

Leveraging Information Technology for Digital Transformation and Organizational Excellence in the Telecommunication Sector

Salah Shiekh Deeb, Mohanaad Shakir ^{*}, Maryam Juma Al Farsi

College of Business (CoB), University of Buraimi(UoB) , Buraimi, Oman

mohanaad.t@uob.edu.om, mohanaadshakir@yahoo.com (Corresponding author)

Abstract. This study empirically examines how information technology (IT) systems impact organizational excellence in the telecom industry, using Omantel Telecom, Oman as a case example. Quantitative survey data from 110 employees was analyzed through correlation and regression methods. Results reveal that IT applications significantly enhance process efficiency, employee productivity, service improvements, customer management, and profitability - all key markers of excellence. The integrated approach provides a more nuanced understanding of IT's role as both an operational enabler and strategic driver for nurturing a culture of excellence vital in digital transformation. Practical guidance for telecom firms centers on continuously leveraging IT alongside visionary leadership, robust governance, and change readiness.

Keywords: Information Technology (IT); Organizational excellence; MIS; Digital Economy; Digital Transformation

1. Introduction

The digital economy is becoming an integral part of the grand scheme of achieving sustainable economic growth. The World Economic Forum expects that business digitalization will contribute to an estimated 70% of new value over the coming decade (Forum, 2024). Therefore, countries are building their visions around a digital economy and investing a tremendous number of resources in its infrastructure. This momentum towards wholesome digitalization requires businesses to construct a proper digital infrastructure for their business models. Such infrastructure will reap many benefits by utilizing its tools and data to foster collaboration and innovation, navigate disruption, and transition to a purpose-driven, sustainable, and inclusive business.

The digital economy is defined as the digitization of economic and business activities. In essence, it is a contemporary economy that is enhanced by digital technology. The digital technology that transforms the economy can be constructed using three layers. The first layer which establish the foundation for the structure of the digital economy is the core digital technologies which include its devices (computers and telecommunication devices), what innovate these devises (semiconductors, processors), and what connect them together (Internet and telecoms networks). The second layer to further solidify the structure is the information technology (IT) sector, which enables the creation of digital products and services, including mobile applications and electronic payments. Final layer is all the sectors that has been transformed due to the first two layers like finance, transportation and media (UNCTAD, 2019). In its core, digital economy creates digital mechanisms through which economic agents like governments, societies and businesses carry out their activities. It is an economic system that uses information and communication technology to allow for business activities to be entirely conducted on the internet, allowing for cost reduction, operational efficiency and boosting business growth (Nguyen, 2023). It is that portion of economic output predominantly sourced from digital technology and where business models are centered around digital services and goods (Williams, 2021).

As the value of the global digital economy is more than \$11 trillion and it is expected to double in value by 2025, constituting 24% of global gross domestic product (UNCTAD, 2019), the Omani government has integrated it as part of its ultimate objective of creating sustainable economic growth that supports economic diversification. A multitude of initiatives started in many economic and service sectors to expedite this digital movement including the target plan to raise the contribution of information technology in gross domestic product to between 30% and 35%. These initiatives further highlight the role of information and communication technology in increasing the digital economy share in the gross domestic product to 3% in 2025 and 5% by 2040 compared to its current contribution estimated at 2%. The Sultanate of Oman also seeks to establish technology as an independent industry in 2030-2040 in light of enabling digitization (Ministry of Transport, Communications and Information Technology, 2021). As such there has been rapid growth in IT investment in Oman which is expected to reach US\$5.6 billion in 2024 and its market to grow at a CAGR of 8.88% to reach US\$8.33 billion by 2028. Moreover, the Digital market of Oman is expected to grow at a CAGR of 11.36% from 2023-28, reaching US\$3,560.0 million in the next five years (Digital Transformation in Oman, 2023).

Nonetheless, these wide scale initiatives and investments are not merely about the integration of advanced digital technology into business model, but also ensuring any developmental outcomes are worthwhile and shared equitably (Bullini Orlandi et al., 2019). For the digital transformation to be a success, it demands another wide scale initiative in form of investment in institutions and writing effective economic policies, for without them digital tools will remain as they are regardless of extensive utilization and without extracting maximum benefits from them (Song et al., 2023).

Therefore, the national program for digital economy also recognizes the importance of well-developed telecommunication industry by assigning them the role of constructing the networks necessary for a flourishing digital economy. Telecom companies in Oman can contribute significantly to the development towards the digital economy by providing advanced and innovative

telecommunications services that support the digital transformation in the country. These companies can contribute to providing high-speed internet and 5G services across all cities and villages which enhance connectivity and enable rapid online interaction for individuals and businesses whose reliance on telecommunication services keep increasing (Al Riyami, 2022).

On the other hand, these concentrated efforts towards business digitalization and use of new tech to conduct various activities across all industries come with their own set of challenges. The first challenge they encounter in their journey for digital transformation is the infrastructure, which requires huge investments in communications networks and technological upgrades. This challenge is important to overcome because of ever-changing consumers behavior who now have greater expectations for instant access to information and seamless connectivity due to the advent of smartphones and other mobile devices. This could lead to additional strain on the existing infrastructure of telecom companies. Second, organizing the telecommunication industry and its policies regarding security and data protection to ensure that effective measures are in place to prevent security and cyber threats facing the sector, which in turn requires a lot of work and effort to stay ahead of the curve. Nonetheless, these challenges are not the most paramount facing such transformations, their most prominent challenge might be the ability to integrate all sectors and forecast the end user needs whose dependence on development of advanced digital technologies are increasing (Telecom Review Arabia, 2023).

In this sense, necessary competencies and skills in the telecommunication industry are a must to respond to all these transformations and challenges. Particularly, as these changes to business models and projects emerging due to technological advances has been parallel to the COVID-19 pandemic that seems to push the digital infrastructure and its ecosystem forward. The ecosystem is shifting from its traditional paradigm that rely on single technology platform to a modern one that relies on a multitude of advanced technologies (Nguyen, 2023). Due to the utilization of these technologies both separately as well as in conjunction with one another and the intensification of competition, it has placed organizations today in a critical position to ensure their survival and the continuity of their activities. Achieving an average level of performance has become irrelevant in facing the storms of change, fierce competition and everchanging consumer requirements. Currently, no successful organization can rely on the same traditional methods and strategies that preceded the era of the “technological revolution” to ensure its survival. Rather, it must excel across all performance indicators. The search for excellence for successful organizations in this 4th industrial revolution must be indoctrinated into all management activities and techniques to so their performance level can surpass competitors and rise to the global standards. Except, excellence does not come by chance and is not achieved by wishful thinking as organizations that achieved it know, but rather through the efforts of various key departments and performance indicators including information technology as this paper will demonstrate.

The relationship between information and communication technologies and the organization's performance is considered one of the complex issues that must be dealt with extreme caution, as this problem is considered one of the pivotal issues in a smooth digital transformation. Information technology (IT) has become an important element in promoting organizational excellence throughout several sectors, including telecommunications (Pokhrel & Garg, 2020). As technology continues to develop rapidly and the use of digital systems becomes more universal, telecommunications companies are leveraging IT as a strategic driver for their operations, customer experiences, and overall performance (EROGLU, 2022). This is especially important to organizations seeking a prominent place in the fiercely competitive marketplace (Ghezali & Boudi, 2021).

As digital economy is backed by Information technology (IT), this research tackles an essential ingredient for the success of this highly ambitious transformation, that is the impact of information technology on the performance of telecommunication companies which constitute another vital component in the structure of such unprecedented transformation. In particular, the study attempt to untangle the correlation between information technology and the ability to achieve and sustain

excellence performance metrics. The preliminary investigation for this paper revealed an abundance of updated statistics on IT investment growth, changing consumer behaviors, and associated challenges faced by telecom companies, yet there are still research gaps that need to be addressed. First, one knowledge gap is the lack of research that specifically examines the impact of information technology tools and investments in relation to performance excellence. Second gap is the need to conduct a thorough analysis for how the telecommunication sector is facing digital transformation initiatives and the challenges and opportunities it may bring with. Thus this study design aim to examine these interconnected variables and fill these gaps by providing an more comprehensive understanding of the correlation between IT and performance excellence through key performance indicators.

Another research gap is the need for more in-depth analysis of the challenges faced by telecom companies in adapting to changing digital technologies. While some studies touch on these challenges, there is a lack of comprehensive research that delves into the specific difficulties faced by telecom companies in this regard. Overall, additional research is needed to fill these gaps and provide a more comprehensive understanding of the relationship between IT investment growth, changing consumer behaviors, and the challenges faced by telecom companies in Oman.

Furthermore, this study will contribute to this knowledge gap from the perspective of the leading telecommunications providers in the region, Omantel. This company constitutes an ideal case study to investigate how IT initiatives and strategies can affect performance outcomes. The study will focus on examining this telecommunication company's specific use of information technology systems as they relate to achieving organizational excellence. This study applies quantitative research methods and analysis of performance metrics to provide valuable evidence on the IT strategies that help Omantel succeed. This research endeavor will help to understand how information technology affects organizational excellence through key performance dimensions. It will pinpoint the IT pacesetters behind Omantel's own growth and competitive strength, as well as listing the obstacles it has faced along with any lessons learned. This study is intended to provide practical guidance that other telecommunications companies can use in applying IT techniques for better performance and outstanding results. In so doing, this study adds to the existing body of knowledge in this field.

The research aims to achieve the following objectives:

1. To identify the current utilization of information technology in Omantel Telecommunications Company.
2. To explore the existing status of organizational excellence in Omantel Telecommunications Company.
3. To study the impact of information technology usage on achieving organizational excellence in Omantel Telecommunications Company.

The inferences drawn from this research will help Omantel and guide industry practitioners, policymakers, or researchers seeking to understand the transformative effect that IT has on telecommunications. Particularly as Omantel is considered a strategic partner for implementing digital transformation projects by enabling joint work and supporting small and medium enterprises through digital innovation opportunities. Moreover, these objectives seek to understand how telecommunication in Oman has changed due to emerging technologies and examine how their implementation of information technology can help optimize practice and policy for maximizing excellence.

2. Literature Review

Information technology is a powerful and indispensable tool in the modern era, significantly impacting the organizational performance of institutions and companies (Eldow et al., 2017). The importance of this technology lies in its provision of efficient means for communication, information exchange, process improvement, and decision-making (Shakir et al., 2023). This literature review aims to examine

previous research and studies that have explored the impact of information technology on organizational performance and to understand the effects and benefits IT can offer to reach and maintain excellence. The integration of information technology (IT) into organizational structure has revolutionized operational dynamics, presenting both opportunities and challenges for achieving organizational excellence. Reviewing the core functions of IT and its correlation with organizational performance can help to understand IT potential in enhancing various dimensions of excellence if properly implemented and how to overcome technological challenges.

2.1. Information and Communication Technology

Information technology plays a crucial role in organizations by providing the tools, systems, and infrastructure to manage and process information effectively (Ershadi et al., 2020). IT encompasses various technologies and applications, including hardware, software, networks, databases, and cloud computing (Marinescu, 2022). IT facilitates organizations' efficient communication, collaboration, and data management, enabling streamlined business processes and decision-making (Kunduru & Kandepu, 2023). It provides employees with access to crucial information, allows organizations to automate repetitive tasks, increases productivity, and enables companies to adjust to market changes (Chege et al., 2020). Moreover, IT allows for sophisticated analytics and data-based development. Organizations can therefore gain competitive advantages in this way to spur innovation (Chatterjee et al., 2021). Information technology is a strategic resource that gives organizations the capability to achieve their goals, streamlines operations, and gets them ahead of competition on today's digital playing field (Ivanov, 2019). The intelligent use of information technology allows an organization to attain organizational excellence. It helps the company implement more efficient operations, stimulates innovation in products and services as well as management methods, and assists effective decision-making (Liao et al., 2020).

Information technology serves as the cornerstone of contemporary organizations management, encompassing a diverse array of devices and tools used to store, process, and utilize information to conduct business activities through electronic channels (Alam, 2021). A closer examination of IT unveils its multifaceted nature whose following components collectively create the technological infrastructure that underpins organizational processes and potentially transform key organizational functions by facilitating efficient communication, streamlined workflows, and data-driven decision-making:

1) **Hardware and Software:** Hardware and software are physical equipment and programs used in input, processing, and transmission activities, such as computers and accessories (Devine et al., 2022). This component forms the technological backbone enabling other dimensions of IT explored below.

2) **Experience and Skill:** Experience and skill refer to individuals' knowledge and skills to manage and operate hardware and software for use in business requirements (Pascariati & Ali, 2022). How organizations allow employees to leverage their IT skills and adapt to new technologies can impact productivity and excellence.

3) **Communication Networks:** Communication networks are stations that transmit and receive information and data (Pereira et al., 2020). Effective internal and external communication networks could streamline processes and boost relationships.

4) **Databases:** Databases are a collection of interconnected data and information stored in data storage devices, which can be used when needed (Diène et al., 2020). Data-driven insights may enhance decision-making and service development.

While Telecommunications technology is defined as the technology that facilitates communication between individuals or groups located in different places (Alenoghena et al., 2023). It encompasses various systems such as telephones, telegrams, faxes, radios, televisions, videos, and computer

technologies, including electronic data exchange and email (Eldow et al., 2017; Khan & Mukerji, 2020). Additionally, telecommunications technology enables us to transfer information from one place in the world to another with high efficiency and speed (Eldow et al., 2018; Banafaa et al., 2023).

2.2. Information Technology and Organizational Excellence

Information and communication technologies (ICT) have served as the center for the information revolution, which began in the last decade of the last century, and through which management and administrations has been forever changed through the modernization of their systems, methods, and work mechanism. These technologies have indeed affected individuals and institutions alike by providing services in a more developed and effective manner. Moreover, ICT is considered among the most important foundations for the global digital revolution, which focuses on achieving leadership and progress in the field of the digital economy. Therefore, the availability of ICT services for businesses at an affordable value is essential for digital transformation programs in every organization .

Multiple studies have found organizational IT capability to have a significant impact on organizational performance. IT integration with quality management practices significantly improves organizational performance by interacting with business operations and leadership. Information technology (IT) is considered as a key to business success by academia and industry. Notably, IT has evolved to an organization-level role that is far beyond previous technology supports and information storage functions; instead, it serves as a core analytics tool, combined with machine learning and artificial intelligence, to facilitate quality management (QM) and communication among business units. Therefore, this section of literature attempts to extensively determine the effect of information technology on the performance of organizations through organizational excellence lenses to solidify further the design of this paper's framework and hypothesis.

Before knowing how key components and uses of IT intersect with organizations' operations and potential for excellence, the paper first examined established excellent performance dimensions to advance understanding of its intersection with IT and outline its framework. Organizational excellence refers to the ingrained practice in organizational management to achieve tangible results, relying on consistent and continuous review and improvement (Shi et al., 2020). It is the ability to accomplish tasks efficiently and correctly within structural roles in a non-routine and outstanding manner (Eshet & Harpaz, 2021). Organizational excellence encompasses a set of high-level behaviors, abilities, and intellectual and cognitive skills that individuals working in organizations possess (López-Cabarcos et al., 2022). These skills and knowledge allow individuals to excel, surpass organizational standards, and provide innovative, original, and creative ideas and products (Eshet & Harpaz, 2021). It transcends fulfilling minimum requirements and means passing established goals and norms. Excellence, innovation, and continuous improvement are qualities of an excellent organization (Afsharian & Bogetoft, 2020). It embraces many aspects, such as financial results, operational efficiency, customer satisfaction, and employee engagement. Organizations that have always practiced organizational excellence stand out from their competitors and show that they are better than the others. People even give them prizes for exceptional achievements (Ellemers, 2021). In practice, such performance frequently comes from planned strategy and action, a superior culture, and constant learning by doing (Zahraa & Alwan, 2023). By attaining organizational excellence, the organizations can set themselves apart, obtain a competitive edge, and achieve long-term sustained success (Al et al., 2020).

Established organizational excellence models like The Deming Prize (the 1950s), The Malcolm Baldrige National Quality Award (1987), and The EFQM Excellence Model (1992) have gone through several substantial stages that have led to the emergence of nuanced organizational performance indicators for competitiveness and efficiency. Organizational excellence is continuously upgraded through government and private sectors like the Dubai Government Excellence Program, Six Sigma programs for continuous improvement, and Lean management methodologies to build on those achievements. The common goal for these varied initiatives is leadership development and working

cultural transformation that enables organizations to ascend to advanced levels in their continuous journey towards success and pioneering. An organization's sustainable success and growth often manifest through a culture of excellence that values outstanding performance across key areas. Organizational excellence is a systematic method that enables an organization to stay ahead of the performance curve and achieve the highest level of proactiveness, flexibility, and readiness for the future. Once integrated into the organizational culture, it can create holistic practices and strategies that improve competitive advantages and performance (Al-Dhaafri et al., 2016). Therefore, one of the sub-objectives of this study is to investigate the impact of organizational excellence on key performance indicators. This aim is founded on prior studies that examined similar correlations using a variety of samples, models, and methodologies (Al-Dhaafri et al., 2016; Antony & Bhattacharyya, 2010; Carvalho et al., 2021; Dhaafri et al., 2014; Ooncharoen & Ussahawanitchakit, 2008; Singa et al., 2020) that concluded that organizational excellence have a significant and positive impact on performance of the organization.

To build on this block further, this paper assumes that for organizations to achieve excellence, they must be high-performing and continuously working to maintain an excellence status. This assumption follows (Antony & Bhattacharyya, 2010), who established segregation between organizational performance and excellence. In other words, this implies that the organization enacted a culture centered around excellence rather than merely focused on achieving good performance. Building on the EFQM excellence model, which states that businesses performing 60% or more in their metrics can be referred to as excellent, this further assumes that solid performance is a prerequisite for excellence and that organizational excellence depends upon the interconnection among the key performance factors (Saeed Mohamed et al., 2018; Singa et al., 2020). Organizational excellence can create a sequence of superior performance reactions that lead to a thriving organization, and it all starts with employees.

Hence, the current research aspires to achieve its objective of investigating the impact of information technology on achieving organizational excellence by selecting key performance factors as dimensions for measuring organizational excellence. More specifically, it investigates how organizational excellence influences the strength of the relationship between four key performance dimensions: employees, customer relations, product/service, and profitability as previous literature identified these variables as crucial success factors that enable the implementation of excellence (Aquilani et al., 2017; Elsafty & Seddek, 2022; Kumar & Sharma, 2017).

2.2.1. Employee Performance

Among the essential components of digital transformation is human capital, which constitutes 40% between the service provider, administrators, solution developers, and innovators (*Ministry of Transport, Communications and Information Technology*, 2021). The digital economic program recognizes that these aspirations cannot be accomplished without human capital, as new information technology can improve human resource efficiency and enhance the performance of enterprises (Törstena et al., 2020). Therefore, to accelerate the digital transformation, the target plan aims to equip the labor force with the necessary technological skills and efficiency to build a solid foundation for a digital society responsive to technical changes.

These initiatives are crucial since employee performance is seen to have the most significant impact on organizational excellence in comparison to the influence of other organizational factors (Elsafty & Seddek, 2022; Saeed Mohamed et al., 2018). An organization must ensure that their human capital,, from top management to teams and followers,, is fully maximized to achieve excellence. Their efficiency and productivity must be integrated within the excellence culture. Therefore, successfully implementing this culture requires employees across different management levels to be fully engaged, starting from leadership. As (Akpaprep et al., 2019; Antony & Bhattacharyya, 2010; Aquilani et al., 2017; Diamantidis & Chatzoglou, 2018; Singa et al., 2020) found that leadership role in achieving excellent performance and growth of an organization cannot be overemphasized. They demonstrated that

adequate motivation and a suitable job environment with top management commitment and support to excellence substantially impact job performance. Then, as leaders are fully immersed in the excellence culture, employee performance will fall in line with (Akpa et al., 2021) research indicating that employees' performance increases when they share the same norms and values as the organizations.

Therefore, the relationship between organizational excellence and employees' efficiency and productivity is multifaceted and an essential aspect of understanding the internal dynamics of organizations. Organizational excellence is the outcome of effective management that achieves the organization's goals. Management, who is committed to the excellence performance principles, recognizes that to advance employees' capabilities, all necessary resources need to be deployed. They recognize that to excel, they must maintain a constant pursuit of maximum efficiency and productivity among their employees who possess the needed skills and knowledge to incrementally become more excellent.

Moreover, according to (Saeed Mohamed et al., 2018; Shirvani & Javad Iranban, 2014), organizational excellence positively and significantly impacts human capital productivity. According to them, the practices born from adherence to excellence principles help increase employee performance to deliver productivity for the organization and fast-track the movement toward organization goals. More specifically, outstanding organizational performance often starts with a strategic vision that sets goals and promotes excellence in all aspects of the business. The achievement of such a vision is accompanied by an incentive system that motivates employees to contribute by improving their performance and increasing their productivity (Elsafty & Seddek, 2022). The rewards and recognition provided by the organization in its aspiration to achieve outstanding performance can positively influence an employee's desire to achieve organizational goals efficiently by linking the effectiveness of operations with the employee management performance system.

Furthermore, exceptional organizational performance often manifests through employees' professional development and an improved work environment. When an organization excels, it motivates employees to enhance their skills, utilizes opportunities for professional development, and encourages effective participation in further improvement processes. Employees can take the initiative to engage with advanced digital technology that can increase their performance or at least show positive responses in terms of desire and commitment when introducing new technology that promotes positive engagement with tasks and enhances individual productivity. Moreover, motivating employees by achieving outstanding performance.

Information technology can improve organizational communication and collaboration (He et al., 2021). Electronic communication tools like email, instant messaging, and online collaboration platforms provide efficient means for employees to communicate and exchange information and ideas, which in turn can be an additional incentive to improve performance and increase their productivity (Pokrovskaja et al., 2021). Numerous scientific studies have supported this hypothesis in various Arab environments near Oman (Raudeliuniene et al., 2021). Most of these studies concluded that properly using information technology enhances collaboration and improves the performance of teams and individuals within organizations. On the other hand, organizations must consider information technology's challenges and potential risks (Barhate et al., 2022). Despite its numerous benefits, organizations may face challenges regarding information security, data protection, and employee training on using new technology (Mijwil et al., 2023). Therefore, organizations must take necessary measures to address these challenges and ensure information technology's effective and secure use.

The claims mentioned above are compatible with Adams's 1963 equality theory, which states that organizational excellence moves directly to employee satisfaction, and reveals the significant role information technology plays in strengthening this direction. It is essential to understand that to achieve outstanding performance levels, there must be adequate coordination flow from the higher level of management that flows smoothly among the lower-level teams and followers (Singsa et al., 2020).

Such flow can run more smoothly by providing all the necessary requirements to establish an integrated system that ensures the organization's work and use of information technology. By harnessing information technology tools and resources, employees can have the momentum and satisfaction to maintain excellence and strengthen their efforts, talent, and skills. In this context, an organization that excels in achieving high levels of performance, quality, and effectiveness in all aspects of its work can foster team spirit and motivate its members to achieve their goals more efficiently. Thus, organizational excellence can positively and significantly enhance employee productivity, streamline workflows, and innovative problem-solving by providing robust hardware and software solutions coupled with proficient communication networks.

2.2.2. Customer Relations

Customers are another vital dimension in the sequence of excellence (Singsa et al., 2020). This culture ensures that to achieve outstanding performance and enhancement, there must be a focus on the customers, where technology plays a pivotal role in fostering customer-centric innovation (Singsa et al., 2020). This strategic focus on customer-centric innovation attracts new customers and enhances retention rates, ultimately contributing to organizational success and profitability. Organizational results and goals are usually manifested through their relationship with their customers. First, they can obtain new customers since some are attracted to an organization's commitment to excellence. Also, a strategic pursuit for excellence becomes a factor in building an organization's reputation and providing quality services, which enhances the chances of retaining existing customers. Second, customers signify to the organization how much resources to devote to achieve desired outcomes (Sethibe & Steyn, 2016).

Studies have shown that organizational excellence positively impacts customer and societal indicators (Aldarmaki et al., 2023). Organizations that achieve excellent performance often have a strategic direction focused on understanding customer needs and meeting them effectively, which contributes to enhancing loyalty among existing customers and positively influences retention. In addition, achieving outstanding performance contributes to attracting new customers, as the reputation associated with excellence is a vital factor in customer acquisition processes. New customers look to organizations that provide high-quality services and perform excellently. We can conclude that organizational excellence can positively and significantly impact customer retention and attraction by leveraging information technology tools such as data analytics and digital platforms to understand and anticipate customer needs, tailoring products and services to enhance customer relations.

2.2.3. Service and Product Diversity

The customer and information technology chain reaction also creates another sequence in organizational excellence performance through continuous improvements and high standards in services and / or products provided (Rumanti et al., 2023; Sethibe & Steyn, 2016). However, these high standards lead to higher customer expectations, especially for service businesses. Technology is widely available at our fingertips; self-services have become the norm, and big data analytics has forever transformed customers' mindset towards service delivery. Customers demand services that cater to their individual needs, which further raises the need to continuously upgrade and diversify services to engage and satisfy customers to outperform competitors (D'Emidio et al., 2014).

However, this should not be seen as an immediate threat to organizations that excel. Achieving outstanding performance can direct investments and efforts toward developing new and innovative services. Organizations can stay ahead of the competition by prioritizing innovation and utilizing information technology as a medium for change, penetrate markets, and maintain a competitive edge (Mgunda, 2019). This suggests that an organization that has excellence becomes the core value of its culture, prioritizing the innovation and adoption of new or improved services to witness outstanding results (Jankal, 2014). Organizations that excel recognize that innovation is a vital variable in achieving and sustaining excellence (Neely & Hii, 1998) and recognize that information technology (IT) is among the relevant factors assisting the business to meet customer-increasing demands by utilizing its tools to

improve existing products and services or develop new ones continuously.

Excellent organizational performance appears because of effective management and dedication to continuous improvement, which contributes to building a solid foundation for providing diverse services. It appears that achieving excellence constitutes an essential basis for achieving diversification in services, which strengthens the organization's position in the market and contributes to comprehensively meeting customer expectations. Thus, we can suppose organizational excellence can positively and significantly impact service diversity.

2.2.4. Profitability

Finally, as the sequence of excellence started with excellence in employee performance and flow through meeting customer needs and providing high-quality services, it will eventually end with outstanding financial results. All these series of performance acts directly contribute to enhanced profitability as these institutions possess a deep understanding of customer needs and excel in delivering services that meet those needs, thereby fostering customer loyalty and contributing to revenue growth. Moreover, achieving outstanding performance can open new marketing opportunities and expand the customer base, enhancing the organization's financial effectiveness. This relationship between excellence in performance and profitability is considered an essential axis for achieving sustainable financial success in the business market. When studying the impact of adopting excellence models (EM) on the performance of organizations, (Kiitam and Tammaru, 2012) found a positive correlation between the use of excellence models and financial performance. Finally, we can suppose that Organizational excellence can positively and significantly impact a firm's financial performance.

In essence, information technology has a definite impact on improving organizational performance and can catalyze organizational excellence. It enhances organizational management processes, decision-making, communication, and collaboration (Wahyoedi et al., 2023). Within the telecommunication industry, Information technology plays a crucial role in telecommunication enterprises, enhancing efficiency and stability through developing and implementing management decisions aimed at being competitive (Shaislamova, 2021). It plays a crucial role in supporting a telecommunication company's agility to adapt to changing market needs, providing advantages such as early detection of changes and exploration of solution options (Safitri et al., 2022).

However, organizations must deal cautiously with the challenges associated with this technology and develop effective strategies to address them. This requires further research and analysis better to understand the impact of information technology on organizational performance and to maximize its benefits in the modern workplace. This study sheds light on the impact of information technology on achieving organizational excellence in telecommunications companies. Oman Telecommunications Company was chosen for its widespread presence in Oman.

In this study, the authors have formulated the following primary and sub-hypotheses for examination:

Primary Hypothesis: Information technology significantly impacts achieving organizational excellence in telecommunications companies in Oman.

H1: There is a significant impact of information technology usage on the speed of task completion as one dimension of organizational excellence in Omantel Telecommunications Company

H2: Information technology usage significantly enhances employee productivity as one dimension of organizational excellence in Omantel Telecommunications Company.

H3: There is a significant impact of information technology usage on diversifying the services provided by Omantel Telecommunications Company as one dimension of organizational excellence.

H4: Information technology usage significantly impacts the company's ability to retain current customers and attract new ones as one dimension of organizational excellence in Omantel Telecommunications Company.

H5: Information technology usage significantly impacts the company's profitability as one dimension of organizational excellence in Omantel Telecommunications Company.

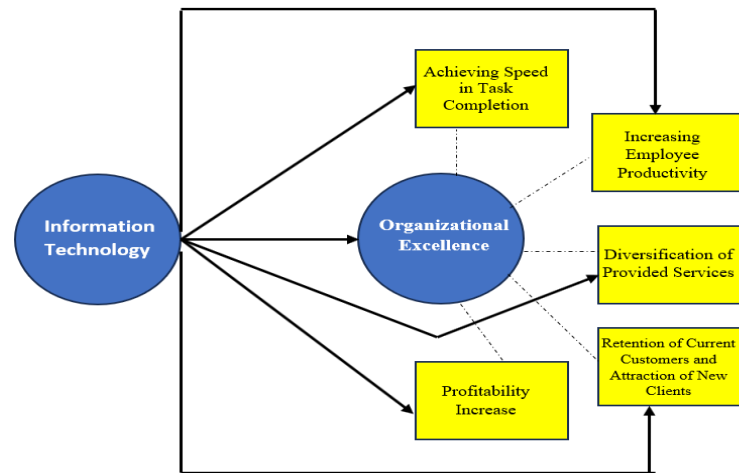


Fig.1: Conceptual Framework

3. Research Methodology

An all-encompassing approach will be utilized to tackle the techniques for assessing the test reliability, biases, and statistical presumptions that underlie the analysis. Initially, the reliability of the data and measurements will be evaluated using known methodologies, such as Cronbach's alpha, which measures internal consistency. A meticulous data collection procedure will be utilized to minimize biases, which will involve incorporating a wide range of sources and using random sampling methods to guarantee a sample that accurately represents the population. The analytical method used for the study included ANOVA, a statistical technique designed to analyze which variables are connected. ANOVA is a significant instrument for making comparisons of means in several groups, enabling us to assess variations between these groups if they are statistically meaningful. Since the differences among these groups may be considered statistically significant, it can be suggested that changes in the independent variable(s) have led to variances in such a way. As a general rule, whenever an ANOVA results in a statistically significant conclusion, it indicates at least one group variation concerning the others. Others say post-hoc tests can help establish which group or groups are showing high differences. By allowing us to structure patterns and differences that shape general research findings, methodological orientation enhances our understanding of factors' role in the study.

3.1. Data Instrument

A questionnaire was designed and distributed to a sample of employees in Omantel Telecommunications company in the Sultanate of Oman. The questionnaire used in this study was adopted based on previous studies, with minor modifications to fit the research environment (Mohamed & Abdelkader, n.d.; Hasan, 2022; Tallon et al., 2019; Aloqaily, 2022). Firstly, the theoretical foundations of information technology will be discussed. Secondly, an introduction to studying organizational excellence requirements in organizations and determining the main impact parameters. Thirdly, A field study on the impact of mobile information technology on achieving organizational excellence in telecommunications companies on Omantel telecommunications company in the Sultanate of Oman. The data was collected using a structured questionnaire, and the data type was quantitative. The questionnaires were distributed to the targeted organization via link. The questionnaire list was designed to ensure the questions were clear and straightforward, enabling the respondent to comprehend their purpose distinctly. The questionnaire list was divided into two groups of questions:

- 1) First group: Measuring the use of information technology, encompassing statements from (1 to 10).
- 2) Second group: Measuring exceptional performance achievement, including the following dimensions:
 - a. First dimension: Examine the speed in task completion, covering statements from (11 to 15).
 - b. Second dimension: Examine employee productivity, covering statements from (16 to 20).
 - c. Third dimension: Examine the diversification of provided services, covering statements from (21 to 25).
 - d. Fourth dimension: Examine retaining current customers and attracting new ones, covering statements from (26 to 30).
 - e. Fifth dimension: Examine the profitability rating, covering statements from (31 to 36).

The researchers utilized a five-point Likert scale to express the degrees of agreement, assigning them the following ascending values:

Table 1: Shows the Agreement Scores for the Questionnaire list

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
5	4	3	2	1

3.2. Sampling Techniques

We have carefully crafted our research approach to thoroughly investigate the influence of information technology (IT) on attaining organizational excellence at Omantel Telecommunications Company in the Sultanate of Oman. A combination of stratified and random sampling approaches is used for a representative company sample. This involves categorizing participants based on relevant variables such as job responsibilities and departments. This technique comprehensively comprehends the varied viewpoints and encounters associated with IT adoption across various organizational levels. The target demographic consists of personnel from different levels and departments directly involved in or affected by IT activities, allowing for a comprehensive understanding of the organizational environment. The selection criteria for inclusion are precisely and methodically established, with a focus on roles that are essential in the integration of IT and organizational excellence. To ensure the strength and reliability of our results, we have determined the appropriate sample size by doing a power analysis. This analysis considers aspects such as the variability within the population and the level of confidence we aim to achieve. This guarantees that the selected sample size is statistically valid, improving our study results' dependability and applicability. Thus, the researchers selected a simple random sample of one hundred twenty (120) employees from the General Administration of Omantel Telecommunications Company. One hundred ten (110) valid questionnaires were retrieved for statistical analysis (see Figure xxxx).

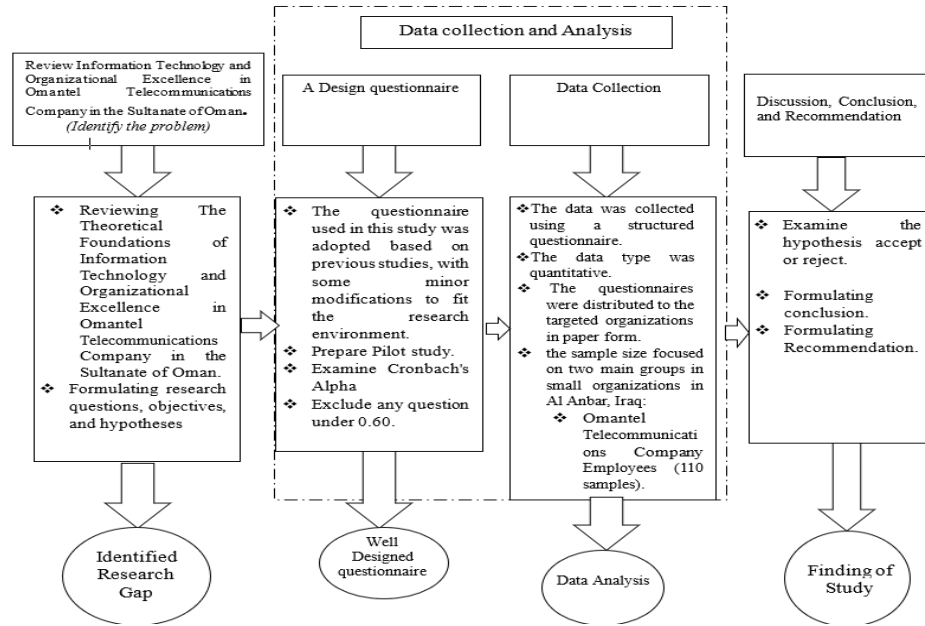


Fig.2: Research Methodology

3.3. Pilot Study

According to Creswell 2008, researchers can determine the respondents' ability to complete the questionnaire and understand the posed questions by conducting a pilot test on research instruments. This process also allows for evaluating the appropriateness of operational definitions and research methodology (Donald et al., 2008). The primary objective of the pilot study is to assess the feasibility of the questionnaire's questions. Evaluating the clarity and comprehensibility of the questionnaire elements among most participants is paramount. In the context of this study, a pilot study was conducted with the participation of twelve employees. The pilot study was also utilized to enhance the understanding of the data collection procedures. The preliminary results of the pilot study revealed the necessity for only minor adjustments to two technical questions, leading to their exclusion from the questionnaire. The Cronbach's Alpha results indicated that based on the mentioned results, most questions were clear and acceptable to the targeted sample. Through the previous table, researchers found that the Cronbach's alpha coefficient ranged between 0.960 and 0.661. These results indicate that the questionnaire sets used in the study exhibit an acceptable level of reliability, surpassing the statistically accepted value suggested by most specialized researchers, which should be greater than 0.60. As a result, the researcher concludes that there is internal consistency among all the questionnaire elements, confirming its suitability as a study tool.

Table 2: Variables impacting organizational excellence: Cronbach's alpha analysis

The Variables	Cronbach's Alpha Value	Number of Questions
Information Technology Usage	.8660	10
Dimensions of Achieving Organizational Excellence		
Achieving Speed in Task Completion	.7920	5
Increasing Employee Productivity	.6820	5
Diversification of Provided Services	.7380	5

Retention of Current Customers and Attraction of New Clients	.6610	5
Profitability Increase	.7620	6
Overall Organizational Excellence Achievement Variable	.9600	26

4. Results and Discussion

This section illuminates the analysis of data and outcomes obtained from the field study conducted at Omantel Telecommunications Company. It specifically underscores the factors linked with Information Technology and its potential impact on achieving organizational excellence. Moreover, it will provide recommendations based on these findings and analyses to offer strategic suggestions to enhance performance and efficiency within this critical sector. Based on the questionnaire results, the researcher divided the results and analysis section of the study into two primary parts:

4.1. Descriptive Statistics

This section of the research aims to compute descriptive statistics (mean, standard deviation, relative values) for each variable among the research variables. This table shows that the overall mean of all the studied variables exceeds the acceptable mean of /3/. These results indicate that the respondents' answers to all the studied variables tend to agree.

Table 3: Variables Impacting Organizational Excellence: Descriptive Statistics

No.	The Variables	Mean	Standard Deviation	Relative Values
1	Information Technology Usage	3.575	0.429	72.80
2	Achieving Speed in Task Completion	3.747	0.436	74.94
3	Increasing Employee Productivity	3.565	0.420	71.30
4	Diversification of Provided Services	3.656	0.406	73.12
5	Retention of Current Customers and Attraction of New Clients	3.650	0.429	73.00
6	Profitability Increase	3.640	0.445	72.80
7	Overall Organizational Excellence Achievement Variable	3.634	0.391	72.68

4.2. Testing Research Hypotheses

The present study seeks to examine the influence of Information Technology on enhancing performance within telecommunication companies, mainly through a field study at Omantel Telecommunications Company in the Sultanate of Oman. The researchers have devised a series of hypotheses, and this section will elucidate their acceptance or rejection. These hypotheses will support the researchers in offering recommendations founded on empirical evidence within the scope of the research. The following are the results of testing the hypotheses for the study area:

H1: There is a significant impact of information technology usage on the speed of task completion as one dimension of organizational excellence in Omantel Telecommunications Company

The table (4) below reveals the correlation analysis between the independent variable x and the dependent variable y1. The correlation coefficient is (0.716), signifying a robust positive relationship between the variables. ANOVA analysis shows the model's reliability to test the first sub-hypothesis with the calculated (F) value of (113.374) exceeding the tabulated value of (3.89) with a significance level of (0.000) less than (0.05), indicating high confidence. The coefficient of determination (.5120) signifies that 51.2% of the company's task completion speed is attributed to Information Technology usage, while unaccounted factors influence the rest. Furthermore, the previous table shows that Information Technology usage significantly affects task completion speed in the company. The Beta value for this variable is (.7160), indicated by the computed and significant (t) value of (10.648),

surpassing the tabulated Z-value of (2.58) at a significance level of (0.05). Moreover, the significant slope (B) value equals (.7280). Based on these findings, we accept the first alternative hypothesis: Information technology use significantly impacts the speed of achieving task completion as an aspect of organizational excellence in Omantel Telecommunications Company.

Table 4: The correlation analysis between the independent variable x and the dependent variable y1

DV	IV	significance level	B Value	Beta	T	F	R ²	R
Speed Of Task Completion	Information Technology	0.000	0.728	0.716	10.648	113.374	0.542	0.716

H2: Information technology usage significantly enhances employee productivity as one dimension of organizational excellence in Omantel Telecommunications Company.

Table (5) demonstrates that the correlation analysis between the independent variable x and the dependent variable y2 reveals a correlation coefficient of (0.878), indicating a robust positive relationship between the variables. The ANOVA table attests to the model's reliability in testing the second hypothesis. This is evidenced by the high calculated (F) value of (355.213), surpassing the tabulated value of (3.89), and the significance level (0.000) lower than (0.05), ensuring a high confidence level. Moreover, the coefficient of determination (.7670) indicates that 76.7% of the variations in enhancing employees' productivity in the company can be attributed to Information Technology use, while unaccounted factors influence the remainder. The previous table reveals that Information Technology usage significantly impacts increasing employee productivity in the company. The Beta value for this variable is (.8760), indicated by the computed and significant (t) value of (18.847), exceeding the tabulated Z-value of (2.58) at a significance level of (0.05). The slope's (B) value is significant and equals (.8580). Therefore, we accept the second alternative hypothesis: Information Technology use significantly impacts employee productivity as an aspect of organizational excellence in Omantel Telecommunications Company.

Table 5: The correlation analysis between the independent variable x and the dependent variable y2

DV	IV	significance level	B Value	Beta	T	F	R ²	R
Employee Productivity	Information Technology	0.000	0.878	0.859	17.450	304.486	0.736	0.859

H3: There is a significant impact of information technology usage on diversifying the services provided by Omantel Telecommunications Company as one dimension of organizational excellence.

From Table (6), the correlation analysis between the independent variable, x, and the dependent variable, y3, reveals a correlation coefficient of (0.859), indicating a robust positive correlation between the variables. The relationship between them is direct. ANOVA analysis underscores the model's robustness in testing the third sub-hypothesis, evident from the significantly high computed (F) value of (304.086), surpassing the tabulated (3.89) value, with a significance level of (0.000) less than (0.05), ensuring a high confidence level. The coefficient of determination (.7360) implies that 73.6% of the variations observed in diversifying the services provided by the company can be attributed to the use of Information Technology, leaving the remainder influenced by unaccounted factors. As observed in the previous table, Information Technology utilization significantly impacts the company's diversity of services. The Beta value for this variable is (.8590), with a significant (t) value of (17.450), higher than the tabulated Z-value of (2.58) at a significance level of (0.05). The slope's (B) value is significant and equals (.8780). Therefore, we accept the third alternative hypothesis: Information Technology significantly diversifies the services provided by Omantel Telecommunications Company as a dimension of organizational excellence.

Table 6. The correlation analysis between the independent variable x and the dependent variable y3

DV	IV	significance level	B Value	Beta	T	F	R ²	R
Diversification of Provided Services	Information Technology	0.000	0.878	0.859	17.450	304.486	0.736	0.859

H4: Information technology usage significantly impacts the company's ability to retain current customers and attract new ones as one dimension of organizational excellence in Omantel Telecommunications Company.

From Table (7), the correlation analysis between the independent variable, x, and the dependent variable, y4, demonstrates a correlation coefficient of (0.745), signifying a robust positive correlation between the variables. This relationship is direct. The ANOVA analysis confirms the model's stability in testing the fourth sub-hypothesis, indicated by the notably high computed (F) value of (134.333), exceeding the tabulated (3.89) value, with a significance level of (0.000) less than (0.05), ensuring a high level of confidence. The coefficient of determination (.5540) implies that 55.4% of the variations observed in improving the telecommunications company's capability to retain existing customers and attract new ones can be attributed to Information Technology. Unaccounted factors influence the rest. As indicated in the preceding table, information technology usage significantly enhances telecommunications companies' ability to retain and attract new customers. The Beta value for this variable is (.7450), with a significant (t) value of (11.590), surpassing the tabulated Z-value of (2.58) at a significance level of (0.05). The slope's (B) value is significant, standing at (.7050). Therefore, we reject the null hypothesis and accept the fourth alternative hypothesis: Information Technology significantly improves the telecommunications company's capability to retain existing customers and attract new ones, serving as a dimension of organizational excellence at Omantel Telecommunications Company.

Table 7: The correlation analysis between the independent variable x and the dependent variable y4

DV	IV	significance level	B Value	Beta	T	F	R ²	R
Retention of Current Customers and Attraction of New Clients	Information Technology	0.000	0.705	0.745	11.590	134.333	0.554	0.745

H5: Information technology usage significantly impacts the company's profitability as one dimension of organizational excellence in Omantel Telecommunications Company.

Table (8) shows that the correlation analysis for the relationship between the independent variable x and the dependent variable y5 reveals a correlation coefficient of (0.824). These results indicate a strong correlation between the variables, with a negative correlation direction. The ANOVA table demonstrates the model's stability for testing the third sub-hypothesis, as evidenced by the high computed value of (228.099), exceeding the tabulated value of (3.89). The significance level (0.000) is less than (0.05), signifying a high confidence level. Moreover, the determination coefficient value (.6760) implies that we can attribute 67.6% of the variations in increasing the company's profitability to information technology. The remaining percentage is attributed to factors that were not considered. The previous table also illustrates that the utilization of information technology influences the increase in the company's profitability. The Beta coefficient for this variable is (.8240), and the computed t-value is (15.103), exceeding the tabulated Z-value of (2.58) at a significance level of (0.05). Additionally, the slope coefficient B is significant and equals (.8300). Therefore, we accept the fifth alternative hypothesis, confirming a significant impact of information technology usage on increasing the company's profitability. These results stand as one dimension of organizational excellence at Omantel Telecommunications Company.

Table 8. The correlation analysis between the independent variable x and the dependent variable y5

DV	IV	significance level	B Value	Beta	T	F	R ²	R
Profitability Increase	Information Technology	0.000	0.830	0.824	15.103	228.099	0.679	0.824

Primary Hypothesis: Information technology significantly impacts achieving organizational excellence in telecommunications companies in Oman.

Table (9) indicates that the correlation analysis for the relationship between the independent variable x and the dependent variable y shows a correlation coefficient value of (0.884). These results suggest a strong correlation between the variables, with a negative correlation direction. The ANOVA variance analysis table demonstrates the robustness of the model for testing the primary hypothesis, given the high calculated (F) value of (384.262) compared to the tabulated value of (3.89). The significance level of (0.000) is less than (0.05), indicating a high confidence level. Additionally, the determination coefficient value (.7840) suggests that we can attribute 78.4% of the variations in achieving organizational excellence in the company to information technology. The remaining percentage is attributable to factors not considered.

Furthermore, the previous table illustrates that using information technology significantly impacts achieving organizational excellence in the company. The Beta coefficient for this variable is (.8840), with a calculated (t) value of (19.603), which is higher than the tabulated Z value of (2.58) at a significance level of (0.05). The slope value (B) is significant and equals (.8060). Therefore, we accept the Primary hypothesis, affirming the significant effect of using information technology in achieving organizational excellence in Omantel Telecommunications Company.

Table 9: The correlation analysis between the independent variable x and the dependent variable y

DV	IV	significance level	B Value	Beta	T	F	R ²	R
Organizational Excellence	Information Technology	0.000	0.806	0.884	19.603	384.262	0.781	0.884

In light of the scholarly examination of the proposed hypotheses, it becomes evident that there is a close relationship between adopting information technology and achieving organizational excellence in Omantel Telecommunications Company. The first hypothesis indicates the impact of using information technology on the speed of task completion, while the second hypothesis is linked to enhancing employee productivity. The third hypothesis focuses on the influence of this technology in expanding the range of services provided. In contrast, the fourth hypothesis suggests its impact on the company's ability to retain and attract new customers. The fifth hypothesis relates to the influence of information technology on the company's profitability. In conclusion, the sixth hypothesis embodies the comprehensive relationship between information technology and achieving organizational excellence in Omantel, as illustrated in figure(10) below.

Table 10: Hypothesis status

Hypothesis		Status
Primary Hypothesis	Information technology significantly impacts achieving organizational excellence in telecommunications companies in Oman.	Accepted
Sub-hypothesis		
H1	There is a significant impact of information technology usage on the speed of task completion as one dimension of organizational excellence in Omantel Telecommunications Company.	Accepted
H2	Information technology usage significantly enhances employee productivity as one	Accepted

	dimension of organizational excellence in Omantel Telecommunications Company.	
H3	Information technology usage significantly impacts diversifying the services provided by Omantel Telecommunications Company as one dimension of organizational excellence.	Accepted
H4	Information technology usage significantly impacts the company's ability to retain current customers and attract new ones as one dimension of organizational excellence in Omantel Telecommunications Company.	Accepted
H5	Information technology usage significantly impacts the company's profitability as one dimension of organizational excellence in Omantel Telecommunications Company.	Accepted

4.3. Discussion

The comprehensive investigation conducted within the domain of information technology's (IT) impact on achieving organizational excellence in telecommunications companies has unveiled compelling insights and correlations. This research meticulously explored the significance of IT deployment in facilitating transformative changes within the Omantel Telecommunications Company, located in the Sultanate of Oman. The study took a descriptive-analytical stance, employing a systematic approach by administering a structured questionnaire to the company's workforce, with 110 meticulously analyzed responses through the SPSS 23 program. The findings of this applied inquiry have unveiled a spectrum of highly pertinent results. The study established a robust and unequivocal positive correlation between the utilization of information technology and organizational excellence through crucial performance dimensions. The results were parallel to those found by 2021; Mohammed Al-Adalah, 2018; Olu-Egbuniwe & Maeyouf, 2019; Wang et al., 2022), who found Information technology significantly improves organizational agility and productivity. In particular, the field study yielded the following significant results about organizational excellence dimensions:

a) Employee Performance:

- **Speed in Task Completion:** Information technology has a noteworthy impact on achieving task completion speed, representing one dimension of organizational excellence in Omantel Telecommunications Company. The correlation coefficient between the variables is 0.716, suggesting a robust negative correlation.
- **Employee Productivity:** Information technology significantly influences employee productivity, another dimension of organizational excellence. The correlation coefficient between the variables is 0.876, signifying a strong negative correlation.

These results are like those found by (Chavda & Shah, 2021; Nuskiya, 2018; Satria Wijaya et al., 2019; Sulistyawati & Bahrani, 2021; Yaw et al., 2018). Their research across various countries, industries, and settings indicated a significant impact of information technology on employee performance through increased productivity and satisfaction. Organizations that excel recognize such correlation and harness its outcomes to maintain their excellence standards.

- #### b) Diversification of Services:
- Information technology substantially impacts diversifying the services provided by Omantel Telecommunications Company, contributing to organizational excellence. The correlation coefficient between the variables is 0.859, indicating a strong negative correlation.

These results are similar to other studies (Aboal & Tacsir, 2018; Lei et al., 2021; Tereliansky & Zyabkin, 2020) that found the service industry to be the most benefactor from information technology and digitalization in general compared with good producing sectors through innovation. The use of digital technology brings about improvements in all aspects of service businesses, thus enabling them to achieve excellence by delivering innovative services with maximum utility.

- c) **Customer Retention and Attraction:** Information technology plays a significant role in the company's ability to retain current customers and attract new ones, constituting a crucial dimension of organizational excellence. The correlation coefficient between the variables is 0.745, reflecting a strong negative correlation.

These results suggest how information technology is pivotal in maintaining customer relationships. Through its varied components, businesses can satisfy current customers and attract new ones by enabling them to provide high-quality experiences and consequently enhance their organization's excellent reputation and loyalty formation (Acosta-Prado & Tafur-Mendoza, 2021; Park, 2020).

- d) **Profitability:** Information technology significantly influences the company's profitability, representing a critical dimension of organizational excellence. The correlation coefficient between the variables is 0.824, demonstrating a strong negative correlation.

Information technology can significantly impact profitability by enhancing competitiveness, cost savings, and new revenue streams (Bessen & Righi, 2019; Ji et al., 2019; Nygiyeva et al., 2021; Rahma et al., 2020).

Overall, using information technology substantially impacts achieving outstanding performance in Omantel Telecommunications Company. The correlation coefficient between the variables is 0.884, indicating a strong negative correlation.

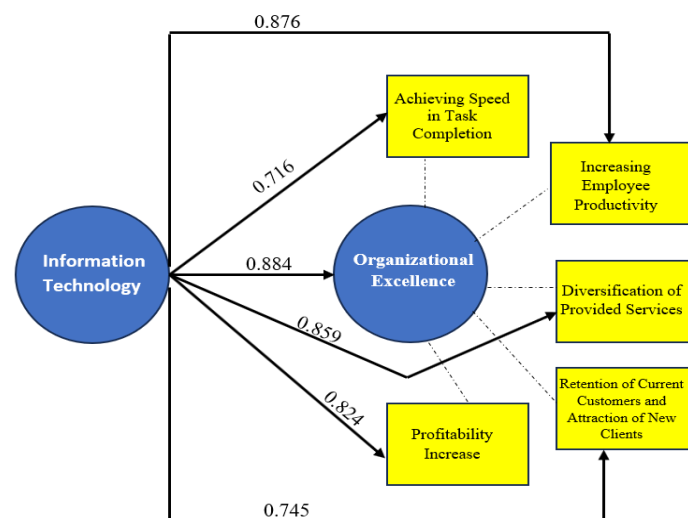


Fig.3: Correlation Results Among the Research Variables

5. Conclusion

The research conclusively demonstrates information technology's multifaceted catalyst role in accelerating Omantel's journey toward full-spectrum excellence, marked by process efficiency, human capital development, service quality, customer centricity, and profitability. This establishes IT as an invaluable operational enabler but, more importantly, a strategic transformer that allows telecom firms to set the pace rather than play catch-up in digital transformation. The integrated findings provide a benchmark for the region's telecom industry to frame long-term IT investment plans, strengthen technology leadership, and proactively adopt emerging applications like AI and cloud platforms as

adjuvants to fortify organizational health. On the academic front, future studies can enrich understanding by investigating comparative cases, identifying excellence barriers created by legacy systems, exploring cultural readiness factors, and longitudinal assessments.

This paper contributed to the current knowledge attempts to fill the gap identified in the literature and offers a complex theoretical framework to properly define and understand the interconnection between information technology and organizational excellence. Information technology catalyzes organizational excellence, enabling organizations to optimize their operations, foster innovation, and drive sustainable growth. By integrating technology with strategic management practices and a culture of continuous improvement, organizations can unlock new opportunities for success and thrive in an increasingly competitive landscape. Improving performance and developing or renewing institutions is no longer optional but has become mandatory for surviving and thriving. In this era, attention is paid to the issue of developing performance from a holistic and comprehensive perspective, primarily targeting the formation and strengthening of the most capable technology, which can play an influential and vital role in supporting and developing the performance of organizations.

Understanding the telecommunication sector's technological capacities is extremely important as its innovative services and infrastructure greatly impact the digital economy. While valuable insights were generated from this study, it also highlights the need for further research and analysis in the telecom industry, as there is a gap in understanding the specific challenges telecom companies face in addressing these trends. Research is needed to delve deeper into the strategies employed by telecom companies to manage IT investment growth and adapt to changing consumer expectations to be placed correctly in this new ecosystem.

6. Recommendations

Based on the study results and hypothesis testing, the researchers recommend the management of Omantel Telecommunications Company to:

- 1) Increase focus on using information technology in various company activities, as it is crucial in achieving organizational excellence. Develop technical capabilities across different company activities, utilize appropriate software for telecommunications companies, train employees on using new technological methods and modern software, and ensure full support from the management to develop modern technological methods in the company's operations.
- 2) Enhance and increase efforts to achieve organizational excellence in the company across its various dimensions. Achieve integration between these dimensions, including speed in task completion, increased employee productivity, diversification of services, the ability to retain current customers, attract new ones, and increase company profitability.
- 3) Emphasize the importance of attention and integration in all dimensions of organizational excellence in the company, as they play a crucial role in effectively achieving its goals.

References

- Aboal, D., & Tacsir, E. (2018). Innovation and productivity in services and manufacturing: The role of ICT. *Industrial and Corporate Change*, 27, 221–241. <https://doi.org/10.1093/ICC/DTX030>
- Acosta-Prado, J., & Tafur-Mendoza, A. A. (2021). *Influence of information and communication technologies on customer satisfaction and increase in the number of customers*. <https://doi.org/10.1108/VJIKMS-11-2020-0207>
- Akpa, V. O., Asikhia, O. U., & Nneji, N. E. (2021). Organizational culture and organizational performance: A review of literature. *International Journal of Advances in Engineering and Management*, 3(1), 361–372.
- Akparep, J. Y., Jengre, E., & Mogre, A. A. (2019). The Influence of Leadership Style on Organizational Performance at TumaKavi Development Association, Tamale, Northern Region of Ghana. *Open Journal of Leadership*, 8(1), 1–22. <https://doi.org/10.4236/ojl.2019.81001>
- Al Riyami, S. (2022, May 9). *استراتيجيات التحول الإلكتروني تستهدف خدمات اتصالات عالية الجودة في مختلف المحافظات*. جريدة عمان <https://www.omandaily.om/الاقتصادية/na/الاتصالات-عالية-الجودة-في-مختلف-المحافظات>
- Aldarmaki, S., Yaakub, K. B., & Adnan, A. A. Z. (2023). *Effect of Organizational Excellence on Factors of Organizational Performance in Dubai Freezones*. 8(2).
- Al-Dhaafri, H., Al-Swidi, A., & Al-Ansi, A. (2016). Organizational Excellence as the Driver for Organizational Performance: A Study on Dubai Police. *International Journal of Business and Management*, 11, 47. <https://doi.org/10.5539/ijbm.v11n2p47>
- Antony, J. P., & Bhattacharyya, S. (2010). Measuring organizational performance and organizational excellence of SMEs – Part 2: An empirical study on SMEs in India. *Measuring Business Excellence*, 14(3), 42–52. <https://doi.org/10.1108/13683041011074209>
- Aquilani, B., Silvestri, C., Ruggieri, A., & Gatti, C. (2017). A systematic literature review on total quality management critical success factors and the identification of new avenues of research. *The TQM Journal*, 29, 184–213. <https://doi.org/10.1108/TQM-01-2016-0003>
- Bessen, J., & Righi, C. (2019). Shocking Technology: What Happens When Firms Make Large IT Investments? *Economics of Innovation eJournal*. <https://doi.org/10.2139/ssrn.3371016>
- Bullini Orlandi, L., Ricciardi, F., Rossignoli, C., & De Marco, M. (2019). Scholarly work in the Internet age: Co-evolving technologies, institutions and workflows. *Journal of Innovation & Knowledge*, 4(1), 55–61. <https://doi.org/10.1016/j.jik.2017.11.001>
- Carvalho, A. M., Sampaio, P., Rebentisch, E., Carvalho, J. Á., & Saraiva, P. (2021). The influence of operational excellence on the culture and agility of organizations: Evidence from industry. *International Journal of Quality & Reliability Management*, 38(7), 1520–1549. <https://doi.org/10.1108/IJQRM-07-2020-0248>
- Chavda, V. N., & Shah, N. A. (2021). Impact of Information Technology on Job-Related Factors. In K. Kotecha, V. Piuri, H. N. Shah, & R. Patel (Eds.), *Data Science and Intelligent Applications* (pp. 137–144). Springer. https://doi.org/10.1007/978-981-15-4474-3_15
- D’Emidio, T., Dorton, D., & Duncan, E. (2014). *Service innovation in a digital world*. 55–62.
- Dhaafri, H. S. A., Yusoff, R. Z. B., & Swidi, A. K. A. (2014). The Relationship between Enterprise Resource Planning, Total Quality Management, Organizational Excellence, and Organizational Performance-the Mediating Role of Total Quality Management and Organizational Excellence. *Asian Social Science*, 10(14), Article 14. <https://doi.org/10.5539/ass.v10n14p158>

- Diamantidis, A. D., & Chatzoglou, P. (2018). Factors affecting employee performance: An empirical approach. *International Journal of Productivity and Performance Management*, 68(1), 171–193. <https://doi.org/10.1108/IJPPM-01-2018-0012>
- Elsafty, A., & Seddek, A. (2022). Investigating the Critical Success Factors of Excellence Model Implementation in the Public Sector “Egypt Government Excellence Award.” *International Journal of Social Science Studies*, 10(3), Article 3. <https://doi.org/10.11114/ijsss.v10i3.5459>
- Forum, W. E. (2024, January 1). *Strategic Intelligence | World Economic Forum*. Statagic Intelligence. <https://intelligence.weforum.org>
- Ikram, M., Ferasso, M., Sroufe, R., & Zhang, Q. (2021). Assessing green technology indicators for cleaner production and sustainable investments in a developing country context. *Journal of Cleaner Production*, 322, 129090. <https://doi.org/10.1016/j.jclepro.2021.129090>
- Jankal, R. (2014). The Role of Innovation in the Assessment of the Excellence of Enterprise Subjects. *Procedia - Social and Behavioral Sciences*, 109, 541–545. <https://doi.org/10.1016/j.sbspro.2013.12.504>
- Ji, P., Yan, X., & Yu, G. (2019). The impact of information technology investment on enterprise financial performance in China. *Chinese Management Studies*, 14(3), 529–542. <https://doi.org/10.1108/CMS-04-2019-0123>
- Kumar, V., & Sharma, R. (2017). Exploring critical success factors for TQM implementation using interpretive structural modelling approach: Extract from case studies. *International Journal of Productivity and Quality Management*, 21, 203. <https://doi.org/10.1504/IJPQM.2017.083774>
- Lei, Y., Guo, Y., Zhang, Y., & Cheung, W. (2021). Information technology and service diversification: A cross-level study in different innovation environments. *Inf. Manag.*, 58. <https://doi.org/10.1016/J.IM.2021.103432>
- Ministry of Transport, Communications and Information Technology. (2021). https://www.mtcit.gov.om/ITAPortal/Our_Projects/Our_Projects_List.aspx?svc=657&NID=120&Odt=37
- Mohammed Al-adaileh, R. (2018). IT Factors Influencing Organizational Excellence as Mediated by the Level of IT-Business Alignment: A Study of the Mining Sector in Jordan. *المجلة العلمية للإقتصاد و التجارة*, 48(1), 697–669. <https://doi.org/10.21608/jsec.2018.39051>
- Neely, A., & Hii, J. (1998). *Innovation and Business Performance: A Literature Review*.
- Nguyen, O. (2023). *Digital Economy and Its Components: A Brief Overview and Recommendations*.
- Nuskiya, A. F. (2018). The Effect of Information Technology on Employees’ Performance in the Banking Industry in Sri Lanka. Empirical Study Based on the Banks in Ampara District. *European Journal of Business and Management*. <https://www.semanticscholar.org/paper/The-Effect-of-Information-Technology-on-Employees%E2%80%99-Nuskiya/8d49085d05161c9a7650079c05e68fc1b0f2532e>
- Nygiyeva, A., Zhumaly, A., Soltanbayeva, A., Maksat, S., & Hamada, M. A. (2021). The Role of Management Information Systems and Technology on Business Profitability. *2021 IEEE International Conference on Smart Information Systems and Technologies (SIST)*, 1–4. <https://doi.org/10.1109/SIST50301.2021.9465905>
- Olu-Egbuniwe, J., & Maeyouf, F. W. B. (2019). The Effect of Information Technology on Organizational Agility and Productivity in Telecommunication Industry of Libya. *Information Systems & Economics eJournal*. <https://www.semanticscholar.org/paper/The-Effect-of-Information-Technology-on-Agility-and-Olu-Egbuniwe-Maeyouf/72a8b62fbf443319426ea31ae12a74b496828dad>

- Ooncharoen, N., & Ussahawanitchakit, P. (2008). Building organizational excellence and business performance of hotel business in Thailand: Effects of service culture and organizational characteristic. *International Journal of Business Research*, 8(3), 13–26.
- Park, Y. J. (2020). Development of a Revenue Model for Buyers in Co-Creation Environment. *International Journal on Advanced Science, Engineering and Information Technology*, 10, 578–584. <https://doi.org/10.18517/ijaseit.10.2.7126>
- Rahma, D., Dewi, T. B. T., Indrawan, N. A., & Shihab, M. R. (2020). The Impact of Information Technology on Business Model Changes in Print Mass Media Industry: Case Study of Surat Kabar Republika. *2020 International Conference on Information Technology Systems and Innovation (ICITSI)*, 24–29. <https://doi.org/10.1109/ICITSI50517.2020.9264962>
- Rumanti, A. A., Rizana, A. F., & Achmad, F. (2023). Exploring the role of organizational creativity and open innovation in enhancing SMEs performance. *Journal of Open Innovation: Technology, Market, and Complexity*, 9(2), 100045. <https://doi.org/10.1016/j.joitmc.2023.100045>
- Saeed Mohamed, M., Khalifa, G. S. A., Nusari, M., Ameen, A., Hamoud Al-Shibami, A., & El-Shazly Abu-Elhassan, A.-E. (2018). Effect of Organizational Excellence and Employee Performance on Organizational Productivity Within Healthcare Sector in the UAE. *Journal of Engineering and Applied Sciences*, 13(15), 6199–6210. <https://doi.org/10.36478/jeasci.2018.6199.6210>
- Safitri, E. M., Pribadi, A., Agussalim, Wati, S. F. A., Wulansari, A., & Fitri, A. S. (2022). How IT Support a Telecommunication Company's Agility to Respond Changing Market Needs? : Literature Review. *IJCONSIST JOURNALS*, 3(2), Article 2. <https://doi.org/10.33005/ijconsist.v3i2.71>
- Satria Wijaya, I. G. N., Ayu Pratami, N. W. C., Yudiastra, P. P., & Yudi Arista, M. (2019). The Impact between the Use of Information Technology, User Ability on User Motivation and Employee Performance in the Koperasi Kuta Mimba. *2019 1st International Conference on Cybernetics and Intelligent System (ICORIS)*, 1, 23–28. <https://doi.org/10.1109/ICORIS.2019.8874894>
- Sethibe, T., & Steyn, R. (2016). Innovation and organisational performance: A critical review of the instruments used to measure organisational performance. *The Southern African Journal of Entrepreneurship and Small Business Management*, 8(1), Article 1.
- Shaislamova, M. (2021). ORGANIZATION OF INNOVATIVE ACTIVITIES IN TELECOMMUNICATION ENTERPRISES. *INNOVATIONS IN ECONOMY*. <https://doi.org/10.26739/2181-9491-2021-9-3>
- Shirvani, A., & Javad Iranban, S. (2014). Organizational excellence performance and human force productivity promotion: A case study in South Zagros Oil and Gas Production Company, Iran. *European Online Journal of Natural and Social Sciences*, 2(3(s)), Article 3(s).
- Singsa, A., Pamornmast, C., & Sriyakul, T. (2020). *The Impact of the Leadership, Organizational Excellence and the Enterprise Resource Planning on the Organizational Performance: A Case of SMEs in Thailand* (SSRN Scholarly Paper 3900511). <https://doi.org/10.2139/ssrn.3900511>
- Song, Z., Mishra, A. R., & Saeidi, S. P. (2023). Technological capabilities in the era of the digital economy for integration into cyber-physical systems and the IoT using decision-making approach. *Journal of Innovation & Knowledge*, 8(2). <https://doi.org/10.1016/j.jik.2023.100356>
- Sulistyawati, U. S., & Bahruni, B. (2021). The Role of Information Technology on Employee Performance in Universities at New Normal Life Order After Covid-19 Pandemic. *International Journal of Social Science and Business*, 5(2), Article 2. <https://doi.org/10.23887/ijssb.v5i3.34584>
- Telecom Review Arabia. (2023, June 1). عُمان الرقمية: بين النمو والإزدهار والمثابرة. Telecom Review Arabia. <https://www.telecomreviewarabia.com/articles/reports-coverage/3050-telecom-review-virtual-panel-e-oman-the-success-of-digital-transformation>

Tereliansky, P., & Zyabkin, A. S. (2020). Digital technologies and development of new services based on the housing services company. *E-Management*. <https://doi.org/10.26425/2658-3445-2020-1-50-58>

UNCTAD. (2019). *Digital economy report.: 2019 :: value creation and capture : implications for developing countries*. UN,. <https://digitallibrary.un.org/record/3833647>

Wang, Y., Peng, X., & Prybutok, V. (2022). The importance of information technology to organizational results within the Baldrige award. *Quality Management Journal*, 29(1), 3–17. <https://doi.org/10.1080/10686967.2021.2006584>

Yaw Obeng, A., & Boachie, E. (2018). The impact of IT-technological innovation on the productivity of a bank's employee. *Cogent Business & Management*, 5(1), 1470449. <https://doi.org/10.1080/23311975.2018.1470449>