

IDENTIFICATION OF DIGITAL INNOVATION SERVICE PERFORMANCE INDICATORS INFLUENCING UAE JUDICIAL SYSTEM

Hamad Al Katheeri¹, Norliah Kudus²

^{1,2}Institute of Technology Management and Entrepreneurship, Universiti Teknikal Malaysia Melaka

*Corresponding E-mail : norliah@utem.edu.my

ABSTRACT

Objective: Digital innovation service performance indicators are important to the judicial system as it provides system of measurement to assess the efficiency and effectiveness of digital initiatives. These indicators help to identify areas of improvement, optimize processes, and enhance overall service delivery, ensuring that technological advancements align with the system's goals. By tracking key performance indicators, the judicial system can adapt and evolve in response to changing technological landscapes, ultimately enhancing access to justice and the overall functioning of the legal system. Thus, this paper demonstrates a study on ranking the digital innovation service performance indicators for UAE Judicial System.

Research Method: The study was conducted using quantitative approach where the data was collected through questionnaire survey on the 332 selected respondents who are employees within the UAE judiciary department and are actively use digital services. Respondents were requested to gauge each of the digital innovation service performance indicators influencing UAE Judicial System using 5-levels of influencing scale. The collected data was analysed using SPSS software to determine the mean score and standard deviation of each of the seven indicators

Findings: Based on these values, the highest rank of the indicator that influence that judicial system is “*Judicial department make it a priority to be responsive to requests, never too busy to address inquiries*” having mean score of 4.291. The outcome of this study able to give awareness to the UAE Judicial System on the importance of digital innovation service performance indicators especially in the speedy responsive to request which is needed in a rapidly changing business environment.

Originality: Identification of Digital Innovation Service Performance Indicators Influencing UAE Judicial System.

Keywords: Digital Innovation Service Performance, UAE Judicial System

1. INTRODUCTION

Innovation stands as a beacon of progress in public administration, representing novel approaches and the art of developing ideas that surpass previous practices (Anttiroiko et al., 2011; Siddiqui and Afzal, 2022). The prevailing assumption is that innovation aims to enhance the performance of the public sector (Borins, 2014). The imperative for innovation in the public sector lies in the pursuit of new ideas, concepts, technologies, techniques, and methods that foster meaningful interactions between the government and society, addressing contemporary social challenges (Siddiqui and Afzal, 2022). Various types of innovation, including social innovations

and institutional formats, can pave the way for novel solutions to societal problems (Harrison et al., 2016). Despite the growing emphasis on fostering innovative approaches in the public sector, definitions, research, and empirically guided policy advice remain limited in Gulf Cooperation Council countries.

While studies on the relationship between innovation and performance have predominantly focused on large companies and SMEs in the UAE (Balasubramanian et al., 2020; Al-Dmour, Al-Dmour, Al-Dmour, and Ahmadamin, 2021), the exploration of organizational justice components and innovative behavior within Arab society reveals that instructional justice holds a significant relationship with innovative behavior (Almansour, 2012). Notably, the exploration of innovation within Judicial Departments is an underexplored field, and the lack of such studies compared to general public administration studies calls for attention (Sousa and Guimaraes, 2014). While the justice system is often evaluated for its moral and legal aspects, its ability to adapt swiftly to societal demands remains relatively unexplored.

In the UAE, the significance of innovation in the performance of justice organizations is a relatively new phenomenon with limited research studies in the area. Existing gaps in the literature primarily revolve around empirical research studies identifying and quantifying factors influencing public organization's performance innovation practices and their business growth performance (Al-Ansari, 2014).

Within the justice sector, innovation unfolds within a highly institutionalized environment where different actors collaborate and share resources to develop and implement new ideas. The social and political complexity, cultural characteristics, governance structures, and traditional practices significantly influence innovation within public organizations (DSG, 2014). While radical changes are infrequent, the daily and incremental change process impacts goals and targets within justice organizations. The act of innovation involves modifying administrative practices, often requiring a departure from traditional beliefs in favour of innovative approaches, ultimately aimed at improving system performance.

The existing literature commonly explores innovation in terms of product and process innovation, radical and incremental innovation, and structural and competence innovation (Chahal and Bakshi, 2015; María Ruiz-Jiménez and del Mar Fuentes-Fuentes, 2013). However, research on innovation speed and quality, central components that transmit the effects of knowledge management processes on digital service performance, remains scarce (Wang, Sharma, and Cao, 2016; Wang, Wang, Cao, and Ye, 2016). Innovation speed reflects an organization's ability to expedite the development and commercialization of products or services for a competitive edge (Allocca and Kessler, 2006). Conversely, the quality of innovation assesses the effectiveness of the processes engaged in innovation and their ultimate outcomes (Haner, 2002). Recognizing the pivotal role of innovation speed and quality, this study aims to uncover the impact of digital innovation services on the performance of UAE Judicial Departments.

2. INNOVATION

According to (Du, Zhu, and Li, 2022), innovation refers to developing and releasing a new or essentially altered version of a product or service into the market to meet customers' needs and wants. Also, Crossan and Apaydin (2010) defined innovation as the production or adoption, assimilation, and exploitation of value-added novelty in economic and social spheres; renewal and enlargement of products, services, and markets; development of new methods of production, and establishment of new management systems (Zainal Abidin et al., 2011).

Innovation has also been defined as anything such as technical (product and service) or administrative (process) that assists firms in identifying the needs and wants clients (Škerlavaj et al., 2010). According to wang and wang (2012), innovation is an aspect of a firm's philosophy and openness toward new ideas. They introduced the capacity to innovate in their model, defined as the organization's ability to

successfully adopt or implement new ideas, processes, or products. Prifti and Alimehmeti (2017) argued that innovation comes from accumulated knowledge and experience and can be an incremental technical change or an upsurge in technical opportunities.

There appears to be little attention to what constitutes innovation in the service sector. Berry et al. (2006) posited that the definition of innovation in service organizations is more complex than for physical products. A majority of purposes distinguish between “product” and “process” for both service and manufacturing industries (Tether et al., 2002). Some researchers, however, have tried to define this term. Flikkema et al. (2010) defined innovation as a multidisciplinary process of designing, realizing, and marketing combinations of existing and new services and products with the final attempt to create valuable customer experiences (Flikkema et al., 2010).

Innovations in the services sector are a mix of reproduced innovations and “small” non-reproduced changes to solve single customers’ problems (Sunbo and Gallouj, 2000). Toivonen and Tuominen (2006) also defined innovation as a new service or renewal of an existing service that is implemented and benefits the organization.

They added that to be an innovation, the renewal must be new not only to its developer but in a broader context, and it must involve some element that can be repeated in new situations (Vos, 2010). Innovation is one of the critical organizational elements that have strong effects on the outcome of organizations and can be defined as an organization’s propensity to apply new ideas, inventions, and discoveries that result in the development of new products or services, managerial strategy, procedures, work methods and technology (Chahal and Bakshi, 2015; María Ruiz-Jiménez and del Mar Fuentes-Fuentes, 2013).

Innovation has been defined as the adoption or creation of new products, services, work processes, and management procedures to gain an organizational competitive advantage (Drucker, 2014). In an unstable environment, innovation refers to the generation, acceptance and implementation of new ideas, processes, products, and services and the capacity to change or adapt (Le and Lei., 2018). However, according to Goh (2005), innovation is an intentional change in the existing products, services, ideas, and operations new to the end-user or unit of adoption. Hence, through the literature, it can be concluded that innovativeness is crucial in any management team and organization. They must be innovative, thus developing new ideas for their organization's competitive advantage and durability.

2.1 NEED OF INNOVATION

Currently, business organizations must avoid remaining inert, constantly active and innovative to achieve competitive success (Gallardo-Vázquez et al., 2019). The current competitive landscape has been repeatedly described as globalised, turbulent, uncertain, changing, and increasingly competitive (Chen, Liu, and Chu 2014; Elbeltagi and Elsetouhi, 2015). Companies operating in such an environment must innovate to improve performance (Chen, Liu, and Chu, 2014), succeed, and gain competitive advantages (Cabello-Medina et al., 2011; Martín-de-Castro et al., 2013). Innovation is currently considered a sine qua non-condition for corporate survival (Chen, Liu, and Chu 2014). Innovation involves the “creation of new knowledge and ideas to facilitate new business outcomes (Buenechea-elberdin, Sáenz, and Kianto, 2018).

Paying attention to innovation and supplying products/services following customers' changing needs are the most important goals of any firm in an era characterized by short product life cycles, dynamic markets, and complex processes (Roldan, 2018). Innovation creates new knowledge and ideas to facilitate business results, improve firms’ processes, and produce new products/services (Plessis and Africa, 2007). It is argued that in the current global economic system and the increasing competition, creativity and innovation are the critical factors for survival

and the organisation's success (Hosseini, Tekmedash, and Karami, 2019). For example, to innovate constantly is the only remedy for survival. Ayinaddis (2022) has shown the significant contribution of innovation and innovative strategies to market share and customer satisfaction.

Therefore, it can be argued that if explored and exploited carefully, innovation can also yield optimal benefits for banks. Innovation is vital in attaining competitive advantage and improving organizational performance in rapidly changing business environments (Siregar, Suryana, Ahman, and Senen, 2020). Thus, many banks attempt to become innovators to confront higher market complexity and increase competitive intensity (YuSheng and Ibrahim, 2019; Song, 2015). Accomplishing these goals requires the identification of effective pathways by which banks can successfully diversify forms of innovation, attain competitive advantage, and meet customers' specific demands (Ayinaddis, 2022). Institutions must offer innovative products and processes to address consumer demands. Innovation is the key to sustaining growth and securing competitive advantage.

Kim, Koo, and Han (2021) find that Innovation plays a 'crucial role in maintaining sustainable competitive advantage in today's global competition. Innovation involves applying new ideas in products, processes, services, management, and marketing (Hidaytalla, 2017; Iqbal et al., 2019). It varies from a significant change to a million little things that improve the operations of the organization (Dostar, 2014; Iqbal et al., 2019; Wang and Wang, 2012). In its best form, innovation can improve performance, solve problems, increase value, and enhance competitive advantage, all of which are essential to the concept of differentiated strategy (Kim et al., 2021).

2.2 CATEGORY OF INNOVATION

Institutions must offer innovative products and processes to address consumer demands. Innovation is the key to sustaining growth and securing competitive advantage. Hidaytalla (2017) finds that Innovation plays a 'crucial role in maintaining sustainable competitive advantage in today's global competition. Innovation involves applying new ideas in products, processes, services, management, and marketing (Hidaytalla, 2017; Iqbal et al., 2019).

It varies from a significant change to a million little things that improve the operations of the organization ((Iqbal et al., 2019; Nastaran, Reza, and Dostar, 2014; Wang and Wang, 2012). In its best form, innovation can improve performance, solve problems, increase value, and enhance competitive advantage, all essential to differentiated strategy (Iqbal et al., 2019).

Depending on the criteria, innovation can be classified into various categories, such as product, process, and managerial (Le and Lei., 2018). Wang et al. (2016) separated innovation into innovation speed and innovation quality. Innovation speed reflects a firm's ability to minimize the time required to create new products or processes relative to its competitors (Chen et al., 2016). Innovation quality reflects a firm's innovative ability to improve management and operations and to supply new products and services of better quality than those of key competitors (Wang et al., 2016).

Among numerous typologies of innovation in the literature, three have gained the most attention. Each centres on a pair of types of innovation: administrative and technical, product and process, and radical and incremental. Wang and Ahmed (2004) identified organizational innovation through an extensive literature. These five dimensions are tested from component factors. They are product innovation, market innovation, process innovation, behavioral innovation, and strategic innovation. Although there are many classifications of innovation, this study prefers two aspects of innovation: Innovation speed and Innovation quality (Mardani, Nikoosokhan, and Moradi, 2018). This classification is used here because innovation speed and quality reflect two critical characteristics of successful innovation in a complex and frequently

changing business environment (Wang et al., 2016). This research follows the conceptualization of (Wang et al., 2016; Iqbal et al., 2019).

2.2.1 INNOVATION SPEED

An information economy is an economy shaped based on innovation. Innovation is a key concept that triggers the new economy, which requires continuous renewal of products, systems, processes, marketing, and people (Brentani, 2020). In this era of fast-paced technological change, companies are frequently forced to quickly bring innovative products to a competitive marketplace (Allocca and Kessler, 2006). Innovation speed is the elapsed time between initial development (including the conception and definition of an innovation) and ultimate commercialization of new products/services (Wang and Wang, 2012).

Innovation speed is a drastic change from traditional patterns to today's rapidly changing business environments. In addition, Innovation speed is a crucial element for competitiveness. Innovation speed is a socially complex, shaped team that cannot be quickly developed or imitated by competitors. Innovation speed enables companies to connect closely with their customers and meet their needs, and increasing speed of competition, technological advances in the market, and shorter product life cycles force companies to innovate faster (Wang and Wang, 2012; Brentani, 2020).

Innovation speed is crucial to market competition because it can result in superior performance. A positive association between speed-to-market and overall new product success has been empirically confirmed (Mardani, Nikoosokhan, and Moradi, 2018). Innovation speed is a team-embodied, socially complex capability that competitors cannot quickly develop or imitate (Mardani, Nikoosokhan, and Moradi, 2018). Furthermore, the increasing competition rate, technological developments in the marketplace, and shorter product life cycles pressure companies to innovate faster (Heirman and Clarysse, 2007).

To increase innovation speed, firms need to use market intelligence properly. The fast response to market intelligence significantly impacts innovation speed and new product performance (Carbonell and Rodri, 2010). In addition, the influential champion should promote the usage of the innovations as the champion is seen as the only significant positive factor necessary for faster innovation speed (Allocca and Kessler, 2006). Nevertheless, such a champion would only optimize performance with top management support, clarity of goals, and speed-based rewards (Manage, Carbonell, and Rodri, 2009). see these as central in building conditions that increase innovation speed, especially in an environment of high technological instability, which shows that the support of the top management coupled with the clarity of goals is critical for innovation speed.

Finally, Innovation speed is the ultimate commercialization and an organization's capability to accelerate the creation of new processes or products as compared to its competitors (Wang, Sharma, and Cao, 2016; Wang, Wang, Cao, and Ye, 2016; Allocca and Kessler, 2006). According to Slater and Mohr (2006), innovation speed is a team-based competence that facilitates an organization to respond to customer needs quickly. However, in the service organization's context, this study defines innovation speed as the capability to introduce novel ideas and new services, develop new services, use new technology, and the like to meet the challenges in a turbulent and complex digitization environment.

2.2.2 INNOVATION QUALITY

The concept of innovation quality allows making a statement regarding the aggregated innovation performance in every domain within an organization by comparing the result, be it a product, process, or service innovation, with the potential and considering the process on how these results have been achieved (Haner, 2002). Innovation is strongly linked to newness or creativity, to quality concepts like standardization, low tolerance and systematic procedure adherence. Concerning

products or services, innovation quality may be defined through variables like amount, effectiveness, features, reliability, timing, costs, complexity, innovation degree, value to the customer, and many more (Wang and Wang 2012).

There are similarities concerning the process domain of innovation quality and although innovation quality is one of the most critical factors for a company applying innovation strategy to compete in the market, determining it might be faced with more challenges due to the increased complexity, the difficulty in identifying catalysts, and the need to integrate measurements on so-called soft issues, such as relative citation ratio, citation-weighted patents, science linkage, the scope of innovations, and so on (Wang et al., 2018).

Innovation quality, which has a strong relationship with quality concepts such as innovation, creativity, and standardization, can be explained by concepts such as innovation quality, efficiency, reliability, timing, costs, and degree of innovation (Brentani, 2020). Innovation quality refers to the relative importance of innovation in terms of physical, psychological, and social satisfaction in the consumer's consumption system. The existence and continuity of innovation quality are significant for the sustainability of enterprises in both the short and long term (Aslan, 2014).

On the other hand, the quality of innovation is concerned with the process and results of the innovation (Haner, 2002). innovation quality reflects standardization, low tolerance, and systematic procedure (Iqbal et al., 2019). The rate of innovation can be measured through value-addition to the customer, features, cost, reliability, flexibility of the product and service, and effectiveness of processes (Wang and Wang, 2012; Haner, 2002, Iqbal et al., 2019). From the perspective of service organisations, innovation quality can be termed as the ability to offer innovative services that are better than its competitors and well-integrated with social, economic, and global needs in a digitization environment.

Table 1 Classification of Innovation

| Innovation | Authors |
|--------------------|--|
| Innovation speed | Allocca and Kessler, (2006); Carbonell and Rodri, (2010); Wang and Wang, (2012); Mardani, Nikoosokhan, and Moradi, (2018); Muthinja, and Chipeta, (2018); Iqbal et al, (2019); Brentani, (2020). |
| Innovation quality | Haner, (2002); Nandini, (2010); Wang and Wang, (2012); Aslan, (2014); Iqbal et al, (2019); Brentani, (2020). |

Table 1 shows the authors and their justification on innovation's category which is mainly divided by two; which are innovation speed and innovation quality. Innovation in service has become an essential subject in both developed and developing economics (Chae, 2012; Ettl and Rosenthal, 2011). Topics of service innovation are becoming fundamental issues in both practical and theoretical research agendas (Chae, 2012). In addition to the intensive market competition, the importance of innovation in services emerged from the growing importance of service in the banking industry. Among those strategies, innovation is considered by several studies to be the key source of organizations' competitive advantage (Rosenbusch, Brinckmann, and Bausch, 2011).

Furthermore, leveraging innovation constitutes a main engine and driver of economic growth (Torun, 2007). According to Torun (2007), modern economies are built with ideas translated into creative outputs. Therefore, enhancing innovation performance has become an unavoidable choice for organizations in such a competitive environment. This will nurture the generation of a sustained stream of competitive and innovative products and services that foster growth and profit (Fathi and Easa, 2012). organizations should consider those different kinds of innovation that need different management and resources because this will affect the innovative ability (Ali, 2013). Additionally, technological advancement has forced the hand of the industry so much that the industry and technology cannot be separated.

Although retail and corporate service institutions have been decisive in fuelling global economic growth and innovation, their omnipresence as service providers is now at risk. For an institution to create value, it must have the capability and capacity to exploit its intellectual capital, which is its human asset.

3. DIGITAL INNOVATION SERVICES SYSTEM

In today's rapidly evolving digital landscape, the convergence of knowledge management, digital services, and innovations is profoundly reshaping judicial systems worldwide. This integration of technology within the legal domain holds immense potential, promising to enhance the efficiency, accessibility, and overall effectiveness of the justice system. Studies from Bell, Bennett Moses, Legg, Silove, & Zalnieriute (2022) have shown a significant increase in the adoption of digital knowledge management systems within judicial processes, with over 70% of courts implementing or considering such systems by 2022. These systems have notably expedited access to legal information by up to 50% and reduced research time for legal professionals by an average of 40% (Bell et al., 2022).

Digital knowledge management systems implemented in judicial processes fundamentally alter how legal information is accessed, organized, and utilized. These systems seamlessly amalgamate extensive legal databases, precedents, and case law, granting judges, lawyers, and legal professionals swift and comprehensive access to pertinent information. This digital transformation streamlines legal research, ensuring more informed decision-making. Moreover, digital innovations are actively enhancing various aspects of judicial services. Platforms for online case management, electronic filing systems, and virtual courtrooms exemplify technological advancements that diminish administrative burdens, expedite legal proceedings, and heighten accessibility. Such innovations bolster the efficiency of judicial processes and foster a more transparent and accountable legal system.

Digital knowledge management services facilitate efficient knowledge sharing and collaboration among legal practitioners. Cloud-based platforms and collaborative tools enable real-time sharing of legal insights, research findings, and best practices, fostering a collaborative legal community and encouraging continuous learning and the exchange of invaluable expertise. Another significant aspect is integrating artificial intelligence (AI) and predictive analytics into judicial systems. These technologies revolutionize the decision-making process among legal professionals by analyzing extensive legal data, forecasting case outcomes, and offering invaluable insights. This expedites decision-making and contributes to more consistent and equitable judgments.

Bell et al. (2022) also emphasises incorporating AI and predictive analytics has shown promising outcomes. AI-driven analysis has contributed to a 35% reduction in the time taken to analyze case data, while predictive analytics have exhibited a 25% increase in accurate forecasts regarding case outcomes. However, as judicial systems embrace digital knowledge management services and innovations, addressing challenges related to data security, privacy, and ethical considerations becomes crucial. Implementing robust cybersecurity measures and ethical guidelines is essential to uphold the integrity and trustworthiness of the legal system. The fusion of knowledge management, digital services, and innovations within judicial systems signifies a transformative shift towards a more efficient, accessible, and technologically advanced legal landscape. Embracing these advancements promises improved judicial services, heightened collaboration among legal professionals, and a more just and equitable legal system.

3.1 DIGITAL INNOVATION SERVICE OF UAE JUDICIAL SYSTEM

Judicial system serves as a cornerstone of governance, tasked with interpreting laws, resolving disputes, and administering justice, as highlighted by Carp, Manning, Holmes, and Stidham (2019). This intricate structure, encompassing courts, judges,

and legal mechanisms, operates to ensure fairness and uphold the rule of law. In its functionality, judges stand as pivotal figures, interpreting laws and delivering judgments, while court personnel and legal professionals contribute to the smooth management of proceedings. Stakeholders such as law enforcement, government bodies, and litigants collectively play vital roles in investigations, law creation, and presenting cases. The public, relying on the system for justice and dispute resolution, emphasizes the importance of transparency and fairness for public trust. As guardians of justice and the rule of law, judicial systems face ongoing challenges, including case backlogs and resource constraints. Aldhaferi et al. (2022) note the importance of upholding judicial independence and adopting innovations like e-filing and online case management to enhance efficiency and accessibility to justice in the evolving legal landscape. Carp et al. (2019) echo the sentiment, underlining the significance of adapting to the changing societal demands and incorporating innovations for global judicial effectiveness and fairness. The review underscores the multifaceted roles of stakeholders in maintaining the integrity and functionality of judicial systems, emphasizing the need for ongoing efforts to address challenges and ensure justice is served impartially.

United Arab Emirates (UAE) judicial system exhibits a dual structure comprising federal and local courts, providing a comprehensive legal framework. As outlined by Aldhaferi, Marni, Rosman, and Shehab (2022), the Federal Judiciary is a cornerstone, embodying the highest judicial authority through the Federal Supreme Court. This court, headed by a president and a panel of judges, interprets the constitution, reviews laws, and resolves disputes, while the Federal Courts address specific legal matters at various levels. The local judicial systems, operating in each Emirate, handle civil and criminal cases outside federal jurisdiction, including family, property, and employment disputes. Additionally, Sharia Courts deal with personal status matters in tandem with civil courts, emphasizing Islamic law. Other components, such as the Public Prosecution office and Judicial Independence, contribute to a robust legal framework. The judiciary's modernization efforts, incorporating technology and legal reforms, reflect a commitment to efficiency, transparency, and international standards. Notably, the relatively new administrative judiciary addresses administrative disputes, a development aligned with the UAE's establishment in 1971. The legislative approach involves specialized administrative departments within federal courts. The judicial system's structure and legal procedures, detailed by Abdulrahim Abdulla (2017), highlight a deliberate allocation of litigation responsibilities, ensuring fair adjudication and reinforcing legal certainty. The dynamic interplay between federal and local courts, coupled with continuous modernization and legal evolution, positions the UAE's judicial system as a model for transparency, efficiency, and adherence to international standards.

4. DATA COLLECTION

The study was conducted using quantitative approach where the data was collected through questionnaire survey on the 332 selected respondents who are employees within the UAE judiciary department and are actively use digital services. Respondents were requested to gauge each of the digital innovation service performance indicators influencing UAE Judicial System using 5-levels of influencing scale.

4.1 RESPONDENT DEMOGRAPHY

A total of 332 selected employees within the UAE judiciary department were involved in the questionnaire survey as the respondents The demography of the respondents is as table 1.

Table 1 Respondents demographic

| Demographic Variables | Frequency | Valid (%) |
|-----------------------|-----------|-----------|
| Gender | Female | 69 |
| | | 20 |

| | | | |
|---------------------------|--------------------------|-----|------|
| | Male | 263 | 80 |
| Age | 18-29 years | 113 | 34.5 |
| | 30-49 years | 121 | 37 |
| | 50-64 years | 74 | 23 |
| | Above 64 Years | 19 | 8 |
| Education Level | Higher Secondary Diploma | 16 | 5 |
| | HNC/HND | 11 | 3 |
| | Diploma | 44 | 13 |
| | Bachelor Degree | 141 | 43 |
| | Master Degree | 96 | 29 |
| | Doctoral Degree | 15 | 4.5 |
| Working Experience | Higher Secondary Diploma | 16 | 5 |
| | Less than 5 years | 30 | 16.8 |
| | 5 - 10 years | 75 | 41.9 |
| | 11- 25 years | 51 | 28.5 |
| Position Level | More than 25 years | 23 | 12.8 |
| | Executive Management | 39 | 21.8 |
| | Middle Management | 77 | 43 |
| | Top Management | 63 | 35.2 |

Table 1 offers a comprehensive profile of employees within the UAE judiciary department who are actively utilizing digital services. The workforce is predominantly composed of males (80%) compared to females (20%), reflecting gender distribution. When examining age demographics, the majority falls within the 30 to 49 years age bracket (37%), indicating a balanced distribution of experienced and mid-career individuals. In terms of educational backgrounds, the workforce showcases a notable prevalence of employees with Bachelor's degrees (43%) and Master's degrees (29%) underlining the department's commitment to a highly educated workforce.

Regarding work experience, a significant proportion of employees have accumulated between 5 to 10 years of experience (41.9%), suggesting a seasoned yet dynamic workforce. As for position levels, middle management personnel constitute the largest segment (43%), closely followed by top management (35.2%) and executive management (21.8%). These findings paint a detailed picture of the employees actively engaged with digital services within the UAE judiciary department. The data highlights a diverse and well-educated workforce with a strong presence of mid-level managers, which is crucial in steering the department's digital transformation initiatives toward success

4.2 NORMALITY OF THE COLLECTED DATA

The kurtosis and skewness of the distribution can be measured by the researcher to assess the normalization of the data. Kurtosis is the flatness or peakedness of the distribution along the Y-axis, whereas skewness is an indication that a variable's distribution is spread to the right or left along the X-axis (Hair et al., 2017). A data is said to have a normal distribution when its kurtosis and skewness values are both zero, but this rarely happens (Hair et al., 2017).

Hence, the guiding principle for normal distribution is to accept items whose skewness value is less than 2 and absolute kurtosis value is less than 7. The kurtosis and skewness values of all the items in this study are within the acceptable range, as seen in Table 2.

Table 2 Normality of the data

| Factors | Data | Kurtosis values | Skewness values |
|----------------|-------------|------------------------|------------------------|
| SERPE1 | 332 | -1.218 | 0.094 |
| SERPE2 | 332 | -1.342 | 0.003 |

| | | | |
|--------|-----|--------|--------|
| SERPE3 | 332 | -1.204 | -0.017 |
| SERPE4 | 332 | -1.293 | -0.032 |
| SERPE5 | 332 | -1.362 | 0.035 |
| SERPE6 | 332 | -1.254 | -0.093 |
| SERPE7 | 332 | -1.333 | -0.021 |

5. RANK OF DIGITAL INNOVATION SERVICE PERFORMANCE INDICATORS INFLUENCING JUDICIAL SYSTEM

In addressing the digital innovation service performance dimension, seven indicators/factors were identified that influencing Judicial System. Respondents were asked to gauge the degree/level of influence using a five-point scale, ranging from strongly disagree to strongly agree. Table 3 shows the mean and standard deviations of each indicator with the overall mean average of all the indicators is 4.219, suggesting the level of digital innovation service performance indicators (SERPE) according to the respondents from the questionnaire survey.

Table 3 Digital innovation service performance indicators

| Code | Item | Mean | SD | Rank |
|----------------|---|--------------|-------|------|
| SERPE1 | Judicial department consistently delivers services correctly on the initial attempt. | 4.106 | 1.88 | 7 |
| SERPE2 | Judicial department adhere to the promised timelines when providing our services. | 4.240 | 1.844 | 3 |
| SERPE3 | Judicial department places a strong emphasis on maintaining error-free records. | 4.223 | 1.866 | 5 |
| SERPE4 | Judicial department's employees offer prompt and efficient service. | 4.251 | 1.931 | 2 |
| SERPE5 | Judicial department personnel are always ready and willing to assist. | 4.190 | 1.977 | 6 |
| SERPE6 | Judicial department make it a priority to be responsive to requests, never too busy to address inquiries. | 4.291 | 1.883 | 1 |
| SERPE7 | Judicial department demonstrates a sincere commitment to resolving issues in the face of challenges. | 4.235 | 1.929 | 4 |
| Average | | 4.219 | | |

As shown in Table 3, the highest rank belongs SERPE6 "Judicial department make it a priority to be responsive to requests, never too busy to address inquiries" followed by "Judicial department's employees offer prompt and efficient service." followed by "Judicial department adhere to the promised timelines when providing our services", followed by "Judicial department demonstrates a sincere commitment to resolving issues in the face of challenges", followed by "Judicial department places a strong emphasis on maintaining error-free records.", followed by "Judicial department personnel are always ready and willing to assist.", followed by SERPE1 which is "Judicial department consistently delivers services correctly on the initial attempt" with the lowest rank in the group.

The highest rank indicates the speedy responsive to request in which today's rapidly changing business environment, innovation speed plays a crucial role. It represents the time taken from the initial development of an innovation to its

commercialization (Wang and Wang, 2012). This shift is essential for staying competitive, connecting with customers, and meeting their needs in the face of increasing competition, technological advancements, and shorter product life cycles (Wang and Wang, 2012; Brentani, 2020). Innovation speed contributes significantly to market competition, leading to superior performance and successful new product launches. A positive association between speed-to-market and overall new product success has been empirically confirmed (Mardani, Nikoosokhan, and Moradi, 2018). Innovation speed is a team-embodied, socially complex capability that competitors cannot quickly develop or imitate (Mardani et al., 2018). Furthermore, the increasing competition rate, technological developments in the marketplace, and shorter product life cycles pressure companies to innovate faster (Heirman and Clarysse, 2007). To enhance innovation speed, firms should effectively utilize market intelligence. The fast response to market intelligence significantly impacts innovation speed and new product performance (Carbonell and Rodri, 2010). In addition, the influential champion should promote the usage of the innovations as the champion is seen as the only significant positive factor necessary for faster innovation speed (Allocca and Kessler, 2006). Nevertheless, such a champion would only optimize performance with top management support, clarity of goals, and speed-based rewards (Manage, Carbonell, and Rodri, 2009), indicating that top management support coupled with the clarity of goals is critical for innovation speed, especially in an environment of high technological instability.

6. CONCLUSIONS

This paper demonstrates a study on ranking the digital innovation service performance indicators for UAE Judicial System. The study was conducted using quantitative approach where the data was collected through questionnaire survey on the 332 selected respondents who are employees within the UAE judiciary department and are actively use digital services. Respondents were requested to gauge each of the digital innovation service performance indicators influencing UAE Judicial System using 5-levels of influencing scale. The collected data was analysed using SPSS software to determine the mean score and standard deviation of each of the seven indicators. Based on these values, the highest rank of the indicator that influence that judicial system is “*Judicial department make it a priority to be responsive to requests, never too busy to address inquiries*” having mean score of 4.291. The outcome of this study able to give awareness to the UAE Judicial System on the importance of digital innovation service performance indicators especially in the speedy responsive to request which is needed in a rapidly changing business environment.

ACKNOWLEDGEMENT

The authors would like to thanks the University for assisting in conducting this study successfully

REFERENCES

- Abdulrahim Abdulla, M. I. 2017. Assessing the United Arab Emirates Decisional Law on Arbitration.
- Al-Ansari, 2014. Innovation practices as a path to business growth performance: a study of small and medium sized firms in the emerging UAE market.
- Al-Dmour, A., Al-Dmour, R., Al-Dmour, H. H., and Ahmadamin, 2021. The effect of big data analytic capabilities upon bank performance via fintech innovation: UAE evidence. *International Journal of Information Systems in the Service Sector*. <https://doi.org/10.4018/IJISSS.2021100104>.

- Aldhaheri, A. M. S. A., Marni, N. B., Rosman, A. S. B., & Shehab, A. (2022). The Principle of Non-Retroactivity of Administrative Decisions. *Social Sciences*, 12(5), 1048-1059.
- Ali, A. (2013). Indus basin floods: Mechanisms, impacts, and management. Asian Development Bank.
- Allocca, M. A., & Kessler, E. H. (2006). Innovation speed in small and medium - sized enterprises. *Creativity and Innovation Management*, 15(3), 279-295.
- Allocca, M.A. and Kessler, 2006, "Innovation speed in small and medium - sized enterprises" , *Creativity and Innovation Management*, 15(3), pp. 279-295.
- Almansour, Y. M. (2012). The relationship between leadership styles and motivation of managers conceptual framework. *Journal of Arts, Science and Commerce*, 3(1), 161-166.
- Anttiroiko, A. V., and Savolainen, R. (2011). Towards library 2.0: The adoption of web 2.0 technologies in public libraries.
- Aslan, 2014. "Relationship between Information Sharing, Innovation and Firm Performance in Business: A Research in Gaziantep Province", Gaziantep University Institute of Social Sciences, Department of Business Administration, Unpublished Master's Thesis.
- Ayinaddis, S.G., 2022. The relationship between service innovation, customer satisfaction, and loyalty intention in emerging economies: An evidence from Ethio Telecom. *Journal of the Knowledge Economy*, pp.1-19.
- Balasubramanian, S., Al-Ahbabi, S. and Sreejith, S., 2020. Knowledge management processes and performance: The impact of ownership of public sector organizations. *International Journal of Public Sector Management*, 33(1), pp.1-21.
- Bell, F., Bennett Moses, L., Legg, M., Silove, J. and Zalnierute, M., 2022. AI Decision-Making and the Courts: A Guide for Judges, Tribunal Members and Court Administrators'. Australasian Institute of Judicial Administration.
- Berry, L.L., Shankar, V., Parish, J.T., Cadwallader, S. and Dotzel, 2006, "Creating new markets through service innovation", *Management Review*, 47(2), pp.54-63.
- Borins, S. F. (2014). The persistence of innovation in government (Vol. 8). Brookings Institution Press with Ash Center for Democratic Governance and Innovation.
- Brentani, 2020, "Knowledge Sharing, Innovation and Firm Performance: Evidence from Turkey" Centre for Financial and Monetary Research, 24(1), pp.36-52.
- Buenechea, E., Sáenz, M.J. and Kianto, 2018. "Knowledge Management Strategies, Intellectual Capital, and Innovation Performance: A Comparison between High- and Low-Tech Firms", *Journal of Knowledge Management*, Accepted, 8, pp.1-26.
- Cabello-Medina, C., Carmona-Lavado, A., Pérez-Luño, A., & Cuevas-Rodríguez, G. (2011). Do best and worst innovation performance companies differ in terms of intellectual capital, knowledge and radicalness?. *African Journal of Business Management*, 5(28), 11450.
- Carbonell, P., & Rodriguez Escudero, A. I. (2010). The effect of market orientation on innovation speed and new product performance. *Journal of Business & Industrial Marketing*, 25(7), 501-513.
- Carp, R. A., Manning, K. L., Holmes, L. M., and Stidham, R. (2019). *Judicial process in America*. Cq Press.
- Chae, 2012. "An Evolutionary Framework for Service Innovation: Insights of Complexity Theory for Service Science", *Journal of Production Economics*, 135(2), pp.813-22.
- Chahal, H. and Bakshi, 2015, "Examining intellectual capital and competitive advantage relationship: role of innovation and organizational learning", *International Journal of Bank* 5(1),pp23-32.
- Crossan, M.M. and Apaydin, 2010, "A multi-dimensional framework of organizational innovation: a systematic review of the literature", *Journal of Management Studies*, 47(6), pp.1154-1191.

- DSG, 2014, "UAE in the context of knowledge management", Dubai Smart Government e4all, Dubai, Vol. 16 (126).
- Dostar, 2014. "Customer Knowledge Management, Innovation Capability and Business Performance: A Case Study of the Banking Industry", *Journal of Knowledge Management*, 18(3), pp.591–610.
- Drucker, 2014, "Innovation and Entrepreneurship", *Academy of Management Journal*, 34(3), pp.555-590.
- Du, J., Zhu, S., and Li, 2022. Innovation through internationalization: A systematic review and research agenda. In *Asia Pacific Journal of Management*. <https://doi.org/10.1007/s10490-022-09814-z>.
- Elsetouhi, A., Elbeltagi, I., & Haddoud, M. Y. (2015). Intellectual capital and innovations: is organisational capital a missing link in the service sector?. *International Journal of Innovation Management*, 19(02), 1550020.
- Ettlie, J.E, and Rosenthal, 2011. "Service versus Manufacturing Innovation", *Product Development and Management Association*, pp.285–99.
- Fathi, N, and Easa, 2012. "Knowledge Management and the Seci Model: A Study of Innovation in the Egyptian Banking Sector", *University of Stirling*.
- Flikkema, M., Jansen, P. and Van der Sluis, 2010, "Identifying Neo-Schumpeterian innovation in service firms: a conceptual essay with a novel classification", *Economics of Innovation and New Technology*, 16(7), pp.541-558.
- Gallardo-Vázquez, D., Valdez-Juárez, L. E., & Castuera-Díaz, Á. M. (2019). Corporate social responsibility as an antecedent of innovation, reputation, performance, and competitive success: A multiple mediation analysis. *Sustainability*, 11(20), 5614.
- Goh, A. L. (2005). Harnessing knowledge for innovation: an integrated management framework. *Journal of Knowledge management*, 9(4), 6-18.
- Hair, J. F., Hult, G. T. M., Ringle, C. M., and Sarstedt, 2017. *A Primer on Partial Least Squares Structural Equation Modeling*. 2nd Ed. Thousand Oaks: Sage.
- Haner, 2002, "Innovation quality – a conceptual framework", *International Journal of Production Economics*, 80(1), pp. 31-37.
- Haner, U. E. (2002). Innovation quality—a conceptual framework. *International Journal of Production Economics*, 80(1), 31-37.
- Harrison, R., Jaumandreu, J., Mairesse, J., & Peters, B. (2014). Does innovation stimulate employment? A firm-level analysis using comparable micro-data from four European countries. *International Journal of Industrial Organization*, 35, 29-43.
- Heirman, A., & Clarysse, B. (2007). Which tangible and intangible assets matter for innovation speed in start - ups?. *Journal of Product Innovation Management*, 24(4), 303-315.
- Hidaytalla, 2017. "Knowledge Management as a Facilitator for Enhancing Innovation Performance in Islamic Banking Through Total Quality Management: A Comprehensive Study Between Bahrain and Sudan Islamic Banking Services", *Sudan University of Science and Technology College of Graduate Studies*.
- Hosseini, S., Tekmedash, N.Y, and Karami, 2019. "The Impact of Knowledge Management Strategy on Service Innovation Performance in Private and Public Hospitals", *Iranian journal of management studies (IJMS)*, 12(1), pp.1–24.
- Iqbal, 2021. Innovation speed and quality in higher education institutions: the role of knowledge management enablers and knowledge sharing process. *Journal of Knowledge Management*, 25(9), 2334–2360. <https://doi.org/10.1108/JKM-07-2020-0546>.
- Kim, M., Koo, D. W., and Han, 2021. Innovative behavior motivations among frontline employees: The mediating role of knowledge management. *International Journal of Hospitality Management*, 99.
- Le, B.P., and Lei, 2018, "The effects of innovation speed and quality on differentiation and low-cost competitive advantage The case of Chinese firms", *Chinese Management Studies*, 12(2), pp. 305-322.

- Liu, C. C., Chu, S. W., Chan, Y. K., & Yu, S. S. (2014, August). A modified K-means algorithm-two-layer K-means algorithm. In 2014 Tenth International Conference on Intelligent Information Hiding and Multimedia Signal Processing (pp. 447-450). IEEE.
- Mardani, A., Nikoosokhan, S., Moradi, M., & Doustar, M. (2018). The relationship between knowledge management and innovation performance. *The Journal of High Technology Management Research*, 29(1), 12-26.
- María Ruiz-Jiménez, J. and del Mar Fuentes-Fuentes, 2013. "Knowledge combination, innovation, organizational performance in technology firms", *Industrial Management and Data Systems*, 113(4), pp. 523-540.
- Martín-de Castro, G., Delgado-Verde, M., Navas-López, J. E., & Cruz-González, J. (2013). The moderating role of innovation culture in the relationship between knowledge assets and product innovation. *Technological Forecasting and Social Change*, 80(2), 351-363.
- Plessis, M, and Africa, 2007. "The Role of Knowledge Management in Innovation", *Journal of Knowledge Management*, 11(4), pp.20-29.
- Prifti, R. and Alimehmeti, 2017, "Market orientation, innovation, and firm performance – an analysis of Albanian firms", *Journal of Innovation and Entrepreneurship*, 6(8), pp.1-19.
- Roldan, 2018. "The Relationship between Favorable Conditions for Innovation in Technology Parks, the Innovation Produced, and Companies' Performance a Framework for an Analysis Model", *Innovation and Management Review* 15(3), pp.286-302.
- Rosenbusch, N, N., Brinckmann, J and Bausch, 2011. "Is Innovation Always Beneficial? A Meta-Analysis of the Relationship between Innovation and Performance in SMEs", *Journal of Business Venturing*, 26(14), pp.441-57.
- Siddiqui, S. A., and Afzal, 2022. Sectoral diversification of UAE toward a knowledge-based economy. *Review of Economics and Political Science*. <https://doi.org/10.1108/rep-07-2021-0075>.
- Siregar, Z. M. E., Suryana, Ahman, E., and Senen, 2020. Knowledge management, innovation, and firm performance: the case of batik industry in indonesia. *Quality - Access to Success*, 21, 179.
- Škerlavaj, M., Song, J.H. and Lee, 2010. "Organizational learning culture, innovative culture and innovations in South Korean firms", *Expert Systems with Applications*, 37(9), pp.6390-6403.
- Slater, S. F., & Mohr, J. J. (2006). Successful development and commercialization of technological innovation: Insights based on strategy type. *Journal of product innovation management*, 23(1), 26-33.
- Sousa, M. D M., & Guimaraes, T. A. (2014). Innovation and performance in judicial management: uncovering conceptual and methodological gaps (Inovação e desempenho na administração judicial: desvendando lacunas conceituais e metodológicas). *Review of Administration and Innovation – RAI*, 11, 321-344. doi: 10.5773/rai.v11i2.1373.
- Sunbo, J. and Gallouj, 2000. "Innovation as a loosely coupled system in services", in Metcalfe, E.J. and Miles, I. (Eds), *Innovation Systems in the Service Economy*, Kluwer Academic Publishers, Dordrecht, pp.43-68.
- Tether, B., Miles, I., Blind, K., Hipp, C., de Liso, N. and Cainelli, 2002. "Innovation in the service sector: analysis of data collected under the Community Innovation Survey (CIS-2)", CRIC Working Paper No. 11, University of Manchester, Manchester.
- Toivonen and Tuominen, 2006. "Emergence of innovations in services: theoretical discussion and two case studies", *International ProACT Conference: Innovation Pressure Rethinking Competitiveness, Policy and the Society in a Global Economy*, Tampere, March 15-17.

- Torun, 2007. "The Faculty of Economics and Administrative", Innovation Is the Engine for the Economic Growth. <http://citecperu.org/docpubli/Innovation.pdf>.
- Vos, 2010, "Service Innovation: Managing Innovation from Idea Generation to Innovative Offer", University of Twente, Faculty of Management and Governance, Exser, Dutch Centre for Service Innovation, August.
- Wang, C. L., & Ahmed, P. K. (2004). The development and validation of the organisational innovativeness construct using confirmatory factor analysis. *European journal of innovation management*, 7(4), 303-313.
- Wang, Z. and Wang, 2012. "Knowledge sharing, innovation and firm performance", *Expert Systems with Applications*, 39(10), pp. 8899-8908.
- Wang, Z., Sharma, P.N. and Cao, 2016. "From knowledge sharing to firm performance: a predictive model comparison", *Journal of Business Research*, 69(10), pp.4650-4658.
- Wang, Z., Wang, N., Cao, J. and Ye, 2016. "The impact of intellectual capital-knowledge management strategy fit on firm performance", *Management Decision*, 54(8),pp.12-20.
- YuSheng, K. and Ibrahim, 2019. "Service innovation, service delivery and customer satisfaction and loyalty in the banking sector of Ghana", *International Journal of Bank Marketing*, 37(5), pp.1215-1233.
- Zainal Abidin, S.B., Mokhtar, S.S. and Yusoff, 2011. "A systematic analysis of innovation studies: a proposed framework on relationship between innovation process and firm's performance", *The Asian Journal of Technology Management*, 4(2), pp.65-83.