



Design Thinking Skills and Implementation for Managers: The Pros and the Cons

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ABSTRACT

Purpose: The paper discusses the design thinking skills of program managers and the advantages and disadvantages of design thinking skills. It provides in-depth knowledge about implementing design thinking skills in companies and how it allows the program managers to take effective decisions and deliver the programs smoothly.

Methodology: The methodology used in this research is the qualitative secondary research because authentic articles and journals have been reviewed in order to enhance the overall research and meeting with the research objectives.

Approach: The research approach used is the inductive research approach because the research analyses qualitative secondary information based on the importance of design thinking skills for managers.

Findings: Findings reveal that in an organization, the program managers have lots of responsibilities, and they are also required to deliver the projects effectively and in a given time.

1. INTRODUCTION

1.1. Background of the research

The Importance of design thinking in project management is important because the application of design thinking have always benefited the sectors of strategic management and planning. Effective implementation of design thinking skills in an organization helps in overcoming some of the significant challenges that a project manager face [1][2]. Design thinking skills in practice helps in minimizing the problems by application of a number of innovative approaches and solutions that affects the entire business development. However, the project will identify some of the pros and cons of design thinking skills that project manager faces before uh successful implementation of the processes [3]. In certain times application of design thinking skills can create larger amount of complex situations for organizations especially since employees are already adjusted in a specific mode of working [4]-[7]. The sudden change of organization

management by the implementation of design thinking skills by the project managers' resistance to those changes might occur, thus impacting low employee productivity and morale [8]-[11].

1.2. Aim of the Research

The project aims to fulfill the different advantages and disadvantages of utilization of design thinking skills for the project managers' performance. In the present generation the design thinking skills play an important part in enhancing or maximizing the productivity and efficiency of managers [12]-[16]. The project will therefore identify the different design thinking skills that project managers must adopt in order to ensure effective implementation of those design thinking methods in fulfillment of one particular project [17].

1.3. Objectives of the Research:

- The primary objectives of the research project have been outlined in the following:

- To understand the advantages of design thinking skills for project managers in the organization
- To understand the disadvantages of design thinking skills for project managers in the organization
- To identify the appropriate approaches for successful utilization of design thinking skills by project managers

1.4. Hypothesis

H1: Design thinking skills present assists project managers to solve organizational problems and improve overall efficiency

H2: Design thinking is hard to implement by project managers and presents complexity to organization.

Research questions

- What are the benefits of application of design thinking skills for project managers in an organization?
- What are the challenges for implementing design thinking skills for project managers in organizations?
- What are the appropriate approaches for successfully utilising design thinking skills by project managers?

1.5. Chapter Organization

The first chapter of this research project identifies the research objectives and questions along with creation of the research hypothesis that helps in a detailed evaluation of answering the main research question that is **Pros and cons of design thinking skills for project managers** in an organization. The second chapter that is the Literature review is the basic foundation of the research because this chapter explains the viewpoints are analysis of different previous researchers who have provided evidences about the advantages and disadvantages of design thinking skills for the project managers [18]-[24]. The second chapter of this project is divided into a number of themes that are accumulation of the research objectives created above. The primary aim of conducting the literature review is to gain insights about what were the previous researchers or information available across different websites, journals and articles in terms of project managers facing difficulties or are being successful by the application of their design thinking skills [25]-[32].

The third chapter of this research is the methodology chapter where different methods and tools has been discussed that it's been applied or used in this project to successfully fulfil the research objectives. An analysis of the different tools and techniques along with the identified research philosophy and approach has also been looked upon. The fourth chapter deals with providing a complete analysis of the secondary data that has been gathered from researching a number of articles and websites. In this chapter and appropriate analysis and discussion has been done regarding weather application of design thinking skills is useful or not useful for the project managers. The last and the final chapter is the conclusion chapter when the entire project has been concluded along with providing the necessary recommendations that the project could have adopted to enhance the project.

1.6. Problem Statement

The paper discusses the design thinking skills of program managers and the advantages and disadvantages of design thinking skills. The paper starts with a brief introduction that gives an idea about design thinking in an organization and its effectiveness in designing projects. The research problem is also identified, and the research objectives and questions are clearly defined [33]-[34]. Further, the literature review section gives a detailed understanding of the design thinking skills of managers and their pros and cons. Finally, it also discusses the effectiveness of design thinking and the role of design thinking for program managers.

- **What is the problem?**

It has been found that most organization faces issues in developing projects, and most of the program managers, face problems in developing projects. Sometimes it becomes difficult for managers to manage many programs together [35]-[40]. Taking knowledge from the past and implementing it in normal day-to-day project development does not provide effective solutions. The program managers need to think out of the box to deliver the project successfully in the company, and this could be done by adopting design thinking skills [41]-[46].

- **Why this is a problem:**

In today's time, the business environment has become complex, and the implementation of new and advanced technology has made the task more

accessible, but sometimes managing this work and teaching it to the team members takes time [47]-[52]. The managers are required to handle many things in the organization, and it is normal for them to forget about the main goal and objective of the project [53]-[55]. Thus, the implementation of design thinking skills helps managers to develop projects keeping in mind the organizational needs and program objectives and deliver a successful project to the organization [2].

2. LITERATURE REVIEW

The role of design thinking in program managers: The author states that design thinking is an attribute of the modern movement in the 20th century, where people desire to develop works of art based on rationality and objectivity [56]-[60]. Thus, design thinking is defined as a new approach to infuse innovation. It is a “Human-centred approach for innovation that draws the designer’s toolkit for integrating the needs of people, the possibilities of technology, and the requirement for business success [61]-[64].” The approach of design thinking is also considered the ability to combine empathy, rationality, and creativity to analyze solutions to a context [65]-[69]. The program managers struggle to complete their work as the programs and projects are getting complex [70]. Adopting the design thinking approach allows program managers to complete their tasks smoothly and provide a solution to complex issues [3][71][72][73]. To implement design thinking in program management, the managers must consider end-users and adopt the human-centred approach by designing the project management tools and methods [4][74].

Further, the program managers should keep the objectives and goals of the project in mind. In developing projects and programs, it is common for the team members to need to remember the ultimate purpose of the program, which could get filled by unnecessary activities daily [75]-[77]. Hence, the adoption of the design thinking methods and linking them to the day-to-day activity will allow the team to remember the goals and perform activities that lead to the ultimate customer outcomes [5][78][79].

The design thinking program also helps managers to create unique solutions to issues [80]-[85]. It allows the managers to understand the needs of the people and the business requirement, and then the

program managers see the possibilities of technology to solve the issues and complete the work efficiently [86]-[90]. The design thinking approach also allows program managers to adopt the collaborative working style for accommodating complex ecosystems in the workplace that are nowadays common in organizational projects and programs [91]-[94]. It allows the managers to create an open and collaborative work environment with a creative solution to issues arising in program management [6][95][96][97]. It has been found that sometimes companies struggle to maintain and develop an innovative work culture that is integrated with the sustainable business model [98]-[101]. The adoption of design thinking by program managers allows the companies to develop innovative work culture; it also allows the company to adopt a digital environment and make effective solutions to project development issues [7][102][103][104].

2.1. Effectiveness of Design thinking for program managers:

The author narrates that, in an organized program, managers play a crucial role. They constantly look into the development of the project and go beyond their job role to execute, plan, and deliver essential projects while managing time restraints and strict budgets [105]-[110]. A good program manager delivers a project successfully, and it looks effortless. However, developing and executing an effective project is not that easy, and it takes a lot of effort, work, and patience [111]-[113]. The design thinking program allows managers to develop problem-solving techniques and help them to get innovative solutions for the seamless delivery of projects [8][114][115]. The program managers could successfully design and deliver their projects with design thinking, and there is no doubt that it allows the managers to develop user-centric and creative solutions [116]-[120]. The steps and methodologies of design thinking allow the program managers to have a better direction for their program and deliver effective results for its stakeholders and users [9][121][122].

Design thinking provides the manager with problem-solving techniques and has mainly three stages innovation, collaboration, and acceleration [123]-[126]. This allows the managers to have a better understanding of the end-users and gives a direction for completing their work in hand [127].

Moreover, it has been found that managers could use different steps to implement design thinking in an organization [9][128][129]. One of these steps is a concept poster. This technique is useful to program managers for summarizing ideas through summaries, timelines, sketches, and graphics [130]-[136]. The step allows the manager to communicate to the stakeholders about the requirements of the project, how it needs to be completed, and its importance to the end-user [10][137][138][139]. Further, the managers could use the Affinity Clustering technique for implementing the design thinking technique. This step allows the managers to develop a visual diagram and sort the items by their similarities [140]-[145]. This sorting is executed with the help of whiteboards, sticky notes, and chalkboards. The affinity clustering technique could help in identifying the common patterns and the major issues that are required to be addressed to enhance customer experiences [11][146][147][148].

2.2. *The pros and cons of Design thinking:*

The author states that along with the use of new and advanced technologies, the organization sometimes faces issues related to program development, and to solve these issues, the program managers are needed to think out of the box, and this thinking is termed design thinking [149]-[153]. It is a solution-based approach taken by program managers to solve project development-related issues in the organization. The implementation of the design thinking approach provides a lot of benefit to the companies and also help the program manager to deliver the projects successfully [12][154][155]. The primary benefit of implementing design thinking is that it kindles creativity. Normally the program managers solve regular issues by gaining knowledge from the past [156]-[160]. The experience and knowledge from the past narrows down the ability to think of team members and managers and let them think within the boundary of existing knowledge [8][161][162]. However, design thinking allows program managers to think outside of this linear track. It provides managers with new opportunities to use their innovative and creative ideas to solve human issues and project management issues [163]-[168]. The creative solution given by program managers are more effective than the regular test and try methods and

help in the successful completion and delivery of the projects [12][169][170].

Moreover, the implementation of the design thinking approach in companies helps in venturing into new pathways and ideas [171]. A good example of a design thinking approach is consumer goods packaging [172]-[175]. Multinational companies like Procter and PepsiCo have developed unique packaging ideas for their products. This has helped the companies to enhance their sales. Design thinking also allows program managers to open up new opportunities for the launch of new products and deliver the product efficiently to the end use [13][176][177]. The innovative ideas developed by design thinking help in eliminating regular high-cost products and replacing them with innovative and low-cost alternatives, which is beneficial for the organization [178]-[182]. However, everything has some limitations and drawbacks. Some of the disadvantages of using design thinking are that it takes a long duration and also needs the direct involvement of users [14]. The program managers and team members are required to develop a position for themselves to contribute towards design thinking by seeing the available resources and time. Additionally, in design thinking, the managers focus primarily on easing the lives of end users, as they will be interacting directly with the innovation and ideas. So, the program managers mainly perform all the things to see that the end user is happy; however, they forget to look after the users that will be part of the ecosystem [15].

3. METHODOLOGY

3.1. *Research Philosophy*

An interpretivism research philosophy has been considered for this research project. By virtue of using this philosophy, prior background knowledge of the advantages and disadvantages, strengths and weaknesses, opportunities and threats of design thinking skills of project managers has been noted [16]. As a part of the program, the existing theories and opinions presented by authors across various peer-reviewed articles and journals have been reviewed in detail as a part of the interpretivism research philosophy. Based upon this philosophy of research, the extraction of qualitative information from trusted secondary sources of library data has been further analysed to develop the proper

foundation and background knowledge [17]. The opinion provided by authors in the published literature sources has been interpreted.

3.2. Research approaches

In this research project, the focus has been given to utilizing the inductive research approach to meet the desired outcomes. Furthermore, this approach also involves theoretical evaluation and understanding the author's perspective, which our research project considers. As this research project is related to the identification of the advantages of design thinking skills for project managers in the organization, existing sources of literature and published theories can be primarily looked upon. Thus the utilization of the inductive approach is very much justified [18].

3.3. Research strategy

Obligation to a qualitative research design technique has been made and based on the technique the overall strategy of execution has been formulated. The primary research strategy is associated with the incorporation of a case study method by which proper direction to the data collection procedure has been regarded. This strategy has been assistive in achieving desired outcomes and gaining accurate information. This is mainly because existing case studies will be evaluated in detail. This strategy will be beneficial in observing different types of scenarios, which signifies the pros and cons of design thinking utilized by project managers to solve organizational problems. Vast sets of secondary library information have been extracted this information will outline the implications of the design thinking process in it.

3.4. Choices and time horizon

Obligation to a cross-sectional time horizon will be made, and data will be extracted at one point with a shorter time frame. The choices used are the mono method because the research uses only the qualitative methodology for achieving the research objectives.

3.5. Data collection techniques

Consideration of qualitative data collection procedure has been regarded by which existing library data from authentic and trusted sources have been accumulated on the given topic. Focus

has also been given on the case study approach based on the implications of design thinking and their pro and cons on the project manager and organization performance [19]. Refined sets of information from various peer-reviewed articles and journal papers have been duly extracted as a part of the data collection procedure. Some reliable databases have been looked upon for the extraction of validated sets of information used, such as Google Scholar. The authenticity of the articles has been duly checked prior to the selection. Focus has been only given to accumulating secondary library data from trusted sources belonging to the last 5 years.

4. ANALYSIS METHOD

The data analysis method used in this research has been an interpretation of secondary data. With the help of the descriptive technique the literature review program has been conducted to review or evaluate the existing studies from authentic sources. A number of pieces explaining the pros and cons of utilizing design thinking skills for project managers have been looked upon. All the qualitative data that have been systematically collected have been interpreted with the aid of descriptive techniques. Detailed analysis of the secondary data is carried out by means of the execution of a Literature review. A thematic interpretation of the information has been made to evaluate the pros and cons of project managers' design thinking process on the overall organizational efficiency. Moreover, as the research follows the secondary method of data collection based on descriptive technique, it was ensured that an appropriate amount of searching was done before selecting the articles [20]. The data have been analysed in a thematic format with relevant pie charts and graphs where required. This will lead to ensuring that appropriate articles are implemented through each theme.

4.1. Ethical consideration

All the information that has been collected from authentic sources of secondary libraries will only be utilized by the researcher for academic purposes and not for any kind of personal utilization. Utilization of the academic and peer-review articles will be done as a part of an ethical obligation [18].

5. DISCUSSION

The literature review findings show that the design thinking approach allows program managers to identify the need for human resources and develop innovative ideas to provide a solution to these issues while implementing advanced technologies. It helps managers to think outside of the box and provide creative solutions to issues [7][9]. The design thinking approach allows the program managers to take decisions by keeping in mind the needs of end-users. It also allows them to develop the project by aligning with the purpose and goals of the program [2]. This creates a lot of chaos for the project manager and makes the task complex for them. The adoption of design thinking helps managers to make a strategic plan and execute it for effective results and successful delivery of the projects in the organization.

With reference to different global cases, a significant finding from the literature review can be mentioned as the importance of design thinking approach on stakeholder management. Research reflects that the design thinking approach allows program managers to understand more about the expectation and needs of the stakeholders and also identify the best stakeholders. It allows manager to empathise stakeholders and provide them with innovative and creative solution for problems. It could also be defined as a form of solution-based thinking. The engagement with stakeholders, enhances the relationship between leadership, management and stakeholder's and all in better delivery of projects.

The design thinking approach allows the program managers to balance the business viability, user desire, and technological feasibility and helps them to understand the effective strategies for reframing, framing, and implementing activities to address the difficulties in the company. The creative and innovative ideas developed by design thinking help in eliminating the regular high-cost products and replacing them with low-cost initiatives and innovative products [8].

6. CONCLUSION AND RECOMMENDATION

The completion of the project provides detailed knowledge about decision thinking approach in an organization and the benefit it provides to the companies. The paper's findings show that some multinational companies like PepsiCo and Procter have developed innovative and unique packaging

ideas for their products, and this has allowed them to enhance their overall sales. It has also been found that several companies like Samsung, IBM, Google, and Bank of America have implemented the use of design thinking for the goal of innovation, and it has given them ground-breaking solutions like Savioke Robot. Further findings reveal that even in academic studies, there has been an increased need for theory-driven empirical Design Thinking research. Thus, the hypothesis that is strongly presented is

H1: Design thinking skills present assists project managers to solve organizational problems and improve overall efficiency

The above hypothesis is applicable because it has been gathered from the research is the application of the design thinking skills enhances the production capability of the project managers.

It has been found that many companies face difficulty in maintaining an innovative work culture that helps in developing a sustainable business model and allow companies to change with the rapidly changing business environment. The implementation of the design thinking approach has helped the companies to promote an innovative work culture, and it allows the team members and managers to think out of the box and get innovative solutions for the project problems. Thus, it is recommended that program managers implement a design thinking approach in their program development and make the delivery of the projects successful and effective. Application of the design thinking skills do enhance organizational management and productivity but at the same time it becomes difficult for the employees to adapt to the change thus a number of conflicts arise. It is therefore recommended for the organizations to properly train the employees so that they acquire the design thinking skills which they can implement. The team members must align their organizational procedures to create ideas that can easily be applied by the project managers and following the four stages of design thinking that is clarifying, ideating, developing and implementing. The implementation of the four designing thinking skills can create a positive environment for the organization to apply their own design thinking skills.

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