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Facilitating a Continuous Improvement Culture: a Literature Review

Sulaiman ALMAIMAN[1, a] and Dr Patrick MCLAUGHLIN [b]
[a] *PhD Researcher at Cranfield University, Cranfield, MK43 0AL, United Kingdom*
[b] *Senior Lecturer at Cranfield University, Cranfield, MK43 0AL, United Kingdom*

Abstract. Becoming a continuously improving organization demands more than debates and resources; it requires a proper organizational culture. Successful continuous improvement depends on certain cultural factors. The challenge that faces many organizations is how to facilitate continuous improvement and embed its spirit in their organizational cultures. There are specific values and behaviours associated with continuous improvement. Several recent studies have confirmed the crucial role of organizational culture in implementing operational management approaches. However, answering the question of "how" is still awaiting a clear road map. This paper provides a literature review that explores the aspects that could facilitate a continuous improvement culture, where there is a clear demand for modelling the proper climate for continuous improvement. This literature review has included the articles have been published within the last two decades. It concluded with a group of cultural aspects, which draws guidelines for leaders to facilitate continuous improvement in their organizations.

Keywords. Continuous Improvement, Organizational Culture, Operations Management, Literature Review.

1. Introduction

The literature has confirmed that continuous improvement (CI) is only successful when there is an appropriate organizational culture [1], but the question of 'how' has still not received sufficient research. Serious efforts should include leading cultural change to facilitate drivers of operational excellence. The literature, also, reports that organizations can become more competitive by establishing the right culture [2]. If the wrong culture exists, no matter what the efforts to promote continuous improvement, few changes are likely to be accomplished [3]. Conversely, not focusing on organizational culture affects the longevity of improvements and, hence, competitiveness [4]. Continuous improvement has the advantage for all organizations scales, including smaller organizations of not requiring much outlay or expertise [5]. Therefore, this literature review investigates which aspects of organizational culture would facilitate continuous improvement within the recent decades.

[1] Corresponding Author. s.maiman@mail.com

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2. Methodology

This review provides a state of the art for the research topic in a systematic approach to investigate existing knowledge "using explicit, accountable rigorous research methods" [6]. The process of this investigation aimed to collect the most relevant articles that could respond to the research question, which asks for the aspects of culture that could facilitate CI. Three academic databases, namely, Web of Science, EBSCO and Scopus, were used to find relevant publications. Two main keywords have been used, with all their possible synonyms, in article titles and abstracts: 'continuous improvement' and 'organizational culture', which processed then for further evaluation to obtain the highest possible relevance, as shown in figure below.

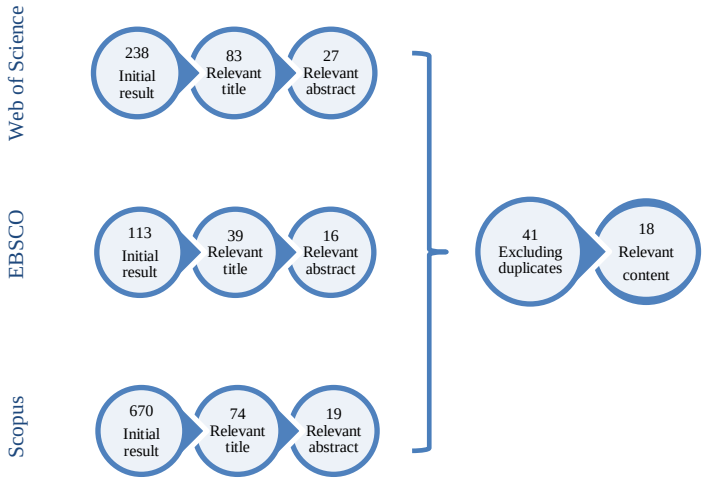


Figure 1. The process of collecting the relevant articles

The figure below shows a comparison for the most relevant articles and summarises their descriptive characteristics. This figure has shown highlights some gaps that can be considered in further research. The most significant aspect here is the lack of focus on some sectors, namely, nonprofit and mining. Moreover, the developing countries have not attracted sufficient research.

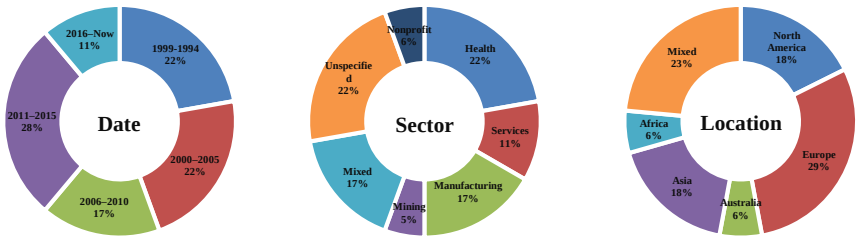


Figure 2. Descriptive analysis of the relevant articles

3. Cultural aspects to facilitate CI

This review has shown limited articles, which have diversity of their characteristics. These articles, have revealed eight main cultural aspects to facilities CI. The following part is an extraction, based on qualitative analysis of these articles, of what seems relevant to the research topic from these selected studies. The following shows the main aspects of organizational culture that have an impact on facilitating CI across variety of sectors and geographical contexts.

3.1. Supportive leadership

Leadership is of crucial importance in terms of supporting change in an organization. Ahmed, Loh, and Zairi [3] stated that leadership is one of the elements that builds the internal consistency that is required for CI. De Jager et al. [7] added that local leadership is of considerable importance in determining the success or failure of CI implementation. Further, Oliver [8] discovered that there is a correlation between higher level of CI success and supportive leadership. Considering this, Huang, Rode, and Schroeder [9] recommended that managers actively assess the extent to which the national culture endorses participative leadership. In cases where this endorsement is weak, managers should consider the extent to which the organizational culture will provide alternative support for the this type of leadership. Verma and Moran [10], based on the literature and input from practitioners, confirmed that leadership commitment is a key element in a culture of quality improvement, which may be developed over time to help achieve a sustainable CI culture.

3.2. Employee empowerment

Bessant et al. [5] declared that, in order for an organization to enable CI, it must have an enabling infrastructure that encourages employees to implement improvements, while Shortell et al. [11] advised leaders to allow employees to participate in improvement activities. In addition, Broekhuizen and Frericks [12] found that empowerment can improve alertness in business operations and, thereby, speed up the CI process of the organization when training the entire workforce and forming CI teams. Al-Tabbaa, Gadd, and Ankrah [13], who compared widely-used business excellence models, found that they share a common CI thread, i.e., organizational learning that, consequently, comes through employee empowerment. Employee empowerment, according to Verma and Moran [10], is a fundamental element of a culture of quality improvement. Furthermore, training and learning are organizational behaviours deeply associated with CI and can be used to gauge and guide organizational progress toward CI. In addition, employee participation can sustain CI practices [14].

3.3. Reward system

People need to be motivated to undertake improvements, and this could also reduce their resistance to change [15]. A reward system has been found to be an appropriate way to facilitate CI. Ahmed, Loh, and Zairi [3] claimed that an organization needs to

have a reward system in order to have the internal consistency necessary to support CI. Further, Firbank [16] concluded that a reward system is a cultural characteristic that influences CI implementation. Finally, Fryer and Ogden [17] proposed a reward system for organizational behaviours that could guide the organizational progress of CI. This type of reward system has been found to have a significant impact when applied, and it is an effective practice [18].

3.4. Process Management

Process management means having a clear commitment to control and improve a process using certain tools and techniques [19]. Bessant et al. [5] suggested that the entirety of organization management should be transformed toward managing as a process, which could be strengthened by a supporting toolkit. Al-Tabbaa, Gadd, and Ankrah [13] had no doubt that 'managing for improvement' is in the spirit of CI. According to Bessant, Caffyn, and Gallagher [20], CI development is essentially an evolutionary process, not a binary state. Process management underpins active CI implementation, which requires the use of scientific skills in decision-making and the adoption of a quality information system capable of producing precise and valid information [21]. According to Firbank [16], CI is influenced by the degree of formalisation and professionalization throughout the organization. Verma and Moran [10] argued that process adjustment and improvement should be considered as a non-stop mission, one that needs to allow the proper infrastructure to keep processes improving continuously. Process management also needs to develop futuristic planning through implementing strategic performance management [17]. Nguyen and Robinson [18] observed that different types of organizational structures play roles in CI progress, and they believe that some national cultures have more suitable structures than others in terms of CI. According to Lodgaard et al. [22], organizations must demonstrate management commitment to organizing and operating CI and prove this by using a variety of CI methods in addition to capturing and sharing knowledge. Good maintenance of equipment is one of the CI practices that is mentioned widely in CI literature and one that has an unarguable impact [14].

3.5. Organization values

The literature shows that an organization with flourishing CI has a certain set of values. These values articulate a supportive culture [5]. Organizations must believe in action and improve their capabilities of implementing proper actions [3]. The courage to apply changes and openness to new ideas are important values associated with CI [3]. These values result in favourable CI behaviour patterns [23]. Oliver [8] discovered that there is a correlation between higher level of CI success and CI being part of organizational culture. Other CI values include collaborative teamwork, organizational commitment, strong communication, and respect for investing in the workforce as the most valuable capital of all [10], [14], [16]–[18].

3.6. External interaction

Organizations are not isolated from the societies in which they operate. Hence, they must determine how to act properly and positively for the benefit of society and

themselves. External interactions have an undesirable risk due to uncertainty, but the risk must be taken to move forward on a CI journey [11]. Risk-taking organizations have more external adaptability than conservative organizations [3]. CI organizations must be actively involved with other entities in society in order to be key players in preparing for better and easer CI implementation [16]. On the other hand, governmental authorities are encouraged to provide the proper circumstances under which organizations could be more amenable to improvement through engaging with the organizations and developing optimal regulations, i.e., developing an ergonomic environment [14].

3.7. Future orientation

Having the wherewithal to be able to hunt for future opportunities is a powerful advantage that allows early improvements and increases competitiveness capabilities. Being oriented toward the future requires a clear framework for improvement and strategic management skills [5]. Ahmed, Loh, and Zairi [3] reported that an orientation toward the future is guided by having common goals that all members of an organization are aware of. Iberahim et al. [14] argued that no organization can sustain CI practices without a clear future orientation.

3.8. Customer focus

It is inarguable that customer needs and preferences must have a high priority. Customer focus allows organizations to design the right products/services, which leads to customer satisfaction and loyalty [16]. Verma and Moran [10] proposed customer focus to sustain a CI culture.

4. Conclusion

The emergent aspects were found to be strongly connected with each other and remarkably associated with organizational culture. Therefore, its crucial to set the proper organizational settings that flourish and sustain CI. These review has highlighted the lack of empirical studies in the context of developing countries. Similarly, some sectors have not received sufficient research attentions. These lacks would offer researchers with opportunities to add their contributions to fill these knowledge gaps.

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Almaiman, Sulaiman; McLaughlin, Patrick

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