

IMPACT OF ORGANIZATIONAL CULTURE ON SHIFTING TOWARDS A SERVITIZATION STRATEGY

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ABSTRACT

Purpose: To review papers relating to servitization and culture to develop a framework by identifying the key cultural characteristics/factors underpinning a successful transition to a servitization based business model.

Design/Methodology/Approach: A Systematic Literature Review (SLR) was conducted, which identified relevant papers on servitization, culture, and change management frameworks. Further analysis on the key cultural characteristics/factors was established based on the reviewed papers.

Findings: Synthesis from adjacent change literature of an initial Organizational Culture framework to facilitate the shift to servitization. Identification of contributory dimensions that may impact this transformation. To be followed by further empirical research.

Originality/Value: The successful implementation of a Service based strategy is highly influenced by organizational cultures. Managerial awareness of the contributory dimensions via the application of a theoretical framework will improve these efforts.

KEYWORDS: Servitization; Culture ; Transition ; Resistance to change ; Strategy.

1. INTRODUCTION

Servitization, the strategic transition from a product-centric to a service-oriented business model, confers competitive advantages to firms (Vandermerwe & Rada, 1988; Baines et al., 2009). Nonetheless, this paradigm shift entails multifaceted challenges encompassing cultural, operational, and technological dimensions (Anderson et al., 2021), necessitating firms to adeptly navigate these complexities to ensure successful implementation (Lightfoot et al., 2013). The critical barrier to servitization is the cultural shift, which demands alterations to the organizational mindset and values, particularly for firms with a product-oriented focus (Kowalkowski, 2011). This transition also mandates the development of new capabilities, entailing investment in employee training and upskilling (Baines et al., 2017).

Net Zero, defined as the balance between greenhouse gas emissions produced and removed from the atmosphere, plays a critical role in global climate change mitigation efforts (IPCC, 2018). The implementation of Net Zero regulations across various sectors prompts firms to embrace environmentally sustainable practices and invest in carbon-reducing technologies (Woodfield & Pullen, 2022). Thus, organizations must skilfully navigate these complexities of a shift to services to maintain competitiveness and regulatory compliance in a dynamic marketplace.

As highlighted by Baines et al. (2017), organizational factors have an impact on both servitization and innovation (Jagstedt et al., 2021), which merits further research. Nuutinen and Lappalainen (2012) state that from an organizational psychology perspective, the transition and particularly the cultural change, can be recognized and help overcome the obstacles to a service business model.

2. THEORETICAL BACKGROUND

Tan et al. (2009) assert that the performance of an organization depends on the optimal alignment between the external market environment, strategy, and the internal configuration of the organization. When shifting from a product to a service-oriented business model, firms often encounter tension arising from the need to balance their traditional product-centric focus with the new service-based approach. This tension is primarily due to the differences in organizational

culture, mindset, operational processes, and revenue models between product and service offerings (Kowalkowski, 2011). Firms must carefully navigate this tension to successfully implement servitization and reap its benefits, which can be challenging, particularly for firms deeply entrenched in product-oriented strategies (Baines et al., 2009) with a resistance to change. The following sections will detail aspects of change management and organisational culture and how they are linked to servitization.

2.1. Change Management

Change agents can have a significant influence on employee readiness for organizational change, with readiness to change being distinguished from resistance to change (Armenakis et al., 1993). However, change agents and managers must understand how to effectively deal with resistance to change. This can be undertaken by examining cognitive, affective, and behavioral dimensions of individual resistance and how it is influenced by individual predispositions towards openness and resistance to change; the threats and benefits of change; communication, understanding, participation, trust in management, management styles and the nature of relationships with the change agents. (Erwin & Garman, 2010). The Kübler-Ross model (Kübler-Ross, 1969) is often applied to understand the emotional stages of individuals during the change process. By addressing these dimensions of resistance and employing such models, organizations can better navigate the challenges associated with the servitization shift.

One of the barriers to servitization for firms is management resistance (Baines et al., 2009). Many managers and employees are hesitant to switch from product-centric business models to service-based ones due to limited experience in this area. There is also a fear that product sales will decrease. In addition, many managers are concerned about the loss of control that comes with product-service change, as service-based models necessitate more flexibility and adaptation to customer needs (Kowalkowski, 2011). These fears highlight the importance of organizational culture for servitization shift, yet it is an area that lacks significant investigation (Baines et al., 2009).

2.2. Organizational Culture

Culture can be defined as the collective values, beliefs, and practices that characterize the members of an organization (Schein, 1985). It manifests not only in the conspicuous aspects of cultural barriers within the organization, such as its mission and professed values, but also in the manner in which individuals behave, their expectations of one another, and the means by which they interpret each other's actions (McDermott & O'Dell, 2001).

There is a consensus among scholars and practitioners that cultivating a service-oriented culture or mindset is pivotal to organizational success. This concept involves the entire organization recognizing and embracing services, not merely as supplementary to products but as essential value-adding activities that lie at the core of business operations. Nevertheless, attitudes towards services and collaboration may differ within the organization (Sandberg & Werr, 2003). In order to transition to a service-oriented culture, organizations must embrace a more agile and decentralized structure that promotes empowerment and emphasizes teamwork. Successful organizations are increasingly generating employee support and enthusiasm for proposed change rather than focusing efforts on overcoming resistance (Piderit, 2000).

Psychological contracts are instrumental in mitigating resistance. Schein (1980) defined the psychological contract as the portrayal of the exchange relationship between an employee and the organization. However, Rousseau and Parks (1993) expanded this notion by introducing transactional and relational contracts. Transactional contracts, which could be associated with value in exchange, highlight the quantifiable, market-based aspects of employee-employer agreements, such as monetary compensation and working hours (Smith, 1776; Rousseau, 1989). Conversely, relational contracts aligned with value in usage, encompass intangible benefits derived from mutual commitment, trust, and loyalty (Smith, 1776; Rousseau, 1989). These contracts emphasize career development, job security, and shared values, contributing to the overall satisfaction and utility of the agreement. Although the value in usage from relational contracts may be less quantifiable or

directly comparable to market-based metrics, it is vital for fostering an enduring successful employee-employer relationship.

The difference between product and service-oriented cultures can cause a strain within organizations. The shift in the organization to be more service-oriented may lead to conflicts and rivalries. The challenge is to balance and maintain the symbiotic relationship between the cultures rather than totally substituting one value set for the other (Bowen et al. 1989). Organizations that are undergoing the shift are living between "two worlds" in which the product-selling core task still maintains priority, while the new, more customer and service-oriented core tasks are emerging. A lingering, product-related culture remains due to the ambiguity with the strategy (the Why?), common and individual goals (the What?), and the ways to proceed with them (the How?) appeared to be ambiguous among the staff as a whole (Gebauer and Friedli, 2005).

Hernandez et al. (2010) show that due to previous cultural barriers with outdated knowledge, this can impede the adoption of new configurations. Therefore, it is important for organizations to provide an appropriate environment for overcoming cultural barriers. Otherwise, new knowledge will not be acted on or incorporated into new services. Cultural barriers have a number of causes, for example, a lack of training or instruction, lack of motivation, lack of basic ability, etc. (Grugulis and Bevitt, 2006). Many training programs have focused attention on teaching organizational members to overcome cultural barriers (McDermott and O'Dell, 2001). For example, learning more about barriers to assuming new behavioral patterns is a strategy to judge the adequacy of assumptions and opinions among individuals (Sinkula, 2002).

Close customer contact is built upon trust and good relationships. Customers should feel that the providing firm is on the same side as themselves, eager to support them in their objectives and not simply increasing product sales (Galbraith 2002). Service-oriented firms should be willing to learn and understand what is critical to their customers and dedicate themselves to finding the best solutions for them. At the same time, firms must be willing to be open and share their knowledge and processes with their partners (Vandermerwe et al. 1989).

The literature indicates that there is tension when transitioning from a product to a more service-oriented business model, and the existing culture is a hindrance to change. To develop an enhanced understanding of the key cultural characteristics to a servitized business model, a detailed Systematic Literature Review (SLR) has been undertaken.

3. RESEARCH METHODOLOGY

To examine the relationship between culture and servitization, a SLR was conducted to identify all relevant papers. To find a large collection of literature related to the topic of servitization culture, utilizing a larger number of databases reduces the risk of overlooking key articles. For this search method four databases were utilized, including Engineering Village, SCOPUS, Web of Science, and IEEE Explore. The following sections will outline the search terms used and the criteria used for paper selection.

This stage of the study involves investigating the correct search terms (keywords) that will be applied against the databases. There are three aspects that need to be covered within the search method. The first relates to "servitization," secondly the "culture," and finally, the "change management" aspect. Table 1 shows the search terms that were used for each aspect. Combining Terms 1, Terms 2, and Terms 3 with the "AND" operand results in all three aspects being included.

Table 1: Keywords used for Systematic Literature Review

Term 1	("Servitization" OR "product-service-systems" OR "SD Logic" OR "servification" OR "servic*" OR "value co-creation" OR "value in use" OR "value in exchange")
Term 2	("Change management" OR "KPI" OR "Management KPI" OR "Resistan*" OR "Resistan* Framework" OR "Organizational Change" OR "Organisational Change" OR "Transformation" OR "Shift" OR "Business Model Innovation" OR "Barrier*")
Term 3	("Organizational culture" OR "Organisational culture")

Once the search terms shown in Table 1 were entered into the selected search engines, this resulted in a large number of articles, as seen in Figure 1, which showcases a flow diagram showing both the steps taken during the review process and the results of each stage.

After including the search terms in the databases, initially, a total of 3715 articles were identified. The "Screening" process involved three screening filters that were applied. Screen 1 involved identifying and removing all conference papers, as the focus is only on peer-reviewed journal papers. From this, 980 papers were removed, leaving 2172 papers. Screen 2 involved focusing on the Title and Abstract of each article and removing papers that were not related to "servitization" or "culture." 2112 articles were excluded as most were within the "Health and Medical" domain and focused on "service" rather than "servitization." Screen 3 focused on reviewing the remaining 60 full-text articles with an in-depth lens on whether the paper is relevant to the focus of this research. This meant a further 17 articles were excluded, leaving 43 papers for final analysis. Previous to the SLR process, 4 articles pertaining to servitization and culture were not picked up by the search engines. This meant using a backward and forward searching search strategy, these 4 papers were included for the final analysis. This meant 47 papers were included to be analyzed and reviewed.

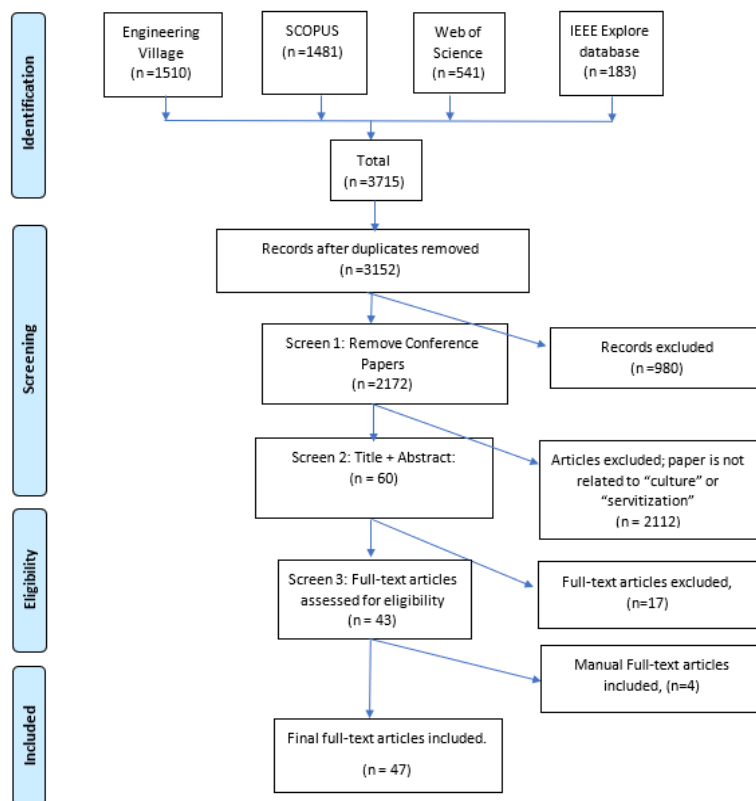


Figure 1: SLR Flowchart

4. FINDINGS

This section will focus on the frameworks that arose from the SLR and identification of servitization cultural factors.

4.1. Prominent Frameworks

The outcome of the literature review revealed prominent frameworks relating to organizational culture. These have been synthesized into an initial holistic framework and will be tested later upon organizations that are shifting to a service offer. A brief overview has been provided of the highly relevant frameworks in the literature below:

Conway, M. E. (1968). How do Committees Invent – Conway's Law can be articulated as follows: when an organization undertakes the design of a system, the resulting design will exhibit a structure that reflects the organization's communication framework. In short, the organizational structure and the products of any given firm are inextricably linked to one another. To gain a better understanding of how organizations can bring about change, a model based on this law has been utilized. Change, Organization, and Structure are the three primary components that make up this framework. The manner in which decisions are made, and the flow of information throughout an organization are both examples of its structure.

Orr (2014). Local Government Chief Executives' Everyday Hauntings: Towards a Theory of Organizational Ghosts with regards to the Organizational dimension, Orr defines organizational ghosts as "historical, cultural and structural legacies that continue to shape organizational life even after they are no longer visible or acknowledged." These legacies can include past practices, beliefs, and structures that continue to influence the behavior and decisions of individuals within an organization, despite their lack of awareness. Orr (2014) argues that these "ghosts" can take a variety of forms, including:

- i. Historical legacies: Organizational ghosts may consist of traditions, practices, and values that have been passed down through an organization's history. These legacies can continue to influence the culture and behavior of the organization, even if they are no longer explicitly acknowledged or practiced.
- ii. Cultural influences: Organizational ghosts can also be influenced by larger cultural forces that influence the organization, such as social norms, beliefs, and expectations.
- iii. Structural factors: Organizational ghosts can be embedded in the organization's structure and design, such as formal policies and procedures, hierarchies, and power dynamics.

They can either positively or negatively affect those around them. Positive ghosts may include traditions or values that have contributed to an organization's long-term success, whereas negative ghosts may include discriminatory practices or entrenched power dynamics that hold the organization back. In either case, they can have a significant impact on the functioning and effectiveness of an organization, and they must be acknowledged and addressed to promote positive change and growth.

Pettigrew. (1988). The Management of strategic change –the Context, Content, Process (CCP) framework is a comprehensive approach to managing organizational change, emphasizing the importance of understanding stakeholders' attitudes and behaviors to ensure successful change initiatives (Pettigrew, 1988). This framework requires considering existing organizational structures, aligning them with desired change outcomes, evaluating external factors and internal resource management strategies, and acknowledging the impact of people's attitudes, beliefs, and values on the change process.

Weng, & Chang (2017). Shaping organizational culture by using work songs as a ritual: A case study of the Zonson Sports Corporation in China – a novel approach on how workplace rituals, such as work-songs, influence the organizational culture of a firm by communicating values. They propose a theoretical framework for culture building, as shown in Figure 2, showing the input from the founders and the environment, creating a paradigm of shared assumptions and value for the organization. This, in turn, influences culture communication via mechanisms of leadership, common stories, rituals and symbols, recognition and reward systems, and organizational structures.

Research on the influence of social and cultural dynamics within servitization per se is limited. Some correlation is offered by Ramafalo et al. (2019), who highlight that poor communication flow and the nature of contractual arrangements, which foster further fragmentation are probable barriers to the adoption of servitization within industry. Likewise, Laužikas, M., & Dailydaitė, S. (2014) consider the concept of social capital, derived from social relations, human capital

development, and innovation/knowledge diffusion, as key factors for successful innovation. In a similar manner, Garcia (2016) states that fear of failure, avoidance of uncertainty, and a lack of trust all work against transformational leadership and communication, and having a shared organisational culture helps establish a collective commitment and influence behaviour by a shared understanding of aims.

However, as can be seen from the existing literature, the impact of culture on general change and technological innovation may be applicable. Through analysis of the literature, an Initial framework was determined, which would later be tested to validate such a concept.

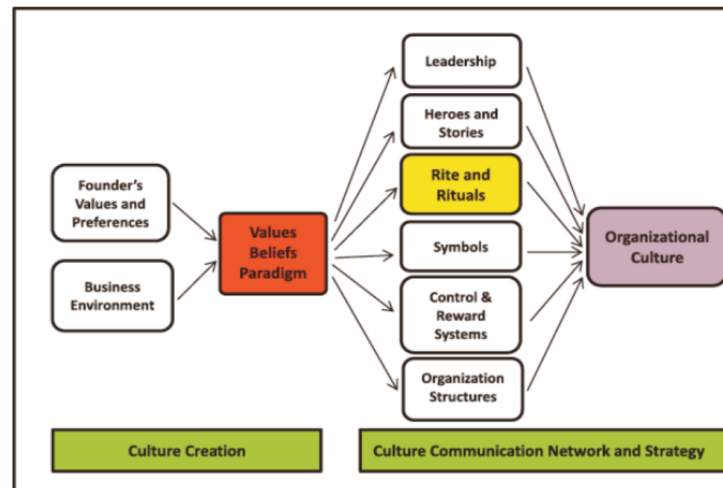


Figure 2: A Theoretical Framework for Culture Building (Weng, & Chang, 2017)

4.2. Key cultural characteristics

Following the SLR, the key characteristics/factors that authors have mentioned for servitization cultural success can be seen in Table 2, clustered according to the service excellence barriers used by West, Gaiardelli, & Sacconi (2022). There was a significant variety of characteristics mentioned by the authors. However, through further analysis, many of the definitions have common attributes; this suggests that the ontology of the characteristics needs to be further refined.

5. Theoretical Implications

This paper has conducted an in-depth review and highlighted various factors/characteristics that influence "culture" within a firm, in particular relating to the servitization domain. The three most mentioned factors for cultural success are leadership/management commitment, workplace rituals/routines, and employee training and reward systems, respectively. In addition, there are several frameworks, as mentioned in this paper which give a different perspective on how to build an enabling culture within a firm. The importance of workplace ritual and empowerment is long established within firms, and continuous improvement methodologies such as lean manufacturing (Liker, 2004) are based upon instilling an individual's enthusiasm and capacity to improve their working practices.

6. Managerial Implications

From a managerial perspective, the review and framework created allows managers in firms already in a servitization business model or transitioning to view the major cultural characteristics/factors which are imperative to servitization success. At a minimum, they can be aware of the factors and build upon these efforts where applicable.

Table 2: Key cultural characteristics clustered according to West, Gaiardelli, & Sacconi (2022)

Characteristic	Details
Organizational structure and culture	
Leadership/management commitment	Top-level management promoting servitization culture and values throughout the firm Lijauco et al. (2020); Yan et al. (2021); Nguyen & Aoyama (2015); Ferreira Junior et al. (2022); Moraes & Cunha (2022); Hillestad, (2017); Pezeshkian & Hamidi (2020); Othman & Elkady (2021), Wijethilake et al. (2021), Erthal & Marques (2022); Lin (2014); Weng & Chang (2017); Nukic & Huemann (2016); Adamonien et al. (2021).
Organizational structure	Arrangement of roles, responsibilities, and relationships within a firm Pezeshkian and Hamidi, 2020; Moraes and Cunha, 2022
Individual behaviours/values	The personal attitudes, beliefs, and actions of employees of a firm Bertassini et al.
Rewards	A tangible or intangible incentive-based system that recognizes employee achievements and reinforces certain behaviors Bertassini et al., Lijauco et al., 2020, Pezeshkian and Hamidi, 2020, Yan et al., 2021, Tan et al., 2009
Workplace rituals/employee routines	Establishing recurring activities, practices, and customs within the work environment that reinforces values, norms, and culture Weng and Chang, 2017, Pezeshkian and Hamidi, 2020, Garcia, 2016, Yan et al., 2021, Tan et al., 2009, Smith, 2019, Hernandez-Mogollon et al., 2010, Moraes and Cunha, 2022
Market orientation	Understanding and responding to the needs, preferences, and expectations of customers, their competition, and the broader market environment Lijauco et al., 2020
Heroes and stories	The influential figures and narratives that embody and convey the values, beliefs, and traditions of a firm Weng and Chang, 2017, Yan et al., 2021, Weng and Chang, 2017
Tensions	The conflict or opposing forces that arise as a source of inertia within a firm Nuutinen and Ojasalo, 2014
Knowledge and information	
Employee training	Investing in educating and developing employee skills Wijethilake et al., 2021, Yan et al., 2021, Nguyen and Aoyama, 2015, Tan et al., 2009
Communication	Exchange of information, ideas, feedback, among individuals and teams within a firm and externally to relevant stakeholders Nguyen and Aoyama, 2015, Hillestad, 2017, Pezeshkian and Hamidi, 2020, Adamonien et al., 2021
Cooperation	Willingness and ability to work effectively between stakeholders Moraes and Cunha, 2022, Adamonien et al., 2021
Work process/knowledge management	Influences the product lifecycle and customer activity Pezeshkian and Hamidi, 2020, Alavi et al., 2005, Tan et al., 2010, Nuutinen and Ojasalo, 2014
Products and activities	
Service development practices	Developing service-related culture and service firm understanding Nuutinen and Lappalainen, 2012
Capabilities and Resources	The collective skills, knowledge, assets, and support systems that enable a firm to achieve its goals and objectives Othman and Elkady, 2021, Tan et al., 2010, Nuutinen and Ojasalo, 2014, Wijethilake et al., 2021, Bertassini et al., 2021, Lin, 2014, Pezeshkian and Hamidi, 2020
Economics and finance	
Key performance indicators	A measurable value or metric that demonstrates the firm's effectiveness in achieving a desirable outcome

7. CONCLUSIONS AND LIMITATIONS

This research has limitations that need to be addressed in the future. Firstly the frameworks identified need to be applied in a real setting through multiple case studies to examine in detail the key cultural factors and barriers that affect firms transitioning towards a servitization business model. Secondly, the SLR should have identified all articles relevant to servitization culture. Some studies may have been overlooked and therefore not included. This is a standard limitation within review articles.

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