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Cultural Values in Digital Transformation in a Small Company

Veera Tuukkanen, Emma Wolgsjö, Lazar Rusu*

Stockholm University, Borgarfjordsgatan 12, 164 07 Kista, Sweden

Abstract

Researchers and practitioners have found culture to be very important to digital transformation. However, despite the widespread consensus about the importance of culture in successful digital transformations, only a limited number of studies have explicitly focused on the cultural aspects in digital transformation in small and medium-sized companies (SMEs). This research investigates and analyses the important cultural values in digital transformation in a small company operating in the IT industry. The findings of this study are nine organisational values, from which eight values show similarities to the existing research. In contrast, the organisational value entitled “affinity towards the organisation” has been identified as a new organisational value in digital transformation in small companies. The identified cultural values can raise the awareness of organisations’ management planning or currently engaged in a digital transformation and help organisations recognise cultural values that can contribute to digital transformation initiatives’ success or failure.

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* Corresponding author. Tel. + 468161669; fax: +4687039025

E-mail address: lrusu@dsu.se

1. Introduction

Many organisations choose to digitally transform and adapt their businesses to stay competitive as new technologies present great opportunities and threats for companies that have established their success in the pre-digital era [1]. For several years, the concept of digital transformation has been at the centre of discussion among business leaders and management professionals, and its importance has been widely recognised [2]. According to [3], digital transformation refers to “the IT-enabled change in organisations through the digitalisation of products, services, core processes, customer touchpoints, and business models” [3, p.3].

In digital transformations, large companies have different traits than small and medium-sized enterprises (SMEs) that, according to the European Commission, are defined as companies with under 250 employees and a turnover of less than or equal to 50 million euros per year [4]. Small companies are a subcategory of SMEs with less than 50 employees and a turnover of less than or equal to 10 million euros [4]. In terms of organisational changes as a part of digital transformation, SMEs are often, by nature, more flexible, faster, and less constrained than larger companies [5]. However, their size also poses some noticeable constraints for evaluating and implementing digitalisation opportunities, including potential knowledge gaps and limited resources [5]. Success factors for digital transformation have for a long time been an ongoing debate, but many researchers have agreed that culture is one of them [6][3][7]. Depending on how successful companies are in recognising and considering the influence of culture is decisive for whether cultural factors act as supporting or opposing forces to the organisation’s digital transformation [6]. Cultural change as a part of digital transformation has been relatively discussed among researchers [6][8][7]. Despite the recognised importance of cultural change, only a limited number of studies focus explicitly on the cultural aspect of digital transformation [3]. In fact, a survey done by Capgemini Digital Transformation Institute, between March to April 2017, among 1700 respondents from 340 organisations in different countries and industries, has found that culture is the number one obstacle to digital transformation [9]. Concerning SMEs, more research around these companies success in digital transformation has emerged [5][10], but still, culture is less explored within the research in digital transformation in SMEs. Since SMEs form a significant share of all businesses, and culture is an increasingly important factor for these companies to succeed in digital transformation, there is a need to address this knowledge gap. Therefore, this study has looked to answer the following research question: *What cultural values are important in digital transformation in a small company?* This research wishes to look at cultural values because, in IS research, most theories about organisational culture focus on values as the core of organisational culture; that is also known as a value-centric approach for defining culture [3]. Due to its acceptance in the field, a value-centric approach for defining culture is adopted in this research.

2. Research Background

2.1. Digital transformation and organisational culture

Digital technologies increase the speed of innovation and competitive dynamics and disrupt organisations’ operating environment. Digital transformation differs from any previous IT-enabled business transformations in its holistic nature and speed [3]. Therefore, change is an inevitable part of every organisation’s life due to our rapid global, economic and digital developments. Change and transformation are crucial for building an organisation that can thrive in the digital age. Furthermore, digital transformation requires fundamental changes in an organisation, including structure, processes, strategy and culture [11]. There is a widespread consensus about the impact of culture in business transformations [3][7][6]. A study performed by BCG revealed that companies that consider culture in the digital transformation were five times more likely to succeed than organisations that neglected the cultural influence [12]. According to [13], organisational culture consists of artefacts, values and shared basic assumptions. The majority of theories of organisational culture in IS research focus on values as the core of organisational culture,

and organisational values form the basis of organisational culture in corporate settings [3]. Values become apparent in visible artefacts, for instance, in the form of language or behaviour. Research literature suggests differences in organisational culture between large and small organisations [14]. SMEs are determined by having limited internal resources, including a small number of employees [15]. SMEs share certain qualities that differentiate them from other more prominent organisations, including higher independence, more superficial organisational structures, direct company relations and their natural flexibility of action. These qualities may influence the organisational culture that arises in those organisations [15]. SMEs' culture has greater flexibility and lower bureaucracy than larger organisations resulting in more straightforward decision-making processes and faster responses to the environment [14]. Moreover, cultural factors can support or oppose digital transformation in large organisations and SMEs [8]. However, organisational cultures embracing people- and development-oriented values were the most supportive for successful IS adaptation and implementation [16].

2.2. Cultural values in digital transformation

This section introduced the different cultural values in digital transformation identified in the previous research.

Openness towards change. The vital role of the organisation's openness towards change is a topic that several researchers have brought up. However, the majority have used another approach to come to this conclusion, namely identifying the barrier of resistance that often occurs by employees when new disruptive technologies are introduced into an organisation [17][18][19][6]. Concerning resistance, important factors include the ways and the speed at which technologies are introduced. The literature introduces the term "innovation fatigue" [19:9] as one of the possible causes of employee resistance. On the contrary, according to [20], the overall change resilience can be derived from personal self-esteem and optimism towards the perceived outcome and control over the situation.

Customer-centricity. Digital technologies allow for developing new and enhanced products and more efficient service delivery for the consumer. They have become a basis of an increasing share of economic growth [8]. The concept of customer-centricity has been brought up as a cultural value by several researchers [3][21][17][6]. The empirical results of [3] revealed that one of the top two ranking values contributing to digital transformation success was the organisation's customer-centricity which they describe as the willingness to adapt to meet customer needs. Customer-centric organisations share the central value of every decision with the customer in mind [21].

Agility. One cultural value highlighted by [3] is agility concerning flexibility and adaptability towards change. The concept of agility has primarily been discussed in the context of organisational structures [17][22][23]. However, [24] discuss agility as an influencing value to digital transformation and explain that an agile culture fosters better reactions to transformation challenges among employees. Moreover, [17] suggests that digital transformation relies heavily on an agile culture to promote fast responsiveness to changes and new customer needs.

Innovation. The concept of innovation also made the list of influencing values in the study of [3], whereas they refer to the organisational encouragement of entrepreneurial initiatives. Moreover, [24] emphasises that the positive impact of cultural agility in digital transformations is especially apparent in combination with open innovation as it leads to the enhanced use of tools and services in this context. Furthermore, [24] continue to address the importance of open innovation in digital transformations by highlighting the structures of modern systems, many of which are based on the same principles as open innovation.

Continuous improvements. Continuous improvements is a widely used term within the literature. However, seen as a cultural value, it revolves around the positive attitude towards the constant revision of processes and conditions for better performance [25]. According to [3], the concept can be strongly related to the employees' perception and willingness to participate in different learning activities and their desire to learn continuously.

Tolerance towards failure. A commonly addressed concept within the organisational culture is tolerance towards

failure [3][6] [17] which refers to the attitudes towards mistakes not caused by irresponsibility [3]. A study of [17] has revealed that digital transformation success is highly dependent on knowledge capability and technical capability, and limitations in these areas can foster a fear of making mistakes that could sabotage transformation success among participants. However, a culture built upon acceptance towards mistakes creates an environment that supports new initiatives, exploration and a successful digital transformation process [3].

Risk affinity is another cultural value identified in the study of [3] and described as the organisation's willingness to manage decision making under uncertain circumstances. In the opinion of [26], comfort with risk is the primary driver of innovation. In alignment with this, [20] also found that the concept of risk tolerance, referring to the strive for experience, low-risk aversion, and patience towards ambiguity, significantly impacted the organisational change process contribution among the employees in their study.

Communication. In the study of [3], communication is introduced as a cultural value due to its crucial role in knowledge sharing. Moreover, according to [17], one of the most significant findings of their study is the importance of the management sharing the vision and the goal of digital transformation with all participants. Furthermore, in the opinion of [17], such communicative effort leads to more engagement and motivation towards the organisation's digital transformation.

Trust. Another cultural value discussed by [3] is trust in the organisation, including its leadership and other members and its trust in external parties. The study of [3] further emphasises the mutual trust between the organisation and its members as a premise for digitalised working conditions. Furthermore, [27] discusses the concept of trust concerning the organisation's size and claims that small companies, such as start-ups, experience trust barriers due to the lack of established brands or perceived credibility from their potential customers compared to their competitors.

Participation. Participation as a cultural value refers to participation concerning non-hierarchical openness in decision making [3]. According to [17], employee and partner engagement are among the most critical digital transformation success factors. Therefore, employees' engagement in digital projects should be encouraged across different organisation levels [17]. Another benefit from the high engagement of employees and partners is their reduced change resistance due to being able to demonstrate their expectations [17].

Cooperation. In the opinion of [3], cooperation is related to the organisation's positive attitude towards teamwork, cross-functional collaboration and cooperation with external parties such as customers. The research literature highlights cross-functional collaboration as an essential element of digital transformation [28][11]. According to [15], another way of viewing the cultural concept is through the relationship between employees and the organisation. In the opinion of [15], cooperation, especially in small organisations, can become apparent as employees identify themselves with the company and its environment and adapt to new market opportunities.

3. Research Methodology

This study used case study research to answer the research question concerning the important cultural values in digital transformation in a small company. According to [29], multiple-case design is suggested when there is a need for a rich theory establishment. However, in the opinion of [29], focusing on only one situation could be useful when there is a slightly more unique case to discover, as in this study. Moreover, according to [30], there is a common misconception about the limited generalisability of a single case study. In the opinion of [30], a single case study can be essential for scientific development as a complement to existing research or when used for laying the foundation for new scientific development. The company selected for this case study is entitled Company A (the company's name is kept anonymous). Company A is a small IT consulting service provider delivering solutions for building, scaling and growing businesses in the start-up community. The company has their main headquarter in Sweden, and it has approximately 35 employees with different roles within the IT field, such as software developers, UX

designers, tech leaders, business analysts and product owners. According to the definition by [4] regarding the number of employees, Company A is a small company and falls into the category of SMEs. At the beginning of 2018, Company A chose to invest in a project management tool named Jira, one of the world's leading project management tools developed by Atlassian. The main motive behind the implementation was to automate processes, consolidate different platforms used in the organisation, and generate business value. This implementation process is as [3] has noticed a digital transformation in the organisation, enabled by introducing new IT solutions to transform its customer touchpoints, core processes, services, products, and business models. The implementation of Jira has successfully contributed to the new digital way of working in projects - offering better support for the company's agile business model and providing transparency and more collaborative touchpoints towards customers. Therefore, this was seen as a suitable case for identifying and analysing the important cultural values in digital transformation in Company A.

The data collected in this research was obtained through several semi-structured interviews in Company A. According to [31], interviews are a suitable data collection method since they may regard complex cases that need a careful explanation to grasp. Apart from interviews, data were collected using other sources of information to have multiple perspectives and gain a better overall picture of a phenomenon. Data triangulation [32] was achieved using the company's internal documents, including annual performance reports, the company's digitalisation strategy and the implementation plan of the software tool Jira. For selecting the participants for this study, a purposive sampling technique was applied in the case company chosen, a commonly used non-probability sampling technique for capturing a particular perspective of the wider population, often based on specific characteristics [33]. For data collection, the interviewees were chosen based on their experiences and roles in the digital transformation process of implementing Jira in Company A. In total, eleven interviews were performed in Company A until reaching saturation. The interviews were conducted and recorded via Zoom. In the first stage of data collection, two initial interviews were set up with the Chief Executive Officer and Chief Operating Officer at Company A to gain a better insight into the company's processes and the software implementation project of Jira used in this case study. In the second stage of the data collection, nine interviews were conducted with employees involved in the digital transformation process of implementing Jira in Company A. Saturation was reached towards the end of this second round. Therefore, further rounds would not have added value to the findings. In this second step, the participants were selected based on their experiences, using a purposive sampling technique suitable for capturing a particular perspective of a population [33]. The employees involved in the interviews have positions at different organisation levels and different types of expertise. In addition to the planned questions, follow-up questions were asked during the interviews when clarification was needed. All the participants in this study agreed to sign a consent form before the interviews. Moreover, all participants received the interview questions and a document with the definitions of the main concepts used in this research in advance that helped them prepare their answers in the interviews well. The list of interviewees, their position in Company A, duration and date of the interviews are shown in Table 1.

Table 1. List of interviewees, their position in the company, duration and date of the interviews.

Interviewee	Position in the Company A	Duration of the interviews	Date of the interview
Interviewee 1	Chief Executive Officer	60 minutes + 20 minutes	17 February and 22 February 2021
Interviewee 2	Chief Operating Officer	60 minutes	24 February 2021
Interviewee 3	Senior Software Engineer	45 minutes	29 March 2021
Interviewee 4	UX Designer	45 minutes	29 March 2021
Interviewee 5	Project Manager	55 minutes	30 March 2021
Interviewee 6	Senior Software Engineer	45 minutes	30 March 2021
Interviewee 7	Associate Tech Leader	50 minutes	31 March 2021

Interviewee 8	Business Analyst	50 minutes	31 March 2021
Interviewee 9	Project Manager	55 minutes	1 April 2021
Interviewee 10	Project Leader	55 minutes	1 April 2021
Interviewee 11	Business Analyst	65 minutes	1 April 2021

The data collected in Company A, was analysed using thematic analysis and followed the steps of [34]. Thematic analysis is an effective way to sort the collected data into different categories related to identified cultural values and achieve a more structured overview, which are the advantages highlighted by [35]. After the interviews, the data was inserted and automatically transcribed using an application called “Transcribe” from Apple’s App Store. According to [34], a thematic analysis includes six steps. The first step of thematic analysis is familiarising with the data, which was done carefully by reading through all transcripts and the collected documents concerning the organisation and the Jira implementation process to gain a deeper understanding of both and to be able to cross-reference the findings. The second step in the thematic analysis is generating the initial codes, and the third step is searching for themes [34]. NVivo was used as software for qualitative data analysis to generate the initial codes and search for the themes. In step four of the thematic analysis, a review of the themes was done, and in step five, the themes were defined. In the last step, the results were produced presented in the thematic map (Fig. 1).

4. Results and Discussion

4.1. Results

The results concerning the important cultural values in digital transformation in a small company, as for this case, Company A, include nine cultural values presented in this section. These cultural values were identified concerning a digital transformation initiative in the company and related to the implementation process of the Jira project management tool. The researchers found nine sub-themes constituting values within three main themes, including *Continuous improvements*, *Transparency*, and *Cooperation*. The themes and sub-themes found in the thematic analysis are shown in Fig. 1. The sub-themes were derived from codes and existing research literature. The coding was done based on the comments reflecting similar cultural values between the interviewees and extracted from the interview transcripts. All the sub-themes were categorised under three main themes to help in the analysis and clarify the findings. The sub-themes found as the cultural values in digital transformation in Company A are: *Dynamic responses to changing environmental demands*; *Strive for organisational development*; *Affinity towards the organisation*; *Continuous learning*; *Tolerance towards mistakes*; *Openness towards calculated risks*; *Trust between the company and its clients*; *Trust within the organisation*; and *Cooperation within the organisation*.

4.2. Discussion

Cultural values can either support or hinder organisations' digital transformation journey [6], thus playing a crucial role in adopting new technologies [16]. SMEs are characterised as more flexible, faster and less constrained than larger companies [5]. On the contrary, small size has also shown to pose limitations for implementing digitalisation opportunities, including potential knowledge gaps and limited resources [5].

During this study, it became evident that the implementation of Jira was perceived as a success among the employees and management as the majority of them sees the value of using the tool. With this knowledge, important cultural values that contributed to the successful implementation of Jira could be identified. After categorising the cultural values under three main themes: *Continuous improvements*, *Transparency* and *Cooperation*, the findings (that are based on the number of values and codes within each theme) indicate that *Continuous improvements* and *Transparency* were the most apparent, which might indicate their importance for the organisation in comparison to *Cooperation*.

Nine organisational values within these three main themes were found to be important in the digital transformation process in Company A. Whereas eight of these cultural values could, to some extent, be related to the existing research within cultural values in digital transformation in large companies.

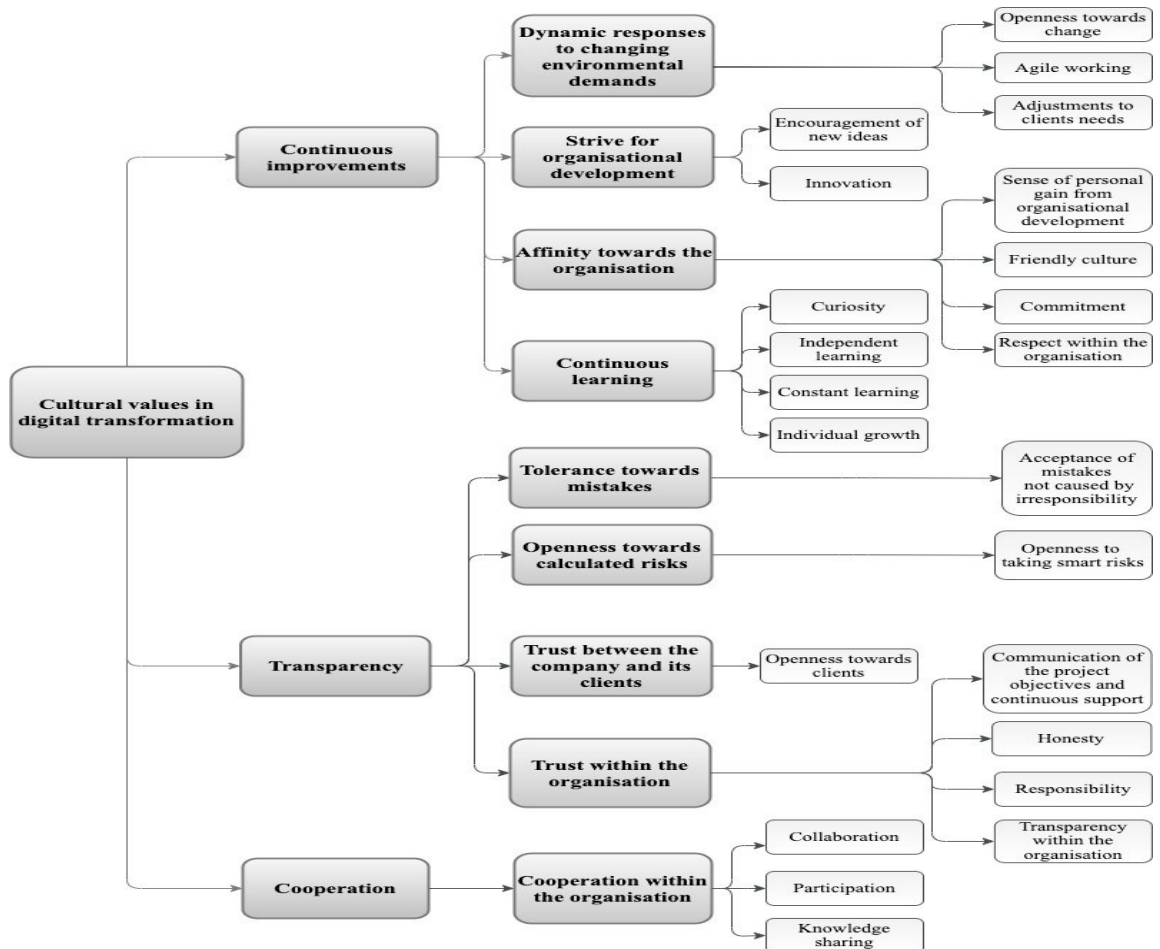


Fig. 1. Thematic map illustrating identified themes and sub-themes

One of the values found in previous research literature was *Continuous improvements*, which [25] have explained as the positive attitude towards change. Based on the findings of this study, the term was too general to be seen as a separate value. On this ground, we analysed the results accordingly and found four values within **the first theme of Continuous improvements**, one of these being *Dynamic responses to changing environmental demands*. According to the results, this value was strongly connected to agile working methods, openness towards change and willingness to adjust to customer needs. In the opinion of [14], SMEs have higher flexibility of action and lower bureaucracy than larger organisations resulting in faster responses to the environment, supporting the findings. Another finding, entitled *Strive for organisational development*, was connected to innovation. As discussed by [25], this value was also connected to the encouragement of new ideas in the organisation. Moreover, the value of continuous improvements discussed by [3] was displayed through the findings of *Continuous learning in the organisation*. This finding was derived from the participants' curiosity, independence in learning and individual growth, which were not apparent components in the previous research literature. In addition to the existing theory, *Affinity towards the*

organisation was identified as a new cultural value in this study. According to the study results, this value was built upon the sense of personal gain from organisational development, friendly culture, respect, and commitment. Moreover, commitment is also discussed by [3] as a necessary component for enabling flexible working hours and working from home, which was encouraged in Company A's case.

The study has also identified another four values within **the second main theme of Transparency**. One of these values, *Tolerance towards mistakes*, was identified through the participants' acceptance of mistakes that are not caused by irresponsibility, consistent with the previous research literature [3][6][17]. Another value within the same main theme was *Openness towards calculated risks*, where reacting fast and adapting to challenges in the rapidly changing environment supported adopting new technologies in the organisation. According to the study of [26], risk tolerance significantly impacted the organisational change process contribution among employees in larger organisations, showing a similar mindset concerning risks. Even though SMEs are determined by having limited internal resources that partly determine their capability to take risks [15], it is interesting to see that organisations of different sizes and conditions still share the same value. Trust was one of the most apparent cultural values based on the data analysis in this study. In comparison to the previous research literature, this study distinguished the value of trust into *Trust between the company and its clients* and *Trust within the organisation* based on different codes, while [3] discussed trust towards clients, the company and other partners as a single value. According to this study, the main way for the company to build trust towards its clients was through openness. In contrast, other components, including honesty, responsibility, transparency, and communication, were demonstrated for building trust within the organisation. Communication was analysed concerning the implementation process of Jira and the communication of the project objectives and continuous support. Based on the analysis, communication was essential for successful implementation and building trust within the organisation. One potential explanation for the results that distinguished between the different aspects of trust may be derived from different levels of demands. Employees are most likely to have higher demands for trust within the company than clients as external members of the project teams.

The third main theme Cooperation consisted of only one value, *Cooperation within the organisation*. According to the findings, this value was built upon positivity towards teamwork, the perception that individuals' thoughts and ideas were heard in the organisation, and the employees' engagement for knowledge sharing activities. Findings related to collaboration highly correspond to [3] as the organisation's positive attitude towards teamwork, cooperation with external parties, and cross-functional collaboration. As we noticed, SMEs generally have more superficial organisational structures than larger companies, making cross-functional collaboration more natural [15]. Moreover, participation was brought up as a cultural value by [17] who expressed its importance for the employees' ability to demonstrate their expectations which aligns with the findings showing appreciation for individuals' thoughts and ideas.

5. Conclusions

The research study has investigated and analysed the cultural values that are important in digital transformation in a small company. The identified cultural values important in digital transformation in a small company are the followings: *Dynamic responses to changing environmental demands*; *Strive for organisational development*; *Affinity towards the organisation*; *Continuous learning*; *Tolerance towards mistakes*; *Openness towards calculated risks*; *Trust between the company and its client*; *Trust within the organisation*; and *Cooperation within the organisation*.

The findings show similarities to the existing research; eight out of nine values identified could, to some extent, be related to the existing research within the field. Additionally, a new cultural value identified in this research was *Affinity towards the organisation (defined as the alignment of personal and organisational goals that is built upon friendly culture, respect, and commitment)*. As a limitation, the results of this study cannot be generalised due to the

limitation of using one case study. However, this research can be replicated in other small-sized companies from different countries and industries to strengthen the generalizability of this study so that results could be applied to other small companies. On the other hand, the findings of this research can bring awareness to organisations' management about the cultural values in digital transformation in organisations currently undertaking or planning on taking digital initiatives in their organisations. Moreover, these findings can help organisations to recognise the cultural values that can influence the success or failure of their digital transformation initiatives.

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