

DRAFTING A DIGITAL TRANSFORMATION STRATEGY FOR PROJECT MANAGEMENT SECTOR - EMPIRICAL STUDY ON UAE

Mounir El Khatib¹,
Shikha Al Ali¹,
Ibrahim Alharam¹,
Ali Alhajeri¹
Gabriela Peneva²,
Yordanka Angelova²,
Mahmoud Shanaa²

¹School of Business & Quality Management, Hamdan Bin Mohammed Smart University, Dubai, UAE
m.elkhatib@hbmsu.ac.ae, ShikhaS.AliAli@gmail.com, I.alharam@live.com, Alharjri1997@icloud.com

²Faculty of Management, Technical University of Sofia, Bulgaria,
gabriela_peneva@tu-sofia.bg, jsa@tu-sofia.bg, Dr.mahmoud.shanaha@gmail.com

Abstract

It is without a doubt that the impact of digital transformation and disruptive technologies has impacted all industries globally. There is hardly any sector that is left untouched by this form of innovation. This is also true for the power sector, which is the industry targeted for this study. The power sector is crucial for human existence, and hence, it is the use of different kinds of technology that must be employed at the helm of its operations. These different kinds of technology are related to AI, Robotics, IoT, and Big Data. The major intention behind these technologies should be to pace up different projects managed in the industry. Therefore, the company selected for this project is Dubai Electricity and Water Authority (DEWA). It is a company that is involved with various technological projects ranging from smart grids to digital meters to managing customer data. By interviewing thirteen key people from the company, the study highlights the current status of technology and how it is being employed by different power sector companies. In the end, it has been deduced that the future of the power industry relies on its adaption of green energy generation, and hence, all the efforts of the companies should be directed toward producing green energy with the help of modern technology. Also, it was found that the use of AI can enhance the efficiency of the projects, making them less risky. Therefore, the use of AI ensures that the projects are less prone to risks and have a higher chance of success..

Keywords: *Project Management, Digital Transformation, Digital Disruption, Disruptive technologies, Machine learning, Artificial Intelligence*

JEL: *L, M, O*

1. Introduction

Digital transformation is gaining momentum across industries, driven by a wave of disruptive technologies influencing companies and businesses to get used to innovative working. As organizations strive to secure the benefits of digital disruption, the importance of strategic and robust practices of project management continues to increase (Wolff, Mikhieieva, and Nuseibah, 2021). In the field of project management, disruptive technology is significantly evolving, forcing project managers to be proactive in honing and developing technical skills to meet future, increasing demands (Ganzarain, 2021). According to Si and Chen (2020), disruptive technologies are being used by innovation to enhance the role of project management within the organization by boosting automation and higher efficiency. Cloud technology, for instance, provides flexibility and speed, IoT connects to data more efficiently, AI drives intelligence, and the resulting technological trio can make a significant transformation in project management (Ageron, Bentahar, and Gunasekaran, 2020).

It is anticipated that organizations are planning to adopt or have adopted a digital-first strategy with key technologies like APIs, cloud, mobile, and big data/analytics driving their digital transformation (Alt, Koleva, 2019). Likewise, non-IT companies are changing their services and products around digital capabilities bringing new technologies, undergoing cultural changes, and adapting agile workforce to excel in new changing digital reality (Templeton et al. 2019). Besides, digital transformation through collaborative work management software is aiding teams across departments to interact, connect and engage in real-time, reducing email clutter and time needed in the process. It is automating workflows and increasing coordination of project management tasks such as scheduling, helping project managers to focus on project delivery and strategy optimization. Lastly, it provides managers with the analytical techniques for making data-driven decisions to improve project outcomes (Leimstoll et al., 2018; Ahmed et al., 2020). Overall, the focus of this study is on the effects of AI and machine learning and other digital technologies in managing project risks and analyzes key digital transformations across different dimensions, with a focus on the project management industry.

2. Literature Review

The focus of this section is on the following key factors, business, technology, society, and industry, discussing how digital transformation initiatives have an effect on improving organization efficiency, and help in the management of the project.

At present, digital transformation is taking place across the industry, and disruptive innovations, including the internet of things (IoT), artificial intelligence (AI), and cloud solutions, are emerging in business sectors while displacing other technologies. This significant change in business stimulates innovation in project management (Zubizarreta et al., 2020). AI is found to aid digital channels helping both consumers and companies and is planning an important role in project management. In the context of pricing models, fixed pricing contracts estimate the amount of pending work to be completed. Emphasizing changing technology can help project managers predict the pricing planned beforehand, as it is convenient for managers to predict if assigned work is completed on a set deadline (Müller & Turner, 2010; Harold, 2021). Likewise, the milestone model of pricing help in reducing the chances of fraud between the client and service provider. However, with digital transformation, a milestone in project management can help to measure the progress toward the final goal and is used for signaling posts for the start or end of the project date (Kerzner, 2019; Barthel and Hess, 2019). In project management, it is found that digitalization has helped businesses to create products and services using innovation and effective management of resources, which help to unnecessary product costs (Pratt, 2020). Moreover, it has been discussed that efficient project management, including tools, tactics, and strategies supported by technologies, is significant in the delivery mechanisms of products and services (Ding et al., 2014).

Likewise, technology is also an important construct in the business world and provides the organization with a much-needed competitive advantage. Project management has a significant link in aligning business strategy with technology management. In project management, the application of technology can help ensure success and may reduce risk related to the project (San Cristóbal et al., 2018). The study by Lundin and Lund (2016) showed that the use of technology in managing projects has been positive for the project managers with respect to cost management, scheduling, project strategy, and project structure. Additionally, technological innovation helps in projects with new processes and services and makes improvements and necessary adjustments (Walker, 2016). Similarly, the use of technology is found to be linked with quick access and friendly user experiences providing convenience for both client and the user. For instance, software like Proofhub is a scalable solution for managing the activities of a project, as it is simple and easy to use. With the help of this software, the project team can log

in to the single tool of project management for their project needs. Moreover, it is significantly helpful in terms of project planning and timeline to measure the planning process of the project. Besides using technological tools, the management of tasks can be made easy in a more organized and detailed way (Kashyap, 2022). In a similar context, it is found that collaboration tools, project tracking, information-gathering tools, software scheduling, and workflow automation are viewed to be useful in improving project management, lowering risks, bringing efficiency to work, and helping improve project development with synchronicity, making it simpler for project managers to manage their tasks (Sajad et al. 2016). Moreover, with increased automation and the transformation of technology, together with the introduction of cloud and AI, managing projects will be easy, efficient, quicker, and risk-free. Nevertheless, new technologies bring new risks; hence managers will need understanding and knowledge on dealing with those issues (Wamba-Taguimdje et al. 2020).

Relating to the challenges, it is observed that project leaders need awareness and sensitivity to multicultural preferences. Globally, distributed and diverse teams usually work on complex projects with different time zones, geography, and strict deadlines and therefore need resources and time, along with a collaborative culture to perform efficiently (Alkhlaifat, Abdullah & Magassouba, 2019). A supportive culture and interactive environment boost the morale of the project team, thus helping to ensure project success. Moreover, closed groups and connecting team members are pivotal in developing a sound collaborative working environment that may help ensure the tracking, record, and scheduling of the project and may help to identify the risk factors and challenges that may arise in the projects. Moreover, it will also help in reducing the chances of project delay if team members and groups are well connected through communicative technological tools (Bond-Barnard et al. 2018). Likewise, it is noted that the role of project leaders or managers is transforming significantly, and the traditional role of a team leader is changing to project influencer. The organizations are early adopters and forward-thinking of new technologies, and thus project managers are increasingly playing a role in influencing people to adapt to new ideas and technologies and bring easiness and flexibility in managing projects (Rowland, 2020). In project management, people leveraging on leadership skills can significantly develop professional networks beyond and within their organization can be persuaded and influence others. Although influencer as a term is linked with digital media and marketing, however in projects, it can now be becoming popular, where leadership with skills in influencing team members in the management of tasks, service delivery, and outperform (Pace, 2019). Overall, the organizational culture, environment, team cohesiveness, collaboration, and communication, along with leadership influence, can play an important role in the management of the project and thus contribute to organizational success.

In terms of industries, the reliance on the management of the project is linked with new technologies, which can aid in the production, supplies, and management of complex tasks. Disruptive technologies are also pivotal in relation to privacy and security and help ensure that there are minimal risks involved in project failure or delays (O'Reilly and Binns, 2019). Moreover, the transformation of technologies is revolutionizing industries, like cloud computing, IoT, robotics, AI, and other cutting-edge technologies developing opportunities to work, employees to manage projects, and business to thrive more differently. It is noted that in an industrial setting where there are increased concerns related to safety, security, and privacy, project leaders will require a thorough combination of project management, and technical skills, along with business management, strategic, and leadership skills, which are key element project management triangle. People who have skills in managing projects usually support and embrace quick changes and position themselves to compete and excel in disruptive and fast-paced business environments (Cozzolino et al., 2018). Besides, there is a need for continuous changes considering the increasing development and changes in technology. It is found that

organizations are upgrading the skills and technical knowledge of their people to adapt to increasingly growing demand from clients, efficiently in addressing challenges related to project failures, disruptions, etc., and find ways for reducing the gap between the clients and the organization. It is identified that project management is changing together with technologies and increasing demand of industries, and therefore, more trained, skilled project managers are required to deal with forthcoming challenges (Antony and Gupta, 2018).

3. Questionnaire

This questionnaire consists of the below 9 steps (questions) and sequence:

3.1. Step 1

List of top 10 digital transformations in the organization and a SWOT analysis.

| N ^o | Key Digital Transformations |
|----------------|---|
| 1 | Digital Bill Payment |
| 2 | Digital Management of electricity and water |
| 3 | Customer Data service |
| 4 | Consumption Verification |
| 5 | Customer Account Service |
| 6 | Green Charger Cards |
| 7 | Customer Dashboards |
| 8 | Smart Consumption |
| 9 | Internet of Things |
| 10 | Digital Bills |

SWOT analysis:

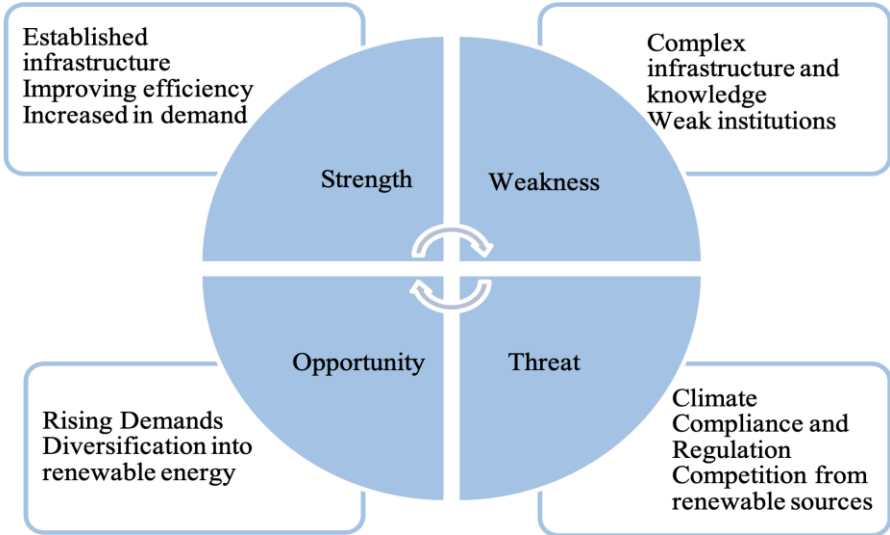


Figure 1. SWOT analysis

3.2. Step 2

A list of top 10 digital initiatives by digital native disruptors most relevant to the organization. Using a what, how, and outcome framework to brainstorm the information.

| N ^o | Key Digital Transformation Initiatives |
|----------------|--|
| 1 | Smart Meters |
| 2 | Digital Billing |
| 3 | Payment Gateways |

| | |
|----|------------------------------|
| 4 | Customer Dashboards |
| 5 | Robotics in Power Plants |
| 6 | Interconnectedness |
| 7 | Reskilling Employees |
| 8 | Consumer Awareness |
| 9 | Grid Optimization |
| 10 | Integrated Customer Services |

3.3. Step 3

A list of top three digital disruptions across all four elements – business, technology, industry, and society – most relevant to the organization.

| No | Elements of Digital Disruption | Impact of the Element Relevant to your organization |
|----|--------------------------------|---|
| 1 | Business | Digital Marketing |
| 2 | | Upgradation of Employee Skills |
| 3 | | Service Integration |
| 4 | Technology | Grid Optimization |
| 5 | | Waste Reduction |
| 6 | | Cybersecurity |
| 7 | Industry | Cloud Computing |
| 8 | | Big Data |
| 9 | | Robotics in Grids |
| 10 | Society | Investment in Renewable Energy |
| 11 | | Awareness on Energy Waste |
| 12 | | Batteries for Energy Storage |

While looking at the technology dimension, the following framework used to identify key initiatives (Figure 2):

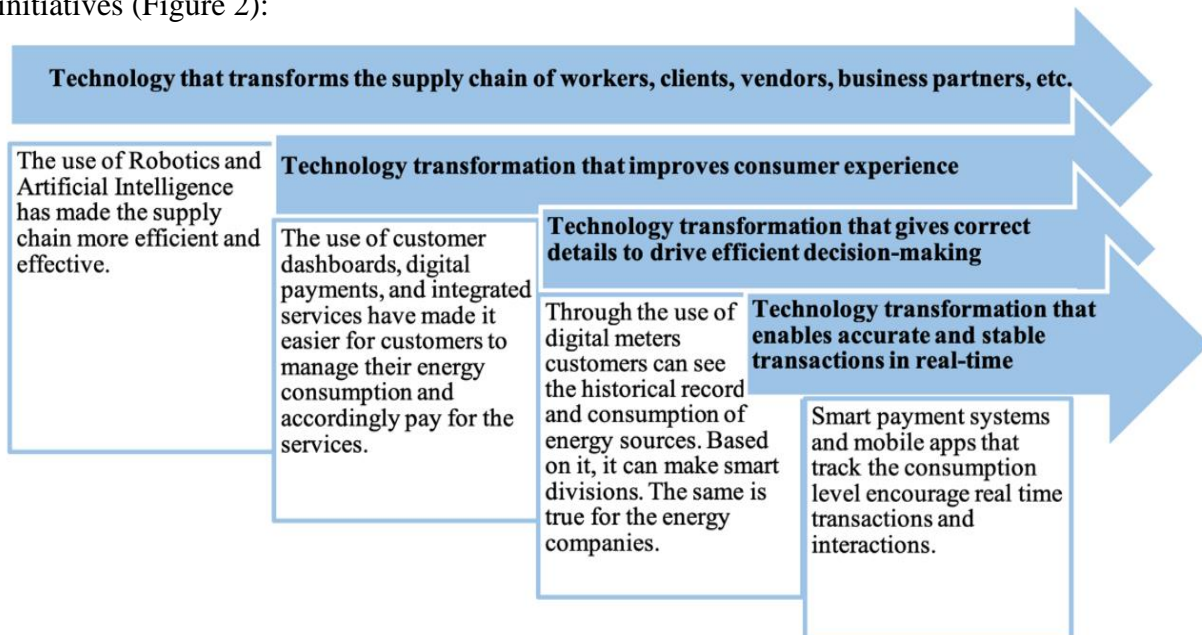


Figure 2. A framework to identify key initiatives

3.4. Step 4

A list of top three digital initiatives by the competitors.

| Nº | Competitors | Key Digital Transformation Initiatives |
|----|--|--|
| 1 | Dubai Electricity and Water Authority (DEWA) | Smart Apps |
| 2 | | Digital Marketing for Consumer Awareness |
| 3 | | Digital Bill Payment |
| 4 | Total Energies | Customer Data Service |
| 5 | | Consumption Verification |
| 6 | | Digital Factory |
| 7 | ExxonMobil | New Payment Options |
| 8 | | Detecting Methane Emissions |
| 9 | | Quantum Computing |
| 10 | Schneider Electric | Edge Computing |
| 11 | | Cybersecurity Protocols |
| 12 | | Pay as you go subscription-based model |

3.5. Step 5

A list of top three digital disruptions across all the five key areas of disruption that are most relevant to the organization.

We are making progress with our understanding of the digital initiatives. Now how about getting some ideas going?

Let's look at each of the key areas of digital disruption one by one using the trend-benefit framework:

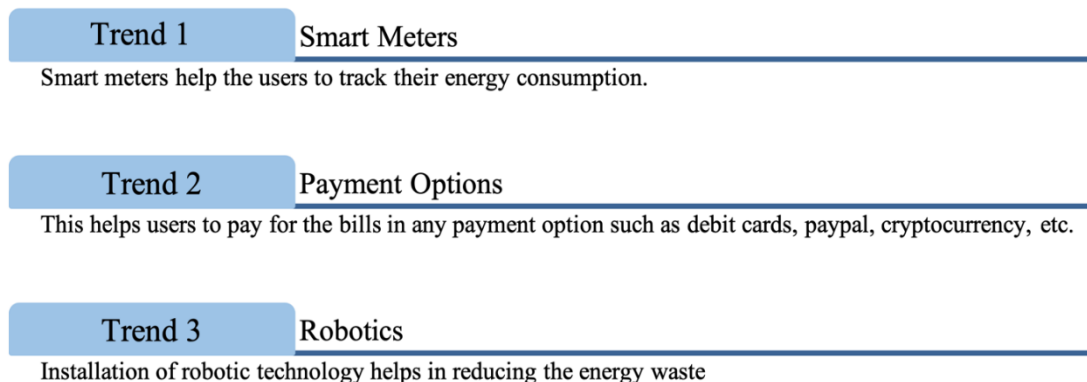


Figure 3. Trend-benefit framework for the 3 key areas of digital disruption

Finally, A list the top three initiatives across all five areas of digital disruption is provided in the table below:

| Nº | Key areas of disruption | Digital initiatives |
|----|----------------------------|---------------------------------------|
| 1 | Marketing and distribution | Marketing on social media platforms |
| 2 | | CSR activities related to environment |
| 3 | | Distribution based on data |
| 4 | Product and service | Robotics in smart grid |
| 5 | | Smart Energy |
| 6 | | Smart Meters |
| 7 | Processes | Payment models |
| 8 | | Lowering Energy Consumption |
| 9 | | Cloud Computing |
| 10 | Ecosystems | Renewable Energy |

| | | |
|----|---------------|---------------------------------|
| 11 | Supply chains | Investment in green initiatives |
| 12 | | Employee Capacity |
| 13 | | Detecting Methane Emissions |
| 14 | | Quantum Computing |
| 15 | | Edge Computing |

3.6. Step 6

A list of top three transformations across the following key technologies that are most relevant to the industry.

| Nº | Key Technology Areas | Top 3 Digital Opportunity for your industry |
|-----------|-----------------------------|--|
| 1 | Platforms | Customer Dashboards |
| 2 | | Supplier Dashboards |
| 3 | | Consumption Database |
| 4 | Customer Network | Customer Data Network |
| 5 | | Integrated Customer Channels |
| 6 | | Data Centers |
| 7 | Big Data | Smart Consumption |
| 8 | | Consumer Data Base |
| 9 | | Reduction in Energy Wastage |
| 10 | AI | Efficiency |
| 11 | | Connectivity |
| 12 | | Smart Payment Systems |
| 13 | IOT | Centralized mobile connection |
| 14 | | Cybersecurity |
| 15 | | Connectivity |
| 16 | RPA | Improvement in Supply Chain |
| 17 | | Improvement in distribution |
| 18 | | Automated Distribution |
| 19 | XR | Virtual Experience |
| 20 | | Zero Carbon Future |
| 21 | | Increased Efficiency |
| 22 | Edge Computing | Higher Computation |
| 23 | | Increase in Speed |
| 24 | | Reduction in Cost |
| 25 | Drones | Short time to repair power damages |
| 26 | | Monitoring of smart grids |
| 27 | | Accessibility of services |

3.7. Step 7

Based on the previous steps, a list of all key transformations compiled.

| Nº | Key Transformations |
|-----------|------------------------------|
| 1 | Service Integration |
| 2 | Customer Dashboards |
| 3 | Supplier Dashboards |
| 4 | Consumption Database |
| 5 | Customer Data Network |
| 6 | Integrated Customer Channels |
| 7 | Data Centers |

| | |
|----|------------------------------------|
| 8 | Smart Consumption |
| 9 | Consumer Data Base |
| 10 | Reduction in Energy Wastage |
| 11 | Efficiency |
| 12 | Connectivity |
| 13 | Smart Payment Systems |
| 14 | Centralized mobile connection |
| 15 | Cybersecurity |
| 16 | Connectivity |
| 17 | Improvement in Supply Chain |
| 18 | Improvement in distribution |
| 19 | Automated Distribution |
| 20 | Virtual Experience |
| 21 | Zero Carbon Future |
| 22 | Increased Efficiency |
| 23 | Higher Computation |
| 24 | Increase in Speed |
| 25 | Reduction in Cost |
| 26 | Short time to repair power damages |
| 27 | Monitoring of smart grids |
| 28 | Accessibility of services |
| 29 | Digital Marketing |
| 30 | Upgradation of Employee Skills |

3.8. Step 8

A list of transformations made across the impact/difficulty matrix.

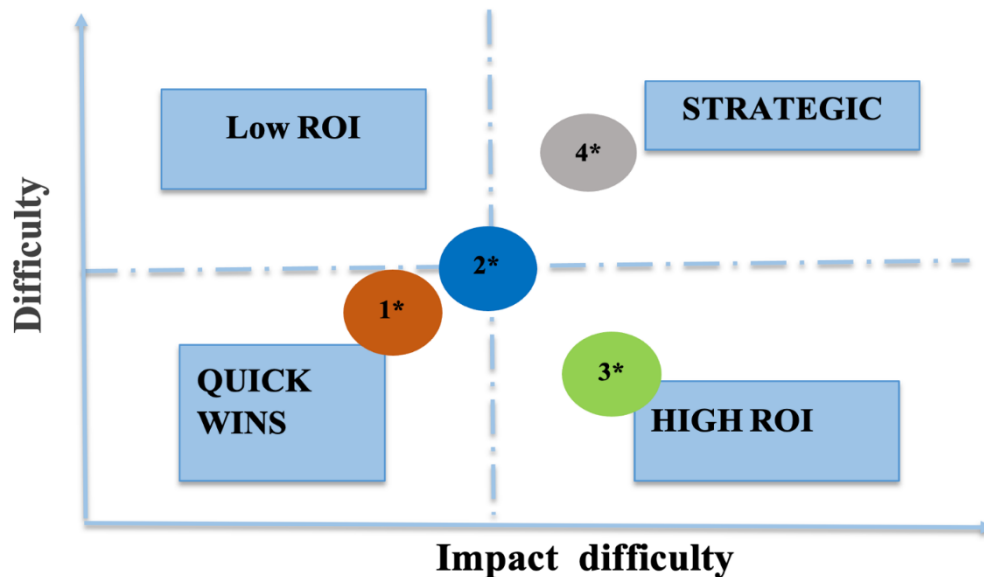


Figure 4. The impact/difficulty matrix for the 4 initiatives

- 1* – First transformation initiative,
- 2* – Second transformation initiative,
- 3* – Third transformation initiative,
- 4* – Fourth transformation initiative.

| № | Key Transformations | |
|----------|------------------------------------|-----------------|
| 1 | Service Integration | 3 rd |
| 2 | Customer Dashboards | 3 rd |
| 3 | Supplier Dashboards | 3 rd |
| 4 | Consumption Database | 4 th |
| 5 | Customer Data Network | 1 st |
| 6 | Integrated Customer Channels | 1 st |
| 7 | Data Centers | 2 nd |
| 8 | Smart Consumption | 3 rd |
| 9 | Consumer Data Base | 1 st |
| 10 | Reduction in Energy Wastage | 2 nd |
| 11 | Efficiency | 4 th |
| 12 | Connectivity | 3 rd |
| 13 | Smart Payment Systems | 1 st |
| 14 | Centralized mobile connection | 1 st |
| 15 | Cybersecurity | 2 nd |
| 16 | Connectivity | 3 rd |
| 17 | Improvement in Supply Chain | 4 th |
| 18 | Improvement in distribution | 3 rd |
| 19 | Automated Distribution | 2 nd |
| 20 | Virtual Experience | 1 st |
| 21 | Zero Carbon Future | 3 rd |
| 22 | Increased Efficiency | 1 st |
| 23 | Higher Computation | 3 rd |
| 24 | Increase in Speed | 1 st |
| 25 | Reduction in Cost | 1 st |
| 26 | Short time to repair power damages | 3 rd |
| 27 | Monitoring of smart grids | 4 th |
| 28 | Accessibility of services | 2 nd |
| 29 | Digital Marketing | 3 rd |
| 30 | Upgradation of Employee Skills | 3 rd |

3.9. Step 9

The most relevant digital transformation plans identified.

| № | Final List of Digital Transformation Strategies | Priority |
|----------|--|-----------------|
| 1 | Installation of Digital Meters | 1 |
| 2 | Digital Payment Systems | 2 |
| 3 | Integration into Mobile App | 3 |
| 4 | Dashboards for Customers | 4 |
| 5 | Robotics in Grid System | 5 |
| 6 | Use of VR for Marketing | 6 |
| 7 | Service Integration | 7 |
| 8 | Green Energy Awareness | 8 |
| 9 | Smart Consumption | 9 |
| 10 | Cybersecurity | 10 |

4. Analysis

The questionnaire was asked to several respondents who had a working experience in the power sector. The template was very helpful in determining the direction taken by the industry as a whole. For instance, the first question pertained to the key digital transformations that were underway in the power sector. One of the responses that were received is as follows:

“In my opinion, the key digital transformation that is currently underway is related to Digital Bill Payment. We are working on a technology that allows customers to pay the bills through the use of mobile apps”.

Such a system would be a breakthrough for the consumers as well as for the companies. This is further explained by Andrew et al. (2020), where it is highlighted that electricity consumers are often faced with problems of delayed billing, and this is primarily because of the sheer size of the consumers. Therefore, with the use of a base programming language, web services are being developed where users will be given a unique identification number, and this will help in retrieving digital bills. It will be extremely helpful for both the company and consumer as it would reduce the cost of paper billing from the end of the consumer and customer. They can access the bill whenever they need it. Similar to this, another respondent noted the use of digital apps for the use of electricity and other utility services. These apps would help track the consumption level of the consumers, and they could keep a real-time track of the consumption patterns. These apps will also be able to alert the users if the consumption increases the specified target, and hence, this would be the first time customers would be alerted of their usage. Consider the below response:

“The development of Digital Apps would bring the entire services into one centralized hub. This would enable customers to access their consumption patterns, past billing history, and lots of other services. This is truly an innovation as it had never been carried out before in the power industry”.

Regarding the strengths and weaknesses of the power sector, respondents were quick to note the importance of infrastructure. This makes sense because, without infrastructure, there is hardly any use of electricity, and all the companies rely on infrastructure as it is their biggest strength for the provision of services. However, the complexity and lack of knowledge regarding the same infrastructure is also a shortcoming as not every employee in the team is aware of these technicalities, and often these companies have to rely on a third-party agency if there is a problem related to infrastructure quality. Furthermore, rising demands and consumption was quoted as the biggest opportunity for power sector company. It is also stated by Cialani and Mortazavi (2018), where the authors have mentioned that due to urbanization and globalization, the power demand has increased ten folds, and hence, there is a great opportunity for the power sector companies to meet these demands and increase their revenues. On the contrary, the biggest threat was recorded to be renewable energy. For this factor to understand, consider the below response:

“It is without a doubt that the biggest threat to the power sector companies comes in the form of the environment. The climate is degrading, and there must be a clean and renewable source that must be developed which is in the interest of everyone on this planet. Otherwise, it is possible that the power companies may be sanctioned soon and are replaced by companies that provide energy through environmentally safe solutions”.

From the above response, it is clear that the future of power sector companies lies in the direction of renewable sources. If they are not able to switch to a renewable form of energy, then they may fall out of favor with the government as well as with the consumers who are looking forward to a greener solution.

Further to this, when the respondents were asked about the key digital transformations initiatives observed in the industry, the option of smart meters was prioritized. As per the study by Rausser, Strielkowski, and Štreimikienė (2018), smart meters in the power sector that are

installed in place of analog meters have the capability of reducing energy consumption and, at the same time, can be useful for policymakers in devising energy efficiency policies for the future. Smart meters also offer a viable alternative for a cost-effective, stable, and reliable form of electricity metering. However, as one of the respondents noted, such a type of installation requires a change in the approach of both consumers and the companies. Concerns for the environment may be very valid in the west but not in Asian or middle eastern societies. Therefore, a large-scale installation of smart meters lacks the pull factors, and there is a bigger role from the government that should intervene and encourages smart metering of the households. Similarly, another breakthrough is installing robotics in power plants and electricity-generating farms. This was also a response that was gathered from all the respondents, and hence, it can be noted that the use of modern robotics is a game-changing technology. This is because the installation of robots at the power plants can increase the efficiency of the plants and prevent the wastage of energy which is the prime concern of the industry. A further explanation is provided by (Menendez et al. 2017). As per the researchers, the foremost challenge facing the power sector is related to sustainability, and this is adequately addressed by the use of robotics at power facilities. It can also be able to reduce dependency on labor and subsequently reduce the labor cost. On the contrary, customer dashboards for power usage and consumption are also considered to be a great new service that can provide customers with the history of their consumption. This will rely on IoT that will see the users connect their mobile phone apps with electrical appliances in the household. This dashboard can then not only be used to check the power consumption status but also used to control the electrical appliances.

Related to technology, there is grid optimization, waste reduction and cybersecurity that would play a key role in the shaping of the industry. Grid optimization is related to having robotics in power generating facilities. This is also illustrated in the below quote from the respondent:

“Optimization of the grid system has become a top priority not only in Dubai or UAE but around the world. This is because a huge percentage of electricity is wasted due to inferior infrastructure and technology. This can be averted if there is the use of robotics that are equipped with AI and machine learning. This means that the current technology and equipment are replaced with more intelligent machines capable of sending and receiving signals”.

From the above quote, it is clear that the installation of robotics-based on AI is of huge importance to power companies. The study of Wamba-Taguimdje et al. (2020), which is quoted in the literature review section, provides unique insights. As per the researchers, the use of AI makes a project quicker, reliable, and easier. These benefits are exactly the benefits that the power grids aim to realize through the installation of AI-driven robotics. Furthermore, the study of O'Reilly and Binns (2019) is also important to mention as the authors bring into consideration the importance of cloud computing and robotics to thrive in the modern world. Cloud computing is also listed as an impact that will affect the entire industry. This is because energy management, like project management, requires a flexible and scalable environment. Before cloud computing, companies were relying on huge data centers that were unacceptable for the current environment and, at the same time, were physically redundant. With cloud computing, this can be reduced and can provide a greater synergy between different stakeholders of a project, such as employees, managers, and customers. Hence, in this sense, the findings of the literature and the opinion of the respondent are coherent.

Furthermore, the respondents were also asked to classify technology that is able to increase the supply chain process, improve customer experiences, help inefficient decision-making, and encourage accurate and stable transactions. Within the power sector, it was noted that all these four key areas of project management are being alleviated by a different kind of technology. For instance, robotics and AI are used in the supply chain, Big Data for customer experiences, digital meters for efficient decision making, and smart payment systems for reliable

information. This means that the application of technology in the power sector is multidimensional and can impact each and every stage of project management. This is also in line with the findings of Cozzolino et al. (2018) mentioned in the prior section, which state the importance of a dynamic and fluid environment which can only be achieved with the use of technology. Antony and Gupta (2018) have based their study on how can the gap between customer and organization can be reduced in project management, which is discussed in the literature section. And it seems that in the power sector, this can be reduced through the integration of technology such as smart payment systems, customer dashboards, digital meters, etc. This would empower the customers and remove their dependency of customers on the organization.

Similar themes emerged when the respondents were asked about the underlying trends in the industry. These trends are related to smart meters, adding payment options, and the use of robotics and AI for increasing efficiency in the supply section. Once again, the concept of smart grids is important to discuss as it is a recurring theme in the responses from the respondents. In this gridding system, there are a variety of options and energy measurements units that can provide a foundation for both the company and customer regarding their habit of energy consumption. This is optimized through the use of robotics and AI. This type of innovation is also among the most prioritized digital transformation plan affecting all the players in the industry.

Within the transformation plan, there is also the aspect of installing digital meters instead of the current meter system. Based on the information gathered from the respondents, this is a very important aspect of the industry and is in line with the needs and preferences of customers. These digital meters can then have the ability to connect with the mobile app on the user's smartphone giving access to the consumer's energy consumption, payment history, and other details on one centralized hub. Lastly, the investment in green and renewable sources of energy is also prioritized and constantly referred to by the respondents. This should also be communicated to the users in the form of digital marketing. This is because companies are actively investing in creating an awareness regarding the need for green electricity, which would be the future of the power sector. To this end, the industry is also tapping into the sources that can help in creating clean energy which will be effective using digital technology.

5. Conclusion

Subjected to the above discussion, it can be stated that one of the most important industries for the survival of humanity is deeply embedded with technological progress. There are multiple sources of technology, such as Robotics, AI, Big Data, Mobile apps, etc., that are the key trends for the power sector and would be guiding the future of the companies. The provided analysis examined different aspects of technology use, including benefits, advantages, and changes in the industry that was introduced by the integration of disruptive technologies. The digital transformation shift improved all project management processes specifically risk management. In addition, digitalization provides a better environment and an enhanced experience for managers, employees, and customers.

5.1. Summary

The key findings of this paper are listed below:

- Digital transformation utilizes the use of digital technologies including artificial intelligence, the internet of things, big data, robotics, digital marketing, and other advanced technologies.
- Digital technologies have significantly impacted all sectors including business, society, industry, and technology. Leading to enhanced operations, experiences, and improved efficiency. It also creates new risks.

- Projects managers, engineers, and employees require to develop the appropriate level of skills to eliminate the risks associated with the implementation of new technologies.
- Dubai Electricity and Water Authority (DEWA) the organization subjected to this study, has effectively adopted digital initiatives across different areas of disruption such as marketing, distribution, process, products, and services.
- New strategies, applications, solutions, and services evolved across the various digital transformation initiatives.
- Power industry companies are competing in the process of implementing the latest technologies in alternative initiatives and projects.
- Promoting innovation by utilizing digital disruptive in managing projects delivers advanced solutions to deal with risks, threats, and opportunities. Specifically, the use of Artificial Intelligence (AI) which leads to an enhanced planning, execution, improved quality, and better decision making of projects.
- Integration of technologies in managing projects introduces numerous advantages of eliminating errors, reducing costs, effective management, customer satisfaction, enhanced operations, and project delivery.
- Interview results conclude that an effective risk management plan established by managers to deal with the digital environment risks is an optimal approach to benefit from the evolving technologies.

5.2. Recommendations

Following a thorough review of the literature and addressing a questionnaire to several employees dealing with projects at Dubai Electricity and Water Authority, the paper presents a number of suggestions.

- Organizations must provide training sessions and workshops addressing the current evolving digital technologies for their employees to teach them how to incorporate digital transformations in managing projects and risks associated with them.
- Development of professional skills is required to support the use of digital transformations in projects.
- Industries should embrace change by adopting the use of digital technologies company-wide to open up opportunities for all departments including IT, marketing, and customer services to enhance their processes.
- Introducing regulations and reforms on implementing digital transformations for the successful management of projects.
- Corporation between organizations and industries will improve the process of adopting the latest digital transformations in managing project risks.
- Proper research is required before integration with projects to unlock the benefits of using digital technologies.
- Organizations should focus on continuous innovation in managing projects to compete in the digitalized world.

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