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Cultural Dynamics and Ambidextrous Innovation: Insights from Saudi Arabia's Project-Based Organizations—A Thematic–Explorative Study

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Abstract: The implementation of ambidextrous innovation in project organizations within the cultures of the Global South, such as Saudi Arabia, is a significant problem. Organizational culture is positioned as a key factor that can help project organizations in cultures such as Saudi Arabia to implement ambidexterity as a key innovation framework. However, knowledge of ambidextrous innovations in such an important cultural and organizational context is highly limited. Thus, the aim of the present research is to explore key cultural aspects and themes based on action and a grounded theory research approach that can help organizations employ projects as a key work structure to implement ambidextrous innovations in project management offices (PMOs) in Saudi Arabia. To achieve this aim, the current study employed in-depth semi-structured interviews with 36 participants. The results, employing open coding procedures as a tool of data analysis using the NVivo 14.0 software package, revealed 62 key cultural aspects that can be critical in implementing the innovation of ambidexterity. To further validate and triangulate the findings, inter-rater reliability was undertaken with the help of two experts, and two sessions of focus group discussions were also conducted. The first session of the focus group helped us critically evaluate and filter the cultural aspects, resulting in the final 56 key cultural aspects. The second focus group session was undertaken with participants with the aim of grouping aspects into theoretical themes, which resulted in 10 themes. The research is novel in that it addresses both project organizations and the culture of the Global South, including Saudi Arabia. Empirical research needs to be conducted to predict and achieve other key outcomes.

Keywords: ambidextrous innovation; organization culture; grounded theory; project organizations

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1. Introduction

Ambidextrous innovation is a strategic framework that enables firms to develop and sustain a competitive advantage over the long term (Grover et al., 2007). In particular, firms that utilize a project-driven structure to create value are better positioned to leverage the benefits of ambidextrous innovation (Binci et al., 2023). Firms and organizations employing a project-based structure are particularly suitable for nurturing and developing ambidextrous innovation (Eriksson, 2013). Project-based firms are suitable for this due

to their inherent flexibility and dynamic structures. These project-based firms operate through temporary and goal-oriented projects that allow them to balance exploratory (radical) and exploitative (incremental) innovation more effectively (Binci et al., 2023). Thus, ambidextrous innovation can support both short-term operational efficiency and long-term strategic growth by promoting the integration of both (X. Zhang et al., 2021).

Moreover, ambidextrous innovation is often defined as an innovation paradox in which firms have to undertake opposing but complementary types of innovation (AlSaied & McLaughlin, 2024a), i.e., exploratory (or radical) innovation and exploitative (or incremental) innovation (Jansen et al., 2005). An increasing amount of academic literature has suggested that firms and projects adopting ambidexterity as an innovation strategy are able to perform better both operationally and financially (N. Turner et al., 2016; C. Lin & Chang, 2015; Tsai & Wang, 2017). Exploitative or incremental innovation helps firms and projects maintain and strengthen the current trajectory of their market position through continuous improvement of their current products and services (Eriksson, 2013; Heidhues et al., 2016). Such continuous improvement of the current products and services makes them refreshingly novel. Explorative or radical innovation enables firms and projects to develop products and services that create new market opportunities, positioning them as leaders. These innovations can sustain long-term business performance by opening new avenues for growth (Larsson & Larsson, 2018; Sheehan et al., 2023).

Despite the significant and positive impact of ambidextrous innovation, firms often struggle with its adaptation (Birkinshaw et al., 2016). Similarly, projects within these firms face challenges in effectively implementing ambidextrous innovation due to the need to balance exploration and exploitation activities (X. Zhang et al., 2021). Although precise reasons for such struggles with ambidextrous innovation adaptations are yet to be found, some insights suggest that the key reasons include lack of knowledge, expertise (Rialti et al., 2020), financial and other resources (Rossi et al., 2020), and a range of dynamic capabilities needed to innovate (Popadiuk et al., 2018). The knowledge and expertise of technology, products, and other systems are prerequisites for developing something novel (Rialti et al., 2020). Furthermore, testing and experimenting with knowledge often require time and financial resources (Battaglia et al., 2018). Finally, various dynamic capabilities can play an important part in utilizing knowledge to develop, experiment, and commercialize an idea with minimum resources (Popadiuk et al., 2018). However, further evidence suggests that these dominant reasons, among others, are linked to organizational culture, which serves as the enabling force for ambidextrous innovation (AlSaied & McLaughlin, 2024a).

An organization's culture, which includes its norms, beliefs, conventions, and behavioral patterns, establishes its fundamental character. It influences how members communicate, decide, and handle problems that arise from within and beyond (Ouchi & Wilkins, 1985). However, long-term success depends on a strong and flexible culture that not only directs day-to-day activities but also stimulates creativity and innovation (Akpa et al., 2021). Thus, based on these well-established insights from the literature with regard to the relationship between culture and firm performance, such as business (Pathiranage et al., 2020) and innovation performance (Büschgens et al., 2013), it can also be argued that culture can play an effective role in removing hurdles to the adaptation of ambidextrous innovation (AlSaied & McLaughlin, 2024b). Culture can remove hurdles through different means, such as developing a collaborative environment where the acquisition and sharing of knowledge are appreciated (Donate & Guadamillas, 2010), developing dynamic capabilities supporting innovation (Gupta & Gupta, 2019), and providing resources (Do et al., 2016). Although there are some insights into how culture influences innovation and ambidextrous innovation, these insights remain highly limited.

The present research's aim is to explore the notions and aspects of the organizational culture in project driven organizations as a key ambidextrous innovation strategy in organizations (AlSaied & McLaughlin, 2024b). Projects, due to their unique short-term, goal-oriented structures as compared to other organizations, necessitate constant adaptation and flexibility to satisfy the stakeholders' demands. Thus, ambidexterity can be well-suited as an innovation framework that can help projects combine short-term goals with long-term strategic objectives. Thus, it can be argued that projects can naturally be ambidextrous as a result of their attempt to navigate complex and dynamic settings (Binci et al., 2023; Eriksson, 2013). Furthermore, by encouraging cross-functional cooperation and quick information transfer, the adaptable cultural norms common in project-based businesses encourage both exploration and exploitation. Thus, the motivation to understand culture as a key force toward ambidextrous innovation in projects is the basis of the argument that culture can help build knowledge, expertise, and dynamic capabilities and channel the resources necessary to experiment with ideas for innovation (Donate & Guadamillas, 2010; Gupta & Gupta, 2019; Do et al., 2016). Further, it is quite interesting to explore the ways that culture can help navigate the paradox of ambidextrous innovation. The project culture, by developing an environment, tends to promote and balance both exploitative and explorative innovation, which secures long-term sustainability and a competitive edge in quickly evolving markets. Thus, understanding and exploring such key cultural components and aspects (i.e., adaptability and collaboration) can provide important insights with regard to the adaptation of ambidextrous innovation (Büschgens et al., 2013). The aim of this research is to explore key cultural aspects that influence the adoption of ambidextrous innovation in organizations, identifying internal environmental hurdles and developing theoretical themes that impact its adaptation.

2. Literature Review

2.1. Ambidextrous Innovation

Ambidextrous innovation can be defined as an innovation paradox in which firms need to develop a dynamic capability to balance two opposing but complementary forms of innovation, i.e., exploratory and exploitative innovation (AlSaied & McLaughlin, 2024b). Exploratory innovation is referred to as radical innovation, in which firms need to discover, acquire, and utilize new knowledge and ideas to develop novel products and services that can significantly enhance the competitiveness of the firm over a longer period of time (Z. Zhang & Luo, 2020). However, exploitative innovation is known as incremental innovation, in which firms tend to utilize existing knowledge to further improve their existing products and services with the aim of strengthening the current market position of the firm (Xie & Wang, 2021). Moreover, firms tend to strategize innovation activities in order to balance both exploratory and exploitative innovation for long-term competitive advantage (Yang et al., 2021). Ambidextrous innovation helps firms secure their long-term advantage by constantly staying relevant to existing market trends by using the strategy of exploitative innovation and developing a completely new market by addressing new needs or current needs in significantly different and novel ways (Ali, 2021). Thus, it can be argued that both activities, which are completely different, can complement each other in a way that, for example, knowledge of the existing market can guide the exploratory team about radical products and services to be developed, and at the same time, new knowledge developed by the exploratory team can be used by the exploitative team to improve existing products and services in a significantly positive way (Jansen et al., 2005; Braunerhjelm & Thulin, 2023).

2.2. Organization Culture

Organizational culture can be defined as a set of common and shared values, attitudes, norms, customs, and behaviors that impact the way employees within the organization interact and collaborate to accomplish common goals and objectives (Ouchi & Wilkins, 1985). Culture can also be referred to as a set of common presumptions that have grown through active interactions over time and influence the perception of members of the organization (Schein, 2010). The culture of the organization significantly shapes the motivation, morale, and productivity of the employees (Deal & Kennedy, 1983). Innovation in the organization is said to be one of the consequences of a strong organizational culture. A culture that promotes curiosity allows employees to experiment with new ideas and take risks and can promote innovation (W. Zhang et al., 2023). Such organizational culture often welcomes change and cultivates an atmosphere that supports and nurtures new ideas (Hogan & Coote, 2014). Therefore, organizations with supportive and collaborative cultures find it easier to react to shifts in the market, technology, and competitive environments through innovation (Barjak & Heimsch, 2023). In the context of balancing exploratory and exploitative innovation, culture is a significant force (C. L. Wang & Rafiq, 2014). Ambidextrous firms cultivate a culture that promotes flexibility and cooperation, resulting in both the optimizations of current products and services and the innovation of newer and novel ones (Khan & Mir, 2019). Such a culture effectively ensures that teams charged with exploration and exploitation communicate successfully without losing focus. Thus, ambidextrous innovation needs a culture that values diversity in ideas and behaviors in order to help firms stay competitive in quickly evolving contexts (Muhammad et al., 2020).

2.3. Project Innovation and Culture—Saudi Arabian Context

The Saudi Arabian and larger cultural context of the Global South makes ambidextrous innovation both interesting and important, as well as challenging. Economies such as Saudi Arabia are experiencing rapid economic growth and development due to various macroeconomic factors (Pereira et al., 2022). However, increasing literature suggests an increasing focus on innovation as the key to sustaining such economic growth (Simeoni et al., 2020). However, business culture, practices, and the adoption of innovative methods are significantly shaped by both organizational and cultural traits. Cultural characteristics, such as collectivism, deference to authority, and conservative decision-making, may lead to sluggish innovation output (Y. Wang et al., 2021). However, as the literature suggests, the continuous positive impact of innovation in general can lead to a shift and change in the cultural traits that may inhibit any such innovation (Le, 2023). Thus, ambidextrous innovation that balances the paradox of the radical and incremental can foster an atmosphere in which project-driven firms become more motivated to bring innovation, as they can experience continuous and short-term benefits as a result of incremental innovation and achieve long-term and sustained competitive advantage as a result of radical innovation (C. L. Wang & Rafiq, 2014). Furthermore, with Saudi Arabia's ambitious launch of several giga-projects, innovation has become a critical determinant of their success. The complexity and scale of these initiatives require organizations to leverage both exploratory and exploitative innovation strategies to navigate the challenges and opportunities they present (Mohiya & Sulphey, 2021). Ambidextrous innovation, which balances radical and incremental innovations, is particularly well-suited for such large-scale projects, as it allows firms to adapt to dynamic environments while maintaining efficiency in ongoing operations. This dual approach can significantly enhance the sustainability and competitiveness of these projects, positioning them for long-term success in a rapidly evolving market (Batra & Dhir, 2022). Thus, the present research can help us understand such cultural traits of project

organizations in Saudi Arabia for striking a balance between exploratory and exploitative innovation in promoting sustainable growth and competitiveness.

3. Research Methods

The aim of the present research is to explore the aspects of organizational culture that can help foster innovation ambidexterity in the organization. Thus, we have employed the qualitative inductive research approach, which includes grounded theory and action research (J. M. Corbin & Strauss, 1990). This study adopts an action research approach to collaboratively engage with participants in exploring and developing cultural aspects that promote ambidexterity. Secondly, the present study employed grounded theory with the aim of developing theoretical themes that define and combine cultural aspects grounded in the data collected from the participants (Strauss, 1987; Glaser & Strauss, 2017). Grounded theory is a widely used research methodology in social science, as it clearly helps the researchers develop and construct new theories that are focused (or grounded) on research participants' views, thoughts, and perceptions within the complex settings of organizations (Locke, 2001). Thus, it is highly useful for researchers to undertake new discoveries by developing novel theories with empirical consideration and support (Goulding, 1998). Finally, in a situation where the existing literature lacks an explanation of phenomena, such as aspects of culture fostering ambidexterity, grounded theory has been suggested to fill the gaps (Silverman, 2006). Hence, as the inquiry is clearly explorative in nature, an inductive research approach is well-suited because such an approach enables full engagement within organizational settings and helps extract insights with regard to organizational culture fostering ambidexterity (Walker & Myrick, 2006).

3.1. Interview

The present study employed data collection tools provided by the qualitative research design (Hennink et al., 2020). More specifically, this research employed semi-structured interviews to collect data and explore and develop the organizational culture aspects of ambidextrous innovation (Hennink et al., 2020). Semi-structured interviews are highly effective in that they help researchers explore a topic in depth while following the grounded theory framework (Glaser & Strauss, 2017). Interviews in the present research were undertaken in two stages, i.e., pre-interviews and main interviews. The pre-interviews can also be understood as pilot interviews, undertaken with the aim of understanding the context of the research and its setting. Further, pre-interviews also provide some important information that can guide the extraction of key insights while undertaking the main interviews (Majid et al., 2017). Following the pilot interviews, we executed the main interviews with the aim of collecting in-depth data on participant's observations, thoughts, and perceptions of the key cultural aspects of ambidextrous innovations.

The purpose of the main interviews is to conduct open and free discussions, which allow participants to express themselves and their views on culture, organization, innovation, and ambidexterity within the organizations (Hennink et al., 2020). Such discussions will ultimately lead to the development of patterns in the data that can be coded as aspects and theoretical themes (Sackmann, 1991), leading us to a comprehensive understanding of organizational culture as a way to foster ambidextrous innovation in organizations (Adeoye-Olatunde & Olenik, 2021). Using semi-structured interviews to better understand the nature of cultural aspects, we have attempted to (1) uncover cultural components from an insider's perspective (Sackmann, 1991), (2) consider structural aspects like subcultures (Babbie, 2015), and (3) enable comparisons among individuals and research settings (Birkinshaw et al., 2011). The main interviews were continued until the point of saturation, which refers to the stage where the researcher stops receiving any new and novel information

using interviews from participants (Hennink et al., 2020). The following key questions were used in order to start and stimulate the open discussion as a tool for data collection using semi-structured interviews.

- Q1: Tell me about a project you worked on where innovation implementation worked well?
- Q2: Tell me about a project you worked on where innovation implementation did not work well?
- Q3: Tell me about working on your daily project operation and having a new innovative project work well?
- Q4: Tell me about working on your daily project operation and having a new innovative project that did not work well?

3.2. Data Analysis of Interviews

The present research, in order to analyze, attempted to prepare the data by recording and transcribing the interviews. We also incorporated verbatim to capture both verbal responses and relevant non-verbal cues (Bailey, 2008). Following the transcription, we applied the coding procedure to allocate and locate similar and recurring concepts, which we identified as cultural aspects (J. Corbin & Strauss, 2015). Such a process involves allocating a code to the meaningful words and phrases in the data (Miles, 1994). As we progressed with identifying and locating aspects using coding, the process became structured, allowing us to validate the relationships within the data (Weston et al., 2001). The current research employed the NVivo 14.0 version to allocate the codes in the data (Azeem et al., 2012). NVivo 14.0 is a widely used and preferred software package among social science researchers for analyzing qualitative data collected using interviews.

3.3. Descriptive Analysis of Samples: Interviews

The current research collected data from executives, project managers, and employees working in the project management offices of various public sector and semi-government organizations in Saudi Arabia. Table 1 shows the designations of such employees working in project management offices and their respective numbers in interview participation.

Table 1. Sample Characteristics.

No	Designation	Sample
1.	Executives Directors/CEO	5
2.	Project Managers	19
3.	Project team members	12

Table 2 shows the descriptive statistics of the interview participant's organizations. Moreover, Table 2 illustrates that interview participants belong to a range of sectors and industries that are important and critical to modern economic development. Further, these organizations use projects as the dominant system of work organizations.

Table 2. Organizational Characteristics.

S.No	Type of Organizations	Type of Ownership	Size
1.	Government authorities	State-Owned	Small
2.	Industrial and manufacturing	State-Owned	Large
3.	Construction	State-Owned	Large

Table 2. *Cont.*

S.No	Type of Organizations	Type of Ownership	Size
4.	Consulting services	Semi-Government	Small
5.	Energy	State-Owned	Large
6.	University	State-Owned/Semi-Government	Small
7.	Information Technology	Semi-Government	Large

3.4. Focus Groups

The present research has undertaken two sessions of focus group discussions in order to further validate the findings developed from the semi-structured interviews and the development of theoretical themes.

This study also employed focus group discussion as a research and data collection tool. The in-depth interviews and subsequent analysis helped us to generate a list of important organizational culture aspects that can be critical to a firm's ability to implement ambidexterity (Ennis & Chen, 2012). However, from a triangulation perspective, we have undertaken two focus group discussion sessions with participants. The aim of the first focus group discussion was to refine and filter similar and critical cultural aspects that can help firms achieve the desired and required level of ambidexterity (Stokes & Bergin, 2006).

As the first session of the focus group discussion allowed us to filter and develop a concrete list of organizational culture aspects, the present research also undertook a second session of focus group discussion (Stokes & Bergin, 2006). The aim of the second session of the focus group is to group these aspects into more advanced and meta-theoretical themes. The development of theoretical themes is a necessary task in arriving at a theory that clearly explains the relationship between organizational culture and ambidextrous innovation. Secondly, such theoretical themes, which are composed of grouped aspects, are necessary to be developed with the aim of developing a conceptual model that theoretically explains the interplay of cultural variables with exploratory and explanatory innovation (Morgan, 1996).

3.5. Focus Group Participants

This research further conducted a session of focus group discussions with experts and managers with the aim of refining the aspects developed in the current study as a result of data collected using the interview. The aim of the focus group discussion was to present the findings of the interviews using open coding with experts and managers. Secondly, the aim was to undertake an in-depth discussion and analysis of each of the aspects with the objective of completely refining them. The refined aspects were also compared with the existing literature with the aim of grouping such aspects into theoretical themes that can explain organizational culture and ambidextrous innovations (Powell & Single, 1996).

Table 3 shows the participants in the focus group discussions who were invited and participated with the objective of discussing and refining the cultural aspects. The table shows that the profile of participants in relation to their education, expertise, and experience are highly suitable for the task of both discussing and refining the organizational cultural aspects.

Table 3. Participant Profile of First Focus Group Discussion.

No	Designation	Number	Organizations
1.	CEO/Director	2	Public Sector Organizations
2.	Project Managers/Directors	4	Public and Semi-Government
3.	Academic expert	1	University–Public Sector

4. Collection and Analysis of Data

The present research began by collecting data. In stage 1, pilot interviews were undertaken. The purpose of pilot interviews was to understand the research context. Following the pilot interviews and subsequent understanding of the research context, main interviews were conducted.

4.1. Undertaking the Research Context

The present study, in order to understand the research context, conducted 3 pilot semi-structured interviews. The pilot interviews helped the researcher understand the complexity, which is associated with the data collection instrument of semi-structured interviews, participant's profiles, and the research area being investigated, i.e., organizational culture and ambidextrous innovation. These pilot interviews helped us understand the nuances associated with the interview setting, environment, participants' points of comfort and discomfort, and other key issues associated with the data collection process. The pilot interviews were clearly helpful in improving the interview questions and their structure for effective data collection. The pilot interviews ceased when the researcher gained confidence in completely understanding the research context.

4.2. Main Interviews

Apart from 3 pilot interviews, this research also conducted 36 semi-structured interviews based on the profiles, as shown in Table 1, and organizations, shown in Table 2. The profiles, as shown in Table 1, illustrate that data have been collected from a range of samples representing the various levels of experience and management in their organizations. The researcher made use of brief icebreakers in order to make participants feel at ease. Each interview's duration lasted between 40 and 70 min. To enable participants to openly express their experiences, ideas, thoughts, and perceptions, which is the main aim of data collection, open-ended, issue-focused questions were utilized (Sackmann, 1991). In order to guarantee accuracy throughout data analysis, interviewees were made aware that the sessions would be recorded.

4.2.1. Interviews Data Analysis: Organizational Cultural Aspects

The data collected and recorded on the audiotape were transcribed using the method of verbatim. The verbatim method refers to transcribing the interview data into written form, word by word. It attempts to capture the exact spoken words and phrases. In order to analyze the transcribed data, the current study employed qualitative data analysis using the software package NVivo 14.0. NVivo 14.0 is a widely used software package for analyzing qualitative data, such as semi-structured interviews. Additionally, the NVivo 14.0 software package is highly helpful in coding data, such as words, based on their interrelationships and intricate patterns. Our research employed the open coding procedure aimed at identifying and segmenting the information into smaller parts and identifying sets of events or occurrences. This method is consistent with the grounded theory approach (Strauss & Corbin, 1998). The present study conducted both data collection and analysis

simultaneously, with the findings being continuously compared to new codes until a saturation level was achieved (Strauss & Corbin, 1998).

4.2.2. Validation

The present research evaluated the codes' parallel and divergent relationships with the current literature. The coding technique was validated using inter-rater reliability, which involves two independent judges evaluating the stability of their agreement (Rashid, 2010). With a 96% agreement rate, the inter-rater reliability result was 0.73 (Cohen's Kappa). The result of the inter-rater reliability is presented in Table 3.

4.2.3. Results of Data Analysis

Having employed the data analysis procedure of open coding using Nvivo 14.0, we attempted to obtain codes to be labeled as aspects in the interview data. The results, as shown in Table 4, suggest that the current research extracted 62 aspects of culture based on the analysis of data. The results were also compared with the existing literature to validate the construct validity of aspects.

Table 4. Results of Inter-rater Reliability.

Metric	Value
Total Observations	100
Observed Agreements	93
Expected Agreements	75.86
Disagreements	7
Observed Agreement Rate	93%
Cohen's Kappa	0.71
Expected Agreement Rate	76%

4.2.4. Discussion of Aspects

The results, as shown in Table 4, suggest an extensive list of the organizational cultural aspects discussed with participants with regard to ambidextrous innovation. This extensive list of aspects, as the result of semi-structured interview data, suggests three important insights. First, the list of cultural aspects highlights the complexity that is involved with both organizational culture and ambidextrous innovation (AlSaied & McLaughlin, 2024a). The results suggest that a range of aspects, which are both overlapping and significantly different, are important in implementing ambidextrous innovation and resolving key issues, such as defining the boundaries of explorative and exploitative innovations (AlSaied & McLaughlin, 2024b). Secondly, from the participants' point of view, it can be concluded that not only do the basic behavioral patterns play a key and active role in the development of ambidextrous innovation, but also more significant and developed patterns, which should either be institutionalized or become part of general behavioral routines. For example, various aspects, such as innovation interest (O'connor, 1998), cross-functional collaboration (Bishop, 1999), cultural diversity (Zein, 2016), adaptability to change (Conforto et al., 2016), knowledge sharing (Terzieva, 2014), and leadership engagement (Nauman et al., 2010) are key meta-level cultural traits of organizations that are being positioned and considered to play an active and important role in the development of ambidextrous innovations. Finally, the important insights that have been yielded are related to the theory of both organizational culture and ambidextrous innovation (AlSaied & McLaughlin, 2024b). The results of the developed aspects of organizational culture have clearly demonstrated the theoretical relevance of these aspects to both culture and ambidextrous innovation. Table 4

shows that these key aspects have been found to be extensively discussed in various contexts of project management, innovation, and ambidexterity.

4.3. Focus Group One: Refining the Aspects

The first focus group discussion session began with an introduction and ice-breaking session with participants and researchers. The focus group discussion lasted a full day, with breaks between sessions to refresh the mind. Following the introduction and ice-breaking session, participants were presented with the 62 extracted aspects that were developed by analyzing the data collected using the semi-structured interviews. The participants were given appropriate time to review the aspects thoroughly. Following the presentation of aspects to participants, a comprehensive discussion on each of the aspects started among the participants with researchers. The aim of this discussion was to introduce the code (aspect) and definition from the participants' points of view. The first step in the discussion was to narrow the list of cultural aspects by looking for those that were repetitive or overlapping. Following these identifications, participants had a thorough conversation, and similar or overlapping aspects were consolidated, resulting in the coherent collection of the cultural aspects for further analysis. The result of this discussion yielded 56 final themes, which were further explored in the second focus group discussions. Table 5 shows the final extracted themes and their definitions, as agreed upon in discussion with experts.

Table 5. Refined Aspects.

No	Aspects	Participant's Point of View	Theoretical Definitions
1	Allocated Budget	To operate projects effectively, a sizable budget must be allotted. Without it, workers frequently feel constrained in their ability to consider alternatives or put creative ideas into practice. Additionally, an adequate budget can demonstrate management's dedication to the mission.	The allocated budget can be defined as the amount of financial, human, and other resources that are allocated to a particular project in a firm (Zhao et al., 2019).
2	Adequate Project Time	In order to achieve high-quality results, projects need time. Rushing and completing tasks before the required time can cause overlooking important information, which results in errors.	The maximum time for the entire project deliverables to be completed, as agreed upon between the client and project organization (Babu & Suresh, 1996).
3	Effective Time management	Time management skills are essential, particularly for initiatives with a lot of pressure. Employees can better balance their workload, maintain their attention, and prevent work from being completed at the last minute, which reduces its quality.	Effective time management refers to utilizing time in order to enhance the overall efficiency and effectiveness of teams (Atkinson, 1999).
4	Experimental Space	Creativity and innovation are greatly enhanced by having a dedicated area or space for idea experimentation. Such a dedicated space can motivate employees, and employees may attempt new things without worrying about failing, which can inspire them to be more adventurous and creative.	A space dedicated to discussing, sharing, and refining new ideas and converting these ideas into actual products and services (Pisello et al., 2021).

Table 5. *Cont.*

No	Aspects	Participant's Point of View	Theoretical Definitions
5	Lack of Knowledge and Experience	Employees may feel apprehensive if they lack sufficient expertise or experience in certain fields or areas. This frequently slows down the process and might be annoying. To close these gaps, organizations can focus on various things, such as training and development.	The knowledge, skills, and expertise required to make changes to existing products or develop completely new products that help firms to bring and sustain their competitive advantage (Terzieva, 2014).
6	Expertise Support	Having experts in the team who can easily be approached and consulted has a significant positive impact. Their advice increases confidence in their choices and expedites the process of resolving issues. It is comforting to have such assistance.	The support that various teams in an organization require in order to solve complex problems (Gillard, 2009).
7	Language Barriers	Effective communication can occasionally be hampered by language barriers. Misunderstandings occur and have an impact on teamwork. It would be really beneficial if employees could get better support or enhance their language abilities.	The inability of the team and its members to communicate in the language of the communication at the organization (Anderson et al., 2018).
8	Past Attitudes Reflection	The ability to respond to novel and important internal and external events and circumstances is heavily influenced by the ability to reflect on past behavior and attitudes. If employees do not reflect, it may be the case that teams are being held back by outdated views, particularly when they are unfavorable to the organization's progress.	The ability of teams and members of an organization to reflect on the various behavioral patterns, which are both predictors of success and failure in the organization (Hall et al., 1999).
9	Sensitivity to Criticism	It can be difficult to accept criticism, particularly when it is unhelpful. It might feel personal at times, which lowers morale. It would be difficult to progress with employees feeling disheartened at the workplace.	The inability of the team to listen to and incorporate critical feedback received from members of the team, including both senior and junior levels (Gibson & Mumford, 2013).
10	Fear of Failure	People frequently refrain from trying new things because they are afraid of failing. Employees are concerned about what will happen if things do not work out. It would be very beneficial to have a culture that views failure as a teaching opportunity.	The behavior, which can be defined as risk-averse, occurs when teams and members of the organization are unwilling to test new ideas out of fear that the new idea will fail and members of such teams will be held responsible (Dunbar & Guillet de Monthoux, 1979).
11	Infrastructure and Tools	Having the proper infrastructure and equipment is crucial to performing the tasks effectively. Organizations and teams cannot perform effectively in the absence of these tools.	The physical infrastructure, which includes both hardware and software, is necessary for streamlining various activities, which results in varying kinds of innovations (Raith et al., 2017).

Table 5. *Cont.*

No	Aspects	Participant's Point of View	Theoretical Definitions
12	Empowerment from Leadership	Employees' confidence and readiness to take the initiative are increased when they feel empowered by the leadership. Teams and employees are more committed to a project's success when leaders have faith in their ability to make judgments.	The motivation and autonomy provided by leaders and managers encourage employees to seek out new ideas for both exploration and exploitation (Nauman et al., 2010).
13	Expertise Utilization	There has to be a proper system of approaching experts and utilizing their expertise at the right time and in the right situation. Such expertise utilization is significantly important in that it directly contributes to innovations.	The ability and willingness of teams and members to utilize their skills for both exploration and exploitation (Gillard, 2009).
14	Psychological Safety in Teams	For teams and organizations to freely exchange ideas, they must feel psychologically secure. Teams are more inclined to actively participate when teams are assured that they will not be condemned. Teams are always strengthened by such safety.	Psychological safety in teams refers to an environment where members feel safe to take risks, express their thoughts, and share ideas without the fear of negative consequences (Newman et al., 2017).
15	Evaluation Impact	Instead of concentrating only on the procedure, it is critical to assess how the team's efforts affect the business. Being aware of the results of our work gives a sense of accomplishment and aids in strategy improvement.	Evaluation impact refers to the effects that assessments, feedback, or performance evaluations have on individuals, teams, or organizations (Gertler et al., 2016).
16	Emotional Intelligence of Managers	A better work atmosphere is produced by managers who possess emotional intelligence. They communicate in a helpful manner and are aware of employees' difficulties. This facilitates managing stress at work.	Emotional intelligence is the ability of managers to effectively regulate their emotions by understanding, using, and managing their own emotions, as well as the emotions of others (Dulewicz & Higgs, 2000).
17	Job Security	Concentrating on the work without worrying about being laid off at any time gives employees and teams the confidence to complete their tasks effectively. When people are worried about losing their jobs, it becomes more and more difficult to think creatively and innovate. Having a stable job provides employees with drive and peace of mind.	Job security can be defined as the likelihood that an employee will keep their job and not be laid off or fired under any circumstances (A. Clark & Postel-Vinay, 2009).
18	Management Styles	The ability to collaborate is impacted by various management philosophies. An authoritarian management style might inhibit innovation, whereas a collaborative or democratic style promotes cooperation. When managers modify their approach to fit the demands of the team, it is beneficial.	The management style is defined as the approach of a leader or manager in an organization to guide a team toward shared goals (Claes, 1999).

Table 5. *Cont.*

No	Aspects	Participant's Point of View	Theoretical Definitions
19	Juniors' Ideas Ignored	When suggestions, ideas, and input from younger and junior team members are disregarded without thought, it is frustrating. Sometimes, the solution to an issue requires new viewpoints. Juniors need to be appreciated and can contribute to fresh ideas when they are given a voice.	The behavior in the teams where ideas presented by junior members of teams are not given proper attention (Sijbom et al., 2016).
20	Motivation for Creativity and Development	The teams stay motivated when they are encouraged to be innovative and advance in their positions. It is simpler to remain involved and contribute fresh ideas when the team appreciates and encourages employee growth.	The internal drive of members of a team to search for new ideas that can be used for both exploration and exploitation (Ma et al., 2019).
21	Change Resistance	Because change is unsettling and unpredictable, employees frequently oppose it. It is easy to feel overburdened in the absence of adequate assistance. This resistance is lessened during changes when there is clear communication and direction.	The willingness of team members to resist any sort or kind of change within teams and organizations (Laframboise et al., 2002).
22	Theoretical vs. Practical Disconnect	There are instances when theory and practice diverge, which can cause misunderstandings. To make the work seem more relevant to actual circumstances, it would be beneficial if we could figure out how to close this gap.	The perceived gap between theories or concepts of innovation and their effective application in real-world situations, which can result in challenges in implementation and understanding (Murray, 2009).
23	Policy Barriers	Effective work completion and innovation are often hampered by the policies of organizations. These policies may seem out of date or restrictive. Such policies need to be adjusted to respond to the demands of the increasing evolution within the organization.	The official rules and regulations of the organization that make it very difficult to acquire new knowledge and experiment with ideas for both improving existing and developing new products and services (Shenhar, 2004).
24	Bureaucracy	Bureaucratic procedures and policies always cause needless delays and impediments. Overly lengthy processes are annoying and reduce productivity. Efficiency might be significantly improved by cutting back on bureaucracy.	A system of administration characterized by strict rules, hierarchical organization, and standardized procedures, typically used in large institutions or government bodies to ensure efficiency and accountability (Weber, 2023)
25	Leadership Engagement	Active engagement by leaders demonstrates their concern for the project. It helps employees to stay focused and provides appropriate direction for various things, such as creativity and innovations. Additionally, their participation gives employees the impression that their jobs, work, and creativity are valued.	The active involvement and commitment of leaders in guiding, motivating, and influencing their teams or organizations, fostering collaboration and alignment toward shared goals (Decuypere & Schaufeli, 2021).

Table 5. *Cont.*

No	Aspects	Participant's Point of View	Theoretical Definitions
26	Documentation System	A well-structured documentation system is necessary to monitor the team and organization's activity. Incomplete or difficult-to-locate records are annoying. Various aspects of operations would be easier, and time would be saved with a more efficient system.	A structured approach for creating, managing, and storing documents and records, ensuring accessibility, consistency, and compliance within an organization (Eloranta et al., 2001).
27	Clear Deliverables and Metrics	Teams can better grasp expectations if they have well-defined objectives and measurements. It is difficult to gauge progress when objectives are unclear. Having specific goals helps the organization's members stay motivated and in sync to achieve them.	Specific, measurable outcomes and criteria established to evaluate the success of a project or initiative, providing clarity on expectations and enabling effective performance assessment (Müller & Turner, 2007).
28	Unclear Objectives and Goals	Employees and teams can become confused and move more slowly when the overall goals are unclear. In the end, teams will waste time attempting to determine the priorities rather than doing actual work.	Unclear objectives and goals can be defined as vague or poorly defined targets that hinder understanding of desired outcomes, making it difficult for individuals or teams to align their efforts and measure success effectively (Jakobsen, 2024).
29	Evaluation Performance Review system	The efforts of teams and individuals should be fairly evaluated by an appropriate and effective performance evaluation system. It is discouraging when assessments and performance evaluation systems are highly inconsistent with employees' and teams' efforts.	A structured process for assessing employee performance and productivity, typically involving regular feedback, goal setting, and documentation to facilitate development, accountability, and organizational growth (Shaout & Yousif, 2014).
30	Operational Efficiency	Everyone's work is made easier by increasing operational efficiency. It saves time and cuts down on redundancy. Without wasting resources, a more efficient procedure would enable the employees to produce superior outcomes.	Operational efficiency is defined as the ability of a team to deliver products or services in the most cost-effective and efficient manner while at the same time maximizing productivity (Lee & Johnson, 2013).
31	Emphasis on Time Over Quality	Sometimes, employees have to compromise on quality in order to meet timelines. It seems like a compromise that could lessen the effect of employees' and teams' efforts.	The willingness of the team to sacrifice quality of products and services by producing them in a shorter time (Salmasnia et al., 2012).
32	Workload Pressure	Stress and burnout are caused by heavy workloads. Having too much work on the employee's schedule can significantly diminish motivation.	Workload pressure is defined as excessive tasks assigned to the team and its members that are beyond their capacity (Chen et al., 2017).
33	Tension Between Exploration and Exploitation	For sustained ambidextrous innovation, it is significantly important that the organization ought to have a balance between exploration and exploitation activities of innovations.	The paradox of innovation in which organizations must find a way to balance improvements in existing products and services while at the same time creating new products and services (AlSaied & McLaughlin, 2024a, 2024b).

Table 5. *Cont.*

No	Aspects	Participant's Point of View	Theoretical Definitions
34	Radical Innovation Momentum	For an organization to stay ahead of its competitors, radical invention is needed. However, this can also have some drawbacks, such as taking risks that may lead to various losses, both financial and non-financial.	The quest of the organization/firm to undertake radical and new innovations that can help it develop a competitive advantage (O'connor, 1998).
35	Pressure to Keep Up with Competitors	The current competitive environment in the market creates pressure to keep up with the market trends. One of the key strategies for success is continuous and successful innovation in the market.	Market pressure which pushes teams to match their competitors through various tactics and strategies, such as pricing, supply chain, and products and services (Clark, 1998).
36	Turnover and Instability	Projects are slowed down, and team stability is impacted by high turnover. Building momentum is difficult when team members are always changing. Establishing a steady workplace might increase our output.	A higher ratio of new employees leaving the organization after joining. Such a higher ratio may create an unstable organizational environment (Parker & Skitmore, 2005).
37	Flat Organizational Structure	Cross-level communication and idea-sharing are facilitated by a flat organizational structure. Employees and teams can feel more appreciated and less threatened. However, occasionally, a little more hierarchy might aid in clarity.	Type of organizational structure that is characterized by fewer hierarchical levels (Ghiselli & Siegel, 1972).
38	Roles and Responsibilities	Roles and duties that are well-defined help to avoid misunderstandings. It is easier to work together when employees and teams are aware of their precise responsibilities and it helps to avoid overlap.	A role is a person's position or job title within a company or team, while responsibilities are the specific tasks and duties associated with that role (J. K. Crawford et al., 2004).
39	Knowledge Share	Employees may learn from one another when teams share expertise and knowledge. It expedites problem-solving and fosters a sense of teamwork.	The activity within the organization in which team members share their knowledge, expertise, and skill with other members routinely (S. Wang & Noe, 2010).
40	Short-Term Focus	The teams' and employees' capacity to make future plans may be hampered by short-term emphasis and orientations. Therefore, teams must find a balance between short-term outcomes and long-term objectives.	The strategy and type of organization that tends to focus on short-term gains while sacrificing long-term goals and objectives (Rappaport, 2005).
41	Teamwork and Leadership Attitude	A healthy work culture is fostered when leaders encourage cooperation. Knowing that efforts are appreciated is encouraging. Collaboration among the team is also strengthened by effective leadership.	Teamwork refers to the collaborative efforts in which members leverage skills and knowledge to achieve goals, while a positive leadership attitude inspires and guides the team, characterized by traits like empathy, decisiveness, and accountability (Ibraimova et al., 2019).

Table 5. *Cont.*

No	Aspects	Participant's Point of View	Theoretical Definitions
42	Productivity Monitoring	Employees may be held accountable through productivity tracking and monitoring, but occasionally, it comes off as micromanagement. It would be better to have a system that relies on employees to deliver while providing direction as required.	Productivity monitoring can be referred to as the systematic approach of tracking and monitoring the performance of both individuals and teams performance (Alaloul et al., 2022).
43	Project Testing and Monitoring	Project testing and monitoring initiatives aid in the early detection of problems. They make employees more confident about the finished tasks and outcomes. Employees could satisfy requirements and cut down on mistakes with more regular monitoring.	Project testing and monitoring can be defined as structured activities that are necessary for ensuring that projects are being completed on time, within budget, and according to stakeholder requirements (P. Crawford & Bryce, 2003).
44	Trust Development	Although it takes time, developing trust among the team is crucial for productive cooperation. Team members can collaborate more freely when they have mutual trust. Progress would be aided by further team-building exercises.	Trust development can be defined as the activities undertaken by the members of an organization to develop trust among themselves through various formal and informal channels of communication (Lewicki, 2000).
45	Innovation Development–Innovation Interests	It is inspiring to have freedom and room to pursue interests in innovation. When the company fosters such interest, it is fantastic and encouraging for individuals to be creative by contributing to the original ideas.	Innovation development can be defined as the structured process of generating, refining, and implementing new ideas for the development of products, services, and processes that create value and competitive advantage (Zhou et al., 2013).
46	Cross-Functional Collaboration	Working together across departments gives a variety of knowledge and expertise. It results in more thorough solutions to a variety of complex problems. To encourage this, teams would benefit from more organized cross-team projects.	The ability of various and different team members to collaborate cross-functionally within the organization with the aim of bringing new ideas for exploration and exploitation (Bishop, 1999).
47	Cultural Diversity	Cultural diversity in teams encourages creativity and broadens perspectives. Collaborating with individuals from diverse backgrounds is motivating. Employees had a pleasant experience because of the respect and open-mindedness.	The ability and willingness of teams and organizations to appreciate the different cultures of various team members and to create a values system that celebrates diversity (Ogbu, 1992).
48	Entrepreneurship	For innovation and success over a longer period of time, it is necessary that employees have an entrepreneurial mindset. It is necessary because an entrepreneurial mindset inculcates the spirit of developing new ideas, taking risks, and other innovative actions.	Entrepreneurship encouragement is defined as the empowerment and motivation within an organization to become entrepreneurial (Hisrich, 1990).

Table 5. *Cont.*

No	Aspects	Participant's Point of View	Theoretical Definitions
49	Reward Systems	A system of rewards encourages employees to work harder. When effort is rewarded, it is uplifting. To preserve systemic trust, rewards must be equitable and constant.	The system of compensation in which employees are rewarded based on various key performance metrics such as target accomplishment, sales and revenue increases, and others (Francis et al., 2020).
50	Innovation Pipeline	An innovation pipeline guarantees that new ideas are taken into consideration and keeps them flowing. Seeing a methodical approach to concept development is encouraging. Employees can monitor the development of concepts from ideation to execution with the aid of a well-defined pipeline.	The innovation pipeline refers to an organization's plan for undertaking various innovations within a specified time period (Jost et al., 2005).
51	Customer-Centric Innovation	Employees may provide pertinent products by concentrating on the demands of the customers. Knowing that innovation efforts directly affect consumers' feelings and level of satisfaction, it is better to always gather data and information on consumers as input.	The type of innovation in which customer inputs, needs, and demands take center-stage in developing new products and services (Selden & MacMillan, 2006).
52	Open Innovation	Open innovation introduces new viewpoints from outside the company, and it can result in organizations becoming and remaining both innovative and competitive. Employees would have a more comprehensive understanding of industry trends as a result of open innovations.	Open innovation can be defined as a strategy that encourages teams to use internal and external resources, ideas, and technologies to develop their products and services (Huizingh, 2011).
53	Digital Transformation	Digital transformation might be difficult, but it is essential to remain relevant. It takes time to learn new tools, such as GenAI and others. Employees could adjust more readily if we had support during these changes.	Digital transformation can be defined as the process of using digital technologies to change business operations, which includes customer handling (Kraus et al., 2021).
54	Learning and Development	Learning and development opportunities keep teams and organizations more interested and competent in various key areas. The company's investment in learning and development through training can demonstrate its importance for employees. Frequent training would enable them to stay abreast of developments in the industry.	Learning and development can be defined as the systematic approach of enhancing the skills, knowledge, and competencies of the teams within an organization, enabling them to carry out innovation (Vygotsky, 2011).
55	Organizational Agility	Being flexible enables employees to react swiftly to obstacles and changes. When a company can adjust effectively, it is inspiring. The capacity to respond to evolving needs would be improved with more process flexibility.	The organization's ability to rapidly adapt and change according to the changing landscape of the external environment (Mrugalska & Ahmed, 2021).

Table 5. *Cont.*

No	Aspects	Participant's Point of View	Theoretical Definitions
56	Strategic Alignment	Being in line with the organization's plan helps employees and teams feel like they have some real purpose. Knowing that employees' aims contribute to the larger picture makes achieving them simpler. Frequent strategy updates help them stay motivated and focused.	Strategic alignment is the process of ensuring that an organization's resources, activities, and initiatives are in sync with its overall goals and objectives (Henderson & Venkatraman, 1999).

4.4. Focus Group Two: Developing the Themes

The present research has further undertaken a second session of focus group discussion with participants, as mentioned in Table 6. The aim of the second session of the focus group was to group aspects into similar meta-theoretical themes (Braun & Clarke, 2012). The meta-theoretical themes are defined as the abstract and fuzzy constructs that a researcher tends to identify and develop during and after the data collection process (Bazeley, 2009). The current research, corresponding to the guidelines of King and Brooks (2018), has utilized a two-stage process in order to develop meta-theoretical themes. The first stage involved identifying the similar and relevant themes corresponding to the literature that explain the established phenomena. The second stage involved grouping these aspects and labeling such groups of themes that explain the established phenomena as theoretical themes (Braun & Clarke, 2023). Since the second session of the focus group was undertaken with the same participants, as mentioned in Table 6, introductory and icebreaking sessions were not needed. The participants began the in-depth and comprehensive discussion with regard to developing various meta-theoretical themes by grouping various aspects, as presented in Table 5. The results of the theoretical themes that were developed are presented in Table 7. Table 7 shows the 10 meta-theoretical themes developed by grouping the similar and consistent aspects.

Table 6. Aspect of Organizational Culture.

No	Aspects	Literature	Frequency (Respondents)
1	Allocated Budget	(Zhao et al., 2019)	10
2	Adequate Project Time	(Babu & Suresh, 1996)	12
3	Tight Timeline Constraints	(Pollack-Johnson & Liberatore, 2006)	13
4	Effective Time Management	(Atkinson, 1999)	13
5	Experimental Space	(Pisello et al., 2021)	11
6	Lack of Knowledge and Experience	(Terzieva, 2014)	7
7	Expertise Support	(Gillard, 2009)	18
8	Language Barriers	(Anderson et al., 2018)	8
9	Past Attitudes Reflection	(Hall et al., 1999)	12
10	Sensitivity to Criticism	(Gibson & Mumford, 2013)	14

Table 6. *Cont.*

No	Aspects	Literature	Frequency (Respondents)
11	Fear of Failure	(Dunbar & Guillet de Monthoux, 1979)	10
12	Infrastructure and Tools	(Raith et al., 2017)	10
13	Empowerment from Leadership	(Nauman et al., 2010)	30
14	Expertise Utilization	(Gillard, 2009)	16
15	Psychological Safety in Teams	(Shen et al., 2015)	28
16	Feedback Transparency	(Nedbal et al., 2013)	15
17	Evaluation Impact	(Golini & Landoni, 2014)	17
18	Emotional Intelligence of Managers	(Obradovic et al., 2013)	26
19	Job Security	(M. Turner & Lingard, 2016)	16
20	Management Styles	(Shenhar, 1998)	19
21	Contentment with Status Quo	(Silver & Mitchell, 1990)	14
22	Juniors' Ideas Ignored	(Sijbom et al., 2016)	13
23	Motivation for Creativity and Development	(Tampoe & Thurloway, 1993)	29
24	Change Resistance	(Laframboise et al., 2002)	17
25	Theoretical vs. Practical Disconnect	(Murray, 2009)	12
26	Policy Barriers	(Shenhar, 2004)	11
27	Bureaucracy	(Shenhar, 2004)	9
28	Leadership Engagement	(Nauman et al., 2010)	27
29	Documentation System	(Eloranta et al., 2001)	8
30	Clear Deliverables and Metrics	(Müller & Turner, 2007)	22
31	Unclear Objectives and Goals	(Müller & Turner, 2007)	12
32	Evaluation Performance Review System	(Golini & Landoni, 2014)	15
33	Operational Efficiency	(Hejna & Hosking, 2004)	12
34	Emphasis on Time Over Quality	(Salmasnia et al., 2012)	11
35	Workload Pressure	(Chen et al., 2017)	9
36	Tension Between Exploration and Exploitation	(N. Turner et al., 2015)	18
37	Radical Innovation Momentum	(O'connor, 1998)	17
38	Pressure to Keep Up with Competitors	(Clark, 1998)	13
39	Turnover and Instability	(Parker & Skitmore, 2005)	9
40	Flat Organizational Structure	(Burford, 2012)	8
41	Roles and Responsibilities	(J. K. Crawford et al., 2004)	14
42	Knowledge Share	(Terzieva, 2014)	20
43	Short-Term Focus	Not Found	13

Table 6. *Cont.*

No	Aspects	Literature	Frequency (Respondents)
44	Recruitment Process	(Ahsan et al., 2013)	14
45	Ineffective Multi-Tasking	(Park & Park, 2019)	11
46	Teamwork and Leadership Attitude	(Ibraimova et al., 2019)	29
47	Productivity Monitoring	(Alaloul et al., 2022)	15
48	Project Testing and Monitoring	(Montes-Guerra et al., 2014)	10
49	Trust Development	(Bond-Barnard et al., 2018)	28
50	Innovation Development–Innovation Interest	(O'connor, 1998)	18
51	Cross-Functional Collaboration	(Bishop, 1999)	26
52	Cultural Diversity	(Zein, 2016)	15
53	Adaptability to Change	(Conforto et al., 2016)	26
54	Reward Systems	(Ahsan et al., 2013)	21
55	Innovation Pipeline	(O'connor, 1998)	19
56	Customer-Centric Innovation	(Haverila & Haverila, 2019)	16
57	Open Innovation	(Bagherzadeh et al., 2019)	14
58	Digital Transformation	(Kozarkiewicz, 2020)	11
59	Learning and Development	(Terzieva, 2014)	19
60	Organizational Agility	(Conforto et al., 2016)	18
61	Intrapreneurship Encouragement	Not Found	20
62	Strategic Alignment	(Ershadi et al., 2020)	24

Table 7. Theoretical Themes.

Theme	Aspects	Definition	Participant's Perspective
Resource Management:	Allocated Budget, Adequate Project Time, Effective Time Management, Infrastructure and Tools, Documentation System, Operational Efficiency, Emphasis on Time Over Quality, Workload Pressure	Resource management refers to effectively and efficiently managing existing resources with the aim of creating value for their customers. Resource management has various key aspects that are related to both physical or hard resources and soft resources, such as skills, motivation, and attitudes (Legge & Legge, 1995).	The foundation of employee and organizational productivity is effective resource management. We (employees) need to feel prepared to do things without worrying about the appropriate amount of resources, such as equipment, time, and financial resources. An organization can perform at its best when there is a well-structured system that strikes a balance between timelines and quality standards. If an organization does not achieve such balance, it can risk burnout and losing out on strategic opportunities.

Table 7. *Cont.*

Theme	Aspects	Definition	Participant's Perspective
Skills and Capabilities	Lack of Knowledge and Experience, Expertise Support, Expertise Utilization, Knowledge Share, Learning and Development, Trust Development	The skills and capabilities, which are dynamic in nature, refer to various key aspects, such as knowledge, skills, and expertise, required to undertake innovation in general and ambidextrous innovation in specific (Heckman & Corbin, 2016).	The organization's ability to contribute to new innovation and adjust to the changing market environment is determined by a set of critical skills and capabilities. Therefore, having access to support networks for sharing knowledge and gaining skills is very important for such a set of skills and capabilities. The organization needs to become more confident and involved in roles that provide an opportunity for growth in skills and capabilities. Thus, by consistently enhancing skills, the organization not only becomes better but also creates and retains a strategic competitive advantage for the longer term.
Leadership and Motivation	Empowerment from Leadership, Emotional Intelligence of Managers, Motivation for Creativity and Development, Leadership Engagement, Reward Systems	The themes of leadership and motivation are defined as behavioral and inner derives that push teams to seek new ideas for ambidextrous innovations (Roßnagel, 2017).	Leaders who are emotionally intelligent and supportive have a discernible impact on the productivity of employees. The employees become more motivated and dedicated when leaders empower employees and genuinely appreciate their work. We, as employees, feel proud and motivated when our efforts are valued. This encouraging atmosphere is further reinforced by a compensation structure that is in line with employees' efforts and motivates them to go above and beyond their normal responsibilities.
Resistance to Change and Status Quo—(Change management and behavior patterns)	Change Resistance, Adaptability to Change, Cultural Diversity, Roles and Responsibilities, Short-Term Focus, Bureaucracy	Resistance to change and maintenance of the status quo refers to behaviors and attitudes that restrict any change, as such change is perceived to be very difficult to implement, and it can significantly threaten the status quo and the authorities of concerned people (Watson, 1971).	Although resistance to change is common, it is necessary for development and adaptability in the fast-paced world of today. Although short-term objectives and bureaucracy might occasionally impede our (employees) development, many viewpoints within the team help us in the ability to adjust to change. This shift can be facilitated by clearly defined roles and duties that offer a solid foundation. When the company helps employees at every stage, embracing change becomes easier to handle.

Table 7. *Cont.*

Theme	Aspects	Definition	Participant's Perspective
Vision and Mission	Vision and Mission, Strategic Alignment, Clear Deliverables and Metrics, Unclear Objectives and Goals	The vision and mission refer to the strategic management of the teams and organizations that tend to develop long-term competitive positions in the competitive market and such positions' relevancy for the strategic innovation of ambidexterity (Foreman, 1998).	A strong feeling of purpose always comes from aligning ourselves with the organization's vision and mission. The employees become more motivated and involved when they see their jobs and work are related to the bigger mission and vision. However, an ambiguous and unclear mission and vision cause misunderstandings, which may lead to inefficiency. Employees can contribute more effectively when they stay focused and communicate the company's vision and strategic goals on a regular basis.
Organizational constraints	Organizational Constraints, Policy Barriers, Flat Organizational Structure, Turnover and Instability, Pressure to Keep Up with Competitors	The organization constraints theme refers to the various hurdles and constraints that members of teams have to face in order to carry out innovation. These constraints can be strategic (such as lack of vision, mission, bureaucracy, and others) and tactical (such as lack of operation efficiency, etc.) (Pindek & Spector, 2016).	The organization's efficiency and effectiveness may be hampered by organizational constraints such as strict policies, intricate systems, and others. Employees, once they start feeling constrained by rules, may be perceived as infuriating. Thus, it causes instability in the organization, leading to higher turnover in the organization. Resolving these problems could result in a more steady, concentrated workplace where employees can give their full effort to their tasks.
Exploration and Exploitation Boundaries	Exploration and Exploitation Boundaries, Tension Between Exploration and Exploitation, Radical Innovation Momentum, Innovation Pipeline, Customer-Centric Innovation, Open Innovation	Ambidextrous innovation refers to paradoxical, in which both exploration and exploitation are considered opposites but complementary to each other. In the current themes, we tend to explore the way in which boundaries for each activity, i.e., exploration and exploitation, can be fixed so that it is possible to separate them while still allowing for overlapping activities (Russo & Vurro, 2010).	Sustainable and strategic innovation in the organization requires striking a balance between developing new concepts and improving the current methods. Our (employees) job feels exciting and forward-thinking when we have room to investigate customer-focused solutions and make bold proposals. However, it is crucial to have precise rules about when and how we can take these innovative opportunities. Employees could maintain competitiveness and alignment with objectives by striking a balance between radical innovation and operational effectiveness.

Table 7. *Cont.*

Theme	Aspects	Definition	Participant's Perspective
Team Management	Team Management, Psychological Safety in Teams, Juniors' Ideas Ignored, Teamwork and Leadership Attitude, Project Testing and Monitoring, Cross-Functional Collaboration	Effective team management refers to the development, integration, and cohesiveness of the teams to carry out new and radical innovations that can help a firm achieve a strategic position in the market (Scott-Young & Samson, 2008).	Team management and dynamics have a big impact on how employees work together and fulfill the stakeholders' demands. Prioritizing psychological safety allows the employees to express their thoughts and concerns without worrying about being judged. Even for junior team members, effective leadership that encourages teamwork and values everyone's opinions makes a big impact. The project runs more smoothly and inclusively when cross-functional cooperation and open feedback channels are used.
Integration and Communication	Integration and Communication, Sensitivity to Criticism, Past Attitudes Reflection, Language Barriers, Evaluation Impact, Evaluation Performance Review System, Digital Transformation	The communication and integration themes refer to the development and integration of various systems, such as customer management systems, information systems, and others, so that team members can easily access, share, and transfer necessary and critical information for innovation (Smith, 2012).	The team in an organization working on either explorative or exploitative innovation would remain cohesive and focused through both effective integration and communication. In order to avoid misunderstandings, it is necessary to address communication barriers, including language and others. Further, it is also necessary to improve with the support of regular, constructive criticism that helps employees understand how they are performing and appreciate juniors' ideas. By ensuring that everyone is in agreement, a clear communication mechanism fosters a more harmonious and effective team atmosphere.
Knowledge management	Knowledge Management, Innovation Development, Innovation Reset	The theme of knowledge management refers to the acquisition, sharing, and applying knowledge for various key tasks of innovation (Mårtensson, 2000).	Knowledge management promotes both individual and team growth by assisting in capturing and expanding a set of new skills and experiences. This would help employees to propose novel concepts and ideas for effective explorative and exploitive innovation and growth. Employees can gain knowledge from prior failures, successes, and experiences by reviewing and improving earlier initiatives. The organization stays competitive and evolving when employees are allowed to experiment and expand their expertise.

4.5. Frequency Analysis of Aspects into Themes

The present study, while employing the open coding procedure, has also conducted a frequency analysis of the aspects. The frequency analysis here suggests the number

of times each aspect of the study was mentioned by each participant (36) in the semi-structured interviews. Figure 1 shows the descriptive frequency analysis of the aspects within each theme. In other words, the frequency of aspects is summarized. The figure clearly shows that the aspects within each theme, such as leadership management, skills and capabilities, team management and resistance to the status quo, and resource management, together with boundaries between exploration and exploitation, are widely discussed among the participants. These results suggest that, from a meta-theoretical perspective, the aspects within these themes are considered to be significantly important for ambidextrous innovation.

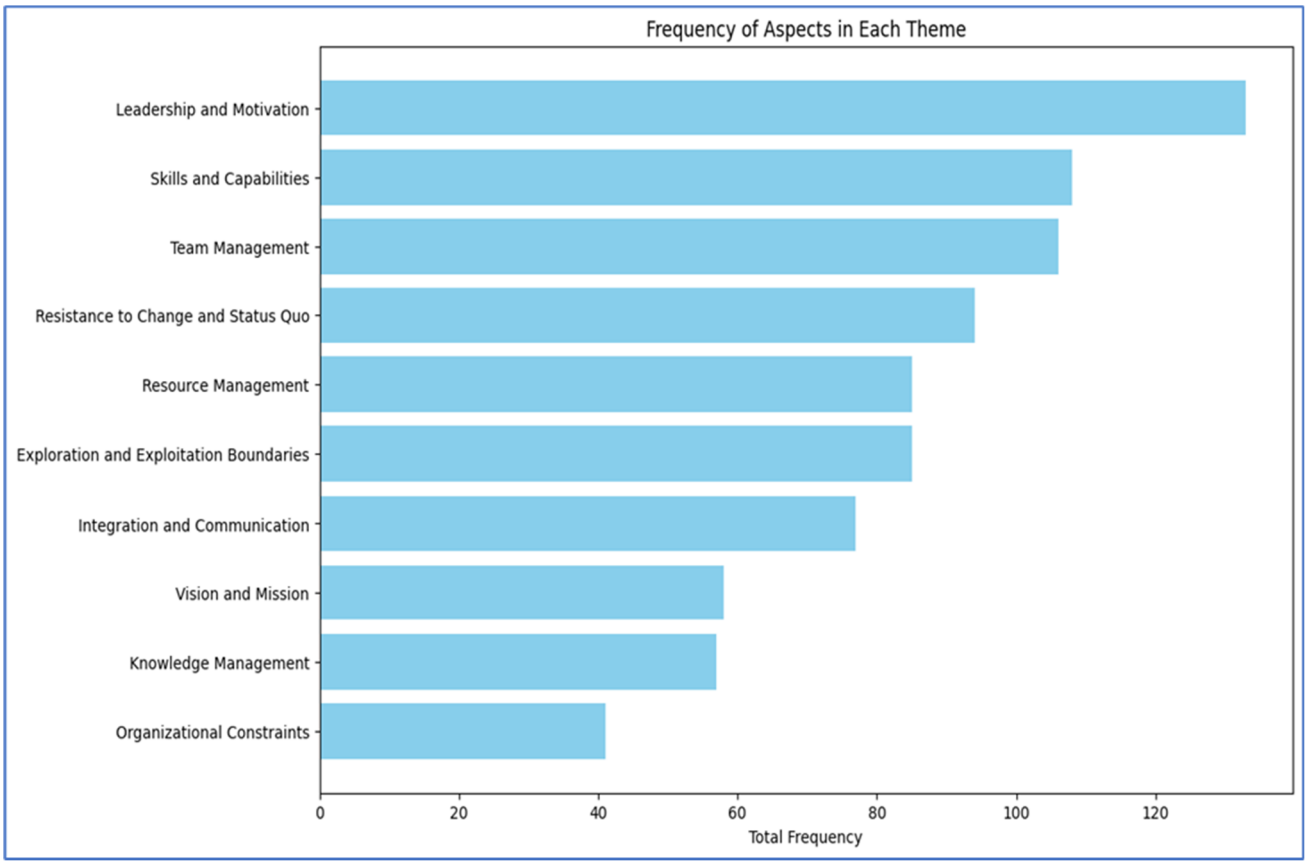

Figure 1. Descriptive Analysis of Aspects and Themes.

To elaborate on frequency analysis, the high frequency of certain aspects has revealed complex priorities that participants highlighted related to ambidextrous innovation. The importance of leadership management, for example, highlights the vital role that leaders play in promoting innovation. Similarly, setting strategic direction, empowering teams, and facilitating resource allocation that supports both exploratory and exploitative activities all seem to be facilitated by effective leadership. This is consistent with ambidexterity theories that emphasize how important it is for leaders to strike a balance between innovation and operational stability. In a similar vein, the frequent reference to talents and skills suggests that teams must be flexible and always learning. In order to successfully traverse complex and changing contexts, the participants stressed the value of acquiring abilities that support both radical innovation and small-scale changes. Furthermore, topics like resource management and opposition to the status quo point toward conflicts inside the company while introducing novel procedures. Although time and money restrictions sometimes make testing difficult, efficient resource management is essential for fostering new ideas. On the other side, organizational inertia that may impede innovation attempts

is reflected in resistance to change. Frequent boundary discussions highlight this conflict between exploration and exploitation, which shows the fine balance businesses must strike to maintain their competitiveness and promote an innovative environment. Overall, the results of this frequency analysis offer a thorough understanding of the elements that support or impede ambidextrous innovation in the context of our study, providing guidance for theoretical advancement as well as real-world implementation in the management of innovative organizational processes.

Finally, frequency analysis of ambidextrous innovation culture-related aspects shows that organizational cultural aspects, such as psychological safety, collaboration, leadership empowerment, and creative motivation, are essential for creating an innovative atmosphere. Employees view leadership support and a secure environment for exchanging ideas as essential to both exploration and exploitation operations, according to high-frequency elements like those mentioned in this study. While low-frequency aspects, such as bureaucratic barriers, and failure-apprehension, highlight structural and psychological obstacles that can impede ambidexterity. Mid-frequency factors, like strategic alignment and reward systems, reflect the operational components that support an innovative culture. In order to create a healthy culture where innovation can flourish, this research emphasizes the necessity for firms to address possible barriers and increase supportive components. Finally, since most of the participants were project managers, results also suggest that the number of aspects and frequency of each aspect are mostly contributed by the project managers, followed by the project team members and CEOs.

5. Positioning of Organizational Culture Themes into Ambidexterity

The developed themes suggest an important conclusion with regard to key organizational cultural factors and aspects that can potentially play an important role in promoting ambidextrous innovation. This study, based on data, literature, and input from both focus group discussions and interviews, has attempted to position such cultural themes within ambidexterity's key paradox of explorative and exploitative innovation. In addition, the research has attempted to illustrate the way each theme addresses each paradox of ambidextrous innovation. Table 8 has attempted to illustrate such position of cultural themes into ambidextrous innovation.

Table 8. Positioning of Theme.

Theme	Position	
	Exploitive Innovation	**Exploratory Innovations**
Resource Management	Effective utilization of existing resources is an important aspect of exploitive innovation in which such existing resources are tactically deployed to continuously improve the current products and services.	Exploratory innovation, as a long-term venture of the firm, needs to be supported by resources at an efficient and effective level. Resources, both financial and non-financial, provide the necessary means to support activities, such as the acquisition of knowledge and technology, and experiment with these to develop highly innovative and radical products and services.

Table 8. *Cont.*

Theme	Position	
	Exploitive Innovation	**Exploratory Innovations**
Skills and Capabilities	For exploitative innovation, firms quickly and continuously employ the existing stock of skills and other capabilities, such as the robustness of various systems like information that can enhance the existing products and services.	One of the key elements in a radical level of innovation is the ability to develop new ideas and experiment with them to innovate the products and services. Such abilities and skills have to be dynamic and unlimitable in nature, which a firm usually acquires over a period of time.
Leadership and Motivation	Leadership and motivation play important roles in continuously and wisely improving existing products and services. Leadership and motivation also play a role in which employees and teams develop ideas towards exploitative innovations.	Leadership and motivation are important elements in exploratory innovation. Leadership and motivation help teams to navigate potential failures. Secondly, it equips them with behaviors that are incredibly important for developing ideas for radical innovation.
Resistance to Change and Status Quo—(Change management and behavior patterns)	Exploitative innovation is particularly important for maintaining the status quo in the existing market. However, within an organization, the status quo may hinder the ability to undertake any innovation.	For exploratory innovation, it is of ample importance that teams think beyond the traditional frame of reference. Thus, teams and organizations need to break free from the status quo, which may hinder the development of out-of-the-box thinking in organizations.
Vision and Mission	Vision and mission are especially important elements for exploitative innovation. In this regard, a vision and mission for continuous improvement develop a culture that strives for excellence in the market.	The long-term vision of the organization standing in the competitive market is a necessary pre-requisite for the organization to strive for ideas, technology, and knowledge that can result in radical innovation.
Organizational Constraints	Organizational constraints, such as time, resources, and experimental space, provide critical hindrances to exploitative innovation.	For radical innovation, it is of ample importance that a varying range of constraints, including both physical and infrastructural and others, must be overcome. Moreover, teams must be equipped with resources at their disposal to experiment with ideas.
Exploration and Exploitation Boundaries	Important ideas for effective exploitative innovation may come from explorative activities, such as enhanced use of technology.	Exploitative innovation can help teams of explorative innovation to become aware of the current and existing market landscape. Such knowledge of the market landscape is beneficial for explorative innovation in that it can help (a) identify market gaps and (b) identify customer preferences.
Team Management	Team management is a highly effective tool for undertaking continuous improvement in products and services, as effective team management can develop ideas and experiment with them.	Team cohesion, integration, and motivation are highly important for teams to enable them to make effective decisions for sensing ideas, experimenting, and incorporating them into the upcoming radical innovative products and services.

Table 8. *Cont.*

Theme	Position	
	Exploitive Innovation	**Exploratory Innovations**
Integration and Communication	Integration and communication can streamline various activities, which provides ample space for organizations to undertake exploitative innovation.	Organizational integration and communication are important capabilities for explorative innovation. Integration and communication help firms to align the range of activities. Such aligned activities play a vital role in making it easier to undertake the time- and resource-consuming activities of explorative innovation.
Knowledge Management	Knowledge is an important resource that can always be used to effectively undertake exploitative innovation.	New, radical, and fundamental scientific knowledge is a crucial element of explorative innovation. Knowledge helps teams to develop new ideas, which can result in radical products and services. Thus, the organization needs to manage knowledge effectively by developing a system that can store the stock of knowledge and continuously share this knowledge with team members.

6. Validations

The present research, in order to validate the results, has employed the rigorous method of qualitative research design. The study employed widely used qualitative data collection tools, including semi-structured interviews (Adeoye-Olatunde & Olenik, 2021). The collected data were analyzed by employing the open coding procedure of qualitative data analysis (Schmidt, 2004). As a result, aspects (code) of organizational culture were developed, which can be significant factors in helping organizations to implement ambidextrous innovation. This research yielded a total of 62 themes, as shown in Table 4. To further validate the findings, we conducted two sessions of focus group discussions. The focus group discussions were crucial in enhancing the reliability of our research results (O'Donnell et al., 2007). The first focus group discussion helped us to evaluate each of the aspects critically and develop a refined list of these aspects. The second session of the focus group discussion helped us develop themes of organizational culture by grouping the previously found aspects. Thus, through both interviews and focus group discussions, the reliability of research results was enhanced.

6.1. Reliability

Although various statistical measures are used in the quantitative research design to assess the reliability of data and data collection instruments, such as Cronbach's Alpha (Tavakol & Dennick, 2011), reliability in the context of qualitative research refers to the fit between the outcome of data analysis and participants' points of view on a particular case, event, and phenomena (Tobin & Begley, 2004). Corresponding to the guidelines provided by Carpenter and Suto (2008), the present research attempted to select participants first taking into account their knowledge, experience, and skills associated with the phenomena being explained (i.e., organizational culture and ambidextrous innovation) and by using theory-driven sampling, specifically grounded theory. The guidelines provided by Carpenter and Suto (2008) are related to addressing the potential issues from the participants' point of view, where there may be a mismatch between the research phenomena and the participants' profiles. Secondly, since we ensured the participants' profile consistency by following

Carpenter and Suto's (2008) guidelines, we attempted to enhance the reliability of data interpretation by including the participants of the focus group who also participated in the interviews (Johnson & Waterfield, 2004).

6.2. Confirmability

Confirmability refers to the ability of research results to be verified by other researchers. The current research, in two focus group discussion sessions, had an academic expert as an active participant. The confirmation of academic and managerial experts with regard to aspects and themes suggests that confirmability criteria are met (Padgett, 2013).

6.3. Dependability

Dependability refers to the idea of replication, in which following the steps of the research will lead to the same conclusion (Padgett, 2013). The current study is comprehensive in providing details regarding the various research processes that were followed and undertaken in the study. Thus, it can be said that our research has effectively outlined the steps followed in the research process, which can be easily replicated.

6.4. Transferability

Transferability refers to the idea that the conclusion of the research can be applied effectively to settings other than the research's own. The present research attempts to ensure the transferability of the current and existing study by collecting data from other research contexts. In particular, as highlighted, a research gap exists with regard to the Global South's culture. The present study attempted to ensure the transferability of the existing study by collecting data from other cultures. Therefore, the research collected data from 4 participants working in the PMOs of different organizations from similar cultures, including the United Arab Emirates (UAE) and Kuwait (Padgett, 2013). Thus, our study fills the gaps in the body of knowledge on cultures in the Global South by integrating data from culturally different contexts, resulting in improved transferability.

6.5. Triangulations

Triangulation can be defined as the use of multiple methods and data sources to increase both the credibility and validity of research findings. The present study, in order to increase and enhance the credibility and validity of the research findings, employed multiple and different methods and data sources. The current research's obvious data collection sources, including the interviews and two sessions of focus group discussion, have effectively enhanced the credibility and validity of the research findings (Bans-Akutey & Tiimub, 2021). However, apart from the interviews and focus group discussions, we have also employed both literature reviews and observations. The literature helped us to establish the triangulation by grounding the research findings in existing theories, which made the findings more valid and credible. In the same way, systematic observation confirms aspects and themes in real-world settings.

6.6. Inter-Rater Reliability

This research has already ensured the inter-rater reliability of the results of semi-structured interviews, as shown in Table 3. In this regard, our study employed two experts as raters to assess the existence of aspects in academic or theoretical literature (Gisev et al., 2013).

7. Discussion

Ambidextrous innovation is considered a key innovation framework, especially for project-driven organizations. However, an increasing amount of literature suggests that culture is a key driver for project-driven organizations to adopt, develop, and implement

ambidextrous innovation (Grover et al., 2007). Ambidextrous innovation is particularly considered important as it tends to address the key concerns of projects, such as cost pressure, time, and competitive environment, by focusing on both short-term performance through exploitative innovation and sustaining long-term performance through explorative innovation (Binci et al., 2023). Although both structural and strategic aspects of ambidextrous innovations have been briefly and deeply examined in various settings, such as the technology industry and others, a growing body of research points to a gap in examining and assessing culture in project settings. As argued in the existing literature, culture provides comprehensive support that is necessary for ambidextrous innovation to take place and be implemented strategically (X. Zhang et al., 2021). Therefore, in order to fill this gap in the literature, the present research has attempted to explore the organizational culture in the project-driven organizational context. More specifically, the present study has attempted to explore key cultural aspects that can help project organizations in the successful adoption and implementation of ambidextrous innovation (Binci et al., 2023). This research, using a rigorous method involving both in-depth interviews and focus groups, has identified and developed the fundamental cultural issues that need to be addressed for effective project organizations' ability to achieve short-term efficiency (exploitation) and long-term flexibility (exploration) (Grover et al., 2007; Binci et al., 2023). The results suggest that these cultural aspects and elements emanate from key cultural aspects, including team development, behaviors, leadership styles, willingness to adopt change, and openness to new ideas. Finally, the current research has attempted to group such aspects into dominant cultural themes that convey cohesive ideas with regard to culture and ambidextrous innovation (X. Zhang et al., 2021).

The findings of the current research on cultural aspects attempt to provide a comprehensive understanding of organizational culture, affecting innovation in general and ambidextrous innovation specifically. The developed cultural aspects address key cultural factors such as behavioral, psychological, motivational resource distribution, change management, and leadership. The breadth and depth of the cultural aspects provide a significant understanding of how an organization can approach innovation, especially ambidextrous innovation. The key cultural models, such as Schein's organizational cultural model, can be used to further make sense of these cultural aspects. Finally, ambidextrous innovation is considered to be an innovation paradox. Thus, a culture that does not address the innovation paradox may find it very difficult to adopt and implement cultural aspects. Our research has specifically addressed the innovation paradox by focusing on issues that may hinder the ability of the organization to balance this paradox. Finally, the present study has attempted to position these aspects with regard to their application toward innovation and ambidextrous innovation in general and their application to explorative, exploitative, and balancing the innovation paradox.

This study, in order to develop a comprehensive understanding of the organizational culture for ambidextrous innovation, has attempted to group aspects into themes. The themes are cultural factors and variables, which are based on the key aspects identified in the current explorative study. Thus, it can be argued that the identified organizational culture themes may provide the structural understanding through which organizational culture can effectively shape both ambidextrous innovation and balance the paradox in project-driven organizations. These themes include Resource Management (Wassmer et al., 2017), Skills and Capabilities (O'reilly & Tushman, 2008), Leadership and Motivation (Nemanich & Vera, 2009), Resistance to Change and Status Quo (Kozcu & Özmen, 2021), Vision and Mission (Jansen et al., 2008), Organizational Constraints (Khan & Mir, 2019; Peng, 2019), Exploration and Exploitation Boundaries (Russo & Vurro, 2010), Team Management

(Dean, 2022), Integration and Communication (Duwe, 2022), and Knowledge Management (Santoro et al., 2019; Özlen & Handzic, 2020).

The findings of the current research suggest that certain cultural themes are explorative innovation-leaning, which can empower organizations and teams to foster experimentation and risk-taking. These themes can include Knowledge Management (Santoro et al., 2019; Özlen & Handzic, 2020), Exploration and Exploitation Boundaries (Russo & Vurro, 2010), and Leadership and Motivation (Nemanich & Vera, 2009). These themes or cultural elements specifically encourage organizations to seek out new opportunities within the market and competitive landscape, test new and radical innovative ideas, and undertake incremental and iterative long-term transformation (Grover et al., 2007; Binci et al., 2023). However, certain other themes, such as Resource Management (Wassmer et al., 2017), Organizational Constraints (Khan & Mir, 2019; Peng, 2019), and Team Management (Dean, 2022) specifically emphasize efficiency in existing operations, and this addresses the element of the exploitative innovation. These themes address the organizations' focus on optimizing existing operational processes and improving efficiency (Peng, 2019; Wassmer et al., 2017).

Finally, certain organizational cultural themes suggest both challenges and opportunities as far as positioning toward the innovation paradox is concerned. These themes include resource allocation, organizational constraints, exploration and exploitation boundaries, and integration and communication (Rialti et al., 2020; Rossi et al., 2020; Popadiuk et al., 2018). These themes, on the one hand, push the organization toward implementing the innovation paradox and, on the other hand, successfully balance such a paradox (Rossi et al., 2020). Thus, by analyzing these themes, organizations can develop more balanced strategies that foster both efficiency and adaptability, ensuring long-term sustainability while remaining competitive in fast-evolving markets.

8. Conclusions

Ambidextrous innovation has posed strategic opportunities for project-level organizations in developing and Global South countries, such as Saudi Arabia. Innovation is becoming a key criterion for projects in a variety of industries to become successful. Moreover, innovation not only helps projects to streamline their operations, cut operation costs, and enhance efficiency but it also helps in securing long-run business performance. Further, key stakeholder demands, with respect to the effectiveness and durability of the project, can also be ensured through innovation. However, having an effective framework for undertaking such innovation in these project organizations is a key challenge that needs attention. In this regard, ambidextrous innovation is a key framework, which is based on handling and undertaking both incremental (exploitative) and radical (exploratory) innovation at the same time. Such a balance between exploratory and explanatory (exploitative) innovation is positioned to be strategic in nature so that it can not only secure long-term advantages but also help strengthen the existing position in the market.

Although these benefits and advantages at the strategic level are associated with ambidextrous innovation, implementing it, especially at the project-level organization in cultures such as Saudi Arabia, is a challenging task that needs to be addressed. Project organizations are always constrained by various issues, including budgets, time, and strict stakeholder demands. Secondly, developing markets (i.e., Saudi Arabia) are facing major economic and social challenges and need innovations in various project-driven economic sectors, such as construction, energy, and others, to achieve the desired level of sustenance in their economic growth, which is no longer driven by traditional sectors, i.e., oil and gas. Further, the literature is highly limited with regard to both project-level organizations and cultures, such as Saudi Arabia, presenting a significant gap that needs to be addressed.

Since the nature of the problem is comprehensive, an exploratory nature of research needs to be undertaken.

Although the existing literature has pointed out various key factors that need to be considered when implementing ambidextrous innovation in project-level organizations, organizational culture emerges as a key factor that must be manipulated for the successful and effective implementation of ambidextrous innovation. The present research's aim was to undertake exploratory and qualitative research design to explore the key organizational culture elements and aspects that are highly necessary for implementing ambidextrous innovation. Since the literature with respect to ambidexterity in project-level organizations within Saudi Arabian culture is limited, it is pertinent to explore and understand the organizational culture aspects that could be critical to the implementation of ambidextrous innovation before making any empirical prediction.

The current research, using the action and grounded theory approach, has employed semi-structured interviews to collect comprehensive data from participants on key issues of the culture with respect to ambidextrous innovation. The data analysis of semi-structured interviews helped us to collect comprehensive data on the cultural aspects. The subsequent analysis, using open coding, also helped us to identify 62 key cultural aspects that could be necessary for the implementation of ambidextrous innovation. To enhance the reliability, validity, and triangulation of the research, two sessions of focus group discussions were conducted. The first session of the focus group aimed at critically evaluating and filtering the aspects of organizational culture, which resulted in 56 aspects. The second session of the focus group resulted in the grouping of aspects into theoretical themes, which together explained key cultural factors that need to be manipulated for the implementation of ambidextrous innovation. These themes are relevant for both project-level organizations and the culture of Global South countries such as Saudi Arabia.

8.1. Limitations of Research

The current research has undertaken a comprehensive research effort to understand cultural aspects and grouped them into themes, which can help us develop a culture that can adopt ambidextrous innovation. However, the present study also reports various limitations. A key limitation of this study is the lack of empirical evidence establishing the association between cultural aspects, key themes, and ambidextrous innovation, which needs to be developed urgently. Secondly, the present research relies on data collected from project-driven organizations in Saudi Arabia, which may limit the generalizability of the findings to other cultural or organizational contexts. Finally, although focus groups, interviews, and grounded theory for data collecting and analysis have provided us with rich insights, other methods, such as case studies, can also enhance the findings and overall conclusions, along with longitudinal data sources.

8.2. Future Research Recommendations

The current study offers three significant research recommendations. First, it allows future researchers to empirically test and validate the findings using quantitative research methods, including both survey and experimenting interventions. This type of research design will provide evidence for theoretical validation. Secondly, although aspects and themes have been developed, insight is still missing from the implementation part. Thus, future researchers are recommended to review the literature and develop interventions that can help implement each of the cultural themes. Finally, it would be interesting to triangulate the findings using other methods of qualitative research, including case studies.

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