# *Intrapreneurial personality and individual innovation behaviour in service organisations: Network building ability as a mediator*


## *Abstract*

The research explores the relation between intrapreneurial personality and individuals' innovative behaviour in the service sector. The research integrated personality and social capital perspectives to examine the mediating role of network building ability on the relation between intrapreneurial personality and three main stages of the employees' innovative behaviours: idea generation, idea promotion and idea realisation. A quantitative research methodology was adopted with 410 questionnaires collected from employees in the UAE service sector and subsequently analysed using structural equation modelling. The research found a significant direct relationship between intrapreneurial personality and idea realisation stage and no direct relationship with idea generation and idea promotion. In addition, network building ability was found to mediate these relationships, underlining the importance of building networks for intrapreneurial employees to innovate. These results across the three main stages of individuals' innovative behaviours may enrich our teachable skills to improve individuals' innovative behaviour.



***Keywords:*** Service innovation, individuals' innovative work behaviour; network building ability; Intrapreneurial personality.


### *Introduction*

Service sector is a major building block of the economy, constituting approximately 50 % of developed countries' Gross Domestic Product (GDP) (Ratny, Arshad & Gaoliang, 2017). with higher employees' numbers than manufacturing, the service sector has a critical role in growing economies (Un & Montoro-Sanchez, 2010). Therefore, exploring the service sector phenomena will not only reflect on the service industries but also on economic performance on a national and global level (Zainal & Matore, 2019). Particularly, understanding how to manage innovation effectively has gained considerable attention in service organisations since it contributes greatly to the organisational existence and ability to compete in the market (Ratny, Arshad & Gaoliang, 2017). However, previous innovation literature concentrated more on manufacturing industries than service industries (Li & Hsu, 2016). Although service organisations exhibit different characteristics from manufacturing organisations (Drejer, 2004), the current understanding of service sector innovation is still based on manufacturing sector innovation. A limited number of studies focus on innovation in the service sector (Rubalcaba 2007).

Individuals with an intrapreneurial personality trait are described as task self-appointedv, self-determined, goal-setters, self-initiated, self-confident and action-oriented (Pinchot 1985). Intrapreneurial individuals combine both vision and action (Zhu, Djurjagina & Leker 2014). How

such a personality trait is capable of innovating is the focus of this study. An individual's innovative behaviour is defined as "…the intentional creation, introduction and application of new ideas within a work role, group or organisation" (Janssen 2000, p. 288). The importance of individuals' innovative work behaviour is mostly driven by the swiftly changing world among which today's organisations are embedded. Organisations should function as hubs for creativity and innovation to guarantee their survival, effectiveness and continuous competitiveness in their markets (Omachonu & Einspruch 2010). Therefore, organisations need creative personnel, can generate new ideas, products and processes, and can track the implementation of these novel ideas in practice (Scott & Bruce 1994; Zainal & Matore 2019).

Particularly, the intrapreneurial personality trait has drawn the attention of limited studies examining its influence at the individual level (Blanka, 2018). A positive relationship have been noted between intrapreneurial personality trait and individuals' innovative behaviours (Amo & Kolvereid, 2005). In a later study, Amo (2010) suggested a combined perspective between intrapreneurship bottom-up innovation and corporate entrepreneurship top-down innovation in explaining the employees' innovative behaviours. He pointed out that future research should consider the role of mediators or moderators in explaining the innovation process. In this study, we explore the mediating role of Network Building Ability (NBA) (Ferris et al. 2005), a concept originating from social capital theory that measures the individual ability to build social networks (Thompson, 2005). Network building ability is 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 intrapreneurial personality and individuals' innovative behaviours.

In addition, while previous studies in the literature considered the individuals' innovative behaviours as a single construct (Scott & Bruce 1994), this study explores a more recent prespective that sees individuals' innovative behaviours compsed of three stages: Idea generation, and idea promotion, and idea realisation (Janssen, 2000). This separation in the analysis will answer a recent call to differentiate between the three stages of innovation behaviours since each stage may require different predictors and antecedents (Wisse, Barelds & Rietzschel 2015, Woods et al. 2017; Rodrigues & Rebelo 2019; Nasaj 2020; Nasaj & Badi, 2021; Nasaj, 2021). This approach offers additional insight into the mechanisms involved across the multiple and discontinuous activities leading to innovation in service organisations.

## *Literature Review*

### *Innovation in the Service Sector*

Due to the fast-changing market environment, innovation has become a key factor influencing service organisations performance (Campo, Díaz & Yagüe 2014; Coombs and Miles, 2000; Li &

Hsu, 2016). Organisations usually create new products and services to match existing or potential customer needs (Forsman 2011). Service innovation is considered an important aspect of an organisation's success and its competitiveness in the market (Komaladewi et al., 2012). One of the essential characteristics of service innovation is the interaction with the customer (Sundbo & Gallouj 2000). Service innovation aims to provide innovative solutions for the customers and usually concentrates on service weaknesses to identify innovative solutions to these issues and win a larger customer base (Miles, Miles & Snow 2006; Hertog et al., 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 customer needs (Slater & Narver 1998).

Service is usually an experience-based process, where the human aspect generally plays an important role in delivering the services. Service can be best defined as a process that involves an interface with a customer either through human or technological interactions (Bitner, Ostrom & Morgan 2008). Assuming a bottom-up approach to the innovation process, Sundbo (1997) explains the difficulty of measuring and managing service innovation and attributes these difficulties to the role of intrapreneurs in the organisations ((Pinchot 1985; Amo & Kolvereid 2005). In this perspective, innovation is initiated by the working individuals in the organisations rather than top management. This notion points at the humanistic aspect of innovation in the service sector. It underlines individuals' innovative behaviours as vital in contributing to the innovation of services due to the humanistic aspects of service delivery, which renders the distinction of the service from its delivery process difficult to ascertain (Bitner, Ostrom & Morgan 2008).

### *Individuals' Innovative Behaviours in the Service Sector*

Innovation depends on new ideas, and employees are the developers, carriers, implementers, and modifiers of these ideas (Sebastiani & Paiola 2010). Understanding employees' innovative behaviours are very important to successfully manage innovation in organisations (Scott & Bruce 1994; Gallouj 2002). Therefore, employees' innovative behaviours are an essential element that contributes to the success and survival of the organisation (Komaladewi et al., 2012; Zainal & Matore 2019). Individuals' innovative behaviours have been afforded less attention in the extant literature than studies of innovation at the team and organisational levels (Li & Hsu 2016). An individual's innovation behaviour is defined as the individual behaviour that contributes to developing new products, new markets, or improving business processes in their organisations (Amo 2005). Individual's innovative behaviour relates to a complex set of behaviours that aim to generate, promote, and realise new ideas in the workplace (Madrid et al. 2014). 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 the workplace (Yuan & Woodman 2010) and make an effort to adopt novel ideas (Kanter 1988). The importance of an individual's innovative behaviours is more pronounced in customer service-oriented organisations since the nature of customer expectation is ever-changing, hence, requiring employees with innovative orientation to satisfy their customers (Bani-Melhem et al., 2018).

Innovation is often conceptualised as encompassing three key stages: idea generation, idea promotion, and idea realisation (Janssen 2000; Scott & Bruce 1994). As Janssen (2000) explains, an individual will create new ideas at the idea generation stage, search for new ways of doing things, and generate novel solutions for problems (Janssen, 2000). Following this, at the idea promotion stage, the individual will gather support for his novel ideas, acquire necessary approvals, and motivate important members in his organisation for the innovative idea. Subsequently, in the idea realisation stage, novel ideas are transformed into useful applications, systematically introducing original ideas into the workplace and evaluating the utility of the new ideas (Janssen, 2000). Empirically, these three distinct behaviours are often measured as a single construct in studies of individual innovation behaviour (Scott & Bruce 1994). This approach, however, may not be adequate to capture the multi-dimensional complexity of innovation behaviours. Indeed, there are recent calls in the literature to examine innovation behaviour as a multi-dimensional construct (idea generation, promotion and realisation). Indeed, each of the three stages may be affected by a unique set of antecedents and factors (Wisse, Barelds & Rietzschel 2015; Woods et al. 2017; Rodrigues and Rebelo 2019). This multi-dimensional approach will be adopted in this study to offer a fine-grained understanding of the multitude of individual innovative behaviour in service organisations.

### *Intrapreneurial Personality Trait*

In previous literature, entrepreneurship in organisations was presented in three main levels: organisational level (Camelo-Ordaz et al. 2012), team level (Iacobucci & Rosa 2010), and individual level (Douglas & Fitzsimmons 2013). These three perspectives lead to the establishment of different concepts tackling entrepreneurship in organisations. New concepts emerged, such as corporate entrepreneurship, corporate venturing, entrepreneurial orientation and intrapreneurship, which created confusion due to lack of a clear classification (Christensen 2005). Hence, the definition of intrapreneurship as a concept is inconsistent 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 (De Jong & Wennekers, 2008). Research on entrepreneurship in existing organisations failed to identify the individuals behind the intrapreneurial process, their role, and how can their behaviours be effectively managed? (De Jong & Wennekers, 2008). Hence, this novel study will contribute to our current knowledge of the individual level of employee's entrepreneurship, namely the intrapreneurial personality trait of the employees.

Personality traits are tendencies to consistency in characteristics, emotions, thoughts, and behaviours constant over time and describe an individuals' behaviours in various situations (Barrick, Parks & Mount 2005). Personality has also been defined as "the sum total of ways in which an individual reacts to and interacts with others" (Robbins and Judge, 2015 p.175). Personality traits act as a uniting concept that offers meaning, direction and explanation of the individuals' behaviours tendencies (Morris, Davis & Allen 1994). Personality theory has been widely used as a valid predictor of individuals' job performance (Leutner et al., 2014).

The focus of this study is on the intrapreneurial personality trait. Intrapreneurship as a personality trait was initially presented by Pinchot (1985), who developed 12 measures that identify whether an individual is high on intrapreneurship or otherwise. Pinchot (1985) describes an individual with high intrapreneurship traits as a self-determined goal-setter who takes the initiative, is self-confident and is action-oriented. Intrapreneurial personality trait contains behaviours such as proactiveness, the pursuit of opportunity, self-determination, confidence, risk-taking, defying rules and a dislike of bureaucratic systems (Sinha & Srivastava, 2013). Several organisational behaviour studies have investigated the intrapreneurial personality trait of employees, such as Amo and Kolvereid (2005); and Pinchot and Pellman (1999). Amo and Kolvereid (2005) tested the relation between the intrapreneurial personality trait of 634 business graduates working in different Norwegian organisations and their innovative behaviours. They found a significant relationship between the two; however, they called for further improvement to the intrapreneurial personality traits measurements. The generalisability of Amo and Kolvereid's (2005) study is limited as data were collected from a relatively homogenous sample of alumni. Hence, further corroboration of their findings is needed in different cultures and individuals from other educational backgrounds.

### *The Role of Social Network Building Ability*

One of the most studied theories in sociology is social capital (Thompson 2005). Social capital was defined as "resources embedded in a social structure that is accessed and/or mobilised in purposive actions" (Lin, Fu & Hsung 2001, p.29) . This definition has 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) (Thompson 2005). These social resources embedded in an individual's network of relationships define the extent to which an individual can have access to information, have influence, and effectively implement change (Coleman 2000; Burt 2009). Hence, a large social network within which individuals are embedded will allow them access to information and social support.

Indeed, network building is an individual's key ability to establish large social networks and take advantage of these networks. The construct was initially developed by Ferris et al. (2005) as a key political skill that helps individuals seek allies and link themselves to other individuals who occupy positions of influence and power in their societies. Essentially, an individual with high network building ability will be adept at developing relationships with influential decision-makers in their work and secure their support for getting things done (Ferris et al., 2005). Based on the above discussion, this study aims to answer two main research questions: What is the relationship between an intrapreneurial personality trait and innovation? and does network building ability act as a mediating mechanism of influence?

### *Research Conceptual Framework and Hypotheses*

Idea generation stage is the early innovation stage (Janssen, 2000). The individual will create new ideas, search for new methods of doing things, and generate a novel solution for problems. In her

literature review of intrapreneurship at the individual level, Blanka (2018) contended that intrapreneurs are proactive in establishing relationships and building networks inside and outside the organisation. These relations enable intrapreneurs to be open-minded, discover business opportunities and develop brokering competencies.

An Individual's network is defined by relationships and trusting ties (Granovetter 1983). Network theory explains that the ties to different people or the individual's social capital reside in these relationships (Coleman 1988). Since network building ability will help individuals build their network, and the more the individuals have ties, the more they can create a pool of trusted information that contributes to new ideas generation and improves 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 them to identify new opportunities that will facilitate generating new ideas (Baer et al., 2015). Indeed, 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 (Perry-Smith & Mannucci, 2017). 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). In addition, intrapreneurs proactively seek to establish relationships and build networks inside and outside their companies (Blanka, 2018). These relations allow intrapreneurs to be open-minded, discover business opportunities and develop brokering competencies. These brokering competencies help the individual to collect data from inside and outside the organisation, taking the role of a gatekeeper in networking terminology. Then combinations of different pieces of knowledge obtained by a broker through networking can easily be translated into innovation (Bjornali & Støren 2012). Hence, the following hypothesis is proposed:

***H1: Network building ability mediates the relation between intrapreneurial personality traits and idea generation.***

Furthermore, intrapreneurs usually obtain resources from wherever they can and choose individuals to be in the new ventures teams based on their knowledge and dedication (Pinchot & Pellman, 1999). In other words, intrapreneurs will be engaged in networking activities. 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 opportunities, and social capital (Thompson 2005). In the idea promotion stage, the innovative employees will attempt to progress their novel idea by socialising and building a supportive coalition to their ideas. The employee will identify allies and backers who have the required power to advance their ideas within the organisation (Kanter 1988). Promoting a new idea necessitates

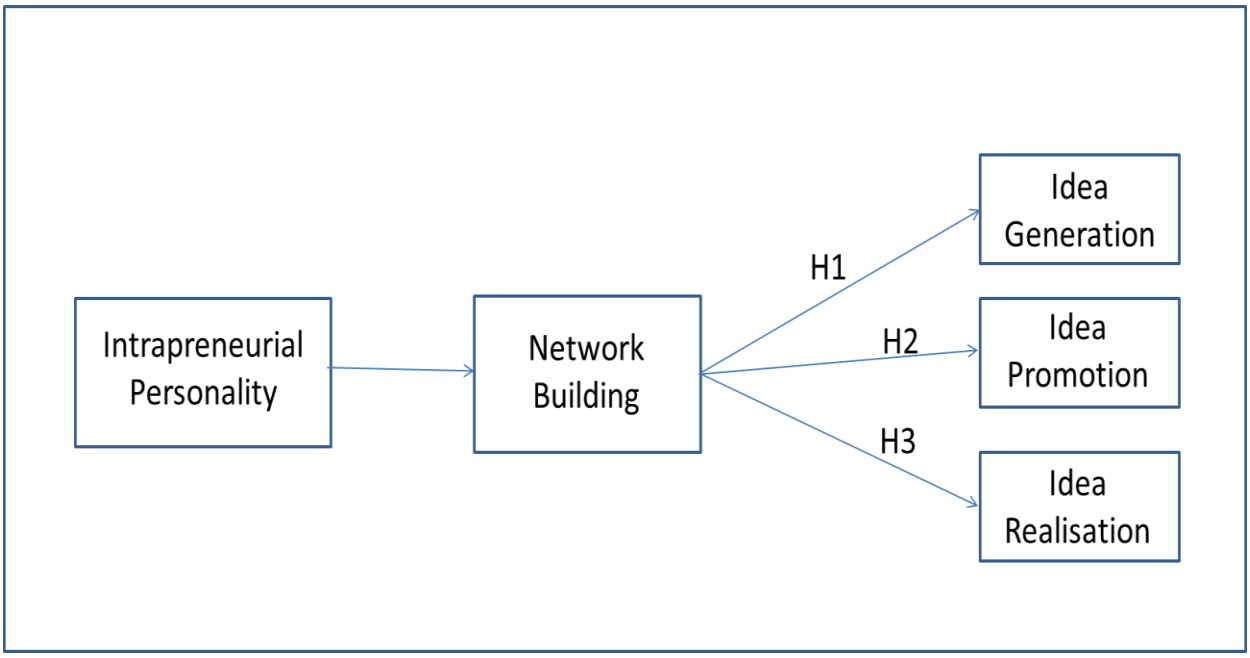
influential individuals perceived by decision-makers as legitimate and competent individuals (Perry-Smith & Mannucci 2017). The best way to achieve this is through the individual being embedded in a sparse network rich in structural holes (Perry-Smith & Mannucci 2017). Based on the above discussion, network building ability may mediate the relation between an intrapreneurial personality trait and the idea promotion stage. Hence, the study proposed the following hypothesis:

***H2: Network building ability mediates the relation between intrapreneurial personality traits and idea promotion.***

Idea realisation is the third and final stage in the innovation process. This stage aims to produce a prototype or model of the new idea that can be implemented and practised within a job role, a team or the whole company (Kanter 1988). An 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). These traits are 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. Both top management and middle management have an important role in supporting and encouraging intrapreneurs. Realising a new idea is guided by shared understanding and vision among the individuals within the company (Perry-Smith & Mannucci, 2017). Hence, network closure (Coleman 1988) and external ties outside the team (Tortoriello & Krackhardt 2010) best support idea realisation. In addition, individuals' networks will assist them in securing 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 following hypothesis is proposed:

***H3: Network building ability mediates the relation between intrapreneurial personality trait and idea realisation.***

Figure 1 illustrates the study's conceptual model.




## *Methodology*

The research investigated the relation between intrapreneurial personality, network building ability and individuals' innovative behaviours. Therefore quantitative methodological approach will be appropriate to deduct the nature of relations amongst the variables.

### *Data Collection and Sample*

The study has chosen the UAE service sector employees to represent its population, given its importance to the UAE as a service-driven economy (Augustine, 2016). The service sector forms 53.11% of the country GDP (Statista, 2020). The UAE government aims to inspire innovation in all sectors. Hence the UAE service sector formed a rich context to examine innovation (Rodrigues, Sarabdeen & Balasubramanian, 2016; Nasaj & Al Marri, 2018; Bani-Melhem, Zeffane & Albaity, 2018; Al-Hawari et al., 2019; Nasaj, 2020; Nasaj, 2021). A random sampling technique was followed to reduce the probability of bias in the collected data (Kothari, 2004). The research selected two organisations from the following sub-sectors: banking, health care, education, hotels, and telecommunication. Human Resources (HR) managers in each organisation were asked to randomly distribute the research's online survey questionnaire to employees from different departments (100 surveys in each organisation). A total of 570 responses were received, 410 were completed and usable. Therefore the study has a 41% effective response rate. SPSS v23.0 and Amos v23.0 programs were used to perform data analysis.

### *Research Measures*

The following measures were adopted to operationalise the study's variables. All measures employed are based on previously validated scales from the extant literature. All the scales' items are listed in Appendix 1.

***Individuals' Innovative Behaviours:*** It is importance that the individuals self-assess their innovative behaviour rather than colleagues' or supervisors' assessment (Janssen, 2000). Since individuals would have more information about their daily work activities than their supervisors or peers; therefore, they will be more precise in evaluating these activities. In addition, when supervisors are requested to assess the innovativeness of their employees, they may disregard aspects of innovation because they will only assess the behaviours that kept an impression on them since innovative behaviour is sensitive to individual's characteristics. Individuals' innovative behaviours were measured via Janssen's (2000) nine-item self-evaluated survey that adopts three items to measure each of the three employees' innovative behaviours (idea generation, idea promotion, and idea realisation). Cronbach's alpha ranged between 0.74 to 0.88.

***Network Building Ability:*** Ferris et al. (2005) have suggested a self-rating six-item scale that measures the ability of the individual to create networks and benefit from the people in their networks as one of the facets of political skills. Cronbach's alpha was 0.89 (see Table 2).

***Intrapreneurial Personality Trait:*** Amo and Kolvereid (2005) suggested 12-items questions derived from Pinchot (1985) work that presented a test "Are you an Intrapreneur?" Amo and Kolvereid (2005) collected their data from 634 master degree graduates in business from a college in Norway. Cronbach's alpha was 0.90 (see Table 2). The details of the items used can be found in the appendices.

***Demographic Variables:*** Data on the participant's age, gender, experiences and education has been collected since they may have a significant effect on employees' perceptions of their work that may influence their job's attitude, process and performance (Kirkman, Tesluk & Rosen, 2004; Pelled, Xin & Weiss, 2004). The gender was included as a dummy variable (male=1 and female=0). Age was measured in years (1= 18-25 years, 2 = 26-33 years, 3= 34-41 years, 4=42-49 years, 5=more than 50 years). As per years of experience (1= less than one year, 2= 1-3 years, 3= 3-6 years, 4= 6-10 years, 5= more than 10 years). Educational background was measured by the following scale points (1= High School, 2= Diploma, 3= Bachelor, 4= Masters, 5= Doctorate). The research participants' profile is summarised in table1.

**Table 1** Participants' profile summary

| Variable | Item | Frequency | Percentage |
|---|---|---|---|
| **Gendre** | Male | 252 | 61.46 |

| | | | |
|---|---|---|---|
| | Female | 158 | 38.54 |
| **Age** | 18 – 25 | 55 | 13.41 |
| | 26 – 33 | 130 | 31.71 |
| | 34 – 41 | 163 | 39.76 |
| | 42 – 49 | 42 | 10.24 |
| | < 50 | 20 | 4.88 |
| **Experience** | > 1 | 27 | 6.59 |
| | 1 – 3 | 42 | 10.24 |
| | 4 – 6 | 51 | 12.44 |
| | 7 – 10 | 84 | 20.49 |
| | < 10 | 206 | 50.24 |
| **Education** | High School | 44 | 10.73 |
| | Diploma | 45 | 10.98 |
| | Bachelor | 191 | 46.59 |
| | Master | 112 | 27.32 |
| | Doctorate | 18 | 4.39 |

### *Data Analysis*

### *Common Method Bias*

Nowadays, business research academics stress the importance of testing common method bias (Williams et al., 2010), especially in self-administrated survey research (Chang et al., 2010). Harman's single-factor test for common method bias (Podsakoff & Organ, 1986) was performed since it is commonly used in literature (Fuller et al., 2016). The results show that the single factor explains only 26.514% of the collected data, which is less than 50%. Therefore, the study does not have a common method bias issue.

### *Validity and Reliability*

Constructs' reliability was examined via running a set of tests. The first test was Cronbach's alpha, with results indicating reliable scales since all constructs have results higher than 0.7 (Mallory & George 2003). Kaiser-Meyer-Olkin (KMO) test that measures sample adequacy was also applied. For the KMO test, the closer the value to 1.0, the more reliable the scale, whereas a value less than 0.50 indicates that the scale is not reliable (Morgan et al., 2004). The results show that (KMO = .868). The last test was the Bartlett Test of Sphericity, which examines the occurrence of correlations; the significance of this test refers to reliable scales (Hair et al., 2010). The results illustrate that Bartlett Test of Sphericity = (.000). The three conducted reliability tests verified that the research's scales are reliable. Table 2 illustrates the correlation matrix and descriptive statistics for the research's variables.

**Table 2** Correlation matrix and descriptive statistics

| | Mean | Std. Deviation | Cronbach's alpha | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1-Gender | 1.39 | .487 | - | - | | | | | | | | |

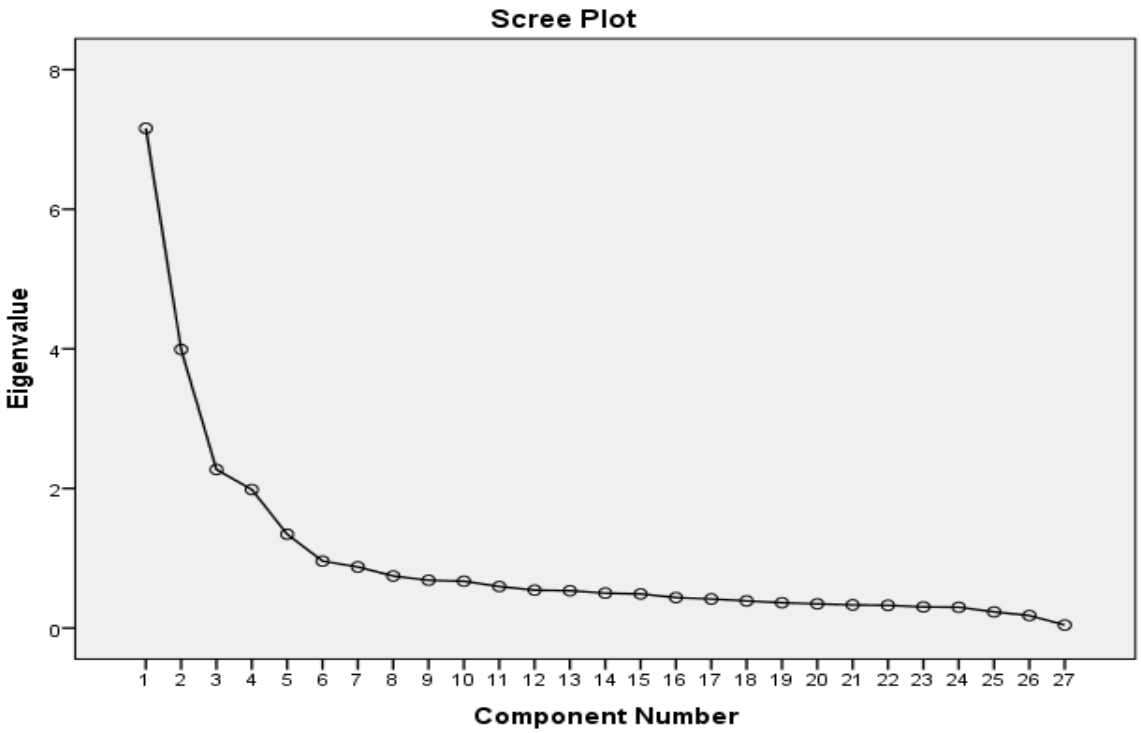
| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2-Age | 2.61 | 1.003 | - | -.216** | - | | | | | | | | |
| 3-Experience | 3.98 | 1.278 | - | -.330** | .684** | - | | | | | | | |
| 4-Education | 3.04 | .994 | - | -.140** | .237** | .287** | - | | | | | | |
| 5-Intraprenuerial Pers | 3.146 | .623 | .900 | -.050 | .232** | .253** | .342** | ***(.692)*** | | | | | |
| 6-Network Building | 3.675 | 1.082 | .895 | -.075 | .045 | .106* | .045 | .264** | ***(.811)*** | | | | |
| 7-Idea Generation | 4.243 | .791 | .883 | -.069 | .108* | .140** | .122* | .192** | .312** | ***(.904)*** | | | |
| 8-Idea Promotion | 4.217 | .668 | .759 | -.125* | .089 | .153** | .118* | .147** | .343** | .229** | ***(.822)*** | | |
| 9-Idea Realisation | 4.410 | .602 | .745 | -.032 | .004 | .020 | .008 | .195** | .247** | .289** | .424** | ***(.806)*** | |

Note: N= 406. *p<.05, **p<.01.

Notes: AVE is shown in diagonal and between brackets

Factor analysis was conducted to validate the research's variables. Exploratory Factor Analysis was performed adopting the principal component analysis as the extraction method and varimax as the rotation method. The scree plot diagram represented in Figure (2) demonstrates that the research has five latent variables that have Eigenvalues of more than 1. The results match the number of constructs in this research.

**Figure 2: Scree plot diagram**




In addition, the EFA results show that all items in the questionnaire loaded on their constructs and have acceptable values that is more than 0.45 (Field, 2013). EFA results are provided in Table 3.

**Table 3** Exploratory factor analysis

**Rotated Component Matrix[a]**

| | Component | | | | |
|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 |
| IntraP01 | .757 | | | | |
| IntraP02 | .713 | | | | |
| IntraP03 | .764 | | | | |
| IntraP04 | .779 | | | | |
| IntraP05 | .630 | | | | |
| IntraP06 | .516 | | | | |
| IntraP07 | .743 | | | | |
| IntraP08 | .614 | | | | |
| IntraP09 | .754 | | | | |
| IntraP10 | .624 | | | | |
| IntraP11 | .695 | | | | |
| IntraP12 | .581 | | | | |
| NBA01 | | .799 | | | |
| NBA02 | | .808 | | | |
| NBA03 | | .742 | | | |
| NBA04 | | .848 | | | |
| NBA05 | | .686 | | | |
| NBA06 | | .819 | | | |
| IBIG01 | | | .932 | | |
| IBIG02 | | | .935 | | |
| IBIG03 | | | .700 | | |
| IBIP04 | | | | | .696 |
| IBIP05 | | | | | .732 |
| IBIP06 | | | | | .771 |
| IBIR07 | | | | .696 | |
| IBIR08 | | | | .749 | |
| IBIR09 | | | | .733 | |

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 6 iterations.

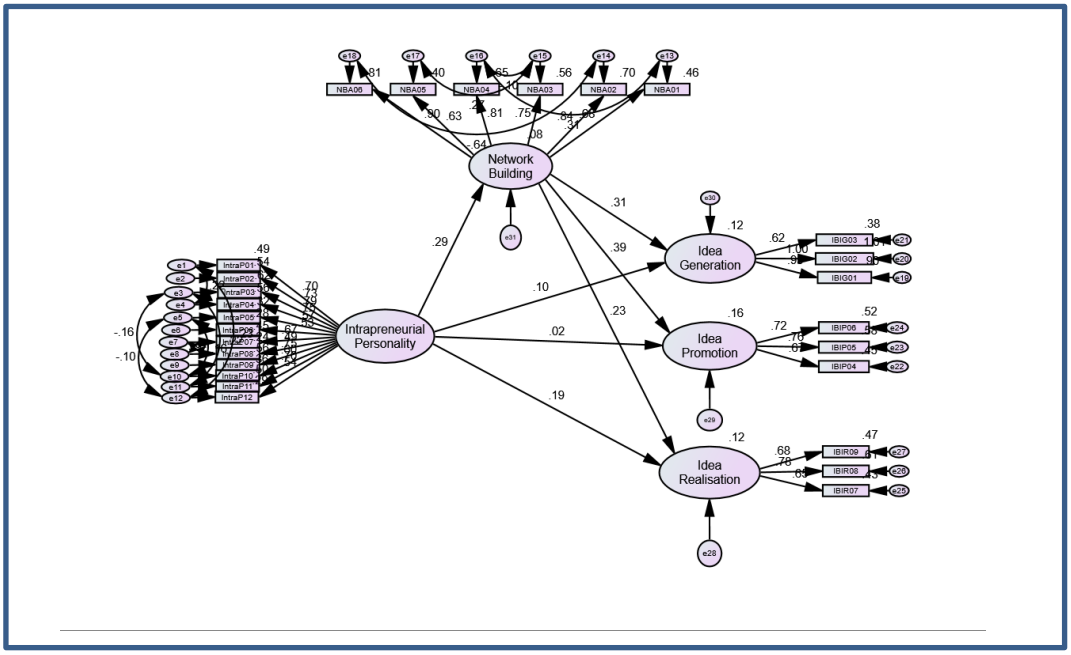
In terms of Confirmatory Factor Analysis (CFA) the results show that the research model has a good model because all the indices have a acceptable values: $\chi 2/df = 2.290$ (Schreiber et al. 2006), RMR = .065 (Browne & Cudeck, 1993), CFI = .931 (Byrne, 2010), IFI = 0.932 (Bentler, 2007), TLI = .922 (Marsh et al., 2004), RMSEA = .056 (Steiger, 2007).

Finally, convergent and discriminant validity of the measurement scales were performed. The cut-off criteria of more than 0.5 for adequacy of results (Hair et al., 2006) were adopted. To examine the discriminative validity of the constructs, the 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 results illustrated in Table 2 show that convergent and discriminant validity is achieved.

## *Results*

This research investigates the mediation role of network building ability on the relationship between intrapreneurial personality and individuals' innovative behaviour. Structural equation modelling with robust maximum likelihood estimation was conducted to examine the research hypotheses. The structural equation model is represented in Figure 3.

**Figure 3: Structural equation model**




Research SEM fit indices illustrated a good model fit: $\chi 2/df = 2.352$, RMR = .067, CFI = .928, IFI = 0.929, TLI = .918, RMSEA = .057. The results of direct relations amongst the constructs are illustrated in table (4)

**Table 4** SEM Direct Relations Results

| Paths | | | Estimate | S.E. | C.R. | P |
|---|---|---|---|---|---|---|
| Intrapreneurial Personality | ---> | Network Building | .310 | .058 | 5.342 | *** |
| Network Building | ---> | Idea Generation | .233 | .039 | 6.021 | *** |
| Network Building | ---> | Idea Promotion | .214 | .034 | 6.333 | *** |
| Network Building | ---> | Idea Realisation | .116 | .029 | 3.943 | *** |
| Intrapreneurial Personality | ---> | Idea Generation | .079 | .042 | 1.877 | .061 |
| Intrapreneurial Personality | ---> | Idea Promotion | .012 | .034 | .358 | .720 |
| Intrapreneurial Personality | ---> | Idea Realisation | .103 | .032 | 3.186 | .001 |

The results demonstrated that intrapreneurial personality is significantly related to network building ability and idea realisation at 99% confidence level, whereas not significantly related to idea generation and idea promotion at 95% confidence level. In addition, network building ability is significantly related at 99% confidence level with each behaviour of the individuals' innovative behaviours. Therefore, a potential mediating role is assumed.

The bootstrapping method (Preacher & Hayes, 2004) examined the indirect effect to validate further the mediating role of network building ability, which is a recommended method for examining mediation variables (MacKinnon et al., 2012; Hayes, 2017). The bootstrapping method contained 5000 repeated samples that were used to attain 95% confidence intervals for the indirect effects of intrapreneurial personality on idea generation, idea promotion and idea realisation. The results of the indirect relations are illustrated in table 5.

**Table 5** Indirect Relations Results

| Paths | | | Lower Bounds | Upper Bounds | Two Tailed Significance |
|---|---|---|---|---|---|
| STARA Challenge Appraisal | ---> | Team Innovative Behvaiour | .415 | .892 | .003 |
| STARA Hindrance Appraisal | ---> | Team Innovative Behvaiour | .221 | .653 | .006 |

The results of the indirect relation between intrapreneurial personality and idea generation illustrate that (Lower Limit .038, Upper Limit .122) and 0 is not included in the interval of the results that means H1 is supported. Since there is no significant direct relation between intrapreneurial personality and idea generation, it is safe to say that network building ability is a full mediator of the relation between intrapreneurial personality and idea generation.

As per H2, the results of the indirect relation between intrapreneurial personality and idea promotion indicate that (Lower Limit .034, Upper Limit .114), since 0 is not included in the interval of the results. Therefore H2 is supported. With the absence of a significant relation between intrapreneurial personality and idea promotion, network building ability assumes a full mediator between the two.

Finally, for H3, the results of the indirect relation between intrapreneurial personality and idea realisation are (Lower Limit .013, Upper Limit .072), and 0 is not included in the interval of the results. Hence H3 is supported. Network building ability partially mediates the relation between intrapreneurial personality and idea realisation since there is a significant direct relation between intrapreneurial personality and idea realisation.

## *Discussion and conclusion*

This study aimed to answer two main research questions, in the context of service industries in the UAE :

*What is the relationship between an intrapreneurial personality trait and innovation, and does network building ability act as a mediating mechanism of influence?*

In response to the first question, two significant findings emerged from the study. First, a direct relationship was found between the intrapreneurial personality trait and the idea realisation stage. Second, no direct relationship was found between the intrapreneurial personality trait and the other two stages of the innovation process: idea generation and idea promotion. Supporting Sinha and Srivastava's (2013) claim that intrapreneurs are not idea-generators, the findings underline that intrapreneurs can turn ideas into significant results to motivate innovation through idea realisation.

In response to the second question, a direct relation between the intrapreneurial personality trait and network building ability has been found. This finding further supports the work of Blanka (2018), who pointed out that intrapreneurs actively seek to create relationships and build networks inside and outside the organisation. In addition, this finding further supports De Jong and Wennekers (2008) work 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 may link ideas together and develop new ideas to solve their issues. This supports the aims of service innovation to provide innovative solutions for the customers (Miles, Miles & Snow 2006; Hertog et al., 2010).

Furthermore, the findings suggest that intrapreneurs depend on building networks to cultivate the social capital they utilise to generate, promote and realise their innovative ideas. The study's result -which points to the importance of network building ability for intrapreneurs' innovation- answers

the question that was raised by Neessen's et al. (2019) literature review. Neessen's et al. (2019) 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 the behaviour can compensate the low score of other behaviours. Based on the study's results, this was confirmed as the study found that network building ability can compensate the lack of a direct relationship between intrapreneurial personality trait and idea generation and idea promotion 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 adapt to implement their ideas and mobilise the needed resource is through building social networks. In addition, one of the differences between entrepreneurs and intrapreneurs is that 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. These relationship enable the intrapreneurs to mobilise the needed resource within their company to promote or to realise their innovative ideas because essentially 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 (Lankinen et al. 2013; Baruah & Ward 2015). Finally, the previous debate contributes to the growing scholarly impetus to investigate the co-evolutionary perspective that interprets behaviours from both psychological and sociological stances (Snyder & Deaux, 2012; Anderson et al., 2014; Tasselli et al., 2015; Fang et al., 2015; Baer et al., 2015; Landis, 2016; Nasaj & Badi, 2021; Nasaj, 2021).

### *Managerial Implications, Limitations and Future Research Directions*

The research offers several practical contributions for managers in the service sector. Firstly, for recruitment managers who are trying to support their companies with employees who can be innovative. The study highlights that intrapreneurial personality traits are related to innovation; therefore, HR managers may improve their recruitment practices by applying self-report or observer rating personality testing for trait IP (Connolly, Kavanagh & Viswesvaran 2007). Secondly, the integrative research model of personality and networking illustrates that hiring individuals with the right personality traits is not enough to guarantee their innovativeness without any support from their surroundings. Hence, service sector managers should try to create networking events among their employees since the results demonstrate that the more the employees build networks with their managers and colleagues, the more they will have access to information and come up with novel ideas and solutions for current problems. One of the service innovation characteristics is customer participation (Chen, Tsou & Ching 2011), which clouds the borderline between customers and employees to the extent of seeing the customers as partial employees and resources of innovative behaviours (Duverger 2012). Therefore, organising social events that facilitate creating relationships between frontline employees and the company's customers will increase the opportunity for the employees to identify problems and motivate them to come up with innovative solutions. Furthermore, highlighting the importance of network

building ability of the individuals to innovate, HR managers may identify jobs with innovative skills requirements and allocate activities and tasks in their job description that encourage socialising and networking with customers and colleagues. While intrapreneurial personality is understodd as a stable trait (which individuals either have or have not), Network Building Ability is potentially a skill that can be taught, therfore HR managers should incorporate building networking skills in their annual training plans to increase their employees innovativeness.

The research is subject to several limitations that need to be highlighted. First, the cross-sectional nature of the data may leave areas for assumptions regarding causality among the variables. Therefore, to validate the research results, a longitudinal study is suggested. Second, another limitation is the adopted self-administrated survey that might leave an opportunity for the participants to be biased. Nevertheless, asking the individuals to rate their innovativeness is defended by (Amo, 2005). An individual may behave innovatively based on their characteristics for mainly two reasons: either influenced by their organisation or management to be innovative or as a personal initiative not necessarily approved by their management. Therefore, asking the individuals' superiors or colleagues to rate their innovative behaviours may not be fair on the side of the individuals since the evaluator will rate them based on the behaviours that they like and approve only and not the personal initiative of the individuals. Finally, employees possess more information about their daily jobs than their managers (Janssen, 2000). Hence, employees will evaluate their innovativeness more precisely than their managers.

Furthermore, managerial assessment of the employees' innovativeness may ignore the core innovation of the employees since they will be assessing the behaviours that only left an impression on them since innovative behaviours are extremely sensitive to individuals' differences. In addition, using self-report surveys is very common in intrapreneurship literature (Monsen & Boss 2009; Wakkee et al. 2010; Bosma et al. 2012; Moriano et al. 2014). However, future research might adopt different reporting styles to add further validation of the research's results. The research selected the UAE service sector as the study population. Therefore, the generalizability of the research's findings may be limited since cultural differences may influence individuals' innovation. For example, an individual's risk-taking tendency positively relates to the individual's innovative behaviour (Angel Ferrero & Bessière 2018). However, some cultures may influence the individual's tendency to be risk-taking or risk-averse more than other cultures (Hofstede 2001). Hence, these cultural differences may influence the individual's innovative behaviours. Therefore, the study suggests future research investigating the study's conceptual framework in other cultures to validate its results. Finally, this research is 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 traits or other psychological variables to clarify the magnitude of modern work behaviours in organisations. Hence, future research might consider different personality or social science variables that will improve our understanding of the psychological-sociological co-evolutionary perspective.

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