

Agile Methodology Transformation Challenges in IT Project Management: Case Study in a Public and Private Organization in Saudi Arabia

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Abstract

The adoption of Agile methodology in IT projects has become increasingly popular in recent years due to its flexibility and adaptability. However, the transformation from traditional project management methodologies to Agile can present several challenges for IT project managers. This research aims to identify the barriers and challenges faced by IT project managers in the Kingdom of Saudi Arabia in the transformation to Agile methodology. To achieve this, interviews will be conducted with IT project managers from a public and private organizations. The findings of this research will provide insight into the challenges faced by IT project managers in Saudi Arabia during the transition to Agile methodology and will help in developing recommendations to overcome these challenges.

Keywords

Agile methodology, Agile transformation, Agile challenges, Agile adoption, IT project management.

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The Researchers

Table of Contents

Introduction	1
Research Problem.....	2
Research questions	2
Research Objectives.....	2
Research Hypothesis	3
Background	3
Literature Review.....	5
Research Methodology	9
Data Analysis	11
Results and Analysis.....	12
Organizational Culture.....	13
Team knowledge and skills	14
Change resistance.....	15
Discussion	15
Organizational Culture.....	16
Team knowledge and skills	18
Change resistance.....	19
Conclusion	20
Limitations.....	21
References	23
Appendix	26
Appendix 1: Interview Guid	26
Appendix 2: Interviews.....	27

Introduction

We all know that the use of traditional methodologies in information technology projects, especially at this time, maybe an obstacle to their success, and in light of the increasing development and growth witnessed by the information technology sector in the Kingdom of Saudi Arabia, which supports the achievement of the goals and vision of 2030 in terms of the development of the information technology sector, The use of modern and agile methodologies is the best option to achieve success. Agile methodology has become increasingly important in the IT industry due to its flexible and practical approach to project management. Unlike the traditional Waterfall methodology that has been prevalent in managing IT projects for years, it follows a sequential and linear process. Agile methodology emphasizes collaboration, adaptability, and continuous improvement. Therefore, it is an ideal approach for IT projects that require frequent changes and updates.

However, moving to an agile methodology can be challenging for IT project managers and can greatly impact project success. They face various challenges during the transition, such as a lack of understanding of the agile framework, resistance from team members, and the need for a major shift in mindset and culture. Addressing these challenges is critical to successfully transitioning to an agile methodology.

The findings of this study will contribute to IT project management in Saudi Arabia. It will provide insight into IT project managers' challenges when transitioning to Agile methodology and propose best practices to overcome them. By successfully adopting the Agile methodology, organizations and IT project managers in Saudi Arabia can improve their project management practices and achieve better results.

Research Problem

The research problem addressed in this study revolves around the major challenges faced by IT project managers during the process of transitioning to Agile methodology. Agile methodology has gained popularity in recent years due to its flexibility and adaptability, but the transformation from traditional project management approaches to Agile can present significant obstacles. This research aims to identify and analyze the key challenges that IT project managers encounter during this transition, providing insights into the specific obstacles they face in adopting Agile practices. By understanding these challenges, organizations can develop strategies and best practices to overcome them effectively, facilitating a successful transition to Agile methodology in IT project management.

Research questions

The research questions for this study are:

- What are the major challenges IT project managers encounter when transitioning to Agile methodology in Saudi Arabia?
- What are the best practices to overcome these challenges to help in a successful transition?

Research Objectives

1. This research may provide valuable insight for IT project managers in Saudi Arabia about the challenges in the transformation to Agile methodology.
2. This research may contribute to overcoming the Agile transformation challenges.

Research Hypothesis

IT project managers in Saudi Arabia face several challenges and obstacles in the transformation to Agile methodology.

Background

Agile methodology is a project management framework that breaks projects down into several dynamic phases, commonly known as sprints. The Agile framework is an iterative methodology. After every sprint, teams reflect and look back to see if there was anything that could be improved so they can adjust their strategy for the next sprint. The Agile Manifesto is a document that focuses on four values and 12 principles for Agile software development. It was published in February 2001 by 17 software developers who needed an alternative to the more linear product development process. There are a wide range of project management frameworks that you can use. However, some methods, such as waterfall, are not effective for software teams. As priorities and customer needs constantly change, Agile's methodology divides projects into several phases to drive continuous improvisation. Agile project management is not only useful for programmer project management - all kinds of teams have succeeded in this dynamic methodology. One of the main benefits of using Agile processes in software development is the ability to shift strategies quickly, without disrupting the flow of a project. Shifting strategies is challenging and can disrupt the rest of the project roadmap, because phases in the traditional waterfall methodology flow into one another. Since software development is a much more adaptable field, managing rapid changes in the traditional sense can be challenging.

There are also characteristics of agile approach When it comes to organizational structure agile structuring is iterative and often designed to accommodate small to medium projects and the adjustments are made to be interactive to the extent of adjusting according to the need into the milestones of the projects from planning to execution of steps with flexible time frame. As for the extent to which there is involvement with the client the degree of involvement is high and the same can be said for the development model which is meant to be extraordinary in fashion where the steps are adjusted according to performance and optimization principles to deliver as fast as possible. As in terms of the customer and client's involvement, their interaction is rather high and often engaged throughout the work cycles till the point of delivery. Also, the agile management type offers a unique approach towards the escalation of issues where team engagement is crucial to solving whatever problem comes to rise in an adaptive model with less formal conflict and problem resolution methods. The testing of products or visual inspection of projects are viewed and examined and tested on short time intervals where adjustments could be made and the issues can be resolved based on each unique milestone; as for the estimation of the work itself, it is viewed by the performing team on its own reviews and approvals; as each segment of the project is completed the team does the estimation on the aspect of the project milestone from the cost, performance, time, team dynamics, and collaboration clients satisfaction which gives assurances to clients and customers making the agile methodology of segmenting projects an optimum choice as it provides:

- Flexibility, when it comes to making any needed adjustment or the client noticing something that needs to be changed or edited out, as well as providing a guideline to the team to work through the problem and experiment with solutions with ease, as in comparison to the waterfall method which is based on the traditional methodology which gives a rigidity to the

performance itself where the traditional is top-down and last-minute changes would not have a rippling effect on the whole project.

- Creating these flexible changes would also allow room to create smart budgeting techniques and manage projects better as the drainage is in the small details.
- More transparency, in Agile methodology everything is broken down into smaller segments and magnified and then the clients make their assessments and be active starting for the initiation of the project, to the point of making a critical decision which creates a more creative, assuring healthy work environment and more assuring one.

Literature Review

Cockburn & Highsmith (2001) The researcher highlighted that managers working in an agile manner should focus on people and factors such as friendliness, talent, skill, and communication. These qualities become the primary concern of the agile team. Developing skills is important so that each person can offer greater value over time. Attention to humanitarian issues gives a particular sense of project flexibility, as these factors have a positive impact on managers' challenges in applying the flexible methodology.

Korhonen (2013) The researcher highlights how the introduction of agile practices affects a large software development organization, part of Nokia Siemens Networks. The impact of this rapid transformation was assessed in terms of its success in meeting the Department's pre-transition targets. This longitudinal study included two separate analyses, conducted over 6 months of time, that measure the agile practices already used in the Organization and what implications, if any, are

visible in terms of the Department's objectives. Monthly analyses included measures of defect data and surveys of staff directly involved in the transition. The previous study had shown that the introduction of agile practices already had the beneficial effects one might expect, nor could it be only possible to assess the impact that the adoption of agile practices could have. Like its application in a large and well-known software development company, but effects, changes and improvement also appear at an early and surprisingly early stage. Therefore, when measuring the impact of the methodology's application in a systematic manner, we can meet the challenges and develop proactive plans for a successful transition to flexible methodology in a positive and more effective manner.

Gandomani & Nafchi (2016) Determined different aspects of human-related challenges throughout the Agile transition process. Agile transition needs enough time and effort and is most often subject to several challenges and barriers, mainly because of its people-centric nature. The results of this study show that the root of the emerging issues is people's perceptions about the Agile transition.

Gandomani, Taghi, Ziaei & Mina. (2016). suggests that IT companies should provide training and support to their employees to overcome these challenges. provides a grounded theory approach to identifying the essential prerequisites of Agile transition and adoption. The study found that the essential prerequisites include the need for a clear understanding of Agile methodology, the need for organizational support and change management, and the need for a cultural shift .

Pawel & Paterek (2017) investigates the knowledge management aspects of an Agile transformation in project organizations. The author emphasizes that large-sized enterprises implementing IT projects require effective knowledge management to address challenges such as reduction of time-to-market, higher project efficiency and productivity, predictability of customer deliveries, transparency of project planning, and improving cooperation and communication between business and project teams. The author discussed that Agile project management methodology can help address these challenges through organizational changes, but the transition process requires addressing several knowledge management aspects, issues, and challenges.

Pussella , Bandara & Amila. (2018) These prerequisites make people and organizations stronger to deal with the potential transition challenges. One of the key challenges identified in a literature is organizational culture. According to Pussella and Bandara, organizational culture is the utmost challenge in adopting agile project management methodologies . The traditional project management approach is often characterized by a rigid organizational culture that values control and predictability. In contrast, agile methodology requires a more flexible and collaborative culture that values adaptability and continuous improvement. The clash between these two cultures can lead to resistance to change and hinder the adoption of agile methodology

Jovanović , Mesquida , Mas & Colomo-Palacios (2020) The researcher highlighted in this study that in order to adopt agile methods and their applicability, many organizations need to adapt their processes. To support and direct the rapid transition, he mentioned in his research the factors that affect the transition process. The focus has been on five, which are pre-transformation activities,

obstacles and results, stages and activities, agile practices, and situational factors. Finally, the researcher gave us a list of 154 apparent factors that influence the rapid transition of the agile methodology and the proposed adoption process.

Mircheska & Antovski, (2020) discusses the challenges faced by IT companies when transitioning from Waterfall to Agile methodology. The study found that the main challenges include resistance to change, lack of understanding of Agile methodology, and the need for a cultural shift .

Reginaldo, Fabio , Santos & Gleison. (2020) explores the challenges faced by organizations during their journey towards adopting agile methodology. The authors conducted a qualitative study using thematic analysis and interviewed key persons responsible for leading agile transformation initiatives in four Brazilian organizations. The authors identified 26 challenges that can impact the success of agile transformation initiatives, which they grouped into five dimensions: People, Organizational Culture, Processes, Scalability, and Technology. The Organizational Culture dimension includes challenges related to a culture conflicting with agile values, incompatible organizational structure, and a lack of a process to guide the transition.

Mkoba , Elizabeth. (2022). A systematic literature review provided by Elizabeth of the organizational culture attributes that influence the adoption of Agile practices. The study found that the main organizational culture attributes that influence the adoption of Agile practices include management control, team collaboration, market, values, and creativity. Previous researchers

suggest that organizations should create a culture that supports these traits to facilitate the adoption of Agile practices.

Transitioning from traditional project management to agile methodology can be a challenging process for organizations. The literature review highlights several challenges and barriers associated with adopting and implementing agile methodology, including organizational culture, knowledge management, resistance to change, inadequate training, and difficulty integrating agile with existing processes. Organizations must address these challenges to ensure a successful transition to agile methodologies.

Research Methodology

The methodology of this study was a qualitative literature review following the principles of systematic research.

For this thesis, a case study approach is utilized, which relies on participant observation to understand the challenges during the transition to agile methods. The case study method is widely used in research and can be applied to both qualitative and quantitative approaches (Bell et al., 2019). It involves thoroughly examining a specific case, such as an organization, person, location, or event. In our study, we focused on multiple individuals from the same industry, allowing us to gather detailed and targeted information. As Flyvbjerg (2006) suggests, a multiple case study provides the opportunity to obtain comprehensive insights and develop theories while also facilitating comparisons to enhance understanding of the subject.

Data collection played a critical role in this research and was conducted through a combination of literature review and interviews. The literature review served as a foundation for understanding and guiding the research process. For the interviews, a semi-structured approach was employed, wherein a predefined set of questions was prepared by the researchers to cover relevant topics.

This guided approach is commonly referred to as an "interview guide" (Bell et al., 2015). In this study, interviews were conducted either face-to-face or via digital tools, depending on the specific circumstances. To ensure consistency and cover relevant topics, the interview guide was prepared to assist in asking appropriate questions. A total of six participants were actively involved in the interviews.

Interviews Details:

Participant ID	Position	Duration	Type of Interview	Gender	Method
A	Director of IT Operation	30	Semi-Structured	M	Zoom
B	Network Project Manager	30	Semi-Structured	M	Zoom
C	Vice President of IT (VP)	30	Semi-Structured	M	Face to Face
D	Chief Information Officer (CIO)	45	Semi-Structured	M	Face to Face
E	Project Manager	40	Semi-Structured	M	Face to Face
F	Business Analyst	40	Semi-Structured	F	Teams

Data Analysis

Thematic analysis, a commonly used coding approach in qualitative research, was employed to identify patterns and themes in the interview data (Bell et al., 2019).

In this study, the thematic analysis revealed that most participants highlighted three major challenges associated with Agile transformation:

- 1- Changes in organizational culture at the top management level:
 - Participants identified this as a significant obstacle in adopting Agile methodologies.
 - Resistance to change and lack of top management support.
- 2- Lack of internal IT team knowledge and skills:
 - Participants expressed concerns about the insufficient knowledge and skills within their IT teams.
 - This lack of expertise could impede the successful implementation of Agile practices.
- 3- Resistance from team members to changes in processes:
 - Participants reported that team members exhibited resistance to the necessary changes in working processes.
 - Factors contributing to this resistance included the perceived need for increased collaboration, fear of the new method, viewing the new process as additional work, and perceiving it as a form of management control.

Based on the interview transcripts (see Appendix), a thematic analysis can be conducted to identify common themes across the interviews. Here's a table summarizing the main themes and their corresponding descriptions:

Theme [Challenges]	Key points
Organizational Culture	- Senior management support - Organizational mindset. - Management resistance to change. - Leadership Role, and act as role models.
Team Knowledge and skill	- lack of knowledge about modern methodologies. - Training. - Qualified staff.
Change Resistance	- Fear of the unknown. - Traditional methodologies. - Transparency issues. - Refuses frequent changes.

Overall, the thematic analysis highlights the challenges related to organizational culture, internal IT team capabilities, and team member resistance to Agile transformation. These findings emphasize the importance of addressing these challenges to facilitate a successful transition to Agile methodologies.

Results and Analysis

This section presents the research findings derived from interviews conducted. It provides a comprehensive summary of the collected data and its relevance to the research questions. The

section includes discussions on key challenges identified by the participants during the data collection phase, namely organizational culture, team knowledge and skills, and change resistance.

Organizational Culture

According to (Anderson, et al., 2001) a transformational strategy should start with mindset, behavior, and cultural change. Organizational culture refers to the collective values, beliefs, and behaviors that shape how work is done within an organization. Agile methodologies promote flexibility, adaptability, and collaboration, which require a shift in mindset from traditional hierarchical and command-and-control structures.

Throughout these interviews, it became clear that traditional organizational culture posed a significant obstacle to the successful adoption of agile principles and practices based on participants perspectives from different organizations.

Participants perceive that any change in the organizational culture is frequently met with disagreement. They mentioned that the primary source of resistance to change typically comes from the top management of the organization. This resistance may arise from various factors, such as fear of the unknown, concerns about the impact on established hierarchical structures, or a lack of understanding of the benefits of the Agile mindset.

Many organizations have a hierarchical culture, where top-down decision-making discourages collaboration, autonomy, and self-organization. This makes it difficult for teams to adopt Agile methodologies. Additionally, some organizations prioritize individual performance over teamwork,

leading to isolated departments and a lack of collective ownership. In addition, Organizations that highly value strict adherence to processes and regulations struggle to embrace the flexibility and adaptability of agile frameworks.

Team knowledge and skills

Participants mentioned a range of challenges that constitute an obstacle to the application of the agile methodology, including the lack of scientific knowledge of this methodology and skills, which in their view is the first step to initiating the application of this methodology. They also stated that the reason for the lack of knowledge and skills is due to the mentality within the work system, i.e., a traditional mentality that does not give all importance to development and improvement.

Previous participants also made it clear that in order to overcome these challenges, it is necessary to ensure that people understand the benefits and value of being agile. It's as much a heart as a head. Heart means emotionally inspiring them to develop their passion for learning, while head means providing them with the necessary knowledge, skills, and tools. This can be achieved through training courses, on-the-job learning , and using vendors' experience to assist the team. It is important to develop the passion of the team, which is why it is also important to encourage them to think outside their comfort zone.

Change resistance

Participants highlighted a very important point: the reason why the Panel has resisted choosing to apply the flexible methodology in their work and projects is because they do not prefer to commit to full transparency and keep stakeholders regularly informed of their progress. This is because some team members prefer to stay in their comfort zone and avoid frequent interactions with stakeholders. Participants also cited another reason for resistance: staff anxiety and fear of experiencing a new methodology. Participants also noted that the traditional mentality in the application of projects was a strong resistance to the transition to agile methodology. One participant also stated that the lack of support, motivation, encouragement, and knowledge of employees is an important part of the success of any job. It is also considered a cause of resistance and fear of change. The absence of a qualified person to influence the task force and clarify where we are headed, the aim of which is to use a more modern and complex methodology that is a bargaining ground.

Discussion

This chapter seeks to offer a comprehensive summary of the knowledge acquired from both the literature review and the interview results. It aims to establish a clear link between the identified issues and the primary objective of the research. This section will explore the challenges encountered during the transition to agile project management while also examining potential best practices that have been identified through this study.

Organizational Culture

Organizational culture poses a challenge when adopting agile practices. It serves as a tool for management to control, motivate, and enhance employees' performance within the organization (Oweyemi & Ekwoaba, 2014). Thus, Effective management control ensures the achievement of organizational objectives and goals. Consequently, any change process should begin by changing mindsets, behaviors, and communication before addressing working practices. There are two approaches to change: top-down or bottom-up . While neither approach is inherently wrong, the top-down approach is generally more accepted as it fosters better coordination and stakeholder support (Boehm & Turner, 2005). Boehm and Turner describe a new process as "organizational antibodies," where concerns about inadequacy and business imperatives emerge when new ways of working are proposed. Adopting a top-down approach, where executives are the first to be informed and understand the change, helps mitigate resistance from change agents. In this study, Participants D and E emphasized the critical role of stakeholder and top management support in implementing new methodology changes, providing guidance aligned with the organization's mission, vision, and goals.

Implementing change should not occur without knowledge and facts. Agile is a flexible yet complex process that demands communication, collaboration, trust, commitment, support, visibility, and consciousness from all stakeholders involved. Its impact extends beyond a single unit, requiring contributions from all associated parts and members of the organization.

Cultural barriers may arise due to prolonged periods of working with traditional development methods. One best practice that can aid IT managers in agile transformation is to shift the role of managers from “managing” to “leading,” changing their style from “command and control” to “leadership and collaboration.” Participant E highlighted the crucial role of project management leadership, with project managers ensuring that stakeholders and teams are well-informed and motivated throughout the project.

Furthermore, to help overcome these cultural challenges, it is essential before transitioning to Agile to have a clear objective regarding the need for considering Agile and the expected results of the transition. It is also important to explore alternative approaches that can yield similar results with less effort. Wang (2017) emphasized that Agile transformation typically begins with conducting an initial assessment to understand the current situation. This involves identifying current business processes, ongoing initiatives, and key performance indicators.

According to Shokoya (2012), it is considered best practice to recognize that the organization’s existing size and culture significantly impact the strategy to be employed. In general, the transformation process should go through the following stages:

1. **Understand:** The organization should initially understand what it intends to change, its current state, and its desired future state. It is essential to have a clear understanding of business objectives and organizational culture.
2. **Educate:** Employees should be educated about the concept of the new methodologies that will be implemented during the transition.

3. **Execute:** The organization must take action to bring about the desired change. This execution phase does not mark the end of the cycle; it continues with subsequent iterations, where understanding and knowledge progressively increase.

Team knowledge and skills

Based on previous studies and research and researchers' opinion, there is a weakness in the skills and knowledge of the workforce to apply a flexible methodology. One of their proposals was to engage external consultants who would bring practical knowledge from other situations and environments that could be useful in avoiding pitfalls. approach, recommending tips and techniques to implement the project, and providing training or support to team members also suggested by previous researchers that having many experienced team members is ideal as Agile coach because it considers the role of expertise important and is more appreciated when it exists and works with the team.

Previous researchers have also mentioned the problem of the degree of expertise, skill, and knowledge with which the team works with technology and subject matter. The fewer experienced people, the more older people will have to guide and train people's beginners, and the team will be less productive than if I told all people. This point was from the perspective of previous interview participants. Researchers also highlighted some solutions to this challenge, using experienced outside advisers who bring practical knowledge to people from other situations and environments that can be useful in avoiding previous barriers, and leveraging their expertise and recommendations in implementing best practices for agile methodology.

Providing a person named the Agile coach is a server leader responsible for the success of the project by supporting the owner product and team in applying agile practices. The Agile coach also solves the team's problems and tries to reduce outside interference in the work of the group. Experienced Agile trainers have a selection of tools, techniques and methods to educate the organization about agile practices and support the team and product owner in identifying and resolving problems and conflicts. It can help avoid problems such as determining the root cause of the outage or a lot of unplanned tasks. It can support development through stages of development from unwillingness to willing and inexperienced team members to trust. It can also facilitate the relocation of a newly formed team from a group of members of the team in self-regulation. It is also one of the solutions mentioned by previous participants to overcome the challenge.

Change resistance

Previous researchers highlighted that the transition to a agile process affects all of the company's structure (e.g., development team, departments and management). Resistance can also be found in all these elements because the structure is different, and previous speech means that there is no support from the senior departments associated with the organization's structure and this is one of the influential factors.

Hajjdiab & Taleb (2011) Agile processes encourage greater participation of all Employees in the organization. Knowledge sharing is one of the key elements for the success of this model. However, frequently, resistance is often encountered due to the lack of communication and ability to work in teams. This is what previous participants mentioned through their experience and experience

working with different task forces. Sometimes departmental silos or even ad-hoc relationships arise.

Agile methodologies must be able to break these barriers to success.

Conclusion

This research aimed to identify the major challenges faced by IT project managers in the Kingdom of Saudi Arabia during the transformation to Agile methodology. Through interviews conducted with IT project managers from both public and private organizations, valuable insights were gained regarding the challenges and best practices for a successful transition.

The findings of this study revealed three key challenges that IT project managers encounter when transitioning to Agile methodology in Saudi Arabia. These challenges include:

- **Organizational culture:** The existing organizational culture may not be conducive to Agile practices. Hierarchical structures, rigid processes, and resistance to change can pose significant challenges to the adoption of Agile methodology.
- **Lack of team knowledge and skills:** Many IT project managers face difficulties in comprehending the principles and practices of Agile methodology. This lack of knowledge can hinder the successful adoption and implementation of Agile practices.
- **Change Resistance:** Transitioning to Agile methodology often requires a significant shift in mindset and culture. Team members may resist the changes, leading to a lack of collaboration and hindered progress in Agile projects.

To overcome these challenges and ensure a successful transition to Agile methodology, several best practices were identified:

- A clear business objective and vision for top management and IT team.

- Do initial assessment to understand the business current situation and its readiness to transition to Agile methodology.
- Engage external consultant and experts.
- Provide necessary training and support to IT team.

By recognizing and addressing these challenges and implementing the recommended best practices, IT project managers in Saudi Arabia can enhance their project management practices and achieve better results. The successful adoption of Agile methodology will enable organizations to respond effectively to changing requirements, improve collaboration and flexibility, and deliver high-quality IT projects.

Limitations

The nature of this study is qualitative, including interviews and case studies. A case study of the public and private sectors involving IT teams produced dynamic results, but possible directions for future studies were also identified during this study. One possible future study may be to obtain a larger sample size from the participants involved and to examine the study's results. Multiple case studies can be conducted with a larger sample to achieve qualitative and quantitative results.

There is a need to increase the number of interview participants in the interview process. A range of constraints, time and situations were taken into account, taking into account various efforts to ensure data-rich inputs from participants, but the presence of participants at the operational level would have a greater impact, enhance the study's results, and provide a broader perspective on the challenges that constitute an impediment to transition. However, these limitations have opened up

A potential path for future researchers, and the data collected will be helpful for anyone who wants to search closely for updates that impede the transformation of the agile methodology.

Through the results of research and interviews with participants in a case study in the public sector and a case study in the private sector, we have identified the most prominent three challenges that are major obstacles in the transition to agile methodology:

1. Organizational Culture.
2. Team knowledge and skills
3. Change resistance.

We wish future researchers to expand more in research, increase research samples and deeper in depth than us to conclude more challenges that cause obstacles to transitioning to agile methodology
All the best for them.

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Appendix

Appendix 1: Interview Guid

1. Based on your experience, Would you prefer to transform to an agile methodology in your projects? Why?
2. If yes,
 - What motivates you to choose the Agile methodology?
 - What changes have you noticed in your team while applying the agile methodology?
3. Have you participated in an unsuccessful project that utilized agile methodology? If so, please describe the project and your experience with it briefly?
1. What are the most significant obstacles you face within your organization that affect or prevent you from using agile methodology?
2. How do you currently handle changes made in the project scope or requirements during the project execution?
3. From your perspective, what potential solutions or practices could be implemented to overcome the obstacles you have identified?
4. Based on your experience, is there anything else you would like to mention or any feedback you would like to provide that has not been covered?

Appendix 2: Interviews

Interview A

The interview was conducted through Zoom and lasted for 30 minutes. The participant previously worked in a private sector company in the IT department with the title IT Quality and then moved after a while to the public sector to become a Director of IT Operation in the IT department. The participant provided details of his experience in the various sectors he worked in. The participant stated that he would prefer to apply the agile methodology to facilitate the division of projects and know the results faster, but that his impediment in applying this methodology is the lack of experience and skills of his team and their lack of knowledge regarding the methodology and how to apply it in their working environment. The second obstacle mentioned by the participant was that the organization's traditional and decades-long culture made it difficult to obtain support and change in the application of such a type of methodology. The participant also mentioned that it is important to get the support of senior management because it will reflect in his work by reducing the risks, increasing the quality of the team's results and raising the satisfaction of the beneficiary of the service in the counterpart. The participant also explained that to alleviate this gap between the methodology and his team, he suggested that training and development courses develop the skills and knowledge of his team so that they can apply the methodology easily. Also, the participant personally noted that some of the work was done in this methodology without knowing it or knowing enough, but he believes that the secret to success is to apply modern methodologies to projects of a technical nature.

Interview B

The interview was conducted through Zoom and lasted for 30 minutes. The participant previously worked in the public sector in the IT department and obtained the position of network specialist. He then moved on after a year and joined a company interested in the field of communication to obtain the position of project network engineer. He continued to work with them for about a year and a half as well. Then he moved to work for a leading telecommunications company and earned the position of senior network engineer. Through his previous experiences in both the public and private sectors, The participant noted through his experience and working with different teams that no person is certified and qualified to apply this methodology and lead this change on clear grounds. This is considered by the participant as an obstacle facing the team. The participant also mentioned that when he decided to apply this methodology, he faced resistance from his team. This may be due to employees' fear of applying a new methodology and their work being different from the previous and their lack of interest in improving the business.

The participant stated that there was a group in his team with IT expertise but that they could not see modern methodologies such as agile methodology what the participant considers the knowledge impediment of his team is among the reasons for resistance. The participant confirmed that he prefers to use the agile methodology for easy adjustment of the project operations and ensure continuous improvement between the project stages. The participant also noted the high quality of the project when dividing the delivery for several stages, which increases the focus of his team and saves time. The participant also recommended some solutions that help in applying this agile methodology, such as providing qualified staff and integrating them with the task force to transfer their experiences and knowledge and demonstrate the best results of this practice. It would also be preferable to provide a

healthy working environment that supports the application of such methodologies and to provide the necessary support from senior management.

Interview C

This interview was face-to-face and lasted 30 minutes. The participants in the private and public sectors worked in several management positions. The participant stated that he had practical experience on the subject of applying the agile methodology as he worked on the ERP project and was running this project with the traditional methodology. During this project, he noted the delay in the delivery of the project and the launch of the next phase of the project. The participant stated that he believed in the theory of perfection and that the project must be delivered, free of any problems and in full Readiness to adhere to this theory caused delays in the delivery of the project, as mentioned earlier here. The participant decided to use the agile methodology to address the problem of delay, raise the quality of the delivery on time and address the problems immediately. The participant explained that some obstacles are strongly managed in terms of adherence to a firm decision, lack of thinking, change and acknowledgement of error due to the management mentality that manages the task force within the organization.

The participant highlighted that following the Organization as a whole using traditional methodologies for a number of years causes great resistance to adopting a modern, agile methodology we must constantly develop employees, inform them about the most important methodologies and sciences that increase the success of the work, and increase their awareness and training to produce best practices. The participant also highlighted what he noticed about the staff once the transition to applying the agile methodology was made: the enthusiasm and passion of the

staff at every stage of the project and the reason why they see the results appear at every stage faster, which gives them an incentive to continue. The participant stated that traditional organizations should see and update their internal systems to align with the practical transformation of this time. The participant also mentioned a phrase summarizing past experiences and targeting people working on IT projects: *"Don't be traditional. Go with Agile"*.

Interview D

This 40-minutes face-to-face interview with the Chief Information Officer (CIO) of a leading FMCG company in Saudi Arabia. The CIO has over 28 years of experience in IT projects in different countries such as India, France, Germany, the United Kingdom, and Saudi Arabia. Upon joining the current company, the CIO observed that IT projects were predominantly using the waterfall methodology, with no implementation of Agile practices. He firmly believes that it is essential for FMCG companies to adopt Agile methodology within their in-house IT team to effectively align with the business's competitive strategy.

When asked about his preference for adopting Agile methodology, he expressed his belief that the choice of project management methodologies, whether it be waterfall or Agile, should depend on the project's type. He acknowledged the need to transition towards Agile methodologies but emphasized the importance of a coexistence with traditional waterfall methodology. The goal would be to select the most suitable methodology based on the unique characteristics of each project.

"Yes, we have to move towards adopting Agile methodologies, but in a way that coexists with traditional waterfall methodology, and select the methodology based on the type of the project."

Furthermore, the primary motivating factors for implementing Agile methodology as identified by him, are the methodology's ability to effectively respond to the business's expectations regarding delivery speed, and its suitability for digital content projects. Concurrently, he has observed a mix of fear and excitement among the team. The fear stems from starting a new journey and uncertainty about their abilities, while the excitement arises from the team's willingness to learn and embrace the changes.

As a leader, he firmly believes that it is his responsibility to address the team's fears and foster their excitement. He aims to achieve this by equipping them with the essential tools and providing the necessary training they need.

Moving towards a new work methodology can be a challenging endeavor for companies. He recognizes as a leader that organization maturity and mindset are significant barriers to Agile transformation. Additionally, the lack of team discipline and necessary capabilities further hinder the process. To overcome these challenges, he said that the first step is making sure the IT team recognizes and understands the benefits and value of adopting an Agile approach.

"For me to overcome these challenges, it is essential to ensure that people recognize and understand the benefits and value of being Agile. It's as much heart as it is head. Heart means inspiring them emotionally to develop a passion for learning, whereas head means providing them with the

necessary knowledge, skills and tools. This can be achieved through training courses, on-the-job learning, and using the expertise of vendors to help the team. It is crucial to develop the team's passion, which is why I have been encouraging them to think outside their comfort zone."

He recognizes the crucial nature of providing essential training in many areas such as implementing a new work methodologies, discipline, and documentation. Alongside training the team, he acknowledges the importance for IT managers to act as a role model and guiding the team through the work process.

"IT managers must take the lead and serve as role models for their teams. However, if some team members are not willing to learn, it can be demotivating and hinder the progress of the entire team. The leadership of IT managers plays an important role in overcoming these challenges."

Interview E

During the face-to-face interview, the project manager discussed his 16 years of overall experience, with 8 years specifically focused on project management. He began his career as a software developer and progressed to the role of assistant manager before becoming a project manager.

The project manager emphasized the importance of aligning the project management methodology to the characteristics of the product being developed. For instance, when working on an ERP system that replaces an existing system, he Favors employing the waterfall approach. This is because the project scope is well-defined, and any changes can be managed through change requests (CR). On the other hand, when dealing with a new small product like a consumer innovation product, where

the requirements are not fully known and the input and output are still being determined, he opts for implementing the Agile approach.

"Implementing agile is not about motivation, it is a requirement based on the product type"

When questioned about the significant challenges of adopting agile methodology, he specifically highlighted the cultural factors, especially those related to top management and the mindset of the development team. He sees the transition to Agile can be perceived as a "paradigm change" because it requires a shift from traditional, waterfall-style thinking to a more iterative and collaborative approach. This shift in mindset and organizational culture is crucial for successful Agile implementation.

"In my experience, having the support of senior management is a crucial factor for the success of a project. Regardless of the approach used in the project, I believe 70% of the project's success can be attributed to all the individuals involved in the project."

As the project manager, he has observed that his team sometimes experiences frustrations during the software development phase. These frustrations arise when, in the middle of working on a task, they are suddenly assigned a new task that requires them to shift their focus. This interruption can be disheartening as they must abandon their current work and start from scratch on a different task. However, he believes that these frustrations can be mitigated if the team understands that the end product will be a success. It is essential for him to keep them motivated throughout the project, he emphasizes that although they may be scrapping the current task, the new feature or requirement is equally important for the project's success.

Keeping the team well-informed is a significant challenge. If team members are not adequately informed, it can lead to misunderstandings and project failures. Therefore, he prioritizes clear communication and transparency to ensure that everyone is on the same page and understands the project's direction.

"This is where effective project management leadership plays a crucial role. The project manager ensures that the team is well-informed and motivated throughout the project. It is important to strike a balance and stretch the team's capabilities without pushing them to the breaking point."

To address the challenge of keeping the team motivated and engaged, the project manager suggests organizing team activities outside of the project scope. These activities aim to refresh the team and reduce their frustrations. The project manager also suggests allocating a dedicated budget for team rewards and engagement. This budget ensures that the team feels valued and appreciated, which boosts their motivation and reduces frustration.

Moreover, the project manager emphasizes the significance of accountability and autonomy in empowering the team to propose their own solutions. Instead of being rigid, the project manager encourages team members to take ownership of their work and contribute their ideas. This approach not only increases team engagement but also allows for different perspectives and solutions to contribute to the project's success.

Interview F

This interview which was with business Analyst conducted through Microsoft Teams. The participant has more than 4 years of experience in project management as Business Analyst. In her role as a Business Analyst, she is responsible for identifying and resolving issues that impact the business solution. She works closely with top management and the IT project managers to analyze the current business systems and provide recommendations for improvement.

She strongly believes that adopting Agile methodology will greatly improve efficiency in her tasks, enhance communication, and reduce the time spent on communication between the IT team and stakeholders. She emphasizes that frequent meetings with stakeholders and the use of incremental releases will bring significant benefits, especially for large IT projects. This approach promotes better collaboration, faster feedback from stakeholders, and more effective project delivery. Additionally, it mitigates risks in large IT projects by enabling early identification and resolution of issues during the initial phases.

According to her perspective, a significant obstacle in implementing Agile methodology is the team's resistance to maintaining transparency and regularly updating stakeholders on their progress. Some team members may prefer to stay in their comfort zone and avoid frequent interactions with stakeholders to avoid feeling pressured or scrutinized. This resistance to engaging with stakeholders can hinder the effective implementation of Agile practices. Furthermore, she believes that the communication skills, mindset, and relationships within the IT team are also significant obstacles to overcome. It is crucial to eliminate the "they" and "we" mentality between the IT team and

stakeholders and instead foster a sense of collaboration and shared objectives. By emphasizing a unified "we" approach, where all parties are working towards the same goals and objectives to project success.

To successfully lead the transformation towards Agile methodology, she believes that having a dedicated and qualified Agile practitioner is crucial. This person would be responsible for training stakeholders, project managers, and development teams in adopting the Agile mindset and methodology. By having a skilled leader driving this transformation, the organization can effectively transition to Agile and realize the benefits of this approach.

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