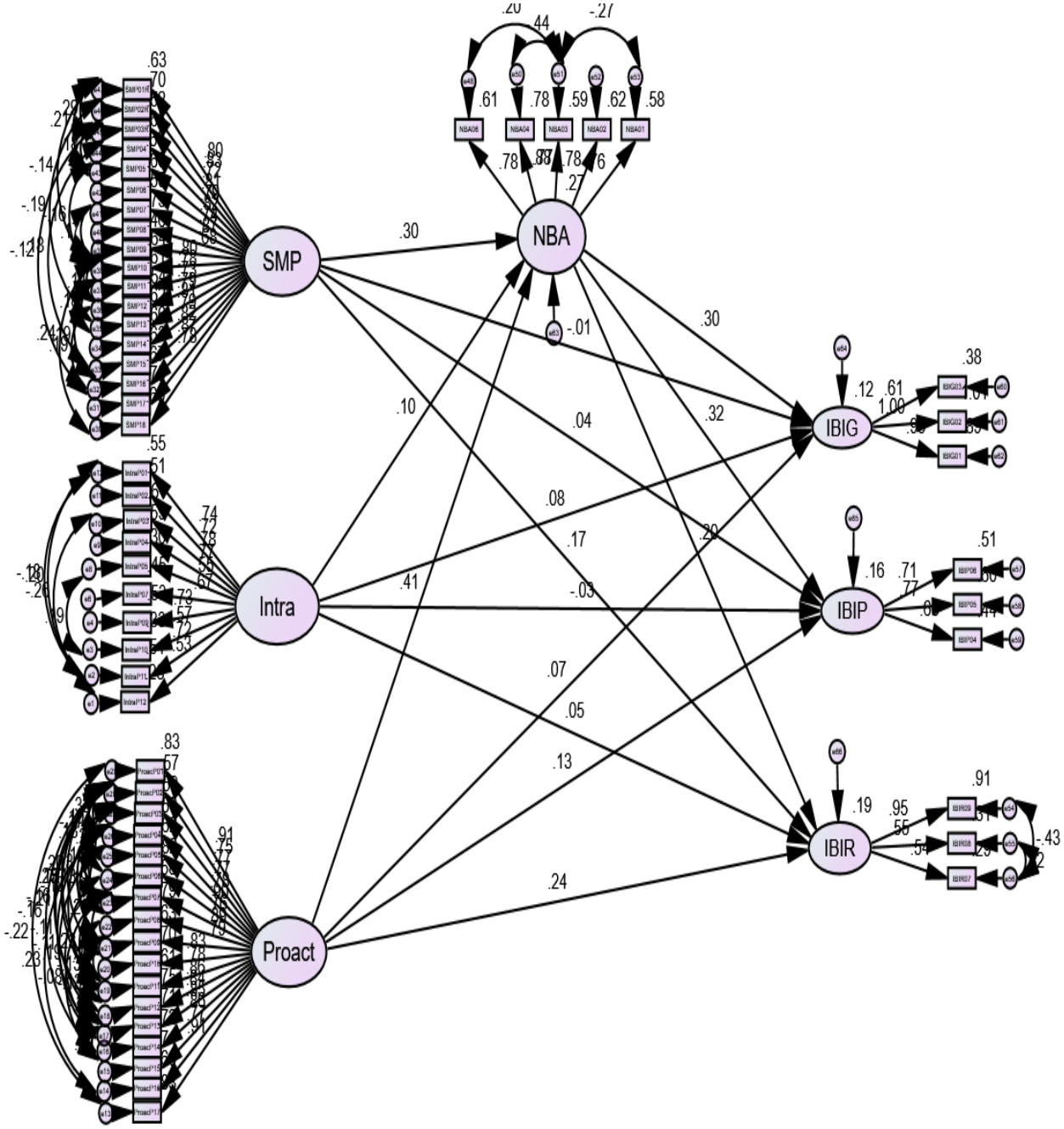

Figure 21: The Study's Structural Model

The study conceptual framework model Chi-square value, degrees of freedom and probability level are illustrated in the below table (34).

Minimum	was achieved

Chi-square	3352.007
Degrees of freedom	1585
Probability level	.000

Table 34: Conceptual Framework Model Chi-square Values

Since the degree of freedom is (1585 >1), we can say that the model is over identified. As per Chi-square results as shown by the table (34) is significant, however Chi-square indicator is not adequate enough to judge the model fitness therefore a need to examine additional indices of model fit is investigated to ensure the model fitness.

For the purpose of evaluating the Model fit of the study conceptual framework model, four indicators will be considered: CMIN/DF, TLI, CFI and RMSEA.

The accepted results of CMIN/DF ratio are 2.0 - 3.0 (Schreiber et al. 2006). The SEM results show that (CMIN/DF= 2.115) which are acceptable results to demonstrate good model fit.

The measures of fit for the TLI and the CFI are assessed in the context of minimum cut-off values of 0.9 (Marsh, Hau & Wen 2004). The results show that (TLI= .907 & CFI= .913) and both are acceptable results to confirm the model fit.

The measures of RMSEA are evaluated and the result is (RMSEA= 0.52) which is an acceptable result to demonstrate good model fit (MacCallum, Browne & Sugawara 1996).

Based on the previous indicators of model fit, we can see that we have a good fit for the study's model, and we can move to test the study's hypotheses.

To further verify that the study conceptual framework is the best model among the variables, alternative models have been tested and their model fitness is compared to the study conceptual framework

The first alternative model tests the mediation role of the three selected personality traits (Self-monitoring, intrapreneurial, and proactive) on the relation between the network building ability and the three stages of individuals' innovative behaviours as illustrated in the below figure (22).

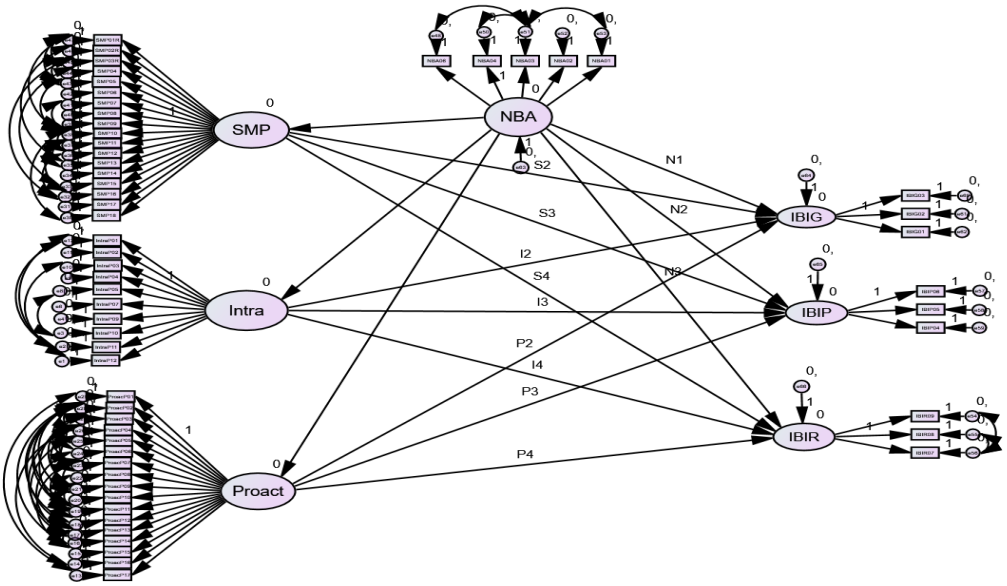

Figure 22: Alternative Model 1

The results of this model were not satisfactory since the model was unidentified and the system suggested changing directions of relationship or adding variables, therefore the model did not have a result of Chi-square nor CMIN/DF. In addition CFI has no accurate reading since it shows (1.000), TLI has no results shown and for RMSEA it was not acceptable results since it was (.169). These unacceptable results of the alternative model fitness further support the study conceptual framework.

A second alternative model was also tested assuming that the three stages of individuals' innovative behaviours mediate the relation between the three selected personality traits (Self-monitoring, intrapreneurial, and proactive) and network building ability as illustrated in the model below.

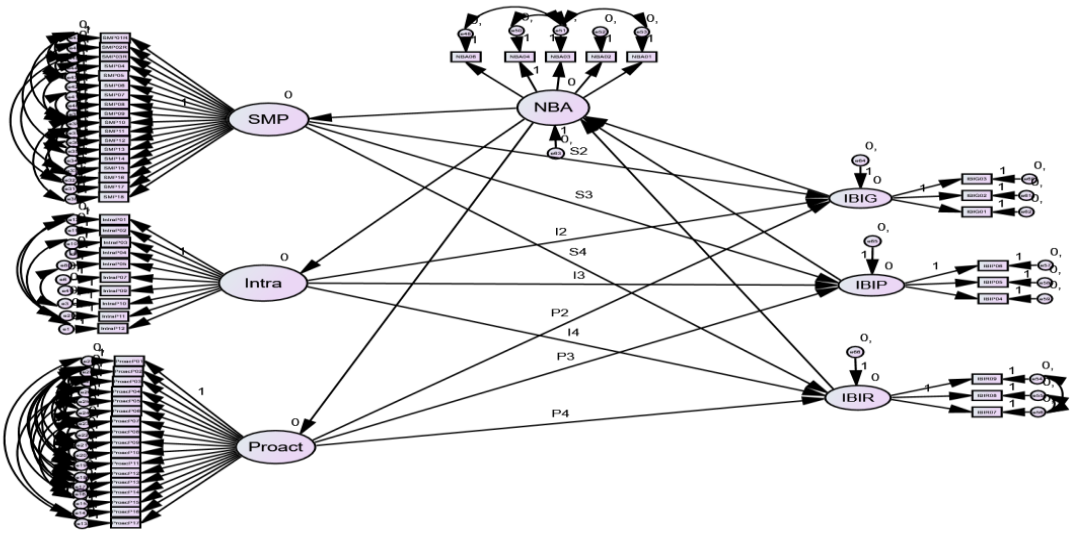

Figure23: Second Alternative Model

The results of second alternative model were not satisfactory since the model was unidentified and the system suggested changing directions of relationship or adding variables, therefore the model did not have a result of Chi-square nor CMIN/DF. In addition CFI has no accurate reading since it shows (1.000), TLI has no results shown and for RMSEA results was (.169) which is not acceptable results. These unacceptable results of the alternative model fitness further support the study conceptual framework.

Since the two alternative models tested results was not satisfactory and did not show a good model fit that demonstrate the validity of the study conceptual framework and the relationship directions within the model.

5.4.1. Testing Research Hypotheses

The research's aim is to study the relations of personality traits (Self-Monitoring, Intrapreneurial, and Proactive) network building ability and individuals' innovative behaviours. This section will present the findings based on the study conceptual framework results.

5.4.1.1. The Relation among Self-monitoring Personality Trait, Network Building Ability, and Individuals' Innovation Behaviours

One of the main original contributions of this study is to examine the relation between self-monitoring personality trait and individuals' innovative behaviours. In addition, it is aimed to test the role that network building ability plays on this relation; thus, the research proposed the following hypotheses:

H1: Network building ability mediates the relation between self-monitoring personality trait and idea generation.

H2: Network building ability mediates the relation between self-monitoring personality trait and idea promotion.

H3: Network building ability mediates the relation between self-monitoring personality trait and idea realisation.

The study attempts to test if network building ability has a mediating role between self-monitoring personality trait and individuals' innovative behaviours. The results of the tests are illustrated in the below table (35).

	Standarised Estimate	Standard Error	Critical Ratio	P Value
SMP ---> NBA	.300	.046	6.479	.000
NBA ---> IBIG	.296	.040	5.162	.000
NBA ---> IBIP	.317	.034	4.677	.000
NBA ---> IBIR	.200	.021	3.023	.002
SMP ---> IBIR	.169	.018	2.920	.004
SMP ---> IBIP	.042	.028	.743	.457
SMP ---> IBIG	-.012	.035	-.234	.815

Table 35: NBA as a Mediator of the Relation between Self-monitoring Personality Trait and Individuals' Innovative Behaviours

The results in table (35) show that we have a moderate positive significant relation at 99% confidence level between self-monitoring personality trait and network building ability (.300**). In addition, we have a low positive significant relation at 99% confidence level between network building ability and idea generation (.296**), and we don't have a significant relation between self- monitoring personality trait and idea generation (p value = 0. 815). The relations among the variables are illustrated in the figure (24).

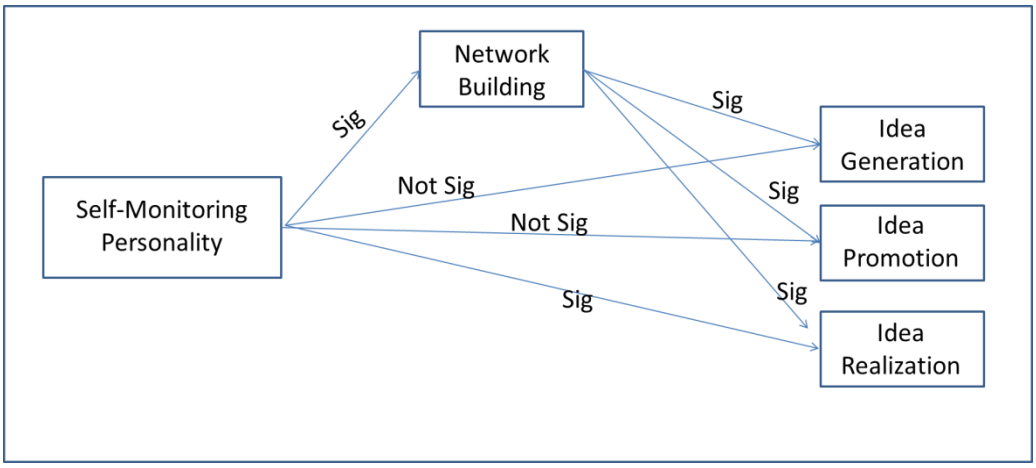

Figure 24: Relations among Self-monitoring, Network Building and Innovation Behaviours

To further examine the indirect (mediation) effect in the relation between self-monitoring personality trait and idea generation, the procedure suggested by MacKinnon, Fairchild and Fritz (2007) was followed using the bootstrap method (Shrout & Bolger 2002) with IBM

SPSS Amos application. Shrout and Bolger (2002) and Hayes (2017) endorsed using the bootstrap method to measure mediation with moderate sample sizes, as in the case of this study. The results of testing the indirect relation between self-monitoring and idea generation show that the lower bounds value is (.034), and the upper bounds value is (.104) since 0 is not included in the interval of the results (LL.034, UL.104) that means H1 is supported by the data and network building ability is a full mediator of the relation between self-monitoring personality trait and idea generation.

As per H2, table (35) shows that we have a moderate positive significant relation at 99% confidence level between self-monitoring personality trait and network building ability (.300**). In addition, we have a moderate positive significant relation at 99% confidence level between network building ability and idea promotion (.317**); however, we don't have a significant relation between self-monitoring personality trait and idea promotion (*p* value = 0. 457),

Similarly to H1, the indirect (mediation) effect in the relation between self-monitoring personality trait and idea promotion was tested. The indirect relationship results between self-monitoring and idea promotion show that the lower bounds value is (.020) and the upper bounds value is (.090). Since 0 is not included in the interval of the results (LL .020, UL .090). Therefore, H2 is supported by the data and network building ability plays the role of full mediator between self-monitoring personality trait and idea promotion.

In terms of H3, the results show that there is a moderate positive significant relation at 99% confidence level between self-monitoring personality trait and network building ability (.300**). In addition, we have a low positive significant relation at 99% confidence level between network building ability and idea realisation (.200**). In addition there is a low positive significant relation between self-monitoring personality trait and idea realisation (.169**).

By examining the indirect (mediation) effect in the relation between self-monitoring personality trait and idea realisation, the results show that the lower bounds value is (.007) and the upper bounds value is (.039). Since 0 is not included in the interval of the results (LL .007, UL .039), H3 is supported by the data, and since we have a direct significant relation (*p* value =0.004) between Self-monitoring and idea realisation at 99% confidence level, it is safe to say that network building ability partially mediates the relation between self-monitoring personality trait and idea realisation.

5.4.1.2. The Relation among Intrapreneurial Personality Trait, Network Building Ability, and Individuals' Innovation Behaviours:

The study aims to test the mediating role of network building ability on the relation between intrapreneurial personality trait and individuals' innovative behaviours; therefore, the following hypotheses were presented:

H4: Network building ability mediates the relation between intrapreneurial personality trait and idea generation.

H5: Network building ability mediates the relation between intrapreneurial personality trait and idea promotion.

H6: Network building ability mediates the relation between intrapreneurial personality trait and idea realisation.

The study attempts to test if network building ability has a mediating role between intrapreneurial personality trait and individuals' innovative behaviours. The results of the tests are illustrated in the below table (36).

	Standarised Estimate	Standard Error	Critical Ratio	P Value
IP ---> NBA	.098	.054	2.122	.034
NBA ---> IBIG	.296	.040	5.162	.000
NBA ---> IBIP	.317	.034	4.677	.000
NBA ---> IBIR	.200	.021	3.023	.002
IP ---> IBIG	.082	.040	1.688	.092
IP ---> IBIP	-.030	.032	-.533	.594
IP ---> IBIR	.046	.019	.931	.352

Table 36: NBA as a Mediator between Intrapreneurial Personality Trait and Innovation Behaviours

The results show that network building ability has the role of a full mediator on the relation between intrapreneurial personality trait and idea generation since there is no significant relation (*p* value = 0.092) between intrapreneurial personality trait and idea generation. In addition, intrapreneurial personality trait has a low positive significant relation (*p* value = 0.034) with network building ability at 95% confidence level (.098*). Also network building ability has a low positive significant relation with idea generation at 99% confidence level (.296**). The relations among the variables are illustrated in the figure (25):

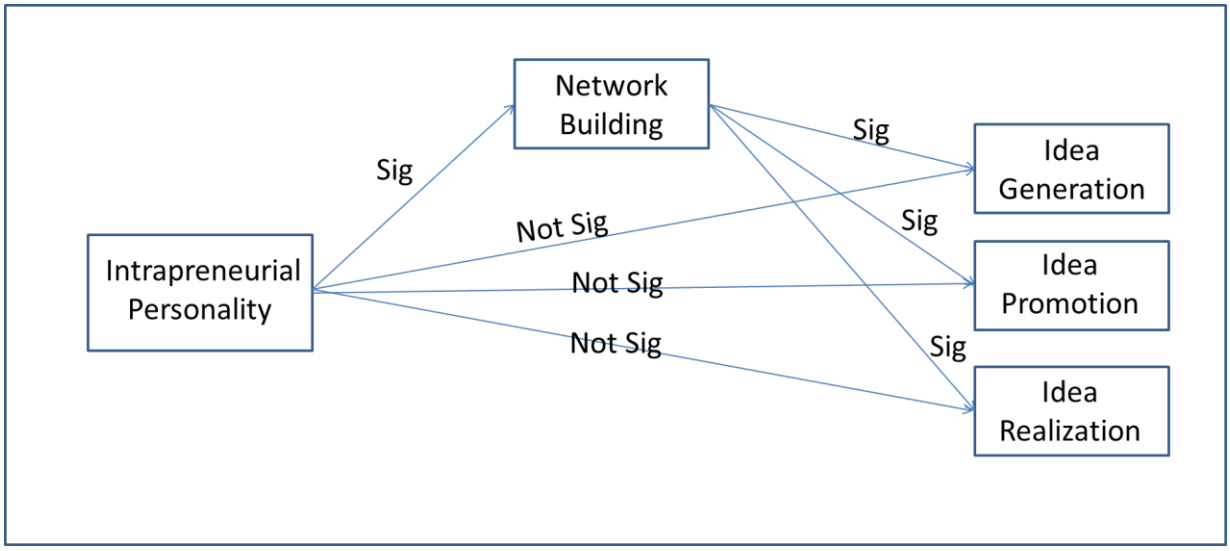

Figure 25: ***Relation among Intrapreneurial Personality Trait, Network Building, and Innovation Behaviours***

To further investigate the indirect effect between intrapreneurial personality trait and idea generation, a similar approach to self-monitoring mediation role was adopted. The results show that the lower bounds value is (.000), and the upper bounds value is (.058). Since 0 is not included in the interval of the results (LL .000, UL .058), H4 is supported by the data.

As per H5, network building ability has a full mediator role on the relation between intrapreneurial personality trait and idea promotion since we already have known that intrapreneurial personality trait has a significant relation (*p* value = 0.034) with network building ability at 95% confidence level. In addition, network building ability has a moderate positive significant relation with idea promotion at 99% confidence level (.317**), and there is no significant relation between intrapreneurial personality trait and idea promotion (*p* value = 0.594).

The indirect effect between intrapreneurial personality trait and idea promotion was tested, and the results display that the lower bounds value is (.001), and the upper bounds value is (.048). Since 0 is not included in the interval of the results (LL .001, UL .048), H5 is supported by the data.

In terms of H6, it was already established that intrapreneurial personality trait has a significant relation (*p* value = 0.034) with network building ability at 95% confidence level, and network building ability has a low positive significant relation with idea realisation 99% confidence level (.200**). In addition, the indirect effect between intrapreneurial personality trait and idea realisation test results display that the lower bounds value is (.000), and the upper bounds value is (.023). Since 0 is not included in the interval of the results (LL .000, UL. 023). Hence, H6 is supported by the data, and since there is no significant relation between intrapreneurial personality trait and idea realisation (*p* value = 0.352), it means that network building ability is a full mediator of the relation between intrapreneurial personality trait and idea realisation. Based on the above results, the research hypotheses H4, H5, and H6 are supported by the collected data.

5.4.1.3. The Relation among Proactive Personality Trait, Network Building Ability, and Individuals' Innovation Behaviours

In terms of the relation among proactive personality trait, network building ability and individuals' innovative behaviours, the study proposes the following hypotheses:

H7: Network building ability mediates the relation between proactive personality trait and idea generation.

H8: Network building ability mediates the relation between proactive personality trait and idea promotion.

H9: Network building ability mediates the relation between proactive personality trait and idea realisation.

The study aims to test if network building ability has a mediating role between proactive personality trait and individuals' innovative behaviours. The results of the tests are demonstrated in the below table (37).

	Standarised Estimate	Standard Error	Critical Ratio	P Value
PP ---> NBA	.410	.043	8.787	.000
NBA ---> IBIG	.296	.040	5.162	.000
NBA ---> IBIP	.317	.034	4.677	.000
NBA ---> IBIR	.200	.021	3.023	.002
PP ---> IBIR	.242	.020	3.632	.000
PP ---> IBIP	.135	.027	2.242	.025
PP ---> IBIG	.074	.033	1.426	.154

Table 37: NBA as a mediator between Proactive Personality Trait and Innovation Behaviours

As it is demonstrated by table (37) results, we have a moderate positive significant relation at 99% confidence level between proactive personality trait and network building ability (.410**), and we have a significant relation at 99% confidence level between network building ability and idea generation; however, we don't have a significant relation between proactive personality trait and idea generation (*p* value = .154). The relations among the variables are illustrated in the figure (26):

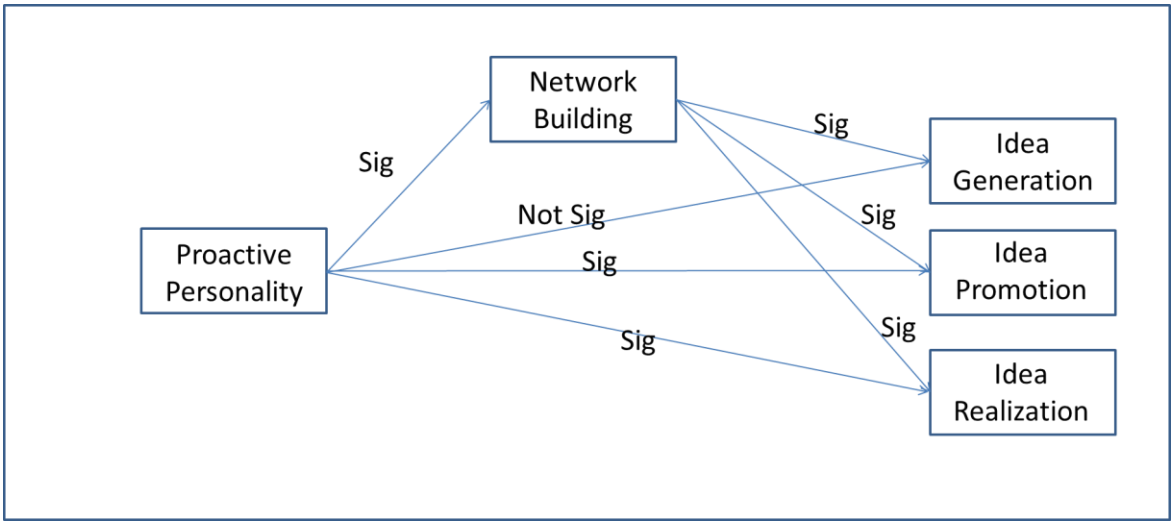

Figure 26: ***Relation among Proactive Personality Trait, Network Building, and Innovation Behaviours***

To further investigate the indirect (mediation) effect in the relation between proactive personality trait and idea generation, the bootstrap method to measure mediation with moderate sample sizes was adopted as recommended by Shrout and Bolger (2002) and Hayes (2017).

The results of the indirect relation between proactive personality trait and idea generation show that the lower bounds value is (.044) whereas the upper bounds value is (.123). Since 0 is not included in the interval of the results (LL.044, UL.123), it means that H7 is supported by the data, and network building ability is a full mediator of the relation between proactive personality trait and idea generation.

For H8, the table (37) illustrates that we have a significant relation at 99% confidence level between proactive personality trait and network building ability. In addition, we have a significant relation at 99% confidence level between network building ability and idea promotion, and there is a low positive significant relation between proactive personality trait and idea promotion (*p* value = .025) at 95% confidence level (.135*).

In a similar way to H7, the indirect effect in the relation between proactive personality trait and idea promotion was examined. The results of the indirect relation between proactive personality trait and idea promotion indicate that the lower bounds value is (.024) whereas the upper bounds value is (.104). Since 0 is not included in the interval of the results (LL .024, UL.104). Therefore, H8 is supported by the data, and network building ability plays the role of a partial mediator between proactive personality trait and idea promotion.

Finally for H9, we already know that there is a significant relation at 99% confidence level between proactive personality trait and network building ability. In addition, we have a low positive significant relation at 99% confidence level (.242**) between network building ability and idea realisation. As per testing the indirect effect in the relation between proactive personality trait and idea realisation, the results show that the lower bounds value is (.008), and the upper bounds value is (.046). Since 0 is not included in the interval of the results (LL .008, UL .046), H9 is supported by the data, and because we have a direct significant relation

between proactive and idea realisation at 99% confidence level, it is safe to say that network building ability partially mediates the relation between proactive personality trait and idea realisation.

5.5. *Chapter Summary*

This chapter objective was to operationalize the study's conceptual framework and to statistically test the study's hypotheses and report its results. The below table (38) represents a summary for the study's findings:

SMP - NBA - IB			**Standarised Estimate**	***p* value**	**H**	**Indirect Effects Self- Mentoring**				**Results**
SMP	**->**	**NBA**	**.300**	**0.000**			**Lower Bounds**	**Upper Bounds**	**Indirect Effects**	
NBA	**->**	**IBIG**	**.296**	**0.000**						
NBA	**->**	**IBIP**	**.317**	**0.000**	**H 1**	**IBIG**	**0.034**	**0.104**	**0.062**	**Full Mediation**
NBA	**->**	**IBIR**	**.200**	**0.002**						
SMP	**->**	**IBIR**	**.169**	**0.004**	**H 2**	**IBIP**	**0.02**	**0.09**	**0.047**	**Full Mediation**
SMP	**->**	**IBIP**	**.042**	**0.457**						
SMP	**->**	**IBIG**	**-.012**	**0.815**	**H 3**	**IBIR**	**0.007**	**0.039**	**0.019**	**Partial Mediation**
IP- NBA - IB			**Standarised Estimate**	**p value**		**Indirect Effects Intrapreneurial**				**Results**
IP	**->**	**NBA**	**.098**	**0.034**			**Lower Bounds**	**Upper Bounds**	**Indirect Effects**	
NBA	**->**	**IBIG**	**.296**	**0.000**						
NBA	**->**	**IBIP**	**.317**	**0.000**	**H 4**	**IBIG**	**0.000**	**0.058**	**0.024**	**Full Mediation**
NBA	**->**	**IBIR**	**.200**	**0.002**						
IP	**->**	**IBIG**	**.082**	**0.092**	**H 5**	**IBIP**	**0.001**	**0.048**	**0.018**	**Full Mediation**
IP	**->**	**IBIP**	**-.030**	**0.594**						
IP	**->**	**IBIR**	**.046**	**0.352**	**H 6**	**IBIR**	**0.000**	**0.023**	**0.007**	**Full Mediation**
PP - NBA - IB			**Standarised Estimate**	**p value**		**Indirect Effects Proactive**				**Results**
PP	**->**	**NBA**	**.410**	**0.000**			**Lower Bounds**	**Upper Bounds**	**Indirect Effects**	
NBA	**->**	**IBIG**	**.296**	**0.000**						
NBA	**->**	**IBIP**	**.317**	**0.000**	**H 7**	**IBIG**	**0.044**	**0.123**	**0.078**	**Full Mediation**
NBA	**->**	**IBIR**	**.200**	**0.002**						
PP	**->**	**IBIR**	**.242**	**0.000**	**H 8**	**IBIP**	**0.024**	**0.104**	**0.059**	**Partial Mediation**

PP	**->**	**IBIP**	**.135**	**0.025**						
PP	**->**	**IBIG**	**.074**	**0.154**	**H 9**	**IBIR**	**0.008**	**0.046**	**0.024**	**Partial Mediation**

Table 38: Results Summary

The study has nine hypotheses that were tested using structural equation modelling to identify the meditation role of network building ability on the relation between the three selected personality traits form literature: self-monitoring personality trait, intrapreneurial personality trait, and proactive personality trait, and the individuals' innovative behaviours three stages: idea generation, idea promotion, and idea realisation.

The first three hypotheses address the mediation role of network building ability on the relation between self-monitoring and three stages of individuals' innovative behaviours. The results demonstrated that the network building ability fully mediates the relation between self-monitoring personality trait and idea generation behaviours. The same results were found with idea promotion behaviours; however, network building ability has the role of a partial mediator of the relation between self-monitoring personality trait and idea realisation behaviours.

Hypotheses numbered four, five and six were addressing the mediation role of network building ability on the relation between intrapreneurial personality trait and three stages of individuals' innovative behaviours. The results illustrated that the network building ability fully mediates the relation between intrapreneurial personality trait and idea generation behaviours; however, network building ability plays the role of a full mediator of the relation between intrapreneurial personality trait and idea promotion behaviours. Similar results were found with idea realisation behaviour since network building ability fully mediates the relation between intrapreneurial personality trait and idea realisation behaviour.

The last three hypotheses were highlighting the mediation role of network building ability on the relation between proactive personality trait and the three stages of individuals' innovative behaviours. The results exemplified that the network building ability fully mediates the relation between proactive personality trait and idea generation behaviours; however, network building ability plays the role of a partial mediator of the relation between proactive personality trait and idea promotion behaviour. Similar results have been found with idea realisation behaviour since network building ability fully mediates the relation between proactive personality trait and idea realisation behaviour.

In the next chapter, the study findings will be discussed in relation to previous works in literature to further support the research hypotheses results.

Chapter Six: Results Discussion

The discussion chapter aims to discuss the results of this study, and link these results to previous works in literature. The contribution of each construct on the study will be discussed and related to similar results in previous literature. Therefore, this chapter will be divided into five main sections; each one of the three selected personality traits' results will be discussed separately. The second section will be covering the main contributions of self-monitoring personality trait, the third section will be dedicated to discuss the contribution of intrapreneurial personality trait, the fourth section will be allocated to debate proactive personality trait main contributions, the contribution to network building ability will be covered in the fifth section, the sixth section will discuss individuals' work innovative behaviours, and finally the contribution to psychological-sociological co-evolutionary theory will be discussed in the seventh and the last section.

6.1. Contribution to Self-monitoring Personality Trait

The study contributes to the current understanding of self-monitoring personality theory on several points. First, this study supports the use of the 18-item scale developed by Snyder and Gangestad (1986) rather than the original 25-item scale introduced by Snyder (1974), or the revised scale suggested by Lennox & Wolfe, (1984) because the reliability and validity tests are excellent for this scale, which goes in line with the results of a recent literature review done by Kudret, Erdogan and Bauer (2019); they pointed that the majority of studies are still adopting the 18-item scale of Snyder and Gangestad (1986). In addition, this study supports the use of the 5-point Likert scale suggested by Day et al. (2002) instead of the original true and false scale suggested by Snyder and Gangestad (1986). This contribution is based on the results of the validity and reliability tests of the self-mentoring construct which have an excellent reliability result of Cronbach's alpha test (.97).

Second, the SEM model in this study exhibits a significant positive relationship between self-monitoring and network building ability. The relationship between self-monitoring and social networks has been investigated in literature from different aspects such as network types, size, betweenness and centrality (Mehra, Kilduff & Brass 2001; Toegel, Anand & Kilduff 2007; Oh & Kilduff 2008; Fang & Shaw 2009; Sasovova et al. 2010; Fang et al. 2015). However, this study attempts to evaluate the self-monitoring individual's ability to build networks and create their own social capital. High self-monitored individuals are more thoughtful to social and interpersonal cues; moreover, they enjoy high control of their expressions and effectively manage their behaviours in terms of situational appropriateness (Gangestad & Snyder 2000). These attributes will facilitate the process of making new

friends and expanding their network. This finding agrees with Fang, Duffy and Shaw's (2011) research on newcomers and the way they build their social capital. Newcomers, based on their level of self-monitoring personality trait, will build and mobilise their social capital. This finding is also in line with Mehra, Kilduff and Brass (2001), who found a significant relationship between self-monitoring and network size. In addition, this idea was supported by Sasovova et al. (2010) because they argued that high self-monitors were more likely than low self-monitors to develop friendships with people outside their existing friends as well as people in different functions over time. Fang et al. (2015) examined the relationship between the Big Five and self-monitoring personality trait and social network positions. After analysing 138 independent samples, they found that self-monitoring personality trait is a relevant personality variable in the prediction of individuals' networking behaviours. This somehow supports the study's finding of a significant relationship between self-monitoring and network building ability of the individuals.

Finally, the study made an important contribution to the self-monitoring literature by being the first to examine the relationship between self-monitoring and individuals' innovative behaviours. The study found that there is no direct significant relationship between self-monitoring and the idea generation behaviour. This finding might be related to earlier work done by de Vet and de Dreu (2007) on the benefits of brainstorming in groups for idea generation since they found that self-monitoring has a negative relationship with creativity. De Vet and de Dreu (2007) stated that 'thinking aloud' in a brainstorming session may limit creativity especially for individuals with high sensitivity to others' expectations of them and low ability to adapt to these expectations. Hence, self-monitors' pre-occupation with conformity and meeting others' expectations (Snyder 1974) may hinder their creative thought.

Similar to idea generation behaviour the study's results show no direct relation between self-monitoring personality trait and idea promotion behaviour. This finding agrees with those of Day et al. (2002) and Rank et al. (2009) which found that high self-monitors are likely to quit their innovative efforts too early for fear of being rejected or ridiculed. This pre-occupation with image may dampen high self-monitors drive to enthusiastically promote their innovative ideas.

The study's results illustrated a significant direct positive relationship between self-monitoring and the idea realisation stage. This positive relationship further strengthens our understanding of the idea realisation stage in which individuals mobilise their social networks and embedded resources to implement new innovations. This finding expands the work of Janssen (2000), Fang and Shaw (2009) and Fang, Duffy and Shaw (2011), who referred to the relationship between people's level of self-monitoring and their ability to mobilise social capital to achieve their objectives. The study's findings also support the work of Mehra, Kilduff and Brass (2001) since they found that high self-monitors have more ability and motivation to pursue and use the resources available and accessible in their social networks to achieve better work performance.

To sum it up, the study found that self-monitoring personality trait only significantly related to idea realisation stage of innovation; moreover, the study found that network build ability can mediate the relation between self-monitoring and the idea generation and idea promotion stages of innovation. In other words, self-monitoring individuals may innovate through building networks that compensate the lack of direct relation between their own personality trait and innovation behaviours stages. This finding is supported by the work of Tasselli and Kilduff (2018) since they stated that individuals' success can be achieved if the individuals can match their attributes to the network opportunities available.

6.2. Contribution to Intrapreneurial Personality Trait

Intrapreneurship is a term that sometimes used to describe innovation behaviour among employees (Amo 2010). Intrapreneurship is about the implementation of bottom-up innovations in organisations which means the employees initiated the new change in the organisation (Block & MacMillan 1993). Most of the definitions of intrapreneurship stress the perspective that intrapreneurship is innovation initiatives generated by the employees (Amo 2010). These definitions is clearly pointing that intrapreneurs can generate their own innovative ideas that they want to implement in their organisations, and this goes in line with the study's findings that intrapreneurial personality trait is linked to idea generation stage of innovation since the study found a direct relation between the two, and network building ability will play the role of partial mediator of the relation between that intrapreneurial personality trait and idea generation. However, this finding is defying Sinha & Srivastava (2013) debating that Intrapreneurs are not certainly idea-generators; nonetheless, Intrapreneurs have the ability to turn ideas into significant results to motivate innovation.

This study contributes to our current understanding of the relation between the intrapreneurial personality trait and the innovative behaviours of the individuals. In other words, all the previous scarce research that tested the relationship between the two such as Amo and Kolvereid (2005) that found a significant relation between intrapreneurial personality trait and individuals' innovative behaviours tested the relationship after taking into consideration the three stages of individuals' innovative behaviours as one construct. By doing so, they failed to capture the nature of the relationship between intrapreneurial personality trait and each stage of the innovation process. Thus, this study debates that although we have found a direct relationship between intrapreneurial personality trait and idea generation stage, the study's results reveal that there is no direct relationship between intrapreneurial personality trait and the other two stages of the innovation process: idea promotion and idea realisation.

Another contribution for the study is that a direct relation between intrapreneurial personality trait and network building ability has been found, and this findings further support the work of Blanka (2018) who pointed that intrapreneurs are actively seek to create relationships and build networks inside and outside the organisation. In addition, this finding further supports the work of De Jong and Wennekers (2008) in which they stressed the important role of

social capital in helping the intrapreneurs' active search for information. The more information the intrapreneurs collect from their network the more they might be able to link ideas together and come up with new ideas to solve the issues that they are facing, and that is one of the aims of service innovation that is to provide innovative solutions for the customers (Miles, Miles & Snow 2006; Hertog, Van der Aa & De Jong 2010).

Furthermore, the study's framework suggests that intrapreneurs depend on the social network ability to be able to build their social capital that they can utilise to promote and realise their innovative ideas. The study's result -that points to the importance of network building ability for the innovation of the intrapreneurs- answers the question that was raised by Neessen's et al. (2019) literature review when they pointed that measuring the individual's intrapreneurship by three behaviours: innovativeness, proactiveness and risk-taking is not enough and they recommended to include networking to this scale and test if one behaviour like Networking can compensate the low score of other behaviours. Based on the study's results, we can simply answer by yes because the study found that network building ability can compensate the lack of a direct relationship between intrapreneurial personality trait and idea promotion or idea realisation stages of innovation. In addition, in their definition of intrapreneurship, De Jong and Wennekers (2008) pointed that intrapreneurs through proactive behaviour concentrate on pursuing opportunity with no regard to the resources they currently control. However, somehow intrapreneurs always seem to find a way to do so. This study might point that the way that the intrapreneurs adopt to implement their ideas and mobilise the needed resource is through building their social network.

To further support the study's debate of the importance of network building ability for the intrapreneurs to innovate, it will be valuable to shed the light on one of the main differences between entrepreneurs and intrapreneurs; intrapreneurs use the resources of the organisation that they work at, whereas entrepreneurs depend on their own resources. This means that intrapreneurs use the organisation's existing resources and essentially work within their organisations' policies (Camelo-Ordaz et al. 2012; Baruah & Ward 2015). Based on this, creating relationships with decision makers, mangers, and colleagues is very important for the intrapreneurs to be able to mobilise the needed resource within their company to promote or to realise their innovative ideas because at the end of the day the intrapreneurs are not using their own resources, and they need approvals to be able to use the organisation's resources. This result explains furthermore the mechanism of how intrapreneurs innovate in their organisations and gain their top and middle management commitment to support them which is a key element for the growth of intrapreneurship in organisations (Baruah & Ward 2015; Lankinen et al. 2013).

A final contribution of the study will be a recommendation to future studies to re-evaluate the used scale developed originally by Pinchot (1985) since it has been created 35 years ago and our knowledge of Intrapreneurship has developed enormously since then. For example, in a recent study done by Rigtering and Weitzel (2013), they explored the work context and employees' behaviour as antecedents for intrapreneurship. They found that risk-taking is not playing a role for an effective translation of individual's behaviour into intrapreneurial projects. In addition, as discussed earlier the intrapreneurs use the organisation's resources

and not their resources for their innovation, so asking the individuals to take risk of losing their salaries to innovate will not be a good measure to see if they are intrapreneurs or not? Like the questions of Pinchot (1985) scale:

"Would you be willing to give up some salary in exchange for the chance to try out your business idea if the rewards for success were adequate?"

Hence, the study strongly recommends developing a more solid scale to further encourage scholars to investigate intrapreneurial personality trait in their studies and advance our current knowledge of this phenomenon further more.

6.3. Contribution to Proactive Personality Trait

The study's results contribute to proactive personality trait literature in mainly five points. The first point is that proactive personality trait may act as an antecedent of network building ability because the study's results show a significant relationship between the two, which means that proactive individuals are more likely to build networks in their work places that will support them in achieving their objectives and facilitate their tasks. This contribution is supported by Thompson (2005) since he debated the same results in his research by relating proactive individuals to individual job performance; Thompson (2005) stated that Proactive individuals are probably to engage in building networks that mediate the relation between proactive personality trait and job performance. Another study that goes in line with this research result of a positive relation between proactive personality trait and network building ability is the study of Li, Liang, and Crant (2010) since they stated that for the sake of obtaining information related to growing problems and opportunities, proactive individuals pay efforts to form positive social relationships with their supervisors, so they might improve their job performance.

Several studies investigated the relation between proactive personality trait and individuals' innovative behaviours such as Seibert, Kraimer and Crant (2001), Swaab et al. (2007), Giebels et al. (2016), Yildiz, Uzun and Coşkun (2017), Purba and Paundra (2018) and Rodrigues and Rebelo (2019). However, this study attempts to have a more in-depth investigation of the relationship between proactive personality trait and each stage of the individuals' innovative behaviours separately as recommended by Niu (2014), Wisse, Barelds and Rietzschel (2015) and Woods et al. (2017), Rodrigues and Rebelo, (2019). This separation will differentiate between the three stages of innovation behaviours because each stage might require different predictors and antecedents, which will help to validate the previous research results regarding the nature of the relation between proactive personality trait and individuals' innovative behaviour. In addition, it will expand our knowledge of the predictors of the individual's innovative behaviours and the type of the relation among the predictors. Hence, the second contribution point of the study will be running more in-depth investigation to the relationship between proactive personality trait and idea generation stage

of innovation. The study found that there is no direct relationship between proactive personality trait and idea generation stage. This result is in line with a recent study done by Alikaj, Ning and Wu, (2020) who found that proactive personality trait has no direct relation with creative behaviour of the individuals and this relation is fully mediated by employee thriving at work.

In addition, the study's finding further explains the work of previous literature that stated there is a relation between proactive personality trait and creativity which is linked to idea generation stage of innovation such as the work of Grant and Ashford (2008), Kim, Hon and Crant (2009), Fuller and Marler (2009), Gong et al. (2012), and Tai and Mai (2016) since the study's results argue that the role of network building ability is essential for proactive individuals to generate novel ideas. Thompson's (2005) work goes in line with this argument because he stressed the role of social capital to access information for proactive individual to improve their work performance. The mediation role of network building ability will answer the call of Kim, Hon and Crant (2009) and Gong et al. (2012) to examine different mediators to the relation between proactive personality trait and individuals' innovative behaviours. In addition, the mediation role of network building ability will contribute to the work of Pan et al. (2018) in which they tried to answer the question of 'How does proactive personality promote creativity?', and their suggestion to integrate social perspective to the relation between proactive personality trait and creativity. Finally, the mediation role of the relation between proactive individuals and idea generation behaviours (creative behaviours) will fill a gap identified by Jiang (2017) and Liu et al. (2017) to further explore the relation between proactive personality trait and creative behaviours since it is unexplored in literature.

The third contribution point is examining the direct relation of proactive personality trait with idea promotion stage of innovation. The study's results illustrate a positive direct relationship between proactive personality trait and idea promotion, which is in line with the work of Seibert, Kraimer and Crant (2001), Swaab et al. (2007), Giebels et al. (2016), Yildiz, Uzun and Coşkun (2017), Purba and Paundra (2018), and Rodrigues and Rebelo (2019) since they found that proactivity may predict individuals' innovative behaviour (i.e. idea promotion). The study further suggests that network building ability will play the role of partial mediator in the relation between proactive personality trait and idea Promotion stage of innovation.

The fourth contribution is inspecting the direct relation of proactive personality trait with idea realisation stage of innovation, the study shows a positive direct relation between proactive personality trait and idea realisation, this contribution is in agreement with previous literature that relate proactive personality trait and innovation behaviours (i.e. idea realisation) such as Swaab et al. (2007), Giebels et al. (2016), Yildiz, Uzun and Coşkun (2017), Purba and Paundra (2018), and Rodrigues and Rebelo (2019). In addition, the study found that network building ability has the role of partial mediator between proactive individuals and idea realisation stage.

The final contribution is the integration of psychology and sociology perspective adopted in this study that may also contribute to the question that was raised by Seibert, Kraimer and Crant (2001) "What do proactive employees do?" since they tried to identify mediating

variables that link proactive personality trait to career outcomes. Therefore, the study findings stressed the role of network building ability of the proactive individuals to create their social capital that linked proactive personality trait to individuals' innovative behaviours. This contributes as well to the call of Crant (2000) and Thompson (2005) to establish a process view of proactivity that enhances our understanding of what do proactive individuals do?

6.4. *Contribution to Network Building Ability*

Social capital as a concept was introduced by the economist Loury (1977). This concept refers to the individuals' social relationships that generate a set of resources for the individual. The individuals usually mobilises these resources to achieve their work objectives (Lin, Fu & Hsung 2001). Since James Coleman transferred the concepts of social capital from economy to sociology in his work Coleman (2000). Social capital became one of the most studied subjects in social literature (Borgatti & Foster 2003). Thompson (2005) identified the individuals' network by the relationships with other individuals in their social environment, and these relationships constitute the individuals' social resources. Therefore, the larger the network that the individuals create the more they can access information and find support from their network. Hence the ability to build network has attracted many studies investigating different phenomena (Thompson 2005; Ferris, et al. 2005).

This study has several contributions to the literature of network building ability. The first contribution is that the study provides an in-depth investigation of the relation between network building ability and the three behaviours of individual's innovative behaviours. A significant positive direct relation has been found between network building ability and idea generation behaviour. This finding is in line with previous literature that stated a clear relation between social capital and creativity (Merlo et al. 2006; Chen, Chang & Hung 2008; Perry-Smith & Mannucci 2017), which is linked to idea generation behaviour. Perry-Smith and Mannucci (2017) explained the link between social capital and idea generation behaviour due to the advantages that an individuals can have from their network such as combining an array of knowledge into a new successful combination by bring together various viewpoints and perspectives from their network. The same idea was supported by Baer et al. (2015) since they stated that large network of social relationships will offer the individual an access to a large amount of information, advice and support, that may increase the individual's capacity to develop new ideas.

Similar type of relation was found between network building ability and idea promotion behaviour as well since the study's results show a positive significant relation between network building ability and idea promotion behaviour. Idea promotion involves securing money, time expertise, and political support, and whilst promoting their ideas, champions must articulate convincing arguments of the ideas' benefits to the organisation (Perry-Smith & Mannucci 2017). This finding is supported by Perry-Smith and Mannucci (2017) since they stated that through the idea journey individuals may activate different parts of their

network that help them perform different tasks during the idea journey, however, to generate, promote, or realise their new ideas. In addition, Perry-Smith and Mannucci (2017) debated that advocating a new idea requires influential individuals who are perceived by decision makers as legitimate and competent individuals. This process is best smoothed by a network that is rich in structural holes. Van de Ven (1986) Stated that innovation includes interacting with other individuals since it is embedded in a social process in which individuals create alliances that enhance the probability of adopting novel ideas (Van de Ven 1986) which goes in-line with the study finding. Madrid et al. (2014) as well pointed that an individuals need to cooperate and coordinate tasks with other individuals to be able to promote their novel ideas that support the study finding as well.

As per idea realisation behaviour, the study's results demonstrated a positive significant relationship between network building ability and idea realisation behaviour. This finding is supported by Perry-Smith and Mannucci (2017) as discussed with the idea promotion behaviour previously that individuals activate different parts of their network for each stage of the individuals' innovative behaviours. In addition, Madrid et al. (2014) supported this point as well since they pointed that idea realisation behaviour will require cooperation and coordination of tasks with other individuals.

The second main contribution of this study to network building ability literature is identifying three personality traits that predict the individual's ability to build network. The first one is self-monitoring personality trait since the study's results shows a positive direct relation between self-monitoring personality trait and network building ability. This contribution is supported by previous literature such as Mehra, Kilduff and Brass (2001) since they found that self-monitoring individuals are able to create strategic social relationships. Sasovova et al. (2010) is another work that goes in line with the study's finding because they found that high self-monitors are more likely to forge new friendships. The same was supported by Wang, Hu and Dong's (2015) since they found that high self-monitors were more likely to form close relationships with a diverse range of co-workers as well as their supervisors.

The second personality trait that predicts network building ability as per the study's results is intrapreneurial personality trait. Blanka (2018) supported these contributions since she stated that intrapreneurs actively pursue forming relationships and build networks inside and outside the organisation. In addition, De Jong and Wennekers (2008) related to this contribution when they pointed to the relationship between intrapreneurs' and their social capital that help them actively search for information.

Proactive personality trait is the third personality trait that predicts network building ability since the study's results illustrate a positive direct relation between the two. This contribution is supported by Thompson (2005) since he found the same in his research to investigate the relation between proactive personality trait and job performance. Another study that concurs with this contribution is Li, Liang, and Crant (2010) since they found that in order to obtain information related to growing problems and opportunities, proactive individuals build positive social relationships with their supervisors.

6.5. Contribution to Individuals' Innovative Behaviours

Since the focus of innovation research in literature was on manufacturing sector rather than service sector (Lee et al. 2014; Lai et al. 2016; Li & Hsu 2016, Javed et al. 2017; Bani-Melhem, Zeffane & Albaity 2018), this study aimed to expand our knowledge of innovation in the service sector, in addition to address the paucity of publication in this sector. The human aspect has an essential role in the innovation of the service sector (Yuan & Woodman 2010; Liu et al. 2017). Individuals' innovative behaviour is a main element of organisation's innovation (Zainal & Matore 2019; Janssen, Van de Vliert & West 2004). In addition, focusing on the individuals' innovative behaviours in the service sector will answer a call made by Sharma et al. (2012) to further investigate this phenomenon since the majority of research in the service sector was more focused on teams or organisational level rather than on the individual level (Danaei & Iranbakhsh 2016; Li & Hsu 2016; Bani-Melhem, Zeffane & Albaity 2018).

This study considers innovative behaviour as a multi-faceted three-dimensional construct that involves idea generation, idea promotion and idea realisation, and it does not test it as a single construct. This multi-faceted approach answers recent calls by scholars such as Anderson, Potočnik and Zhou (2014), Niu (2014), Wisse, Barelds and Rietzschel (2015), Woods et al. (2017), and Rodrigues and Rebelo (2019). Based on the clearly different behaviours involved in each of the three stages, the study found different types of relationships between the selected personality traits (Self-monitoring personality trait, Intrapreneurial personality trait, and proactive personality trait) and the stages of innovation behaviours construct.

In terms of idea generation behaviour of innovation, the study found that it might be predicted directly by intrapreneurial personality trait and indirectly by self-monitoring personality trait and proactive personality trait through network building ability that assumes the role of a mediator in these relationships. As per idea promotion behaviour it might be predicted directly by proactive personality trait and in indirect way by intrapreneurial personality trait and self-monitoring personality trait via network building ability that plays intermediary role of the relation. Finally, idea realisation behaviour might be predicted directly by proactive personality trait and self-monitoring personality trait, and indirectly by intrapreneurial personality trait through network building ability as a mediator of the relation. These findings provide the first empirical results of the idea of separating the individuals' innovative behaviours since each one might require different antecedent and predictors, which provides an answer and a valid justification to these calls in literature done by Anderson, Potočnik and Zhou (2014), Niu (2014), Wisse, Barelds and Rietzschel (2015), Woods et al. (2017), and Rodrigues and Rebelo (2019).

Furthermore, the research results found a significant positive relationship between network building ability and the three constructs of innovation behaviour. Social capital theory supports this finding since it states that an individual's relationship network defines the extent

to which the individual can increase access to information, exert influence and effectively implement change within an organisation (Coleman 1988; Zhou et al. 2009; Burt 2009). This contribution concurs with Chen, Chang and Hung (2008) and Merlo et al. (2006) who underlined the role of social capital in supporting creativity which is often considered the first stage of innovation (Scott & Bruce 1994; Janssen 2000; Anderson, Potočnik & Zhou 2014). As per the idea promotion and idea realisation behaviours, it was stated that these types of behaviours will require collaborative work with others (Kanter 1988). The same idea was debated by Madrid et al. (2014) since they pointed that these two behaviours will require cooperation and coordination of task with other individuals. In addition, innovation contains interacting with other individuals because it is embedded in a social process in which individuals create alliances that enhance the probability of adopting novel ideas (Van de Ven 1986). Hence, the study findings that network building ability will predict idea promotion and idea realisations behaviours goes in-line with previous literature.

6.6. Contribution to the Psychological-Sociological Co-evolutionary Perspective

Some psychologists believe the roots of human behaviours are the inner force in a human being, or their personality traits. In contrast, sociologists see individuals as social creatures that usually adjust and adapt their behaviours based on the situation and their social environment (Snyder & Deaux 2012). Hence, similar phenomena were examined by both sociologist and psychologists from opposing theoretical views (Tracy, Robins & Sherman 2009). While these two perspectives initiate their analysis from different points, they frequently find themselves on mutual ground (Snyder & Deaux 2012). Therefore, there is a growing scholarly impetus to contribute to a co-evolutionary perspective that interprets behaviours from both psychological and sociological stances (Snyder & Deaux 2012; Anderson, Potočnik & Zhou 2014; Tasselli, Kilduff & Menges 2015; Fang et al. 2015; Baer et al. 2015; Landis 2016). The current study offers a contribution to improve our understanding of the relationship between self-monitoring personality trait, intrapreneurial personality trait, and proactive personality trait (Personality Theory) and network building ability (Social Capital Theory) in predicting individuals' innovative behaviours.

The study's findings illustrate that three selected personality traits in the study models: self-monitoring personality trait, intrapreneurial personality trait, and proactive personality trait have a significant positive relation with network build ability and they have the role of an antecedent for building individuals' networks. In other words, the personalities' differences influence the individual's ability to build networks. Meanwhile, the study's results show that network building ability has a role of a mediator on the relation between the three personality traits and individual's innovative behaviours, and in some cases it has the role of full mediator of the relation that means network building ability will be accountable for the relation between the personality trait and innovation behaviour. To say it differently, when network building ability fully mediates the relation between the personality trait and the

individuals' innovative behaviour; it enables the individuals to behave innovatively even though their inner force (i.e., their personality trait) usually doesn't enable them to behave in innovative way.

Therefore, the study sheds the light on the type of relations and influences that gather between personality trait (Psychology) and building network ability (Sociology) while predicting individual's innovative behaviours and further supports the existence of the coevolution theory between the two perspectives psychology and Sociology. In addition, the study provides and empirical study that demonstrates that the implementation of integrating view between personality trait and social capital will enhance our understanding of the studied phenomena. This finding is in line with the work of Tasselli, Kilduff and Menges (2015) that examined the previous literature and presented the idea of coevolution theory between psychology and sociology that combines both perspectives in a co-evolutionary account of a dynamic process of mutual influence.

6.7. Chapter Summary

The aim of this chapter is to discuss the study's main contributions to literature. In the first section, the main contributions for self-monitoring personality trait were discussed. The discussed contributions are the supports of the 18-items scale for measuring self-monitoring personality trait, establishing a significant positive relation between self-monitoring and network building ability, and finally the nature of relation between self-monitoring and the three stages of individuals' innovative behaviours were reported.

The second section covered the contribution for intrapreneurial personality trait which was highlighted and related to previous literature. The type of relation between intrapreneurial personality trait and the three stages of individuals' innovative behaviours were discussed and related to previous literature, and then the significant positive relation between intrapreneurial personality trait and network building ability was illustrated and supported by previous works. Later, the mediation role of network building ability on the relation between intrapreneurial personality trait and the three individuals' innovative behaviours was discussed. Finally, a debate to improve the measurement scale of intrapreneurial personality trait was suggested and debated against previous literature.

The third section was dedicated to the contributions to proactive personality trait, the nature of the relation between proactive personality trait and network building ability was discussed and supported by literature, and then the direct relations between proactive personality trait and individuals' innovative behaviours was explained and debated with previous articles in literatures, and finally the mediation role of network building ability on the relation between proactive personality trait and the three individuals' innovative behaviours were discussed.

In section four, the chapter discussed the main contributions of network building ability literature. The section introduced two main contributions; the first on is the type of the

relationship that network building ability creates with each stage of the individuals' innovative behaviours. The second contribution is that to identify the personality traits that act as predictors of the individual's ability to build networks.

The fifth section covered the contributions of individuals' innovative behaviours in which different antecedents were identified for each stage of the three individuals' innovative behaviours: idea generation, idea promotion, and idea realisation. In addition, a debate of the value of testing the antecedents of each behaviour of the individuals' innovative behaviour by itself and not combined with the other three behaviours into one construct was provided and related to previous literature.

In the last section of this chapter, the contributions of the coevolution perspective of integrating psychological and sociological views as a new approach to investigate the studied phenomena, a supportive discussion were presented based on the study results on the validity and value added by adopting the integrated psychological and sociological perspective.

After discussing the study main contributions to literature in this chapter, the next chapter will be aiming to present an overall summary of the study in addition to suggesting practical implications of the study's findings along with a discussion of the study's limitation and recommendation for future studies will be introduced.

Chapter Seven: Conclusion and Recommendations

Following the discussion of the study's main findings, this chapter aims to offer a summary of the study's main objectives, hypotheses, methodology, findings and main contributions. In addition, this chapter will discuss the study's practical implication of the study's findings, limitations, and suggestions for future research. Therefore, in the first section of this chapter, a summary of the research's main questions, objective, conceptual framework and adopted methodology will be abridged. In the second section, the study's main contributions to literature will be summarised and presented. The third section will be dedicated to discuss the study's practical implications. The fourth section will be covering the study's main limitation and future research will be recommended. At the end, the last section will be a summary of this chapter.

7.1. Thesis Summary

Innovation is very critical for organisations to survive and compete in the market (Oldham & Cummings 1996; Andersson, Lindgren & Henfridsson 2008; Shalley & Zhou 2008), especially in nowadays rapidly changing world (Omachonu & Einspruch, 2010). Hence organisations survival requires personnel who are innovative, can generate new ideas, products and processes, and then follow up their implementation in practice (Van de Ven 1986; Scott & Bruce 1994). Therefore, understanding individuals' innovative behaviours is very critical to the organisational success and survival.

The study attempted to investigate the employees innovative behaviours in the service sector since the service sector has very important role in developing economies (Un & Montoro-Sanchez 2010) and formed more than 50% of countries Gross Domestic Products GDP (Ratny, Arshad & Gaoliang 2017). In addition, there are many scholars who pointed that in literature the majority of our understanding of innovation is based on the manufacturing sector (Gadrey & Gallouj 2002; Rubalcaba 2007; Un & Montoro-Sanchez 2010), especially with the new challenges for service organisations such as high technological upsurge, globalisation, and organisational growth (Ratny, Arshad & Gaoliang 2017). Therefore, many scholars call for further investigation of the innovation in the service sector (Lee et al. 2014; Li & Hsu 2016; Snyder et al. 2016; Lai et al. 2016; Javed et al. 2017; Bani-Melhem, Zeffane & Albaity 2018).

In the year 2015, His Highness Sheikh Mohammed Bin Rashed Al Maktoom, the Vice President, Prime Minister of the United Arab Emirates and Ruler of Dubai, announced the year 2015 as the year of innovation in UAE. Such announcement has a significant impact on the government's strategies, corporate's strategies, and research trends in the United Arab

Emirates. Nowadays as per the Global innovation index (2019) the United Arab Emirates possesses the most lucrative business market in the Arabian Gulf region, ranking 36 worldwide and number one innovative economy among the Arab nations (Dutta, Lanvin & Wunsch-Vincent 2019) and UAE's economy is driven primarily by the service sector (Augustine 2016). Therefore, scholars were motivated to explore the innovation in different sectors in this country such as (Rodrigues, Sarabdeen & Balasubramanian 2016; Bani-Melhem, Zeffane & Albaity 2018; Nasaj & Al Marri 2018; AlShamsi & Ajmal 2018. Al-Hawari, Bani-Melhem & Shamsudin 2019; Bashir et al. 2020). The study selected to investigate the innovation in the United Arab Emirates service sector since the context of the United Arab Emirates presents an exceptional opportunity to examine the individuals' innovative behaviours.

Individual's innovative behaviour was defined in many ways in literature. For example, it is the "Intentional creation, introduction and application of new ideas within a work role, group or organization in order to benefit role performance, the group, or the organization" (Janssen 2000, *p*.288). In other words, individuals' innovative behaviours aim to develop novel and improved ways of doing things (Anderson, Potočnik & Zhou 2014). Innovation is a process based phenomena that usually composed of idea generation, idea promotion, and idea realisation behaviours (Janssen 2000; Scott & Bruce 1994). In literature, these three behaviours are usually presented as one construct (Scott & Bruce 1994); however, recent studies in literature criticise this approach since it might not be sufficient to capture the multi-dimensional complexity of individuals' innovative behaviours; therefore, a call to examine individuals' innovative behaviours as a multi-dimensional construct (idea generation, promotion and realisation) was raised because these behaviours may separately be affected by different antecedent factors (Niu 2014; Wisse, Barelds & Rietzschel 2015; Woods et al. 2017; Rodrigues & Rebelo 2019). Thus, one of the study's original contributions is to examine the three behaviours of innovation separately and not to combine them in one construct, and attempt to identify the antecedents for each stage of the individuals' innovative behaviours.

The study adopted a co-evolution theory that integrates psychological and sociological perspective (Snyder & Deaux 2012) to interpret individual's innovative behaviour, in literature sociologist and psychologists commonly examine phenomena from opposing theoretical perspectives (Tracy, Robins & Sherman 2009). Sociologists and psychologists usually start their analysis from different points of view; however, they more and more start to notice that they have a mutual ground (Snyder & Deaux 2012). The co-evolution theory of integrating psychological and sociological perspectives has been recommended by many scholars because it enriches each perspective and enhances our understanding of the explored phenomena (Snyder & Deaux 2012; Anderson, Potočnik & Zhou 2014; Tasselli, Kilduff & Menges 2015; Fang and et al. 2015; Landis 2016; Kilduff & Lee 2020).

From sociological literature, the study adopted the social capital theory (Bourdieu 1985; Coleman 2000; Lin, Fu & Hsung 2001) as representative of the sociological perspective in the study. To be more specific, the study selected individual's network building ability introduced initially by Ferris et al. (2005), and then it was utilised as social capital measurement by Thompson (2005) as a representative of social capital perspective, the study

will adopt network building ability as a variable to be tested as an antecedent of the individual's innovative behaviours.

From psychological literature, the study adopted personality theory to be representing the psychological perspective in the research. Three main compound personality traits have been identified from personality literature: Self-monitoring Personality trait (Snyder 1974), Intrapreneurial Personality trait (Pinchot 1985), and Proactive Personality trait (Bateman & Crant 1993) to be examined as antecedents of the individual's innovative behaviours.

Based on the integrated psychological and sociological perspective adopted in this study a theoretical conceptual framework was developed on the basis of testing the relation between the two main independents variables personality trait and network building ability in predicting individuals' innovative behaviours. The study hypothesises that network building ability mediates the relationship among the three selected personality traits: self-monitoring personality trait, intrapreneurial personality trait, and proactive personality trait and the three stages of the individual's innovative behaviours: Idea generation, idea promotion, idea realisation. Therefore, nine main hypotheses were created and debated with a supporting literature in chapter three.

Since the aim of the study is to examine the relationship among personality traits, network building, and individuals' innovative behaviours, which means that the study has a deductive rather than inductive methodological approach, a quantitative methodological approach was adopted because it is suitable for the deductive nature of the study (Gibbs 2002). Additionally, the study adopted positivism research philosophy since positivists scholars typically prefer to deal with facts and actual data, and usually build their hypotheses using established theories in literature (Saunders, Lewis & Thornhill 2016; Remenyi & Williams 1998). Positivists debate that they collect their data from an external position; therefore, their influence on the data sources is negligible (Bryman & Bell 2015).

The study's design and the questionnaire's build up were discussed and related to previous literature. In addition, all the measures used in the study survey were adopted from previous well-established literature. Random sampling technique was adopted in collecting the survey data using online monkey survey software. The study adopted multiple statistical tests using SPSS software version 22.0 to examine the reliability and validity of the collected data. In addition, a test to examine the common method bias was applied to make sure that the collected data is bias free. The final hypotheses and relationships among the variables were tested using Structural Equation Modelling (SEM) that was build using AMOS software version 22.0. The results of these tests are discussed on chapter six. As per the study main contribution it will be discussed in the next section.

7.2. Thesis Contributions

Based on the study's findings several contributions to literature were identified and discussed in details in chapter six. In this section, a brief conclusion of the study main contribution will be presented.

One of the most important contributions to literature in this study is the investigation of the relationship between self-monitoring personality trait and individuals' innovative behaviours, because this study is considered to be the first empirical study that tests this relation. The study found that self-monitoring personality trait has a significant relation with idea realisation behaviours and has no direct relation with the other two behaviours namely idea generation and idea promotion behaviours. In addition, the study found a positive relation between self-monitoring personality trait and network building ability, and this relation led to the next finding that is self-monitoring personality trait is indirectly related to all individuals' innovative behaviours via network building ability that assumes the role of a mediator. The last contribution related to self-monitoring personality trait was the support of using the 18-items scale (Snyder & Gangestad 1986) with five point-likert scale instead of the original yes and no as suggested by Day et al. (2002).

Another contribution of the study is to examine the antecedents of each behaviour of the three individuals' innovative behaviours separately, which was a call in literature since it offers us more in-depth understanding of each behaviour since each behaviour may requires different types of antecedents (Anderson, Potočnik & Zhou 2014; Niu 2014; Wisse, Barelds & Rietzschel 2015; Woods et al. 2017; Rodrigues & Rebelo 2019). Indeed, the study findings identified different antecedents for each stage of the individuals' innovative behaviours. A full discussion is provided in chapter six section five. In addition, the study concentrates on the service sector rather than the manufacturing sector to address the paucity of these types of researches especially on the individual level (Sharma et al. 2012; Danaei & Iranbakhsh 2016; Li & Hsu 2016; Bani-Melhem, Zeffane & Albaity 2018)

The study adopted a newly emerged perspective to explain the individuals' innovative behaviours that integrate psychological and sociological perspective to interpret the studied phenomena since this perspective contributes for both literature psychology and sociology (Anderson, Potočnik & Zhou 2014). Therefore, this study by combining personality trait and network building in explaining the individuals' innovative behaviours contributes to the coevolution perspective of integrating psychological and sociological views as a new approach to examine the studied phenomena; a full discussion is provided in chapter six, section six.

The contributions of intrapreneurial personality trait were mainly to report the type of the relationship between intrapreneurial personality trait and individuals' innovative behaviours. The study found that intrapreneurial personality trait has a significant direct relation with idea

generation behaviour and has no direct relationship with idea promotion and idea realisation behaviours. In addition, the study found that intrapreneurial personality trait is indirectly related to individuals' innovative behaviours through network building ability that mediates the relation between intrapreneurial personality trait and individuals' innovative behaviours. The full discussion is provided in chapter six section two.

The main contributions for proactive personality trait can be summarised by testing the direct relation between proactive personality trait and individuals' innovative behaviours, that found no direct relationship between proactive personality trait and idea generation behaviour and has a direct relationship with idea promotion and idea realisation behaviours. In addition, proactive personality trait is indirectly related to individuals' innovative behaviours via network building ability that mediates the relation between proactive personality trait and individuals' innovative behaviours. The full discussion is provided in chapter six section three.

Finally, the contributions of network building ability can be concluded with the support of the direct significant relation between network building ability and individual's innovative behaviours. In addition, the study provides an empirical study that demonstrates that network building ability can be predicated by the three compound personality traits in this study: self-monitoring personality trait, intrapreneurial personality trait, and proactive personality trait. The full discussion is provided in chapter six section four.

7.3. Practical Implications

The study sheds the lights on the predictors of individuals' innovative behaviours that contribute to the overall organisational innovativeness and its ability to be competitive in the market especially for companies operating in the service sector (Campo, Díaz & Yagüe 2014; Amo 2010; Andersson, Lindgren & Henfridsson 2008). The study's findings have several practical contributions for mangers in the service sector. Firstly, for recruitment mangers who are trying to support their companies with employees who have a potential to be innovative. The study highlights three individuals' personality traits that are related to innovation: Self-monitoring personality trait, intrapreneurial personality trait, and proactive personality trait. Therefore, HR mangers can enhance their recruitment practices by applying either self-report or observer ratings personality testing (see Connolly, Kavanagh & Viswesvaran 2007).

Secondly, the integrative perspective between psychology and sociology adopted in this study shows that it is not enough to hire individuals' with the right personality traits and expect them to generate and implement innovative ideas magically and without any support from their surroundings; therefore, the study recommends mangers to be aware of the role of employees' networks plays in their innovative behaviours. Hence, service sector mangers should try to create networking events among the employees from different sections or departments within the organisation since the results of the study show that the more the

employee creates networks with their mangers and colleagues the more they will be able to collect information and come up with novel ideas to improve their current process or finds solution for current problems.

Since the study focuses on the service sector and the role of the individuals who provide the service cannot be separated from the service itself, therefore their interaction with the customers will contribute in shaping the provided service level, because one of the characteristics of the service innovation is customer participation (Chen, Tsou & Ching 2011). These characteristics blur the borderline between customers and employees to the extent of considering the customers as partial employees and resources of innovative behaviours (Duverger 2012). Therefore, organising networking event that facilitates creating relationships between frontline employees and the company's customers will offer a great opportunity for the employees to identify problems in the services or the process that will push them to come up with innovative solutions.

Since this study sheds the light on the importance of network building ability of the individuals to innovate, HR mangers in the service sector might benefit from this in more than one practice in their department such as identifying the jobs that usually require the employees to be innovative like frontline employees and then allocate activities and tasks in their job description that encourage them to socialise and network with customers and colleagues. Another practice that might beneficial based on the study's finding for HR mangers is the individuals' training plans, so based on the study findings, the study recommends that HR mangers might encourage attending training sessions that develop the networking skills of the employees to increase their innovativeness.

Another important implication for innovation mangers in service organisations is that they should realise that individuals' differences such as personality traits might affect the performance of the employee innovativeness, so understanding these differences is very important to effectively utilise the individual's strength for different behaviours in the innovation process. For example, based on the study's results, self-monitors will excel in mobilising resources to implement the novel idea rather than generating or promoting the ideas themselves. In addition, this might suggest developing an individual's knowledge management record by knowledge mangers to capture these individuals' differences and behaviours for more effective use of this knowledge in the future, in order to increase the chances of successful implementation of novel ideas in service sector organisations.

7.4. Study Limitations and Future research

This section is dedicated to discuss the study's main limitations and to set few ideas to be considered as a future suggestion for potential areas in literature that deserve further investigation. The study's findings are subject to at least three limitations that will be

discussed in details in this section, in addition, seven future research recommendations will be discussed in this section as well.

First, the cross-sectional nature of the data may leave areas for assumptions regarding causality among the variables. Hence, a longitudinal study that examines the individuals' behaviours across the three stages of innovation is necessary to further validate the research results.

The second limitation is that the study adopted a self- reporting survey questions to measure the individuals' innovative behaviours, which might offer an opportunity for the participants to be biased and rate themselves highly; nevertheless, asking the individual to rate his own innovativeness is defended by some scholars such as (Amo 2005) since the individual might behave innovatively for mainly two reasons: either influenced by his organisation or management to be innovative, or as a personal imitative that is not necessarily approved by their management, and it is related to the individual own characteristics. Therefore, asking the individuals' supervisor, manger or colleagues to rate their innovative behaviours might not be fair on the side of the individuals since the evaluator will rate them based on the behaviours that he approves only and not the personal initiative of the individuals that the evaluator did not like or approve, especially that these individual's initiative behaviours might have a negative effect on the manger's opinion of the individuals.

Another scholar that defended the use of self-reported survey questions to measure employees' innovativeness is Janssen (2000) who stated that an employee obtains more information regarding their daily tasks than their superiors; therefore, employees will have more precision in evaluating their innovativeness rather than their mangers. Adding to this, the management assessment of the employees' innovativeness might neglect the core innovation of the employee since they will be assessing the behaviours that only left an impression on them since innovative behaviours is extremely sensitive to individuals' differences.

In addition, using self-reporting survey questions is very common in intrapreneurship literature (Axtell et al. 2000; Monsen & Boss 2009; Zampetakis et al. 2009; Wakkee et al. 2010; Bosma et al. 2012; Moriano et al. 2014).

However, the current study applied a well-known test that is Harman one factor common bias method test (Fuller et al. 2016) to detect if there are any common method bias problems in the collected data, and the results show that the study's data have no common method bias issues. Nonetheless, the study adopted a self-reported questionnaire to collect data on all the variables in the study that means there is a chance of common method bias. It is likely that individuals answered the questions in a way that displays consistency. Therefore, future studies might adopt different reporting styles to add further validation of the study findings such the participants' supervisors or mangers feedback of the participant's innovativeness, or even the participant's colleague's feedback (peer-evaluation) on the participant's innovativeness.

The third limitation of the study is that the research investigated only three personality traits variables, leaving the effect of other personality variables unexamined. Therefore, future research might consider different personality variables, such as the Big Five Model (Goldberg 1990; McCrae & John 1992; Soto & John 2017), or other compound personality traits such as self-efficacy (Sherer & Adams 1983) that will eventually improve our understanding of the psychological-sociological co-evolutionary perspective of personality traits and social capital. This study is to be considered as an early step on the road toward bridging the psychological-sociological chasm through research that examines the mediation or moderation effect of social science variables over personality trait or other psychological variables to clarify a magnitude of modern work behaviours in organisations.

The fourth future research recommendation in this study will be regarding the used scale of self-monitoring personality trait in literature. Although this study used the 18- item scale of measuring self-monitoring personality trait introduced by Snyder and Gangestad (1986) and the validity and reliability tests were very good; however, a more recent studies began to suggest that self-monitoring personality trait might be multidimensional construct and not a single construct or unidimensional one (Wilmot et al. 2017; Pillow et al. 2017), and if we are measuring a multidimensional variable as a single one, we might be not really catching the right relations with other constructs and we will be losing a lot of values, so the study will recommend as a future research to further improve the measurement scale of self-monitoring personality trait especially that nowadays our understanding of self-monitoring theory has been advanced a lot since the last revision of this scale done by Snyder and Gangestad in (1986) which is around 35 years ago.

The fifth future research's recommendation of the study will be to investigate the dark side of network building ability. Even though this study sheds the light on the advantages of having large network that enables individuals with different personality traits to innovate by exploiting the resources residing in these networks that they build; however, a future research that investigates how these individuals who have large networks compensate the dark side of maintaining these relations with other actors within their networks without affecting their work performance. For example, maintaining relations with other actors in large network will require more resources such as time or mental ability that might affect the individual's performance in other work related tasks. In other words, what types of skills the individuals with large networks should develop to avoid the disadvantages of having large networks?

The sixth future research's recommendation of the study is a call for enhancing the intrapreneurial personality trait scale introduced by Pinchot (1985) more than 35 years ago, especially that the current knowledge of Intrapreneurship has developed enormously since then. As an example, Rigtering and Weitzel (2013) found that risk-taking is not taking a role for an effective translation of individual's behaviour into intrapreneurial projects. Additionally, intrapreneurs utilise their organisation's resources rather than their own resources for their innovation. Therefore, asking the individuals to risk their salaries as exchange of implementing their innovative ideas will not represent an adequate measure to evaluate if the individual is intrapreneur or not? Such as the questions of Pinchot (1985) scale:

"Would you be willing to give up some salary in exchange for the chance to try out your business idea if the rewards for success were adequate?"

Hence, this study recommends developing a more robust scale to further encourage scholars to investigate intrapreneurial personality trait in their research and enhance our current knowledge further more.

The seventh and last future research suggestion will be to support the study's findings international generalisation. Since the study selected UAE service sector individuals as the study sample to collect its data from, therefore the generalizability of the study findings may be limited to UAE service sector only, since cultural differences may influence individuals' innovation. For example, risk-taking tendency of an individual was found to positively contribute to the individual's innovation (Angel Ferrero & Bessière 2018). However, some cultures may influence to what extent the individual's personality trait to be risk-averse more than other cultures (Hofstede 2001) that might influence the individual's innovative behaviours. Therefore, the study suggests as a future research to investigate the study conceptual framework in other cultures to validate its results a cross international level in order to address this limitation.

7.5. Chapter Summary

This chapter represents an overall conclusion of the study that started with a summary of the study's main objectives and questions to be answers which is the aim of the study. In addition, the study conceptual framework and hypotheses were restated along with the adopted research methodology utilised to examine the collected data. Later, the study's main contributions to knowledge were abridged. This chapter introduced empirical implementations of the study main findings to HR mangers, innovation mangers, and knowledge mangers. The final section in this chapter was dedicated to discuss the study main limitations and suggests future studies that will keep advancing our knowledge in understanding individuals' innovative behaviours.

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Appendices

Appendix 1: Survey Constructs measurements scales

Construct	Measurement items	Source
Innovative work Behaviour	Nine items measured on a 7-points Likert scale ranging from 1 (never) to 7 (Always). Creating new ideas for difficult issues. Searching out new working methods, techniques, or instruments Generating original solutions for problems Mobilizing support for innovative ideas Acquiring approval for innovative ideas Making important organizational members enthusiastic for innovative ideas Transforming innovative ideas into useful applications Introducing innovative ideas into the work environment in a systematic way Evaluating the utility of innovative ideas	Janssen (2000)
Network Building	Six items measured on a 7-point Likert scale ranging from 1 (very strongly disagree) to 7 (very strongly agree). I spend a lot of time and effort at work networking with others. I am good at building relationships with influential people at work. I have developed a large network of colleagues and associates at work whom I can call on for support when I really need to get things done. At work, I know a lot of important people and I am well connected. I spend a lot of time at work developing connections with others. I am good at using my connections and network to make things happen at work.	Ferris et al (2005); Thompson (2005)
Self-Monitoring Personality	Eighteen items measured on a 5-point Likert scale ranging from 1 (to a very little extent) to 5 (to a very large extent). I find it hard to imitate the behaviour of other people. At parties and social gatherings, I do not attempt to do or say things that others will like. I can only argue for ideas which I already believe. I can make impromptu speeches even on topics about which I have almost no information. I guess I put on a show to impress or entertain others. I would probably make a good actor. In a group of people, I am rarely the centre of attention. In different situations and with different people, I often act like very different persons. I am not particularly good at making other people like me. I'm not always the person I appear to be. I would not change my opinions (or the way I do things) in order to please someone or win their favour. I have considered being an entertainer. I have never been good at games like charades or improvisational acting. I have trouble changing my behaviour to suit different people and different situations. At a party I let others keep the jokes and stories going. I feel a bit awkward in public and do not show up quite as well as I should. l can look anyone in the eye and tells a lie with a straight face (if for a right end). I may deceive people by being friendly when I really dislike them.	Snyder and Gangestad (1986); Day et al. (2002)
Intrapreneurial Personality	Twelve items measured on a 5-point Likert scale ranging from 1 (to a very little extent) to 5 (to a very large extent). 1) Does your desire to make things work better occupy as much of your time as fulfilling your duty to maintain them the way they are? 2) Do you get excited about what you are doing at work?	Pinchot (1985)

	3) Do you think about new business ideas while driving to work or taking a shower? 4) Can you visualize concrete steps for action when you consider ways to make a new idea happen? 5) Do you get in trouble from time to time for doing things that exceed your authority? 6) Are you able to keep your ideas under cover, suppressing your urge to tell everyone about them until you have tested them and developed a plan for implementation? 7) Have you successfully pushed through bleak times when something you are working on looked like it might fail? 8) Do you have more than your share of both fans and critics? 9) Do you have a network of friends at work whom you can count on for help? 10) Do you get easily annoyed by others' incompetent attempts to execute portions of your ideas? 11) Can you consider trying to overcome a natural perfectionist tendency to do all the work yourself and share responsibility for your ideas with a team? 12) Would you be willing to give up some salary in exchange for the chance to try out your business idea if the rewards for success were adequate?	
Proactive Personality	Seventeen items measured on a 5-point Likert scale ranging from 1 (Strongly disagree) to 5 (Strongly Agree). 1) I am constantly on the lookout for new ways to improve my life. 2) I feel driven to make a difference in my community, and maybe the world. 3) I tend to let others take the initiative to start new projects. 4) Wherever I have been, I have been a powerful force for constructive change. 5) I enjoy facing and overcoming obstacles to my ideas. 6) Nothing is more exciting than seeing my ideas turn into reality. 7) If I see something I don't like, I fix it. 8) No matter the odds, if I believe in something I will make it happen. 9) I love being a champion for my ideas, even against other people's opposition. 10) I excel at identifying opportunities. 11) I am always looking for better ways to do things 12) If I believe in an idea, no obstacle will prevent me from making it happen. 13) I love to challenge the status quo. 14) When I have a problem, I tackle it head on. 15) I am great at turning problems into opportunities. 16) I can spot a good opportunity long before others can. 17) If I see something in trouble, I help out in any way I can.	Bateman & Crant, (1993)

Appendix 2: Survey Participant Consent Form

Dear Sir/Madam,

This survey aims to examine the relationship between the personality traits, network building, and individuals' innovative behaviours in the service sector. Your participation is very important to the success of the study. This study is for academic purposes and any information that will be shared will be used anonymously and with confidentiality. For example, your name or your organization name will not be requested in the questionnaire and no reference for the same will be used in the data set or the findings. Your participation in this study is voluntary. You can choose not to participate at any time. Even you can withdraw after starting the questionnaire. However filling a complete questionnaire will be more beneficial and highly appreciated.

The process includes filling an online survey that will take approximately 10 minutes. Your answers will be confidential and no personal information such as your name, Email address or IP address will be required. We are only interested in your assessment and opinions.

The results of this study will be used for scholarly purposes only and will adhere to the Ethics of conducting a research at the British University in Dubai

ELECTRONIC CONSENT:

Clicking on the "Proceed" button below indicates that:

· You have read the above information

· You voluntarily agree to participate

· You are working in the service sector

If you have any further concern or enquiry please feel free to contact me.

Email address: 2016156113@student.buid.ac.ae

Thank you

Appendix 3: The Thesis Survey

Survey Introduction

This survey aims to examine the relationship among the personality traits of the individuals, their network building ability, and their innovative behaviours.

Thank you for taking the time for filling this questionnaire and please try to be subjective, take your time and describe yourself and behaviour's, remember that there is no right or wrong answers and we are all different in our personalities and behaviours.

Personal Information

I work as:

☐ Agent / Officer ☐ Lower Management ☐ Middle Management ☐ Top management

My work sector is:

☐ Banking ☐ Education ☐ Hospitality ☐ Telecommunication ☐ Healthcare

My gender is:

☐ Male ☐ Female

My years of experience:

☐ Less than one year ☐ 1-3 years ☐ 3-6 years ☐ 6-9 years ☐ more than 10 years

My age is:

☐ 18 – 25 years ☐ 26-33 years ☐ 34 - 41 years ☐ 42-49 years ☐ more than 50 years

My educational background is:

☐ High Scholl ☐ Diploma ☐ Bachelor Degree ☐ Master Degree ☐ PhD Degree

Please choose the answer that mostly describes you:

Measuring Intrapreneurial Personality

1) Does your desire to make things work better occupy as much of your time as fulfilling your duty to maintain them the way they are?

☐1 Very little extent ☐2 little extent ☐3 some extent ☐4 large extent ☐5 very large extent

2) Do you get excited about what you are doing at work?

☐1 Very little extent ☐2 little extent ☐3 some extent ☐4 large extent ☐5 very large extent

3) Do you think about new business ideas while driving to work or taking a shower?

☐1 Very little extent ☐2 little extent ☐3 some extent ☐4 large extent ☐5 very large extent

4) Can you visualize concrete steps for action when you consider ways to make a new idea happen?

☐1 Very little extent ☐2 little extent ☐3 some extent ☐4 large extent ☐5 very large extent

5) Do you get in trouble from time to time for doing things that exceed your authority?

☐1 Very little extent ☐2 little extent ☐3 some extent ☐4 large extent ☐5 very large extent

6) Are you able to keep your ideas under cover, suppressing your urge to tell everyone about them until you have tested them and developed a plan for implementation?

☐1 Very little extent ☐2 little extent ☐3 some extent ☐4 large extent ☐5 very large extent

7) Have you successfully pushed through bleak times when something you are working on looked like it might fail?

☐1 Very little extent ☐2 little extent ☐3 some extent ☐4 large extent ☐5 very large extent

8) Do you have more than your share of both fans and critics?

☐1 Very little extent ☐2 little extent ☐3 some extent ☐4 large extent ☐5 very large extent

9) Do you have a network of friends at work whom you can count on for help?

☐1 Very little extent ☐2 little extent ☐3 some extent ☐4 large extent ☐5 very large extent

10) Do you get easily annoyed by others' incompetent attempts to execute portions of your ideas?

☐1 Very little extent ☐2 little extent ☐3 some extent ☐4 large extent ☐5 very large extent

11) Can you consider trying to overcome a natural perfectionist tendency to do all the work yourself and share responsibility for your ideas with a team?

☐1 Very little extent ☐2 little extent ☐3 some extent ☐4 large extent ☐5 very large extent

12) Would you be willing to give up some salary in exchange for the chance to try out your business idea if the rewards for success were adequate?

☐1 Very little extent ☐2 little extent ☐3 some extent ☐4 large extent ☐5 very large extent

Measuring **Proactive Personality**

1) I am constantly on the lookout for new ways to improve my life.

Strongly Disagree 1 ☐ 2 ☐ 3 ☐ Neutral 4 ☐ 5 ☐ strongly agree

2) I feel driven to make a difference in my community, and maybe the world.

Strongly Disagree 1 ☐ 2 ☐ 3 ☐ Neutral 4 ☐ 5 ☐ strongly agree

3) I tend to let others take the initiative to start new projects.

Strongly Disagree 1 ☐ 2 ☐ 3 ☐ Neutral 4 ☐ 5 ☐ strongly agree

4) Wherever I have been, I have been a powerful force for constructive change.

Strongly Disagree 1 ☐ 2 ☐ 3 ☐ Neutral 4 ☐ 5 ☐ strongly agree

5) I enjoy facing and overcoming obstacles to my ideas.

Strongly Disagree 1 ☐ 2 ☐ 3 ☐ Neutral 4 ☐ 5 ☐ strongly agree

6) Nothing is more exciting than seeing my ideas turn into reality.

Strongly Disagree 1 ☐ 2 ☐ 3 ☐ Neutral 4 ☐ 5 ☐ strongly agree

7) If I see something I don't like, I fix it.

Strongly Disagree 1 ☐ 2 ☐ 3 ☐ Neutral 4 ☐ 5 ☐ strongly agree

8) No matter the odds, if I believe in something I will make it happen.

Strongly Disagree 1 ☐ 2 ☐ 3 ☐ Neutral 4 ☐ 5 ☐ strongly agree

9) I love being a champion for my ideas, even against other people's opposition.

Strongly Disagree 1 ☐ 2 ☐ 3 ☐ Neutral 4 ☐ 5 ☐ strongly agree

10) I excel at identifying opportunities.

Strongly Disagree 1 ☐ 2 ☐ 3 ☐ Neutral 4 ☐ 5 ☐ strongly agree

11) I am always looking for better ways to do things

Strongly Disagree 1 ☐ 2 ☐ 3 ☐ 4 ☐ Neutral 5 ☐ 6 ☐ 7 ☐ strongly agree

12) If I believe in an idea, no obstacle will prevent me from making it happen.

Strongly Disagree 1 ☐ 2 ☐ 3 ☐ Neutral 4 ☐ 5 ☐ strongly agree

13) I love to challenge the *status quo*.

Strongly Disagree 1 ☐ 2 ☐ 3 ☐ Neutral 4 ☐ 5 ☐ strongly agree

14) When I have a problem, I tackle it head on.

Strongly Disagree 1 ☐ 2 ☐ 3 ☐ Neutral 4 ☐ 5 ☐ strongly agree

15) I am great at turning problems into opportunities.

Strongly Disagree 1 ☐ 2 ☐ 3 ☐ Neutral 4 ☐ 5 ☐ strongly agree

16) I can spot a good opportunity long before others can.

Strongly Disagree 1 ☐ 2 ☐ 3 ☐ Neutral 4 ☐ 5 ☐ strongly agree

17) If I see something in trouble, I help out in any way I can.

Strongly Disagree 1 ☐ 2 ☐ 3 ☐ Neutral 4 ☐ 5 ☐ strongly agree

Measuring Self-monitoring Personality

I find it hard to imitate the behaviour of other people.

☐1 Very little extent ☐2 little extent ☐3 some extent ☐4 large extent ☐5 very large extent

At parties and social gatherings, I do not attempt to do or say things that others will like.

☐1 Very little extent ☐2 little extent ☐3 some extent ☐4 large extent ☐5 very large extent

I can only argue for ideas which I already believe.

☐1 Very little extent ☐2 little extent ☐3 some extent ☐4 large extent ☐5 very large extent

I can make impromptu speeches even on topics about which I have almost no information.

☐1 Very little extent ☐2 little extent ☐3 some extent ☐4 large extent ☐5 very large extent

I guess I put on a show to impress or entertain others.

☐1 Very little extent ☐2 little extent ☐3 some extent ☐4 large extent ☐5 very large extent

I would probably make a good actor.

☐1 Very little extent ☐2 little extent ☐3 some extent ☐4 large extent ☐5 very large extent

In a group of people I am rarely the centre of attention.

☐1 Very little extent ☐2 little extent ☐3 some extent ☐4 large extent ☐5 very large extent

In different situations and with different people, I often act like very different persons.

☐1 Very little extent ☐2 little extent ☐3 some extent ☐4 large extent ☐5 very large extent

I am not particularly good at making other people like me.

☐1 Very little extent ☐2 little extent ☐3 some extent ☐4 large extent ☐5 very large extent

I'm not always the person I appear to be.

☐1 Very little extent ☐2 little extent ☐3 some extent ☐4 large extent ☐5 very large extent

I would not change my opinions (or the way I do things) in order to please someone or win their favour.

☐1 Very little extent ☐2 little extent ☐3 some extent ☐4 large extent ☐5 very large extent

I have considered being an entertainer.

☐1 Very little extent ☐2 little extent ☐3 some extent ☐4 large extent ☐5 very large extent

I have never been good at games like charades or improvisational acting.

☐1 Very little extent ☐2 little extent ☐3 some extent ☐4 large extent ☐5 very large extent

I have trouble changing my behaviour to suit different people and different situations.

☐1 Very little extent ☐2 little extent ☐3 some extent ☐4 large extent ☐5 very large extent

At a party I let others keep the jokes and stories going.

☐1 Very little extent ☐2 little extent ☐3 some extent ☐4 large extent ☐5 very large extent

I feel a bit awkward in public and do not show up quite as well as I should.

☐1 Very little extent ☐2 little extent ☐3 some extent ☐4 large extent ☐5 very large extent

lean look anyone in the eye and tell a lie with a straight face (if for a right end).

☐1 Very little extent ☐2 little extent ☐3 some extent ☐4 large extent ☐5 very large extent

I may deceive people by being friendly when I really dislike them.

☐1 Very little extent ☐2 little extent ☐3 some extent ☐4 large extent ☐5 very large extent

Measuring Network Building Ability

I spend a lot of time and effort at work networking with others.

Strongly Disagree 1 ☐ 2 ☐ 3 ☐ Neutral 4 ☐ 5 ☐ strongly agree

I am good at building relationships with influential people at work

Strongly Disagree 1 ☐ 2 ☐ 3 ☐ Neutral 4 ☐ 5 ☐ strongly agree

I have developed a large network of colleagues and associates at work whom I can call on for support when I really need to get things done.

Strongly Disagree 1 ☐ 2 ☐ 3 ☐ Neutral 4 ☐ 5 ☐ strongly agree

At work, I know a lot of important people and I am well connected.

Strongly Disagree 1 ☐ 2 ☐ 3 ☐ Neutral 4 ☐ 5 ☐ strongly agree

I spend a lot of time at work developing connections with others.

Strongly Disagree 1 ☐ 2 ☐ 3 ☐ Neutral 4 ☐ 5 ☐ strongly agree

I am good at using my connections and network to make things happen at work.

Strongly Disagree 1 ☐ 2 ☐ 3 ☐ Neutral 4 ☐ 5 ☐ strongly agree

Measuring Individuals' Innovative Behaviours

Idea Generation Behaviours:

Creating new ideas for difficult issues.

Never 1 ☐ 2 ☐ 3 ☐ Neutral 4 ☐ 5 ☐ Always

Searching out new working methods, techniques, or instruments

Never 1 ☐ 2 ☐ 3 ☐ Neutral 4 ☐ 5 ☐ Always

Generating original solutions for problems

Never 1 ☐ 2 ☐ 3 ☐ Neutral 4 ☐ 5 ☐ Always

Idea Promotion Behaviours

Mobilizing support for innovative ideas

Never 1 ☐ 2 ☐ 3 ☐ Neutral 4 ☐ 5 ☐ Always

Acquiring approval for innovative ideas

Never 1 ☐ 2 ☐ 3 ☐ Neutral 4 ☐ 5 ☐ Always

Making important organizational members enthusiastic for innovative ideas

Never 1 ☐ 2 ☐ 3 ☐ Neutral 4 ☐ 5 ☐ Always

Idea Realization Behaviours

Transforming innovative ideas into useful applications

Never 1 ☐ 2 ☐ 3 ☐ Neutral 4 ☐ 5 ☐ Always

Introducing innovative ideas into the work environment in a systematic way

Never 1 ☐ 2 ☐ 3 ☐ Neutral 4 ☐ 5 ☐ Always

Evaluating the utility of innovative ideas

Never 1 ☐ 2 ☐ 3 ☐ Neutral 4 ☐ 5 ☐ Always

Thank you for your time

Appendix 4: Self-Monitoring Personality Exploratory Factor Analysis

Correlation Matrix

		SMP 01R	SMP 02R	SMP 03R	SM P04	SM P05	SM P06	SM P07	SM P08	SM P09	SM P10	SM P11	SM P12	SM P13	SM P14	SM P15	SM P16	SM P17	SM P18
Correlation	SMP 01R	1.000	.684	.698	.639	.710	.613	.542	.708	.559	.572	.612	.573	.596	.648	.656	.675	.678	.658
	SMP 02R	.684	1.000	.667	.693	.674	.694	.644	.743	.578	.645	.640	.560	.593	.676	.650	.641	.710	.654
	SMP 03R	.698	.667	1.000	.556	.658	.588	.499	.627	.563	.526	.576	.504	.539	.581	.656	.547	.598	.606
	SMP 04	.639	.693	.556	1.000	.689	.673	.626	.700	.507	.612	.635	.588	.652	.662	.650	.637	.695	.595
	SMP 05	.710	.674	.658	.689	1.000	.664	.563	.700	.534	.561	.575	.571	.584	.659	.653	.631	.667	.648
	SMP 06	.613	.694	.588	.673	.664	1.000	.632	.730	.613	.693	.632	.636	.616	.637	.609	.637	.719	.661
	SMP 07	.542	.644	.499	.626	.563	.632	1.000	.647	.575	.633	.593	.538	.576	.632	.556	.601	.637	.526
	SMP 08	.708	.743	.627	.700	.700	.730	.647	1.000	.577	.675	.687	.634	.713	.680	.646	.715	.744	.623
	SMP 09	.559	.578	.563	.507	.534	.613	.575	.577	1.000	.505	.531	.511	.525	.567	.558	.569	.605	.634
	SMP 10	.572	.645	.526	.612	.561	.693	.633	.675	.505	1.000	.692	.573	.656	.631	.608	.680	.727	.595
	SMP 11	.612	.640	.576	.635	.575	.632	.593	.687	.531	.692	1.000	.555	.695	.654	.611	.710	.681	.603
	SMP 12	.573	.560	.504	.588	.571	.636	.538	.634	.511	.573	.555	1.000	.559	.622	.602	.675	.639	.636
	SMP 13	.596	.593	.539	.652	.584	.616	.576	.713	.525	.656	.695	.559	1.000	.610	.652	.673	.700	.602
	SMP 14	.648	.676	.581	.662	.659	.637	.632	.680	.567	.631	.654	.622	.610	1.000	.677	.700	.710	.621
	SMP 15	.656	.650	.656	.650	.653	.609	.556	.646	.558	.608	.611	.602	.652	.677	1.000	.644	.694	.639
	SMP 16	.675	.641	.547	.637	.631	.637	.601	.715	.569	.680	.710	.675	.673	.700	.644	1.000	.707	.661
	SMP 17	.678	.710	.598	.695	.667	.719	.637	.744	.605	.727	.681	.639	.700	.710	.694	.707	1.000	.671
	SMP 18	.658	.654	.606	.595	.648	.661	.526	.623	.634	.595	.603	.636	.602	.621	.639	.661	.671	1.000
Sig. (1-tailed)	SMP 01R		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

SMP 02R	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
SMP 03R	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
SMP 04	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
SMP 05	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
SMP 06	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
SMP 07	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
SMP 08	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
SMP 09	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
SMP 10	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000
SMP 11	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000
SMP 12	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000
SMP 13	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000
SMP 14	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000
SMP 15	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000
SMP 16	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000
SMP 17	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000
SMP 18	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.975
Bartlett's Test of Sphericity	Approx. Chi-Square	6476.760
	df	153
	Sig.	.000

Communalities

	Initial	Extraction
SMP01R	1.000	.665
SMP02R	1.000	.703
SMP03R	1.000	.571
SMP04	1.000	.664
SMP05	1.000	.656
SMP06	1.000	.690
SMP07	1.000	.574
SMP08	1.000	.751
SMP09	1.000	.519
SMP10	1.000	.639
SMP11	1.000	.649
SMP12	1.000	.570
SMP13	1.000	.633
SMP14	1.000	.681
SMP15	1.000	.657
SMP16	1.000	.698
SMP17	1.000	.755
SMP18	1.000	.641

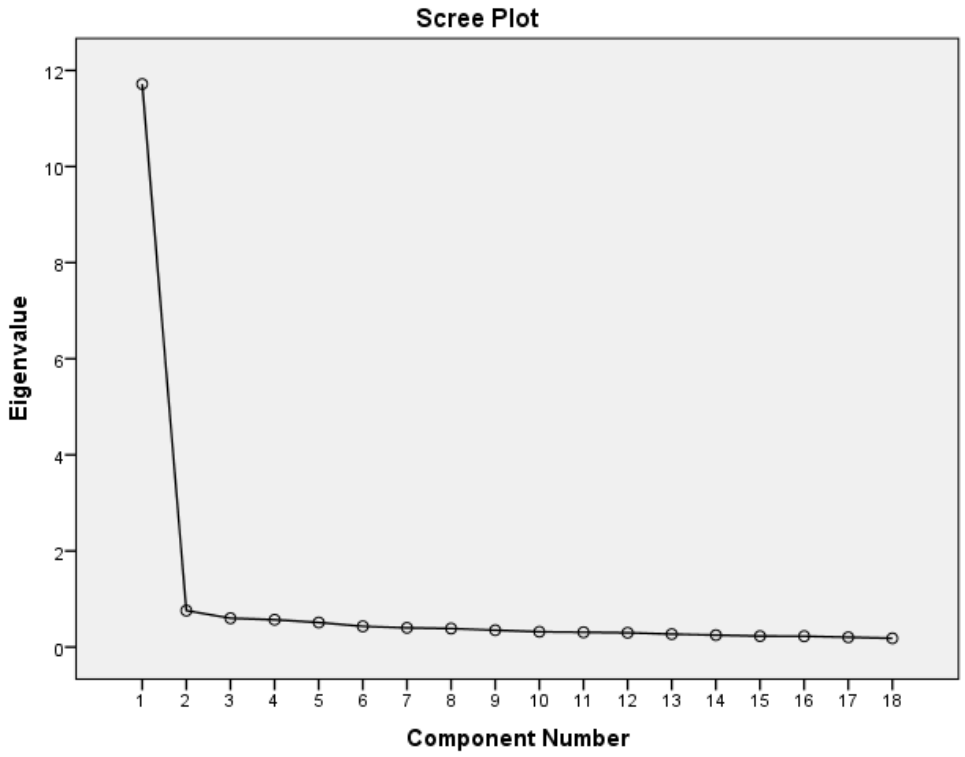
Extraction Method: Principal Component Analysis.

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	11.717	65.097	65.097	11.717	65.097	65.097
2	.758	4.212	69.309			
3	.599	3.327	72.636			

4	.567	3.152	75.788			
5	.511	2.840	78.627			
6	.431	2.392	81.019			
7	.400	2.222	83.241			
8	.386	2.144	85.385			
9	.351	1.949	87.335			
10	.317	1.759	89.093			
11	.308	1.708	90.802			
12	.299	1.659	92.461			
13	.269	1.493	93.954			
14	.248	1.379	95.332			
15	.229	1.270	96.603			
16	.226	1.253	97.856			
17	.204	1.133	98.989			
18	.182	1.011	100.000			

Extraction Method: Principal Component Analysis.



Component Matrix[a]

	Component
	1
SMP01R	.815
SMP02R	.838
SMP03R	.756
SMP04	.815
SMP05	.810
SMP06	.831
SMP07	.758
SMP08	.867
SMP09	.720
SMP10	.799
SMP11	.806
SMP12	.755
SMP13	.796
SMP14	.826
SMP15	.811
SMP16	.835
SMP17	.869
SMP18	.801

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Rotated Component Matrix[a]

a. Only one component was extracted. The solution cannot be rotated.

Appendix 5: Intrapreneurial Personality Exploratory Factor Analysis

Correlation Matrix

		IntraP01	IntraP02	IntraP03	IntraP04	IntraP05	IntraP07	IntraP09	IntraP10	IntraP11	IntraP12
Correlation	IntraP01	1.000	.511	.600	.616	.332	.489	.497	.423	.431	.511
	IntraP02	.511	1.000	.583	.562	.401	.430	.567	.408	.483	.384
	IntraP03	.600	.583	1.000	.614	.415	.493	.538	.391	.442	.476
	IntraP04	.616	.562	.614	1.000	.435	.525	.515	.432	.524	.371
	IntraP05	.332	.401	.415	.435	1.000	.401	.439	.445	.439	.222
	IntraP07	.489	.430	.493	.525	.401	1.000	.536	.349	.504	.351
	IntraP09	.497	.567	.538	.515	.439	.536	1.000	.464	.551	.387
	IntraP10	.423	.408	.391	.432	.445	.349	.464	1.000	.454	.356
	IntraP11	.431	.483	.442	.524	.439	.504	.551	.454	1.000	.326
	IntraP12	.511	.384	.476	.371	.222	.351	.387	.356	.326	1.000
Sig. (1-tailed)	IntraP01		.000	.000	.000	.000	.000	.000	.000	.000	.000
	IntraP02	.000		.000	.000	.000	.000	.000	.000	.000	.000
	IntraP03	.000	.000		.000	.000	.000	.000	.000	.000	.000
	IntraP04	.000	.000	.000		.000	.000	.000	.000	.000	.000
	IntraP05	.000	.000	.000	.000		.000	.000	.000	.000	.000
	IntraP07	.000	.000	.000	.000	.000		.000	.000	.000	.000
	IntraP09	.000	.000	.000	.000	.000	.000		.000	.000	.000

	IntraP10	.000	.000	.000	.000	.000	.000	.000		.000	.000
	IntraP11	.000	.000	.000	.000	.000	.000	.000	.000		.000
	IntraP12	.000	.000	.000	.000	.000	.000	.000	.000	.000	

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.926
Bartlett's Test of Sphericity	Approx. Chi-Square	1811.285
	df	45
	Sig.	.000

Communalities

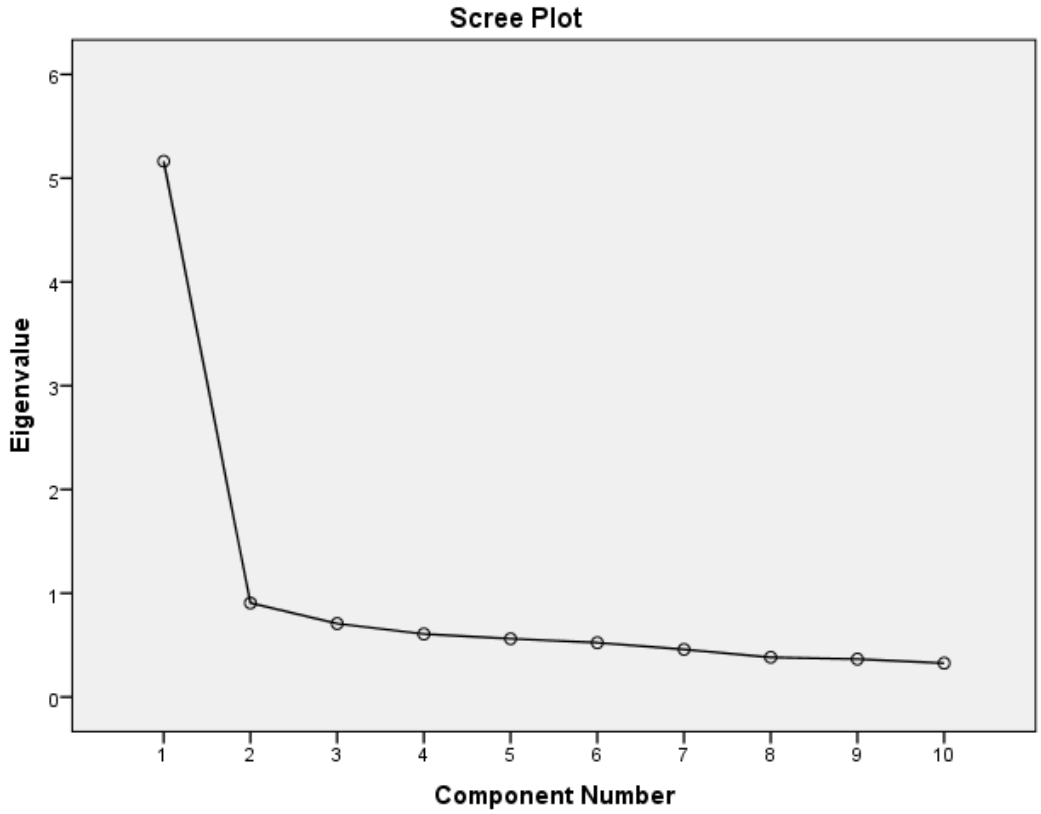
	Initial	Extraction
IntraP01	1.000	.579
IntraP02	1.000	.563
IntraP03	1.000	.613
IntraP04	1.000	.625
IntraP05	1.000	.385
IntraP07	1.000	.505
IntraP09	1.000	.596
IntraP10	1.000	.420
IntraP11	1.000	.518
IntraP12	1.000	.359

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.163	51.632	51.632	5.163	51.632	51.632
2	.906	9.058	60.691			
3	.708	7.077	67.768			
4	.607	6.069	73.837			
5	.562	5.616	79.453			
6	.523	5.233	84.686			
7	.458	4.585	89.270			
8	.382	3.823	93.093			
9	.365	3.647	96.740			
10	.326	3.260	100.000			

Extraction Method: Principal Component Analysis.



Component Matrix[a]

	Component
	1
IntraP01	.761
IntraP02	.750
IntraP03	.783
IntraP04	.791
IntraP05	.621
IntraP07	.710
IntraP09	.772
IntraP10	.648
IntraP11	.720
IntraP12	.599

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Rotated Component Matrix[a]

a. Only one component was extracted. The solution cannot be rotated.

Appendix 6: Proactive Personality Exploratory Factor Analysis

Correlation Matrix

		ProacP01	ProacP02	ProacP03	ProacP04	ProacP05	ProacP06	ProacP07	ProacP08	ProacP09	ProacP10	ProacP11	ProacP12	ProacP13	ProacP14	ProacP15	ProacP16	ProacP17
Correlation	ProacP01	1.000	.687	.706	.716	.711	.839	.685	.821	.728	.739	.692	.774	.757	.782	.784	.709	.798
	ProacP02	.687	1.000	.550	.733	.697	.634	.664	.689	.685	.658	.702	.588	.545	.551	.580	.629	.657
	ProacP03	.706	.550	1.000	.543	.610	.663	.567	.702	.542	.651	.506	.696	.639	.670	.665	.534	.706
	ProacP04	.716	.733	.543	1.000	.731	.705	.684	.701	.701	.621	.664	.635	.597	.615	.619	.717	.668
	ProacP05	.711	.697	.610	.731	1.000	.688	.704	.707	.691	.613	.685	.662	.608	.627	.661	.675	.700
	ProacP06	.839	.634	.663	.705	.688	1.000	.679	.796	.729	.745	.730	.753	.807	.771	.801	.685	.831
	ProacP07	.685	.664	.567	.684	.704	.679	1.000	.672	.726	.599	.710	.622	.606	.592	.622	.660	.710
	ProacP08	.821	.689	.702	.701	.707	.796	.672	1.000	.693	.754	.642	.784	.735	.719	.753	.656	.794
	ProacP09	.728	.685	.542	.701	.691	.729	.726	.693	1.000	.623	.732	.626	.662	.648	.633	.676	.711
	ProacP10	.739	.658	.651	.621	.613	.745	.599	.754	.623	1.000	.645	.739	.699	.721	.721	.656	.777

	ProacP11	.692	.702	.506	.664	.685	.730	.710	.642	.732	.645	1.000	.581	.638	.625	.611	.657	.723
	ProacP12	.774	.588	.696	.635	.662	.753	.622	.784	.626	.739	.581	1.000	.723	.741	.766	.669	.794
	ProacP13	.757	.545	.639	.597	.608	.807	.606	.735	.662	.699	.638	.723	1.000	.757	.775	.622	.789
	ProacP14	.782	.551	.670	.615	.627	.771	.592	.719	.648	.721	.625	.741	.757	1.000	.765	.656	.778
	ProacP15	.784	.580	.665	.619	.661	.801	.622	.753	.633	.721	.611	.766	.775	.765	1.000	.659	.791
	ProacP16	.709	.629	.534	.717	.675	.685	.660	.656	.676	.656	.657	.669	.622	.656	.659	1.000	.680
	ProacP17	.798	.657	.706	.668	.700	.831	.710	.794	.711	.777	.723	.794	.789	.778	.791	.680	1.000
Sig. (1-tailed)	ProacP01		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
	ProacP02	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
	ProacP03	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
	ProacP04	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
	ProacP05	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
	ProacP06	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

ProacP07	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
ProacP08	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000
ProacP09	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000
ProacP10	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000
ProacP11	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000
ProacP12	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000
ProacP13	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000
ProacP14	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000
ProacP15	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000
ProacP16	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000
ProacP17	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.976
Bartlett's Test of Sphericity	Approx. Chi-Square	7523.783
	df	136
	Sig.	.000

Communalities

	Initial	Extraction
ProacP01	1.000	.824
ProacP02	1.000	.617
ProacP03	1.000	.587
ProacP04	1.000	.663
ProacP05	1.000	.677
ProacP06	1.000	.816
ProacP07	1.000	.646
ProacP08	1.000	.784
ProacP09	1.000	.683
ProacP10	1.000	.704
ProacP11	1.000	.652
ProacP12	1.000	.728
ProacP13	1.000	.705
ProacP14	1.000	.712
ProacP15	1.000	.735
ProacP16	1.000	.652
ProacP17	1.000	.821

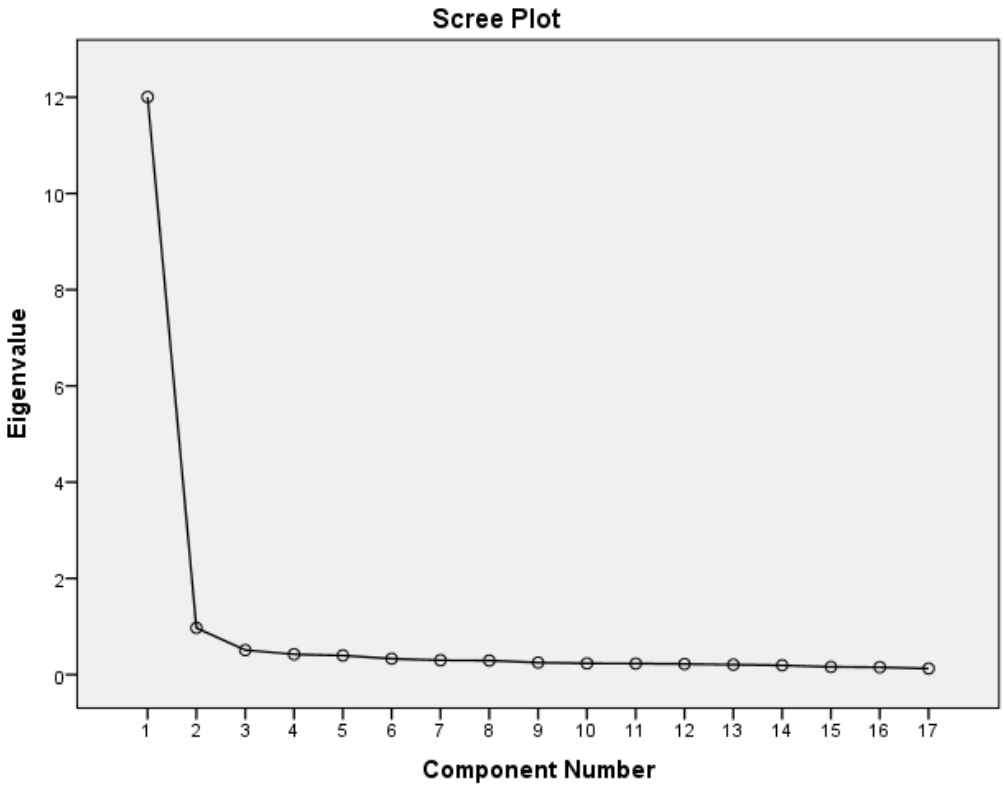
Extraction Method: Principal Component Analysis.

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	12.006	70.622	70.622	12.006	70.622	70.622
2	.971	5.710	76.332			
3	.510	3.001	79.333			
4	.423	2.487	81.820			
5	.397	2.336	84.157			
6	.330	1.944	86.101			
7	.299	1.757	87.857			
8	.291	1.714	89.571			
9	.250	1.473	91.044			
10	.234	1.374	92.418			
11	.229	1.350	93.768			
12	.221	1.300	95.068			
13	.206	1.212	96.280			

14	.193	1.135	97.415			
15	.159	.937	98.352			
16	.153	.902	99.254			
17	.127	.746	100.000			

Extraction Method: Principal Component Analysis.



Component Matrix[a]

	Component
	1
ProacP01	.908
ProacP02	.785
ProacP03	.766
ProacP04	.815
ProacP05	.823
ProacP06	.903
ProacP07	.804
ProacP08	.886
ProacP09	.826
ProacP10	.839
ProacP11	.807

ProacP12	.853
ProacP13	.840
ProacP14	.844
ProacP15	.857
ProacP16	.807
ProacP17	.906

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Rotated Component Matrix[a]

a. Only one component was extracted. The solution cannot be rotated.

Appendix 7: Network Building Ability Exploratory Factor Analysis

Correlation Matrix

		NBA01	NBA02	NBA03	NBA04	NBA06
Correlation	NBA01	1.000	.630	.478	.685	.576
	NBA02	.630	1.000	.598	.701	.598
	NBA03	.478	.598	1.000	.558	.687
	NBA04	.685	.701	.558	1.000	.708
	NBA06	.576	.598	.687	.708	1.000
Sig. (1-tailed)	NBA01		.000	.000	.000	.000
	NBA02	.000		.000	.000	.000
	NBA03	.000	.000		.000	.000
	NBA04	.000	.000	.000		.000
	NBA06	.000	.000	.000	.000	

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.838
Bartlett's Test of Sphericity	Approx. Chi-Square	1199.229
	df	10
	Sig.	.000

Communalities

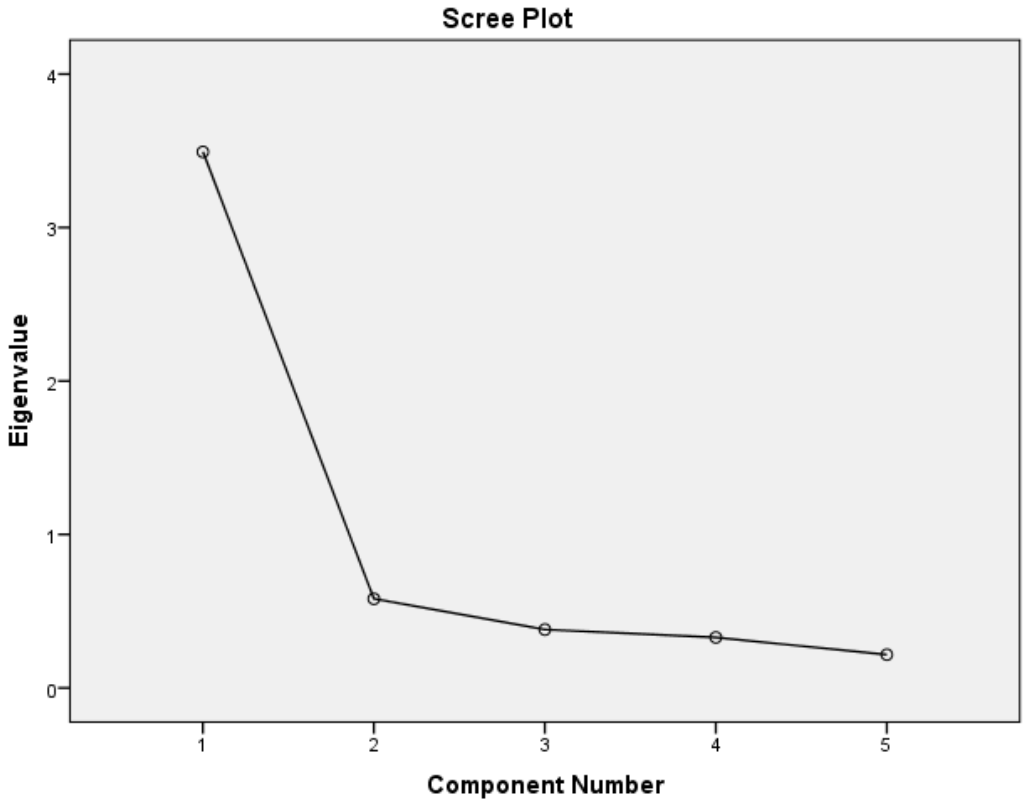
	Initial	Extraction
NBA01	1.000	.648
NBA02	1.000	.715
NBA03	1.000	.624
NBA04	1.000	.773
NBA06	1.000	.733

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.493	69.863	69.863	3.493	69.863	69.863
2	.581	11.617	81.480			
3	.380	7.605	89.085			
4	.329	6.581	95.666			
5	.217	4.334	100.000			

Extraction Method: Principal Component Analysis.



Component Matrix[a]

	Component
	1
NBA01	.805
NBA02	.846
NBA03	.790
NBA04	.879
NBA06	.856

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Rotated Componen t Matrix[a]

Appendix 8: Individuals' Innovative Behaviours Exploratory Factor Analysis

Correlation Matrix

		IBIG01	IBIG02	IBIG03	IBIP04	IBIP05	IBIP06	IBIR07	IBIR08	IBIR09
Correlation	IBIG01	1.000	.950	.585	.184	.156	.166	.136	.156	.163
	IBIG02	.950	1.000	.619	.181	.132	.157	.148	.167	.189
	IBIG03	.585	.619	1.000	.172	.213	.190	.245	.347	.358
	IBIP04	.184	.181	.172	1.000	.506	.469	.306	.222	.258
	IBIP05	.156	.132	.213	.506	1.000	.558	.295	.278	.326
	IBIP06	.166	.157	.190	.469	.558	1.000	.310	.334	.229
	IBIR07	.136	.148	.245	.306	.295	.310	1.000	.526	.411
	IBIR08	.156	.167	.347	.222	.278	.334	.526	1.000	.530
	IBIR09	.163	.189	.358	.258	.326	.229	.411	.530	1.000
Sig. (1-tailed)	IBIG01		.000	.000	.000	.001	.000	.003	.001	.000
	IBIG02	.000		.000	.000	.004	.001	.001	.000	.000
	IBIG03	.000	.000		.000	.000	.000	.000	.000	.000
	IBIP04	.000	.000	.000		.000	.000	.000	.000	.000
	IBIP05	.001	.004	.000	.000		.000	.000	.000	.000
	IBIP06	.000	.001	.000	.000	.000		.000	.000	.000
	IBIR07	.003	.001	.000	.000	.000	.000		.000	.000
	IBIR08	.001	.000	.000	.000	.000	.000	.000		.000
	IBIR09	.000	.000	.000	.000	.000	.000	.000	.000	

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.735
Bartlett's Test of Sphericity	Approx. Chi-Square	1942.494
	df	36
	Sig.	.000

Communalities

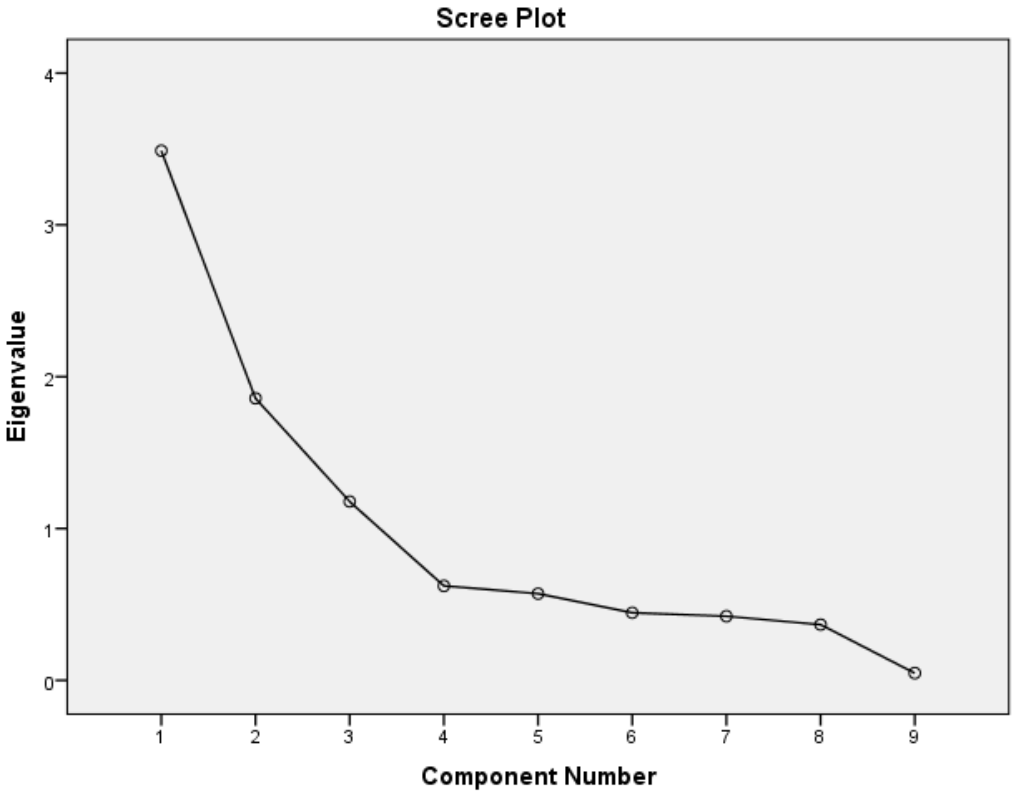
	Initial	Extraction
IBIG01	1.000	.924
IBIG02	1.000	.939
IBIG03	1.000	.673
IBIP04	1.000	.648
IBIP05	1.000	.701
IBIP06	1.000	.673
IBIR07	1.000	.594
IBIR08	1.000	.735
IBIR09	1.000	.637

Extraction Method: Principal Component Analysis.

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.489	38.764	38.764	3.489	38.764	38.764	2.431	27.011	27.011
2	1.858	20.642	59.406	1.858	20.642	59.406	2.057	22.853	49.864
3	1.177	13.083	72.489	1.177	13.083	72.489	2.036	22.625	72.489
4	.622	6.914	79.403						
5	.571	6.346	85.749						
6	.445	4.944	90.693						
7	.423	4.696	95.389						
8	.367	4.079	99.467						
9	.048	.533	100.000						

Extraction Method: Principal Component Analysis.



Component Matrix[a]

	Component		
	1	2	3
IBIG01	.642	-.700	.144
IBIG02	.652	-.709	.107
IBIG03	.686	-.422	-.157
IBIP04	.571	.336	.457
IBIP05	.605	.410	.408
IBIP06	.595	.389	.409
IBIR07	.593	.338	-.357
IBIR08	.635	.289	-.499
IBIR09	.616	.236	-.449

Extraction Method: Principal Component Analysis.

a. 3 components extracted.

Rotated Component Matrix[a]

	Component		
	1	2	3
IBIG01	.954	.018	.116
IBIG02	.963	.047	.092
IBIG03	.733	.362	.068
IBIP04	.108	.124	.788
IBIP05	.065	.206	.809
IBIP06	.077	.192	.794
IBIR07	.054	.728	.246
IBIR08	.107	.838	.148
IBIR09	.142	.772	.146

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 4 iterations.

Component Transformation Matrix

Component	1	2	3
1	.595	.585	.551
2	-.799	.361	.480
3	.081	-.726	.683

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.