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Toward the Application of Digital Strategy in Business Firms in Pakistan. An Analysis of Focus Group Discussion¹

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Technological developments and automation of businesses have upgraded firm business strategies. This study's goal is to explore those factors that are important to implement a successful digital strategy in business firms. An Expert group of 10 individuals, 4 from public and 6 from the private sector, including Energy, Banking, Oil & Gas, IT, Manufacturing, Insurance, Telecommunication, Packaging, Services, and Education was chosen. Group members were adequately moderated, and all participants contributed equally to the discussion with a high level of focus on the given topic(s). The series of different analysis: Thematic analysis, Negative case analysis Analyze of the similarities and contrasts, Word frequency analysis, Cluster Analysis and tree map analysis using NVIVO 10 exhibits that Organization, Technology, Culture, Insight and Customer experience are the foremost themes and security, digital tools, digital technology, budget, vendor partner, research and development, leadership, profitability, customer experience, customer feedback, education, trust level of employees, firm nature, social communities, competitiveness and trust level of employees are subthemes that may contribute to the firm performance through successful implementation of digitization. This study is limited to business firms. The topic of the study is broad, it may be demanding to get adequate data from the sources as the data become inaccessible at times.

Key Words: Digitization, Technology, Firms Strategy, Culture, Insights

INTRODUCTION

The digitization trend is driving the invention and commercialization of various digital consumer services in a disruptive market (Kamolsook, Badir, & Frank, 2019). Companies must adapt to the devastating effects of Web-based communication, marketing and service delivery (Rigby, Sutherland, & Takeuchi, 2016) As a result, this development has enabled the company to capture entrepreneurial opportunities in a wide geographical area (Kamolsook et al., 2019). As a result, it generates multiple weather rates for digital, intelligent, and Internet-based services (Sang M. Lee, 2016). The factors that introduce digital services are not fully understood. Low cost and ease of product development and easy access to these services by consumers eliminate the traditional barriers that individual entrepreneurs face when entering the market. The incremental nature of product type and development promotes creative development (Rajapathirana & Hui, 2018), but companies still need to understand the elements at the micro-level of their environment to achieve appropriate innovation. The overall understanding involves an overall view of internal and external factors that influence technology development and diffusion (Ferraris, Erhardt, & Bresciani, 2017)

Organizational digitization, defined as the penetration of IT in the organization, is more complex than the traditional IT investment concept since digitization involves not only investment in new IT but also training employees of IT functions and actual IT usage (Rajeev Sharma, 2007). Thus, digitization is a complex organizational phenomenon in that it involves changes not only in IT but also in organizational strategy due to new IT implementation, business processes, organizational knowledge and eventually the whole socio-technical organizational system, thus eventually influencing organizational performance (Bharadwaj, Sawy, Pavlou, & Venkatraman, 2013).

Studies on organizational digitization emphasize the importance of the impact of all the three key aspects of digitalization - IT spending, IT training and IT usage - on organizational performance (Sharma & Yetton, 2007). For example, two firms with the same amount of IT spending and capital can have different performance depending on their specific IT training and actual IT usage aligned with specific business strategy. However, there is a paucity of studies on how such elements of digitization can support efficiency or flexibility strategy to achieve competitive firm performance. Due to the tight interdependencies between digitization, strategies and other organizational elements (Bharadwaj et al., 2013) digitization elements by themselves may not fully explain the complex mechanisms that determine the ways that digitization impacts firm. Thus, in this research researchers explore the key factors of digitization which are crucial for the implementation of successful digitization strategy by using a qualitative research approach which can eventually increase the firm performance.

The main purpose of this research is to study the key factors that are critical to implementing a successful digital strategy and to suggest configurations of digitization that produce high firm performance. In this study, researchers studied the digital factors in the context of (eg CSR, culture, data, customer experience, technology and organization). The purpose of this study was achieved through focus group discussions. This study contributes to the literature of the strategic influence of

¹ This paper is based and related to the author's work of his PhD thesis

digitization by opening the black box of IT-strategy configurations and shedding light on the critical factors which are crucial for the implementation of a successful digitization strategy that produces high firm performance. To our knowledge, there has not yet been a study that examines this context using this approach. To the best of our knowledge, no research has been done to investigate this context. The structure of the research paper is as follows: First, the theoretical background of the research is introduced. Next, the accepted research methods are described, followed by data analysis and results representation. The results were discussed, and theoretical and practical implications were presented. Final conclusions bring the paper to a close.

LITERATURE REVIEW

Background, Definitions and Basic Concepts

The origin of term digitization can be attributed to (Tapscott, 1996) and since been widely used to describe, among other, processing and representation of digital information (Brynjolfsson, 2002; Westerman, Bonnet, & McAfee, 2014).

Digitization involves different processes leading to the creation of digital information from a stock of mainly analog sources. In a broader framework, digitization encompasses generations, sharing and processing of information created by digital technologies and resulting in societal transformation both in economic and social terms. IT transformation in an organization often leads to a substantial overhaul of organizational structure (Morton, 1991). This brings new challenges for the management team and different past studies have provided a detailed account of how managers deal with restructured organization resulting from the implementation of recent technologies (Daniel & Wilson, 2003; Jetter, Satzger, & Neus, 2009; Ranganathan, Goode, & Ramaprasad, 2003). Effective dealing with new challenges brought by IT transformation is critical for business success (Agarwal, Johnson, & Lucas, 2011).

Policies designed in not so distant past are struggling to keep pace with the rapid expansion and its widespread uptake. An environment like this presents policymakers with great number of new challenges where they have to continuously keep updating their policies. Among others an important task for them is to facilitate best possible use of available applications and data networks by individuals, businesses and governments. The communities who appreciated the importance of digitization adoption are reaping rewards in both economic and social terms. In addition, business firms in these communities are working more proficiently.

A society with advanced digitization has varied ways of living, working, learning, communication, and interaction. Digitization involves collaboration among human beings and autonomous objects outside of their apparent setting by employing digital technologies. Digitization influences everyday activities by placing vast emphasis on data, knowledge and information. Digitization uptake in wider terms in a society leads to timely, informed and better-quality decision making. Intelligent cars, social networks, data connected portable devices and their intelligent applications represent only a little of our present-day information-driven era (Aier et al., 2011).

Organizations, small or big, are under increased demand to utilize and facilitate the adoption of digital technologies into their organizational structure. This is considered vital for business strategy and competitiveness (Henderson & Venkatraman, 1993). In a digital economy, digital transformation (DT) is an organizational transformation resulting from the integration of digital technologies and business practices, much more than the scope of a process redesign. It involves designing commissioning new business operations to facilitate a competitive edge by increased utilization of available and forthcoming digital technologies (Brynjolfsson & Hitt, 2000). How organizations capitalize on the benefits of digital transformation is therefore critical to understand as although seems desirable and such exercise still requires careful and detailed planning.

Digitization is viewed from both value and product viewpoints. Traditional industrial products are regarded as static (Brynjolfsson & McAfee, 2014) with limited scope for modification post-release. Digitization inspired products, on the other hand, are based upon a software core with an update capability. This modification ability allows for the addition of new functions and services required by the dynamic digital environment and customer needs (Schmidt et al., 2015). Digital transformation is associated with different digital technologies like 'cloud computing' (Mell & Grance, 2011), big data (Agrawal, Das, & El Abbadi, 2011), deep learning (Schmidhuber, 2015), advanced analytics and internet of things (Atzori, Iera, & Morabito, 2010). These technologies are shaping future trends and innovative ideas in business and social framework.

Importance of Digital Transformation in Business

The developments in digital technologies are changing the lifestyle of people at general and reforming our societies at large, it is referred to as digital transformation. Digital technologies have engaged our routine tasks by persuading the way we work, eat, buy and sell (Aral, Dellarocas, & Godes, 2013; McDonald & Rowsell-Jones, 2012).

Digital technologies are reshaping the consumer requirements to connect the physical with the digital world (Henfridsson, Mathiassen, & Svahn, 2014). Consequently, business firms are facing a challenge of change in demands (Priem, Butler, & Li, 2013). The transportation sector is one of the examples, where service providers find it difficult to satisfy the growing requirements of consumers to provide information regarding the environmental concern, security, and digitally improved mobility practices (Rishi, Stanley, & Gyimesi, 2008). Such growth in digitization requires additional research at the firms' level (Yoo, Henfridsson, & Lyytinen, 2010). In the context of digital transformation, sectors such as media (Utesheva, Cecez-Kecmanov, & Schlagwein, 2012) and music industries (Bourreau, Gensollen, & Moreau, 2012) are based on digital products, the impact of digital transformation may be disrupted in these sectors. With the announcement of iCar (New York

Times 2015), Apple raised the concern for automobile executives.

Socio-economic Impact of Digitization

Recent literature discusses the effect of digitization at workplace, travel, and living style, therefore a strong link exists between digital transformation and basic economic parameters in every society. Mobile and broadband adoption in different studies comprehend this inclination (Czernich, Falck, Kretschmer, & Woessmann, 2011; Gruber & Koutroumpis, 2011; R. Katz, 2012; R. L. Katz & Koutroumpis, 2012; Koutroumpis, 2009). In the past decade, many business models have become obsolete due to the significant impact of digital technology on businesses. As a result, integrating various digital technologies into business processes has become even more important for business survival and gaining a competitive advantage in the digital economy (A. S. Bharadwaj, 2000). For example, banks use e-banking services to gain a competitive advantage (Shah & Siddiqui, 2006). To explore the digital transformation of companies, some researchers used a resourcebased perspective (RBV) (A. S. Bharadwaj, 2000; Wade & Hulland, 2004), suggesting that they used both material and nonmaterial resources (Barney, 1991).

METHODOLOGY

The qualitative research methods recommended by Erlandson, Harris, Skipper, and Allen (1993) were chosen as research design because it provides detailed description and collaboration between researchers and participants. This method is the focus group. The focus group approach was chosen because it complements the constructivism and postmodern paradigm theory. Respondents sometimes feel anxious compared to oneon-one interviews (Madriz & Kreuger, 2005). In addition, focus groups can maximize insights from interactions between participants and group resistance narratives (Madriz & Kreuger, 2005) and provide a comprehensive sense of self-affirmation and recognition, especially for marginalized groups. According to the sample, 10 participants were selected from top management in various industries. The focus group interview time is about two hours. The focus was recorded using a digital voice recorder. To protect their anonymity, all participants used nicknames during the recruitment process and focus group meetings. At the end of the focus group, participants could make additional comments.

For the analysis, a textual protocol for the interview data was prepared and two independent researchers analyze it carefully. Nvivo 10 software was used in order to create nodes and that was discussed with each other and the qualitative data were analyzed using NVivo 10. All audio recordings were saved. The transcript of the focus group discussion was then recorded on NVivo. For every new speaker, a new line is drawn and the initials are inserted before the speech to identify them. To further aid in the transcribing, the researchers used the audio recording in the interview. For thematic analysis, data were coded according to the important points discussed by the respondents. Bryman (2012) stetted that "Thematic analysis is used to characterize data to extract key issues in its data". The researchers make a node for every one of the related points talked about in the discussion. The researcher at that point chooses every one of the statements and discussions related to that specific subject and adds them to that node. For instance, one of the nodes made for this study is known as the "customer experience." By opening this node, the researcher can view all quotes and conversations related to the topic. In this way, researchers can see how many people are talking about a topic, what they are talking about and how often they are talking. Analysis strategies for qualitative research include:

• Theme analysis. The themes (called Nvivo nodes) are identified accordingly and coded for the interviewees.

• Negative case analysis: if a negative case occurs, for example, due to the lack of a digital strategy, the interviewees have shown to have been analyzed in detail.

Cluster Analysis: "Use classification strategies to group comparative words and afterward utilize these classifications to compare goals".

- Contextualize the strategy, interpret the narrative data with regards to the entire content, and focus on the relationships between the statements.
- Analyze the similarities and contrasts through various diagrams and graphs.

RESULTS AND FINDINGS

Table 1 indicate the various qualities of the focus group participants. Respondents were allocated names ranged from S01 to SO10. Respondents' average age was 35, and all respondents held administrative positions. Four respondents were from the public sector and six were from the private sector. Two respondents were from manufacturing industry, two from the education sector as most of the respondents are from these groups. One respondent was the CEO of a large national energy organization. S02 is also the vice president of a major production company.

Table 1: Profile of the Respondents

| Row ID | Responder | nt ID Exper | ience A | ge Sector | Industrial Composition | Designation |
|--------|-----------|-------------|---------|-----------|---------------------------|-----------------|
| 1 | S01 | 7 | 32 | Public | Energy | CEO |
| 2 | S02 | 5 | 43 | Private | Banking | Vice. President |
| 3 | S03 | 3 | 31 | Private | Oil & Gas | HR manager |
| 4 | S04 | 10 | 42 | Public | IT | Manager |
| 5 | S05 | 7 | 33 | Private | Manufacturing | Analyst |
| 6 | S06 | 2 | 36 | Public | Insurance | Manager |
| 7 | SO7 | 4 | 37 | Private | Telecommunication | Manager |
| 8 | SO8 | 5 | 35 | Public | Packaging | Manager |
| 9 | SO9 | 6 | 39 | Private | Service | Professor |
| 10 | SO10 | 6 | 41 | Private | Education Service | Professor |

Thematic Analysis

Table 2 records the themes/ nodes coded to use text as data. Themes are designs in data sets that are significant for describing phenomena and identified with the explicit research question (Daly, Kellehear, and Gliksman, 1997).

 Table 2: Themes, Sources and References

| Name | Sources | References |
|------------------------------|---------|------------|
| CSR | 08 | 22 |
| Awareness | 1 | 2 |
| Cause effect marketing | 1 | 1 |
| Control of brain Draining | 1 | 5 |
| Awareness Forum | 1 | 1 |
| Financial Support | 1 | 1 |
| Idea Growth | 1 | 1 |
| Proper Platform | 1 | 1 |
| Govt. Policies | 1 | 10 |
| Encouragement and motivation | 1 | 2 |
| Export Policies | 1 | 1 |

| Incentives | 1 | 3 |
|---|--------|--------|
| Tax Relaxation | 1 | 3 |
| Culture | 08 | 25 |
| Competitive Advantage | 1 | 2 |
| Consumer trust and experience | 1 | 1 |
| Corporate digital strategy | 1 | 3 |
| Culture | 1 | 1 |
| Digital innovation | 1 | 2 |
| Digital Vision | 1 | 3 |
| Education and Training | 1 | 2 |
| Leadership | 1 | 5 |
| Leadership Style | 1 | 4 |
| Trust Level | 1 | 2 |
| Customer Experience | 06 | 22 |
| Brach Customer Experience | 3 | 3 |
| Customer Interaction | 1 | 5 |
| Group creation | 2 | 2 |
| Online Customer Experience | 5 | 5 |
| Social Communities | 1 | 5 |
| Insight | 09 | 21 |
| Channels works of employees | 1 | 2 |
| Customer Feedback | 1 | 4 |
| Customer Insight | 2 | 5 |
| Defines and repeatable processes | 2 | 2 |
| Firms Employees understandability | 1 | 1 |
| Firms Nature | 4 | 3 |
| Profitability | 1 | 4 |
| Organization | 10 | 68 |
| Benefit of third-party solution | 4 | 12 |
| Confidentiality | 1 | 4 |
| Security Standers | 2 | 5 |
| Specialization | 1 | 2 |
| Critical digital Function | 1 | 2 |
| Current level of infrastructure | 2 | 4 |
| Different Functional expertise | 4 | 2 |
| Digital programs | 5 | 2 |
| Digital Technology. | 2 | 7 |
| Education | 1 | 5 |
| Employees Collaboration and empowerment | 1 | 3 |
| Fear Factor | 1 | 2 |
| Firms Resources | 1 | 7 |
| Level of Security System | 6 | 15 |
| Additional Cost | 2 | 4 |
| Business sensitivity | 1 | 1 |
| Compromise on security | 1 | 5 |
| Privacy of data | 1 | 2 |
| Virus and other security threats | 6 | 2 |
| Seminars Technologie | 3 | 7 |
| Technology | 10 | 41 |
| Added Cost | 1 | 2 |
| Budget | 2 | 1 |
| Cost Optimization | 1 | 2 |
| Customer Services | 1 4 | 7 |
| Customers Key Traits | 4 | 2 |
| Cyber Security Disited Table | | 5 4 |
| Digital Tools | 3 | |
| Innovative and Flexible approach | 5 | 3 |
| Range and Speed of Internet | 1 3 | 3 5 |
| Research and devolvement budget | | 5 |
| Technology development | 6 5 | 2 5 |
| Technology Effectiveness | 5 | 5 |

As per Guest (2012), thematic analysis is the most well-known type of analysis in qualitative research. Brown and Clark (2006) cite the capabilities of their "recognition, learning, and writing patterns (or topics)" in the data. According to the table, we have most of the themes from the organization among all respondents (N = 68). Then there were 41 links, and all respondents talked about the impact of organizational technology on the company's performance. In the context of digital strategy, the organizational culture ranked third with 25 references from 10 respondents. Bold topics are the main theme, and they still have many subtopics. Each node describes the source and references for each theme.

In this part, respondents introduced the main impact of digitization. The theme is considered what they receive and how many respondents are talking about a topic. One of the respondent's states "Organizational Culture is a major consideration for any firm to execute their digital strategy". Table 3 shows that all the participants expressed their views on the organizational culture and its significance for the successful

implementation of digitization to improve organizational efficiency.

Table 3: Organizational Culture

| Respondents | References | Coverage |
|-------------|------------|----------|
| S04 | 3 | 2.45 % |
| S03 | 2 | 3.40 % |
| S06 | 1 | 2.29% |
| S05 | 2 | 3.85% |
| S02 | 1 | 3.50 % |
| S01 | 2 | 4.33 % |
| SO9 | 5 | 2.46% |
| SO7 | 3 | 3.86% |
| SO8 | 1 | 4.15 % |
| SO10 | 1 | 1.15% |

Table 4.4, all the respondents talks about customer experience in the organizations in order to a successful implementation of digitization strategy which effects on firm's performance. One respondent stat "Mostly firms now creating customer groups to take care of their preferences and needs. Digital strategy helps in this regard to create dedicated groups to share customer's experiences". They argued that Customer experience is important for achieving firm's performance goals and good and satisfied customer experience increase the firm's performance.

Table 4: Customer experience

| Respondents | References | Coverage | |
|-------------|------------|----------|--|
| S05 | 1 | 2.56 % | |
| S01 | 2 | 3.66 % | |
| S03 | 1 | 3.81 % | |
| S02 | 1 | 4.32 % | |
| S04 | 1 | 0.76 % | |
| S09 | 2 | 1.78 % | |
| SO10 | 3 | 2.86% | |
| SO8 | 1 | 1.43% | |
| SO7 | 2 | 2.23% | |
| SO6 | 4 | 3.35% | |

Five respondents talked about the customer insights and the firm's employees' understandability of the successful implementation of digital strategy in terms of increasing a firm's performance. Customer Insight was likewise coded as a different theme, however, respondents talked in various settings. However, one of the interviewees said that if customer insight is to accomplish organizational performance, the organization's performance will be positive (Table 5).

Table 5: Customer insight and the firm's employees' understandability

| Respondents | References | Coverage |
|-------------|------------|----------|
| S02 | 3 | 3.66 % |
| S05 | 2 | 2.56 % |
| S07 | 1 | 1.15 % |
| S09 | 2 | 2.00 % |
| SO10 | 2 | 3.66% |

Six of the respondents talked about third party solutions in the context of specialization. One of the respondent's states "Every company should face some limitation and they need to consult with other parties which are experienced in their respective fields. So, I think third party solution is not a bad thing for companies as it cans create competitive advantage and also customer satisfaction. Vendor Partners contribute to enhance the firms digital strategy". They also told that every company should face some limitation of resources and specialization and they need to consult with other parties which are experienced in their respective field (Table 6).

 Table 6: Third-party solution

| Respondents | References | Coverage |
|-------------|------------|----------|
| S01 | 2 | 2.88 % |
| S02 | 1 | 1.31 % |
| S04 | 1 | 1.94 % |
| S05 | 1 | 2.42 % |

| | - | |
|-----|---|--------|
| SO9 | 3 | 3.54% |
| S07 | 2 | 1.50 % |
| | | |

Seven respondents talked about the importance of digital technology on successful implementation of digital strategy in order to increase firm's profitability. As one of the respondents claimed that firms has technological resources to adopt digital technology roadmap (Table 7).

Table 7: Digital technology

| Respondents | References | Coverage | |
|-------------|------------|----------|--|
| S02 | 1 | 2.35 % | |
| S03 | 1 | 3.56 % | |
| S04 | 2 | 3.15 % | |
| S07 | 1 | 2.00 % | |
| S08 | 1 | 2.13 % | |
| S09 | 1 | 2.60 % | |
| SO10 | 2 | 3.35% | |

Except for respondents S03 and SO7, every respondent expresses their views about the importance of data privacy and the level of digital security in an organization in order to successfully implementation of digitization strategy. "Organization Security is an important element. Customers are very conscious about their privacy. Virus and other malware can badly affect the organization digital program which will surely be protected through firewall or other digital tools" (Table 8).

| Table 8: Level of digital securit |
|-----------------------------------|
|-----------------------------------|

| Respondents | References | Coverage |
|-------------|------------|----------|
| S02 | 2 | 3.91 % |
| S03 | 1 | 1.91 % |
| S05 | 3 | 3.00 % |
| S06 | 1 | 4.12 % |
| S07 | 1 | 5.72 % |
| SO8 | 2 | 3.24% |
| SO9 | 1 | 3.33% |
| S010 | 1 | 1.11% |

Six participants expressed that the infrastructure of the company is a very significant factor that affects firms' performance and respondent S01 shares their views as "Resources of Firms like infrastructure affect the digitization process but companies who provided such facilities like the internet are important to consider. For example, what are the range and speed of the internet which is provided by the internet provider companies? So, the reliability of these companies can directly impact the companies when making investment decisions of infrastructure" (Table 9).

Table 4.9: Infrastructure of firm

| Respondents | References | Coverage |
|-------------|------------|----------|
| S04 | 2 | 2.48 % |
| S03 | 1 | 1.02 % |
| S06 | 2 | 2.51 % |
| S05 | 3 | 3.63 % |
| SO8 | 2 | 3.44% |
| SO9 | 1 | 0.78% |

Four respondents told that research and devolvement budget in the organization has a significant effect on implementation of digital strategy as one of the respondent told that all types of organizations spend large amount of money on digitization especially in its research and devolvement budget (Table 10). et

| Table 4.10: Research and devolvement budge |
|--|
|--|

| Respondents | References | Coverage |
|-------------|------------|----------|
| S06 | 1 | 3.28 % |
| S05 | 1 | 5.21 % |
| S08 | 1 | 5.08 % |
| S02 | 1 | 6.00 % |

Three respondents commented on the range and speed of the Internet as an important indicator of the use of digital support. Strong comments, however, suggest that the range and speed of the Internet make a difference from other companies, but may involve additional costs (Table 11).

Table 4.11: Range and speed of the Internet

| Respondents | References | Coverage |
|-------------|------------|----------|
| S03 | 1 | 1.33 % |
| S05 | 1 | 2.18 % |
| S07 | 1 | 7.40 % |

Only two respondents clearly shared their views on technology development and its impact on business performance (Table 12). Table 4 12. Technology development

| Table 4.12. Technology development | | | | |
|------------------------------------|------------|----------|--|--|
| Respondents | References | Coverage | | |
| S02 | 1 | 2.70 % | | |
| S01 | 2 | 2.43 % | | |

This theme relates to an innovative and flexible approach, it was explained above, but S01 agreed with most opinions on this topic (Table 13).

Table 4.13: Innovative and flexible

| Respondents | References | Coverage |
|-------------|------------|----------|
| S03 | 1 | 11.52 % |
| S05 | 1 | 8.09 % |

Similarity vs. Contrast analysis

To compare between different themes and codes, Tree Map was produced which presents a graphical picture of themes and coding against each theme (Figure 4.1). A tree map is a diagram that shows hierarchical data as a set of nested rectangles of varying sizes. The size of the rectangles shows the number of coding references on each theme. The color of the rectangles shows the number of nodes coding the source. According to Bruls, Huizing and Wijk (2000), Tree maps are efficient and compact displays, which are particularly effective to show the size of the final elements in the structure. A Tree map of major themes was constructed for the comparison of the number of coding references on each major theme, i.e., effects, overcome strategies, types of tactics and definitions of digitization. The large rectangle of effects shows that in the data set there are majority of the references relevant to the theme that how digitization affects the performance in an organization. Major references are on security, digital tools, digital technology, budget, vendor partner, research and devolvement, leadership, profitability, customer experience, customer feedback, education, the trust level of employees, firm nature, social communities, competitiveness and trust level of employees. The first five themes are broadly divided into effects and later in the theme of overcome strategies. In this tree maps, there are five major themes and different important and considerable themes are discussed under the umbrella of these themes. The organizational factor is a major factor that can affect the successful implementation of a digital strategy.

Cluster Analysis

Cluster analysis is an exploratory technique in Nvivo which shows patterns in the data by grouping themes with similar words or values. Cluster analysis diagrams provide a graphical presentation of sources or theme to make it easy to see similarities and differences. Closer themes in cluster show similarity in the meaning as compared to those which are far apart. Huang and Lai (2006) contended that when there is much amount of information and users can't perceive all things at a same time cluster graph is very helpful. In their view, "A clustered graph can greatly reduce visual complexity by temporarily replacing a set of nodes in clusters with abstract nodes." In Word similarity, themes which are highly related to each other based on the occurrence and frequency of words are shown as a group together and themes with lower degree are further apart.

Figure 4.2 and Figure 4.3 present themes by word similarity in the shape of hierarchy as well as relationships. From these figures, it is clear that digitization strategies have been subdivided into further themes and similar themes are grouped together. Cluster analysis was performed to see how similar or different is the coding of a theme? In a Circle Graph, all items are represented as a point on the circumference. Similarity between themes is represented by joining lines of different colours and thickness. Similarities are indicated by blue lines and dissimilarity by red lines. As the thickness increases more similarity or difference evident.



Figure 4.1: Tree Map Analysis



Figure 4.2: Circle Graph of Themes Clustered by words Similarity



Figure 4.3: Horizontal Diagram of Themes Clustered by words Similarity

Word frequency query finds the most frequently occurring words or concepts. In this focus group of discussion one can see that digital, organization, strategy and organizational security are most frequently occurring words as their boldness and effects are more prominent (Figure 4.4). It can be concluded that about 25 percent of the words are related to digital, firms, security, customers, companies' performance etc. which are the core themes of this research. Most common word is digital which has been used 250 Times by the respondents, but here new emerging theme is digitization, customer insight, CSR, leadership, Innovation and flexibility etc. which has been used 350 times and narrates that like the level of technology there are also levels of digitization and this is an exploratory findings which may be further explored. Some other sub-themes also support this notion (for example, budget).



Figure 4.4: Word Frequency Discussion and Conclusion

The findings demonstrate that organization, Technology, Culture, Insight and Customer experience are the major themes and security, digital tools, digital technology, budget, vendor partner, research and devolvement, leadership, profitability, customer experience, customer feedback, education, trust level of employees, firm nature, social communities, competitiveness and trust level of employees are sub-themes that effect on the firm performance through successful implementation of digitization. The organizational factor is a major factor that can affect the successful implementation of a digital strategy. The results also explain how digitization plays different roles over the multiple configurations in achieving high performance while interacting with the business strategy of flexibility and efficiency. Our findings show that digitization can help organizations make flexibility-oriented or efficiency-oriented to achieve high performance. Further, we show that organizations can achieve high performance either by building in house digitalintensive configurations or externally inter-firm strategic collaboration configurations. These all findings are supported by previous literature.

Limitations and Delimitations

This study is limited to business firms. The topic of the study is broad, it may be demanding to get adequate data from the sources as the data become inaccessible at times. Despite all odds, extensive efforts shall be made to obtain relevant material and data. Another limitation is time. A study conducted over a certain interval of time is a snapshot dependent on conditions occurring during that time.

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