

The organizational capabilities and their effects on service innovation and service innovation process in the UAE public sector

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Abstract: The purpose of this research is to examine the capabilities that effect service innovation and the service innovation process in the United Arab Emirates (UAE) public sectors. The research approach depends on a quantitative method through gathering data from 142 managers and employees in different government sectors in the UAE. The results showed that some organisational capabilities, such as culture, communication, finance, and IT (information technology) have a strong impact on service innovation and service innovation processes. However, some capabilities, such as human resources, organisational structure, leadership, and research and development (R&D) showed no impact on service innovation and its processes. Thus, the most important things that organisations have to commitment is providing sufficient capabilities during the implementation of service innovation and develop service innovation processes. Therefore, more testing and evidence of accurate data that covers various organisational fields are required. Moreover, there are variances of capabilities depending on an organisation's capacity, core business, and its potential. More observation is required to measure the level of organisational capabilities and their impact on service innovation and service innovation processes. In addition, reassessing the organisation's capabilities development to reconsider their ability to achieve service innovation is recommended. Managers' and experts' perspectives are acquired from a variety of innovation fields, such as private or economic sectors in the UAE, to understand clearly the relationship between organisational capabilities, service innovation, and service innovation processes through implementing innovative practices.

Keywords: Organisational Capabilities, Service Innovation, Service Innovation Process, UAE public sector.

1. INTRODUCTION

The UAE has been very keen on adopting innovation and, as of 2018, it reached a ranking of 38th in innovation globally. The UAE has a clear vision to become one of the best countries in the world of innovation in the future (UAE Prime Minister's Office, 2015). Moreover, the UAE has introduced several best practices to its National Innovation Strategy in 2015 to generate and adopt new ideas and improve domestic services and innovative practices (Daniele, 2015). In 2014, the UAE established a new vision to encourage innovation via seven key categories: renewable energy, transportation, education, health, technology, water, and a space programme (UAE Space Agency, 2015). Thus, public sector organisations in the UAE are also developing their capabilities, yet, struggling with the deployment of innovation practices to improve their services, performance, and operations (Daniele, 2015) Most organisations have attempted to use diverse approaches when implementing service innovation and service innovation processes (Kurtmollaiev, 2016).

Indeed, innovation is rapidly changing and becoming extremely important for any organisation as customers' expectations are moving toward technology. Thus, it has become necessary for organisations to achieve a high level of service innovation and provide a unique service that exceeds customers' expectations. Moreover, organisations must be ready for challenges when they implement service innovation. Organisational capabilities have a direct impact on service innovation and services innovation processes. While this idea has been explored by previous researchers, their focus was primarily on organisational or dynamic capabilities effected on service innovation and service innovation processes

(Kurtmollaiev, 2016; Daniele, 2015; Matthijs, 2007; Aleksic, Barisic, Radosav, and Henderson, 2015). According to previous studies, organisational capabilities grow and change rapidly; however, more research is needed to identify the main shortcomings of service innovation and realise the high level of capabilities that organisations need to reach a high level of service innovation and service innovation processes (Daniele, 2015).

Focusing on organisational capabilities may impact service innovation and service innovation processes by identifying the main capabilities required to use extensive information technology (Matthijs, 2007). Developing organisation capabilities in various areas will play an important role in achieving competitive advantages and provide support for the organisation to create new service innovations (Matthijs, 2007). Adopting organisational capabilities in several areas within the firm will lead to providing new service innovation and products. However, providing sufficient capabilities that lead to that enhancement is critical (Matthijs, 2007). According to previous research (Kurtmollaiev, 2016) there must be a clear understanding of organisational capabilities to develop service innovation. Moreover, the culture and leadership of the business impact on service innovation and its processes.

Indeed, the majority of organisations in various segments in the UAE have several aspects of innovation abilities, and they are providing innovation services through the use of advanced technology; however, they still have concerns about their capabilities. Furthermore, the main absence in the previous studies has been the ways to develop service innovation capabilities and service innovation processes by using application components particular to small and large organisations. In addition, there is still ambiguity as to which organisational capabilities have more impact and influence on service innovation and service innovation processes during innovation implementation.

Thus, this research focuses on the main elements of hard and soft organisational capabilities that effect services innovation and their processes in the UAE public sectors by using a quantitative method that relies on data from a survey of people working in different positions in 20 of the UAE public sector organisations.

2. LITERATURE REVIEW

2.1 Organisational Capabilities (OC)

Previous research has identified many definitions of organisational capabilities (Rima, Egle, & Mindaugas, 2015). Many of these refer to organisational capabilities as a firm's resources that are used in achieving their strategic goals and obtaining competitive advantages, resources such as technology, finance, human resources (HR), innovation centres, leadership, structure, and communication skills. Organisational capabilities also means the abilities of an organisation to spend existing tangible and intangible resources that lead to the introduction of a unique service and reaching successful objectives (Aleksic, Barisic, Radosav, and Henderson, 2015). Organisational capabilities from finance and HR tangible resources drive rapid change and provide a unique service innovation and improve service innovation processes (Tamar, 2004).

According to one previous study (Giovanni, 2007), one important missing factor in developing an organisation's performance and objectives is the lack of organisational capabilities. However, Herbert and Thomas (2009) clarified that current organisations must have capabilities that are relevant to their strategic missions and must manage those capabilities efficiently and effectively. Organisational capabilities are tangible resources that are very valuable, as they offer the organisation an encouraging environment in which to operate.

Physical resources include employees, buildings, machines, and systems (Tomoe & Lavie, 2012). Organisational capabilities (i.e., intangible resources) support organisational performance. However, the authors argue that organisational capabilities are established by increasing organisational culture and focusing on individual skills. Yun (2017) argued that organisational capabilities enhance an organisation's activities and maintain excellence. Moreover, Matthijs' study (2014) argued that internal organisational capabilities can influence the output of an organisation's external performance based on technology changes, transferrable knowledge, products, and service delivery. Matthijs and Alexander (2007) further noted that organisational capabilities to develop new service innovations for firms are most effective when there are organisational experiences of the innovation. Therefore, attention to several capabilities from various angles allow firms to convert new ideas into service innovation propositions (Matthijs & Alexander, 2007).

2.1.1 Soft Capabilities

Soft capabilities are the ability to change the organisation's performance and productivity (Georg, 2007) by enabling the firm to indirectly effect operations and performance (Rima, Egle, & Mindaugas, 2015). Soft capabilities consist of two parts: internal and external elements that support the organisation. Internal elements include leadership commitment,

communication, structure, environment, and knowledge (Georg, 2007). External elements include stakeholders' relationships, external communication, business environment change, policies, and regulations (Georg, 2007). The main challenge that organisations face is providing enough soft capabilities to reach unique performance levels and avoid any challenges (Matthijs & Alexander, 2007). Soft capabilities lead to achieving change in management and providing business solutions (Georg, 2007).

2.1.2 Finance

Financial resources represent an intangible resource, such as assets, credit, equipment, and financial operations initiatives. They provide the ability for organisations to achieve their strategic objectives, future aspirations, and innovation services initiatives (Tomoe, D, Marcia, E, & Lavie, 2012). Organisations must evaluate its financial capabilities to identify its future needs to enhance the organisation's performance, particularly when implementing innovation. Thus, understanding financial capabilities help decision-makers have a clear comprehensive picture to develop innovation practices, operations, and achieve project objectives (Richardson, 2004). Finance resources help the firm grow rapidly and provide a sufficient budget for the firm to stay in business and remain competitive (Lewis, 1983). Financial resources support firms by allowing the development of products and services, as well as give firms expendable profit (Lewis, 1983).

2.1.3 Human Resources

Human resources are an extremely important resource that enables the organisations to achieve high levels of performance and sustain a competitive advantage (Patrick, Gary, Abigail, 1994). Human resources have a significant link between practices and achieving high levels of the firm's outcomes (Kehoe & Wright, 2010). Human resources' capability is very important for any organisation, as it plays an important role in providing forward-thinking creativity and positive actions that give value to the organisation and increases strong customer relationship management (Christopher, 2008). Developing human resources' capability in various aspects by involving them in creating new services and giving employees more opportunities to participate in decision-making adds more experimentation and innovation (David, 1990).

2.1.4 Communication

In the modern world, communication in an organisational setting refers to many issues, such as cultural elements that determine how people interact with each other (Nobleb & Chen, 2006). Innovation seems to happen more effective in places where the organisational culture is more open and there are fewer structures and less power enforcement (Richardson, 2004). Successful organisations rely on focusing on development and the activation of internal and external communication and enhance internal communication to adopt an appropriate mechanism in the communication process (Mirabella, 2006). Strengthening external communication with stakeholders is also very important. Therefore, organisations that enhance communication with external parties, whether customers, partners, or suppliers, especially in when development and listen to their ideas enriches the confidence between stakeholders and the organisation (Richardson, 2004).

2.1.5 Leadership

A leader is the person who has the ability to drive people to reach objectives and lead the organisation to achieve high levels of performance. They also influence individuals or groups by guiding them to reach goals (David and Jonathan, 2014). A leader is the person who has skills, knowledge, and experience to lead an organisation to achieve unique innovation. From an innovation perspective, a leader is the person who commits to introducing something new to add value and create new designs or processes that align with a strategic plan to satisfy customers' needs (David and Jonathan, 2014). Leadership plays an extremely important role in creation, change management, enhanced culture, and providing a suitable workplace to create a specific system that will enable implementation of innovation effectively (Jago, Manoj and Shilpa, 2013).

Leaders must familiarise themselves with the tools and techniques of innovation to improve services, products, and processes. The most important thing is how the leader adopts these tools and motivates people to use them. One of these tools is brainstorming, which allows for the collection of many ideas that help improve and solve problems or avoid potential challenges. Another tool is mind-mapping. This is a classical innovation tool that refers to the individual or group gathering data, ideas, problems, and challenges that the organisation might face and tries to set clear ideas to solve and create improvement plans (David and Jonathan, 2014).

2.1.6 Organisation Structure

The best organisations are those known for innovation and have less organisational structure, supporting talent and skills, as opposed to the hierarchy of the organisational structure. Some good examples of these include Google, Intel, and Apple, where a person is not recognised for his position in the organisational structure, but according to their contribution to innovation success. Organisations are typically very keen on providing clear structure and identifying job functions and responsibilities (Fred, 2012). There is a strong link between organisational strategy and organisational structure to enhance processes, operations, and accountability. Thus, it may be centralised or decentralised when organisations are implementing innovation (Krenawi, 2004). Changing the organisation's structure according to external change is often affected by services, production, technology, and operations. For example, in the UAE, many organisations change and develop their structures according to a change in governmental strategies to create new processes or merge between departments and sections (Fred, 2012).

2.1.7 Culture

Indeed, the kind of culture within a society and an organisation can determine the rate at which new ideas are shared, developed, or implemented. An innovative culture goes hand-in-hand with other factors, such as a suitable innovation workplace, motivation, and participation (Gazali, 2007). Innovation is the process of developing an original idea into a solution that will work correctly, either as a service solution or a business product (Laird, 2005). Therefore, an innovation culture needs several eminent dimensions that impact the organisation's environment, such as staff creativity, an emphasis on goals, rewards orientation, and identifying innovation support factions (Teece, 2010). Organisations must encourage employees to be creative through focusing on idea generation, evaluation of ideas, participative management, and decision-making. The leader (often a supervisor) motivates people toward innovation and creates an innovation team whose focus is to effectively enhance innovation and increase the organisation's innovation capabilities (Laird, 2005).

2.1.8 Research and Development (R&D)

R&D is the one of the most important aspects of innovation. As noted, innovation is the process of developing an idea from original status to a working product that has an economic or social value (Mauborgne, 1999). This process requires investment in R&D to make sure that the best products or services are developed. Whether supported by the government or used by the private sector, the process of innovation requires intensive investment in R&D while trying to come up with solutions that can be of any economic or social value (Arora, Fosfuri, & Gambardella, 2004). R&D is driven by outstanding needs to identify solutions and create new products or services. Perhaps the biggest challenge that the UAE face concerning innovation is the fact that the economy is more government driven as opposed to being dependent on the private sector (Mauborgne, 1999). The countries that have seen the highest level of innovation are the ones where the private sector oversees the process of innovation. While the government has the resources needed for innovation, it may lack other resources that are important for innovation, such as the relaxed nature of the private sector (Rahul, 2001). Governments run on bureaucracy and checks and balances, and this can hinder innovation (Chesbrough & Appleyard, 2007). Matthijs and Alexander (2007) found that R&D theory is a poorly relevant support service innovation particularly in the first place.

2.2 Hard Capabilities (Information Technology)

Hard capabilities are tangible physical resources an organisation has, such as systems and networks. These capabilities are just as important as soft capabilities when it comes to an organisation's desire to become innovative. Hard capability includes many sources, such as technology systems, IT investments, and infrastructure that impact the organisation's performance and innovation achievements (Bou, 2007). Hard capability means that an organisation is committed to provide enough technology and allow employees to utilise advance systems to easily transfer knowledge. Organisations improve IT to enhance their innovation services and products. However, many organisations are very keen to develop information systems to influence customer needs (Patricia, Glenn, Stefan, Haozhe, 2005). Organisations try to focus on all aspects of hard capability resources through the use of technology and setting an appropriate technology strategy to analysis the current market situation (Xudong, Ping, & Xielin, 2007). Indeed, there are many different ways that small and large organisations to provide hard capabilities and technical knowledge. However, linking effectively between hard capability and organisational strategy is an extremely important way to drive organisations to achieve their objectives, focusing on those that will affect the organisation's performance from several viewpoints, such as: operations, productivities, services, integration processes, and implementing innovation (Ravarini, 2010). According to Matthijs (2014), an organisation's technology capability has more extrapolative power and supports achieving innovative output and creating service innovation.

3. SERVICE INNOVATION (SI)

Service innovation refers to the implementation of new and improved services. For example, it could be a new way of interacting with customers, a new technology, or a new channel of distribution. It must involve characteristics that can be replicated in other environments or cases. This characteristic can be the result or process of the service; however, it should benefit both the customers and the companies. It is the one of most important features that a firm needs to be unique, increase sales revenue, and be ahead of its competitors. Managers in an organisation should be ready to implement the changes that people need to make a profit for the company. The overall performance of a firm relies heavily on innovation in different service sectors. Firms that have unique service innovation procedures are likely to be quick and make a profit from the new services (Lin, 2011).

Service innovation entails business model innovation, technology innovation, social and organisational innovation, and demand innovation. The main objective is to make an improvement on an already existing service system and develop new and valuable service packages. The implementation of new services leads to more sales and an overall increase in the firm's income. The business environment of today demands a lot from managers; therefore, providing quality services alone is not enough to make a firm competitive. Companies must search for new and creative ways of providing services, which their customers find irresistible. Moreover, companies must focus more on their strategies of innovation and services.

The innovation methods that are most profitable seem to work when the economy is not doing well and business activities are slow because of fewer investment services. During this time, innovation is a key element for a company to be competitive that implement suggestions from customers, while, at the same time, make use of information obtained from competitors to provide more relevant and unique services (Arshad, Wang, and Su, 2016).

The relationship between organisational capabilities and service innovation:

Reflected in a previous study (Yasamin, 2015), the relationship between organisational capabilities and service innovation through a focus on several capabilities (hard & soft) such as, leadership, service, new customer systems, new revenue models, new delivery systems, organisational culture, organisation structure, and technology enhance successful service innovation and achieve competitive advantages. Organisational capabilities are linked to the various service innovations, and those capabilities need more time to be developed and improved to allow the organisation to understand and identify what they have and don't have (Pim, Wietze and Mark, 2010).

According to Tamar (2004), there is a close relationship between organisational capabilities and service innovation, in particular, the knowledge that supports business development. However, as a picture, organisational capabilities support firms to achieve unique performance in diverse markets. On the other hand, another study (Nina, Jan, Andreas, 2011) found there is an extremely close relationships between service innovation and some organisational capabilities, such as the age of the organisation and the type of innovation, however, the main factor is the cultural impact of service innovation and how it supports firms to reach high levels of performance. Hence, this leads to the first hypothesis of the paper:

****H1: Organisational capabilities have a positive impact on service innovation.***

Finance plays an important role in achieving service innovation. It allows firms to introduce new services and products in the market. Moreover, finance enhances the service innovation cycle efficiently through developing service quality (Richard, 1990). According to the Giancarlo (2000), finance is one of the main sources that leads firms to develop innovation growth. However, financial resources lack in their ability to apply innovative activities and complete a project. Giovanni (1990) argued that particular financial factors, such as market based, credit based, and e-pay machines have a slightly different impact on innovation. This leads to the second hypothesis:

****H1-1 Finance has a positive influence on service innovation.***

Human resources also play an important role in achieving innovation, and there is a link between human resources and innovation. Jing's study (2009) illustrated that human resource practices have a positive influence on applicable innovation. The study showed that human resource knowledge management capacity plays an arbitrating role in achieving high levels of innovation performance. However, another study (Karen, Susan, 1989) found that more educated team members were selected from functional areas of expertise to support top management to adopt more innovative management styles.

Many organisations seek to improve their service innovation through generating opportunities and focus on value creation. Therefore, in this situation, human resource management and employees are introducing new sensing activities in several areas, such as concentrating on customer relationship sensing, customer service system sensing, internal communication sensing, and information technology assessment sensing (Daniel, Christian, & Erik, 2013). This then leads to a sub-hypothesis:

****H11-2 Human resources have a positive influence on service innovation.***

According to the research of Moh'd, et al. (2015), the level of communication channels and networks are important to the impacts on service innovation. Communication and network capabilities are extremely important to maintaining the innovation capacity in general. Moreover, using a variety of communication channels makes it very easy to get information to all employees (Minna & Juhani, 2012). In addition, some researchers (Daniel, Christian, & Erik, 2013) found that communication and network are most important factors to small organisations because of that knowledge sharing. In addition to that, other research (Moh'd, et al., 2015) found that the relationship between networks and service innovation performance is mitigated by knowledge sharing and has a direct positive impact on service innovation performance as well. Furthermore, the research of Lievens and Moenaert (2000) found that communication plays a great role during the application of innovation and its effect on new projects or services. Therefore, a further sub-hypothesis is revealed:

****H1-3: Communication has a positive influence on service innovation.***

The study of Zhaoquan and Chen (2103) mentioned that the role of leadership is to have an impact on organisational innovation and service innovation within an organisation's leadership and was implicitly related to organisational innovation. In addition, leadership style directly impacts an organisation's creativity and innovation capability. Thus, another study (Dongil, Anne, & Chee, 2008) found that leadership has a direct impact on innovation through providing innovation planning, innovation initiatives, and future research to reach a high level of service innovation and service innovation performance. Moreover, another study (James & Ryan, 2013) identified that there are two different leadership dimensions, one is active and the other is passive (avoidance) leadership. Predictably, active leadership has a strong positive impact on service innovation, however passive leadership has slight weakly positive effect. Therefore, another sub-hypothesis is revealed:

****H1-4: Leadership has a positive influence on service innovation.***

It is very important to understand the role of organisation structure when adopt service innovation and how it impacts, and also identify if there is a strong link between organisation hierarchies and service innovation. According to Seung's study (1997), the organisation tries to improve and choose the design of organisation structure that contributes to achieving organisation innovation capability, also, the study found structural resource-based links were all strongly related to innovation in hospital services. In addition, there is a relationship between an organisation's structure and service innovation through providing decision- making and the organisation is more flexible to accomplish its daily operation (Adam, Tore, Gerard, & Dadid, 2011). In another study (Ben, Silvia, Carsten, & Yongjin, 2011), the authors showed the relationship between dynamic structure and service innovation. The results found that deep structure generative and controlling actions support firms in four stages: directly requesting, indirectly influencing, reporting, and bypassing to enhance implementing service innovation. This leads to the next sub-hypothesis:

****H1-5: Organisational structure has a positive influence on service innovation.***

Indeed, culture plays an important role impacting on innovation from several aspects. It could build a strong relationship between an organisation's culture and service innovation as well as between employees' culture and service innovation. Thus, many researchers were focusing on how the culture can affect a service's innovation. Culture that moderates the impact on service's innovation and organisations might increase the initiatives to raise the culture of innovation within the organisation (Thembisile and Ikechukwu, 2015). Moreover, culture effects on organisation innovation through different aspects such as size, technology, industry environment, and employees. Furthermore, there are many factors and elements that impact culture and environment when the organisation decides to apply innovation, for example, top management, available innovation tools, orientation of people, motivation, technology, and employee behaviour.

Innovation research is important to increase the knowledge and skills of employees to be more innovative. Four specific values are related to the organisation's culture: power distance, uncertainty avoidance, individualism, and masculinity (Richard, 1993). The main impacts of culture and environment are differences according to the size and core business of

organisation and many studies were referring to the culture moderates the relationship between top management characteristics and innovation impact (Gazali, 2007). Other research (Kristina & William, 2005) showed that there is a link between openness and diversity in society during implementing innovation and creativity, also the research found that diversity of culture and exchange of ideas are playing an extremely important role to achieve service innovation. Nevertheless, conservative cultures were less impacted than open cultures when applying innovation.

****H1-6: Culture has a positive influence on service innovation.***

R&D are playing a major role to improve service and products within organisations and study (Yongyoon, Moon, 2012) discussed the importance of R&D in SI and SI performance. R&D is impacting on achieving SI through establishing R&D laboratories and R&D data might be used as indicators of innovation. In addition, R&D can impact on SI performance by developing the service and the systems (Moh'd, et al., 2015) other study (Si-jeoung, Eun, Yoonkyo, and Zekun, 2016) found that internal R&D activities and practices plays important role to implement SI, there is strong relationship between R&D and SI for providing new service and products in both companies and SMEs. Hence:

****H1-7: R&D has a positive influence on service innovation.***

Information and technology (IT) are the most important part in any organisation around the world and IT can play an effective role to achieve a high level of performance, IT is one of the most important factors that organisations depend on when implementing any project or developing any process (Chen & Tsou, 2007). Other study (Satish, 2011) argued that IT makes more valuable and enhance in different field of service innovation to avoid any resistance or challenges that firms faces during provide new product or service. However, George and Dietmar (1997) found that IT has a stronger effect on quality of service innovation particularly effective when enhance the delivery speed, also the result of study showed that IT has supported firms to provide high quality of new product. Therefore:

****H1-8: IT has a positive influence on service innovation.***

4. SERVICE INNOVATION PROCESS

The innovation process is the procedures that identified to apply tasks and developed operations in order to gain extraordinary innovation performance. The innovation process has three major steps, which include, identification of an idea, developing ideas, and then implementing to reach business solutions (Haiyang & Gima, 2001). While, this process can move from identification to development, sometimes the implementation can come before development. In such a case, the innovation process is implemented by using an agile process that focuses on developing a solution and knowledge management that closely related in two ways (Haiyang & Gima, 2001).

4.1 Development Service Innovation Process Design

Innovation is a very deliberate process, which organisations have to plan for, exalted from achievement and the process reiterated to make innovation solution developed. Innovation process design is important when implement innovation. For the innovation process design is to be successful, it has to consider the relevance of the process to the whole objective of the organisation (Davenport, 2013). Effective innovation process framework is one of the most important elements that help to achieve a good innovation process design; it looks at individual items needed to produce the final product (Ulrich, 2003). Effective process considers how the customer participates, procurement of raw materials, and level of technological investment. Now, and in the future, organisations face many challenges that require to develop and improve their services by offering creative ideas and innovative that will contribute to provide added-values to employees, clients and reduce the steps of transaction or shifting from traditional services providing to the intelligent and smart services (Gokula, Rajkumar, Alan, & Daniel, 2011).

The relationship between organisational capabilities and the service innovation process:

Based on previous researchers and literature perspective (Catherine & Pervaiz, 2007) that are concerned with the relationship between organisational capabilities and service innovation process, the important point is examining what the most capabilities are that organisations have to focus on improving service innovation process. It showed that communication has a clear relationship to support organisations to achieve high service innovation process particularly during apply new service developing process and implement the ideas developed in the earlier stage (Vera & Annouk, 2004). Leadership capability has played a large role in developing the service innovation process by using decision-making to implement new ideas. Moreover, there is strong relationship between top management and the service innovation process through a supported cross-function interface and creating an innovative team (Vera & Annouk, 2004).

According to another study (Catherine & Pervaiz, 2007), there is a relationship between culture and the service innovation process through focusing on antecedent employee's innovation knowledge but, its most important that increasing innovation culture within organisation by introduces several practices or innovation activities workshop process. Nevertheless, the innovation team has direct effect on increasing the innovation culture during the application of the service innovation process (Meng, Jeou, & Ya-Hua, 2009). Identifying the main capabilities that effect the service innovation process demonstrates the positive factors, such as the innovation process, customer satisfaction, and quality service. Thus, there are strong links between capabilities and the service innovation process when identifying the responsibilities, clear processes, innovation journey, and financial aspects.

Moreover, the organisations capabilities could affect customers satisfaction, increase customer relationship management, and follow the requirements of organisational excellence. However, it is important that organisations are thinking of the future and identifying the customers' expectations through preparing service foresight strategy according to the innovation outputs (Minna & Juhani, 2012). Based on previous literature (James & William, 1975), the link between IT and the service innovation process and supports organisations to apply service innovation process. It also showed that technologies have potential benefits arising from the adopted platform to engage the internal and external innovation communication in order to introduce new ideas and improve service innovation process or service innovation future opportunities (Daniel, Christian, Erik, 2013).

H2: Organisational capabilities have a positive impact on service innovation process.

HI2-1 Finance has a positive influence on service innovation.

HI2-2 Human Recourse has a positive influence on service innovation.

HI2-3: Communication has a positive influence on service innovation process.

H2-4: Leadership has a positive influence on service innovation process.

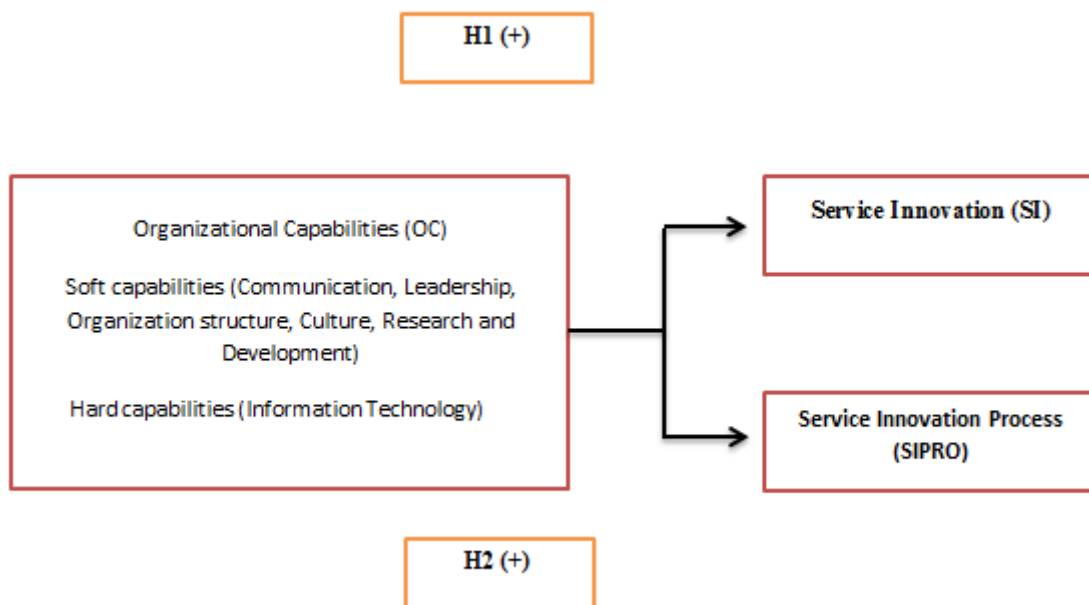
H2-5: Organisation structure has a positive influence on service innovation process.

H2-6: Culture has a positive influence on service innovation process.

H2-7: R&D has a positive influence on service innovation process.

H2-8: IT has a positive influence on service innovation process.

Research Model



5. RESEARCH METHODOLOGY

This research adopted quantitative approach to gather clear data and distributed online surveys to several employees, managers, and specialists who are working in government segments in the UAE, in particular in public sectors, to understand their perspectives. The study examined the organisational capabilities that organisations need to apply to service innovation and service innovation processes. The study was conducted according to several previous studies (Yahya & Simon, 2013; Abdallah, Salam, Khalil, Divine, 2012; Eman, Mohamed, & Salem, 2014) that focused on several areas of public sectors in the UAE of various sizes and services. The study also examined the soft and hard capabilities that organisations must focus on during the application of service innovation and service innovation processes.

This study built the survey questions according to the literature review perspectives and previous studies in this area by focusing on dependent and independent variables to formulate the final questions. The survey contains 61 questions that are linked with each variable. The questions revealed the main organisational capabilities, including eight dimensions, such as finance, HR, communication, leadership, R&D, organisational structure, culture, and IT. Each variable has five questions. The research questions were created based on previous studies (Rinaldo, Simona, Valeria, & Alberto, 2002; Breschi, Stefano, Lissoni, & Francesco, 2000). Each question's variable focuses on several areas that included five questions.

Part 1 contains 40 questions related to soft and hard organisational capabilities that support the organisational abilities to achieve service innovation, including whether the organisation allocates financial resources annually to support innovation and whether employees are given a chance to provide new ideas. Part 2 contains nine questions that are related to the organisational capabilities' effects on service innovation and service innovation processes, such as why organisations seek to use new innovation methods to apply service innovation. Organisations have invented processes to enhance customer access to the service. The last part covers 11 questions that concentrate on the related organisation's abilities to achieve high levels of service innovation performance after providing service innovation processes. Questions include those such as whether customers are satisfied with the new service innovation and if the organisation has improved customer relationship management by achieving high level of service innovation performance.

6. RESULTS

Table 6.1 focuses on the number of responses from the 142 employees, managers, administrators, technicians, and others from various government sectors in the UAE, such as customer service, security, education, healthcare, transportation, customs, municipality, and economics. The majority of respondents were between 26 and 33 years old. Most respondents were female. Regarding their years of experience, most of them had more than 10 years of experience. In addition, 60% are employees, 27% are managers and 13% are innovation experts. The majority of respondents were service organizations (48%), and most of them were working in Abu Dhabi (51%).

Table 6.1: Demographics.

Items	Number of Responds =142						
Age	18-25 (17%)	26-33 (39%)	34-41 (36%)	42 - 50 (8%)	Over 51 (1%)		
Gender	Male (43%)			Female (57%)			
Marital Status	Married (55%)			Single (45%)			
Segments	Service (48%)	Security (10%)	Finance (4%)	Transportation (4%)	Education (10%)	Others (25%)	
Years of Experience	Less than 1 (9%)	1 – 3 (17%)	4 – 6 (16%)	7-10 (19%)	More than 10 years (42%)		
Job Title	Manager (27%)		Employee (60%)		Other (13%)		
Workplace	Abu Dhabi (51%)	Dubai (19%)	Sharjah (6%)	Ajman (12%)	Umm Al Quwain (4%)	Ras al Khaimah (4%)	Fujairah (3%)

Reliability and Validity

Validity factor loadings and Cronbach’s alpha, as demonstrated in Appendix A, shows the factor loadings exceed 0.400 and are significant at 0.001. It explains that the factor loadings items space ranges from 0.701 to 0.946, all being statistically significant (p <0.001). The range of Cronbach’s alpha is between 0.900 and 0.976. Thus, the reliability and validity tests are very significant.

Regressions Analysis

OC has a Positive Impact on Service Innovation

Regressions of the OC effect on Service Innovation:

The study examined the relationship between organisational capabilities and service innovation to understand the relevant influences and determine the main capabilities that have impact on service innovation through compared with the hypotheses correlate. Thus, Table 6.2 demonstrates that H1-8, IT, has a positive impact on service innovation by coefficients ($\beta = 0.496$, t-value = 6.740). Furthermore, the other capability is H1-1, finance, which has a supportive effect on service innovation by ($\beta = 0.149$, t-value = 2.395). H1-3, communication, has supported impact on service innovation at ($\beta = 0.215$, t-value = 2.619). Finally, H1-6, culture, has a supported impact on service innovation of ($\beta = 0.270$, t-value = 2.980). On the other hand, Hypotheses 1-2, human resource, 1-4, leadership, 1-5, organisation structure, and 1-7, R&D, are showed no effects on service innovation. Therefore, H1 is partially supported.

Table 6.2: Organisation Capabilities’ Impact on Service Innovation.

Coefficients

Model	Beta	t-value	Sig.
1 (Constant)		.000	1.000
Finance	.149	2.395**	.018
Human Resource	-.077	-1.176	.242
Communication	.215	2.619**	.010
Leadership	.044	.406	.686
Organisation Structure	-.114	-1.170	.244
Culture	.270	2.980**	.003
R&D	-.010	-.122	.903
Information Technology	.496	6.740**	.000

a. Dependent Variable: SI (T-VALUE >1.69) it should be 1.96
 Finance – Human Resource - Communication - Leadership – Structure – Culture – R&D – Information Technology.

Organisational Capabilities have a positive impact on service innovation processes

Regressions of the organisational capabilities’ effect on service innovation processes:

On the other hand, the study tested hypotheses to release the organisational capabilities’ effects on the service innovation processes, as shown in Table 6.3 that there is a strongly positive relationship between OC and service innovation processes as H2-8, the IT, which strongly impacted service innovation processes by ($\beta = 0.500$, t-value = 6.549). however, H2-3 the communication has a positive effect on service innovation processes through ($\beta = 0.175$, t-value = 2.058) and H2-6 the culture has a positive effect on service innovation processes through ($\beta = 0.277$, t-value = 2.936). On the other hand, Hypotheses 2-1, finance, 2-2, human resource, 2-4, leadership, 2-5, organisation structure, and 2-7, R&D, are not supported and have not effects on service innovation processes. Thus, H2 is partially supported.

Table: 6.3: Organisation Capabilities impact on service innovation processes.

Coefficients

	Model	Beta	t-value	Sig.
1	(Constant)		.000	1.000
	Finance	.090	1.394	.166
	Human Resource	-.117	-1.708	.090
	Communication	.175	2.058**	.042
	Leadership	.087	.766	.445
	Organisation Structure	-.111	-1.099	.274
	Culture	.277	2.936**	.004
	R&D	.046	.569	.571
	Information Technology	.500	6.549**	.000
a. Dependent Variable: SIPRO (T-VALUE >1.69) it should be 1.96 Finance – Human Resource - Communication - Leadership – Structure – Culture – R&D – Information Technology.				

7. DISCUSSIONS AND CONCLUSIONS

This study has focused on two types of organisational capabilities (soft & hard) to identify which capabilities enhance innovation within organisations during the implementation of service innovation. Thus, based on the regression results that tested the hypotheses, the study found that some organisational capabilities, such as finance, communication, culture, and IT have strongly affected on service innovations, which confirmed hypotheses 1-1, 1-3, 1-6, and 1-8. The organisations must develop capabilities to achieve service innovation efficiency and provide a unique service innovation in market diversity (Tamar, 2004). Organisations must also realise that the organisational capabilities must expense more technologies during the implementation of service innovation. Xudong and Xielin (2007) noted that organisations cannot achieve service innovation without utilising the newest technology. Therefore, IT plays an important part in supporting service innovation and it's an essential factor. In addition, organisations must use advanced and the latest diverse technology to meet customers' expectations. On the other hand, some organisational capabilities, such as leadership, R&D, structure, and HR, which disproved hypotheses 1-2, 1-4, 1-5, and 1-7.

Regression results testing on Hypothesis 2 showed that an appropriate work innovation environment was required, for example, by providing innovation laboratories for holding brainstorming workshops, which are very useful when applied to the service innovation process. As Thembisile and Ikechukwu (2015) maintained, it could build a strong relationship between an organisation's culture and its service innovation process through enhancing employees' culture and service innovation. Therefore, it allows organisations to apply and improve their service innovation process in the future and change the way problems are solved. Moreover, it pushes organisations away from any future challenges.

Regarding IT, organisations must create a comprehensive system that follows the Executive Council of the Emirate, which allows employees in various industries to present their ideas in one platform system, then distribute those ideas according to the organisation specialists. The results show that many organisations have adopted programmes, systems, and tools to achieve innovation and access innovative services. However, some sectors focus on providing a platform to receive an internal innovative idea from employees.

In terms of communication, organisations must increase communication through the distribution of two methods: internal and external to apply and improve the service innovation process. Moreover, the study found that formalising innovation plans to develop an innovative services process is seen as an innovation strategy in small terms of sustainable improvement and increased performance. As Herbert, Kathleen, and Thomas (2009) clarified, current organisations must have capabilities that are relevant to their strategic missions, and management must develop capabilities efficiently and effectively. In addition, adopted innovation plans for future programmes must develop services innovation processes and

rely on innovative work methodologies. On the other hand, some organisational capabilities, such as leadership, R&D, structure, HR, and finance disproved Hypothesis 2. There are several different reasons for that, as those capabilities have less impact on service innovation processes because they depend on the core business of the organisation, the business' strategic plan, or the size of the business.

However, some of organisations have a minimum concern about the service innovation and that will affect their organisational capabilities which they are not provided enough service innovation basics in order to implement service innovation processes. However, the majority of organisations in particular of public sector don't rely on the allocation of R&D as they depend on the progress of services and focus on service delivery and service quality, nevertheless the manufactures and private segment, which they depend mainly on the provision of products and the shape of goods that need more experimental as (Faridah, Faiz and Ian, 2013) argued we can also assume that various of firm services have a lot in common with the knowledge-intensive pattern, since we see R&D departments and programmes, laboratories and service design efforts, in many public service sectors (at least in larger and wealthier countries). Thus, it is implausible that public services can be readily seen as simply following supplier-driven service innovation.

Furthermore, R&D takes long way of process and time or efforts which sometimes it takes a year to give the organisation desired results. Indeed, there is many causes that leaders have less impact on organisational capabilities as (Faridah, Faiz and Ian, 2013) mentioned that public sector managers see them as having objectives that do nothing to encourage efficiency and innovation. For example, their primary concern may be extending the scope of their power by increasing the number of people in their charge, increasing their budgets spending capacity, focusing on the most visible and most outstanding at the expense of more useful but less visible ones. On the other hand, there is no relationship between structure and organisational capabilities and service innovation processes because structures are not specific to services as far as they are also implemented inside manufacturing firms particularly during implement innovation. (Faridah, Faiz and Ian, 2013). Also, the main issues that structure is often depend on daily routine and bureaucratic process path which consequences on delay decision-making especially in the service innovation processes. Besides, sometime complicated structure has effect on rapidity service innovation processes and take long process implementation. However, service innovation processes have to be very flexibility and agility.

Based on Table 5.2, 5.3 that demonstrated that some of capabilities such as finance resources, communication and culture have an impact on service innovation and service innovation processes, but these are important things, the organisations have to take them into consideration and try to improve these capabilities in order to increase organisation innovation culture and used several communication patterns during apply service innovation. Also, organisations should pay attention to develop service innovation processes by focusing on internal and external communication, and enhance financial resources to achieve services innovation and service innovation processes objectives through providing innovation financial found and links between service innovation activities with financial annual plan of organisation as (Richardson, 2004) argued that finance resources make the firm grow rapidly and provide enough budget to stay in business and survive company's in market on the other hand, (Lewis, Neil, 1983) argued that financial resources supported firms through concerned on developing products and provide new services, also finance resources have pushing firms to accomplished and expanded profitable. It is very important that organisations have to measure their capacities from repeatedly by using organisational capabilities maturity to realise which are main capabilities that directly effects on service innovation and service innovation processes.

Furthermore, organisations should provide an appropriate work environment that leads them to gain an innovation beneficial, and set innovation strategies related to the service innovative solutions. Thus, will organisations will be able exceed the customers' expectation, which contributes to strengthening the relationship with them and gaining the loyalty of the customers (Gokula, Rajkumar, Alan, & Daniel, 2011) The interest in service innovation, that the organisations have to be very keen on application of best practices in the service innovation processes mechanism, and the pursuit of a specific methodology for measuring the performance of innovative services to complete the standards of the excellence programme, particularly the focus on innovation and service shape design as foresight requirements (Gokula, Rajkumar, Alan & Daniel, 2011) On the other hand some of organisations created innovation strategy in short term and started to achieve objectives. So, it very important those provide unique innovation strategy in order to prepare their service innovation future and identify the organisation trend (Langdon, 2011)

Indeed, this study focused on the two parts, the first one tested the OC impacts on service innovation and the second part verified the organisational capabilities impacts on service innovation processes. Thus, the study found that some of organisational capabilities, such as IT, finance, communication, and culture have strong effects on service innovation and

playing different role for assisting organisations to achieve high level of service innovation. Also, it's very important that organisations have to realise their capabilities, and improve them to enhance service innovation processes and providing unique services innovation as (Rima, Egle, & Mindaugas, 2015). Therefore, it's an extremely important that organisations have seek on increasing innovation culture an internal and external organisation through providing innovation activities and introducing more workshops related to the service innovation and service innovation processes. Furthermore, focusing on the internal and external communication are very significant particularly during apply service innovation and service innovation processes, so that will support employees and clients to realise the newest of services or update on process. As the finance capability plays an important role when the organisation implements service innovation, thus the organisations have keen on establishing and providing (SIFF) Service Innovation Financial Fund to support service innovation activities and service innovation processes that alignment with financial plan.

Ultimately, the study found that organisational capabilities, such as communication, culture, finance, and IT had an effect on service innovation and service innovation processes. On the other hand, there are some capabilities, such as HR, the environment, and R&D that need to improve in the long run. Organisations must develop their service innovation processes repeatedly and use latest innovative technology practices or new methodologies. Moreover, in future research, there are several shortcomings that must be investigated.

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