

# Organisational Knowledge Sustainability

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**Abstract:** The objective of the research aims to develop a theoretical model to illustrate the knowledge sustainability. It is an essential and up to date area, but there is only a few academic research on it at the moment. One of the objectives of writing this piece is to help for organisations to be able to identify the key knowledge that is important and relevant to them (which should and must be preserved for future generations), and to determine who possesses this knowledge. Knowledge that has become redundant needs to be shared with staff and organisations, which requires a correct definition of organisational memory. In this way, it is worth considering how to share the knowledge that will be needed in the long term between different generations, a task that can be particularly challenging given the digital divide. The long-term sustainability of organisations can be achieved through knowledge management, although the sustainability of knowledge is a precondition for the symbiosis of this relationship. Specifically, it is valuable to explore how can the sustainability of knowledge be solved, what kind of knowledge management tools, leadership behaviour or cultural background is required? Practically, in our study search for the answer to the question of how knowledge management can promote organisational sustainability, and how organisations can use knowledge management tools to influence the attitudes and actions of employees in relation to knowledge sustainability. It is necessary to explore the concepts of sustainability and knowledge. The authors present the meaning of the junction of these two words (Knowledge + Sustainability). Based on this exploration, the authors present their definition of knowledge sustainability and a possible analytical model. The authors analyse which success factors contribute most to making knowledge sustainable. One of the major findings of the research the relationship between trust, ethics, and knowledge sustainability. In addition, the authors sought to present the research model they have developed.

**Keywords:** sustainability, knowledge, knowledge sustainability, knowledge management, ethics

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## 1. Introduction

The topic of our research is organisational knowledge sustainability for the long-term survival. The objective of the research is to develop a theoretical study with different positions on the terms knowledge sustainability. It is an essential area, but there is only a few research on it at the moment.

As Baker (2001) said “by ignoring the past we will be frequently guilty of reinvention”. This sentence consists of the essence of the organisational knowledge sustainability. It is necessary to survival. Organisations must sustain their knowledge, otherwise we must start again. The successful organisation not just sustain their knowledge, they develop it. The most successful companies are knowledge-based, they develop intensively, and their employees are highly motivated.

Nowdays, organisational knowledge sustainability has a paramount importance due to the changes in the environment such as COVID-19, war situation, supply chain stagnation, increasing global competition, the speed of information, knowledge obsolescence, dynamics of product and process innovations. If organizations want to be successful, even in these circumstances, then they need to understand the importance of knowledge, knowledge management. Organizations need to develop plans on how to achieve their goal, spending time and energy on power plants. It is important to consider knowledge management as one of the main drivers of organizational performance and as one of the most important resources for the survival and prosperity of organizations. For these reasons, the effective maintenance of knowledge is vital for organizations. In this research, the authors search the answer to the question of how knowledge management can promote organisational sustainability, and how organisations can use knowledge management tools to influence the attitudes and actions of organisational members in relation to knowledge sustainability. First of all, the authors examine the concepts of sustainability and knowledge, then they demonstrate a definition of the knowledge sustainability. The concept of knowledge management, its main orientations and its implementation will be described. The authors present the organisational knowledge sustainability model.

In sustainability science, a growing literature has emphasized knowledge co-production, or meaningful collaboration between producers and users of knowledge, as a driver of knowledge use (Clark et al., 2016).

Knowledge and the management of knowledge is regarded as an important features for organisational survival; while the key to understanding the successes and failures of knowledge management within organisations is the identification of resources that allow organisations to recognize, create, transform and distribute knowledge. Organisations that effectively manage and transfer their knowledge are more innovative and perform better (Riege, 2007). Successful organisations now understand why they must manage knowledge, develop plans as to how to accomplish this objective and devote time and energy to these efforts. This is because knowledge management has been described as a key driver of organisational performance (Bousa, Venkitachalam, 2013), and one of the most important resources for the survival and prosperity of organisations (Teece, Pisano, Shuen, 1997; Kamhawi, 2012). Therefore managing and utilizing knowledge effectively is vital for organisations to take full advantage of the value of knowledge. The attention and importance given to the acquisition of knowledge management in literature as well as practice in the past years is also of necessity due to changes in the environment such as increasing globalization of competition, speed of information and knowledge aging, dynamics of both product and process innovations, and competition (Greiner, Böhm and Krcmar, 2007).

In the following the authors introduce the definition of sustainability, knowledge, and knowledge sustainability.

The authors have not found a widely accepted definition or model of knowledge sustainability in the literature.

In this research, the authors aim to fill this gap.

Research questions:

Q1: How can knowledge sustainability be solved, what knowledge management tools, managerial behaviour or cultural background support is needed to achieve this?

Q2: How can the concept of knowledge management promote the sustainability of organisational operations?

## **2. Literature Review**

### **2.1 Definition of Sustainability**

To interpret organizational knowledge sustainability, it is important to discuss the concept of sustainability.

Literature provides several definitions of the sustainability. There are many different viewpoints on this concept and how it can be achieved. Sustainability is a conceptual, ethical, and political view that transcends respect for the quality of the environment inasmuch as it includes: the disappearance of poverty through its progressive reduction, the equality of the sexes, the promotion of health, rural transformation, human rights, cultural understanding and peace, responsible production and consumption, respect for cultural diversity and access, with equal opportunities to Information and Communication Technologies. (Ponce, 2018).

#### *2.1.1 Sustainable Development*

As mentioned above, numerous definitions of sustainable development are attainable. Sustainable development could be introduced as a process. In 1987 the World Commission on Environment and Development defined sustainable development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (Brundtland, 1987). Sustainable development emphasizes the evolution of human society from the responsible economic point of view, in accordance with environmental and natural processes. Therefore, the political dimensions are central elements. Furthermore, in a sustainable development paradigm the limitations of economic, societal, and environmental resources are considered in order to contribute to present and future generations’ welfare and can be applied on local, regional, national and international levels, based on political will (Glavic, 2006). The term Sustainable Development is widely used in the current political and environmental discourses. According to Barbosa (2014) the vagueness of the term allows it to be appropriated by different social groups with different positions regarding development. Part of the imprecision is inherent in the concept itself, which depending on the approach and by whom is the approach may take different connotations.

### *2.1.2 Dimension of Sustainability*

Existing studies among the three traditional dimensions of sustainability, the environmental one has been widely investigated. From the analysis of the literature, it is possible to identify nine main sub-dimensions of environmental sustainability:

1. materials
2. energy
3. water
4. biodiversity
5. emissions
6. waste
7. product and services
8. compliance
9. transport (Arena, 2009).

In literature, the underlying principle of environmental ethics is that nature has intrinsic value. This means that nature and its parts are not merely means for accomplishing one's purposes but are ends in and for themselves. The nature of human action has changed so dramatically in our times that it calls for a radical change in ethics as well. Previously, all dealing with the non-human world was ethically neutral. Ethical significance belonged to the direct dealing of man with man, including man dealing with himself: all traditional ethics is anthropocentric (Lijo, 2015).

Many contributions investigated the environmental dimension in terms of resources (water, materials, and energy) consumption and depletion and pollution (biodiversity, emission and waste). Also, dimensions concerning human behaviour and activities (e.g., product and service, compliance and transport) have been considered by many authors.

Arena (2009) described social sustainability six main sub-dimensions for analysis:

1. work practices and adequate working conditions
2. diversity and equal opportunities
3. relations with the community
4. social policy compliance
5. consumer health and safety
6. human rights (Arena, 2009).

There is a debate about what is sustainable development and sustainability, and thus, different societal actors "read" the concept of form as most convenient to them (Barbosa, 2014).

Sustainable competitive advantage requires an adaptation of the firm's knowledge capabilities over time, to overcome the continuous and discontinuous changes in the technological and market environment (Teece, 2007). However, recently new studies indicate that long term competitive advantage has become increasingly difficult to sustain (Wiggins and Ruefi 2005; D'Aveni et al. 2010); these studies suggest concatenating a sequence of advantages over time (Wiggins and Ruefi 2005).

## **2.2 Definition of Knowledge**

The next concept needed to interpret organizational knowledge maintenance is knowledge.

Based on the research objectives, the author analyses the classification of knowledge and the term of knowledge. Many studies attempt to describe the term of knowledge.

Davenport (1998) determined that knowledge is a fluid mix of framed experience, values, contextual information, and expert insight that provides a framework for evaluating and incorporating new experiences and information. It originates and is applied in the minds of knowers. In organizations, it often becomes embedded not only in documents or repositories but also in organizational routines, processes, practices, and norms.

"Knowledge" is increasingly recognized as being of central importance to organizations in the contemporary knowledge society. Changes in the workings of capitalism, the advent of advanced communication technologies,

the complexity of social and cultural changes, the shrinking of the world due to increasing globalization, intensifying competition – all these factors and more point towards an increasing need for placing “knowledge” at the centre of the philosophy of the contemporary knowledge society (Blackler et al., 1993).

After the review the terms of sustainability and knowledge, the authors define the concept of knowledge sustainability.

### 2.3 Definition of Knowledge Sustainability

The authors define knowledge sustainability as follows.

The aim of knowledge sustainability is to preserve and develop data, information, and knowledge, building on the necessary knowledge in the organisation. It aims to focus on useful and important information and to reduce unnecessary information. The focus of knowledge sustainability is on the future, which is a priority area for knowledge sharing between generations, supported by various management tools. Trust and ethical organisation are prerequisites for this process to work.

## 3. Knowledge Management

Knowledge management is a multidisciplinary field. Knowledge management involves psychology, epistemology, and cognitive sciences. Its aim is to enable people and organisations to cooperate, and to distribute, develop, use and recycle knowledge (Bencsik, 2016).

Knowledge management has emerged as a specific academic field; it combines several sub-disciplines and has become an independent academic field (Ma and Yu, 2010). It was described by Du Plessis (2007) as a multifaceted approach integrating many different fundamental elements of the organization and a dynamic process (Brito, 2020). In recent decades, knowledge management has been one of the most influential and visible novel approaches to the art and science of management (Inkinen, 2015). Nowadays knowledge management is a widely based discourse, promoted by academics, consultants, practitioners, and business press alike (e.g. Scarbrough et al., 2005). Knowledge management emerged as a discipline for formalizing organizational practices that would guide an individual through the skill acquisition journey as effectively and efficiently as possible (Al-Gharaibeh, 2021). The knowledge management research identifies several knowledge management processes including knowledge creation, knowledge acquisition, knowledge sharing, knowledge storage, and knowledge application (Gumus 2007).

## 4. Research Model

After reviewing the concepts of sustainability and knowledge, defining organizational knowledge sustainability, the authors created a model for knowledge sustainability.

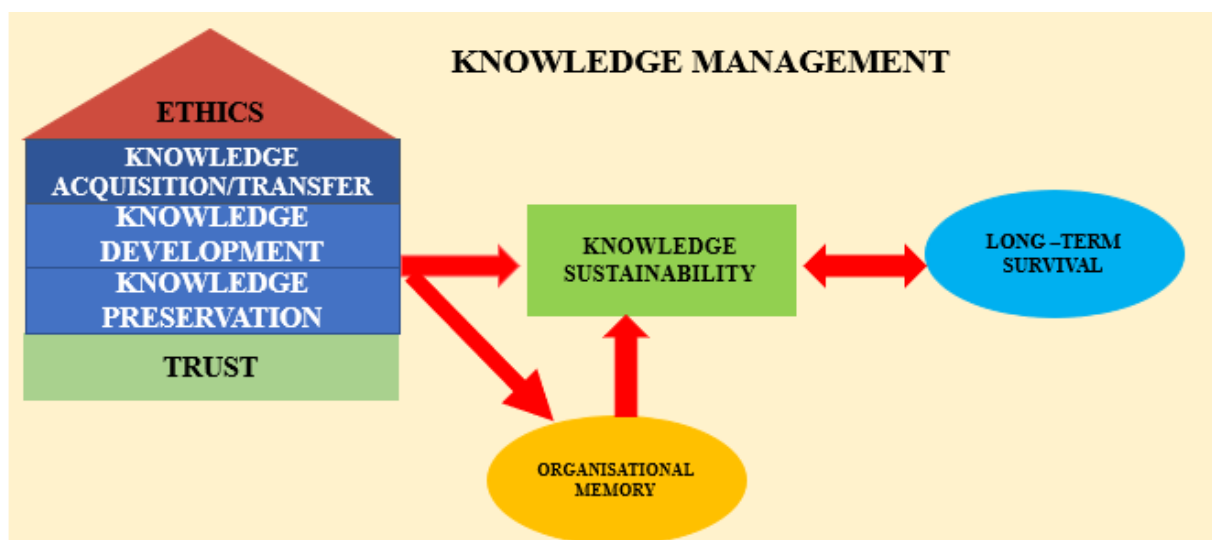


Figure 1: Model of organisational knowledge sustainability

Source: Own editing

The framework for the process of organizational knowledge sustainability is provided by knowledge management. The model is based on the Probst model, from which the authors highlighted the most important elements in terms of knowledge sustainability, which are the acquisition / sharing of knowledge, the development of knowledge and the preservation of knowledge. The result of organizational learning is organizational memory, which together with the mentioned elements supports the sustainability of knowledge and thus long-term survival. In order for the process of organizational knowledge sustainability to be successful, leadership and the organizational culture it forms have an important role to play. This is a fundamental criterion without which the theoretical model will not work in practice.

Considering that although all elements of knowledge management support organisational sustainability, the author looks at the following key elements: knowledge acquisition, knowledge development, knowledge retention, ethics and trust. The model summarizes the process of organisational sustainability.

#### **4.1 Knowledge Development**

The knowledge development step is a factor that directly influences competitiveness (Kuo, 2019).

Knowledge development consists of all the management intended to produce new internal or external knowledge on both the individual and the collective level (Probst, 1998). The speed and extent of development depends on the availability of material, technological and financial resources, but in its essence development is a human process that is determined by the response of people to their external environment (Jacobs, 2000).

Knowledge development is a key element of the knowledge sustainability process. Organisations need to have up-to-date and relevant information.

#### **4.2 Knowledge Preservation**

After knowledge has been acquired or developed, it must be carefully preserved. To avoid the loss of valuable expertise, companies must shape the processes of selecting valuable knowledge for preservation, ensuring its suitable storage, and regularly incorporating it into the knowledge base (Probst, 1998). Knowledge preservation is one of the most important step in the process of knowledge sustainability. The phase of knowledge preservation includes the action of recording, systematisation, storing and refreshing. Knowledge-based systems store describable explicit forms of knowledge in a problem area, or they are used to store expert knowledge that enables the management of a narrower issue(Lesniak & Zima 2018).

#### **4.3 Knowledge Acquisition**

Considering that the cycle of knowledge acquisition is dynamic. According to Gardoni (2015) knowledge is thus not static but dynamic, it is in constant evolution. Elaborate information is a synthesis with levels of different processing, including disciplines and offering a more or less global solution of the treated topic. In the case of knowledge acquisition, through formal and informal channels, we can obtain useful information that leads to the people whose knowledge we need (Jaina et al, 2016).

#### **4.4 Ethics**

Ethics provide the basis for the whole process of knowledge sustainability. An ethical organisation can ensure the appropriate environment for knowledge sustainability.

#### **4.5 Organisational Trust**

Current studies show that inter-organizational trust is the cornerstone of business partnerships and nurtures the intention of knowledge acquisition and sharing outside organizational boundaries (Panteli, 2005). Pavlou (2002) defines inter-organizational trust as the subjective belief with which organizational members collectively assess that a population of organizations will perform potential transactions according to their confident expectations, irrespective of their ability to fully monitor them (Chen, 2014).Prior research suggests trusting beliefs can reduce their perceptions of uncertainty and risk, thereby enhancing their behavioural willingness (McKnight et al., 2002). Organisational trust is an essential element in the process of knowledge sustainability. Without trust organisational members doesn't share the relevant information.

### **5. Discussion**

This research can provide a basis for a deeper understanding of the knowledge sustainability. After reviewing the studies, the authors created their concept of knowledge sustainability.

This study utilized the grounded theory research method to explore the relationship between knowledge management, knowledge development, knowledge preservation, knowledge acquisition, ethics and trust.

Therefore, this research attempts to analyse how these mentioned elements help to reach the knowledge sustainability and the long-term survival.

Finally the authors have created our own knowledge sustainability model based on knowledge management models.

## **6. Future research directions**

As a continuation of the research, the authors intend to use the Delphi method. It is planned to seek the opinion of experts in the field of knowledge management in connection with the two rounds of knowledge sustainability. In the first round, the authors formulate open-ended questions. Once the responses are received, they are recorded and analyzed using ATLAS content analysis software. Based on the analysis, the corner points are outlined, so a questionnaire is compiled based on this. The questionnaire will be sent to these professionals. The collected data is then to be analyzed using SPSS software.

Using the Delphi method in two circles, the aim is to get to know the opinions of experts in the field regarding the sustainability of knowledge, to find out the tools, methods, problems, solutions, current and expected trends. The research aims to examine the three major groups involved in knowledge management, which are faculty / researchers working at the university; the range of consultants: HR consultants, interim managers; corporate sector: large corporations. The authors aim to test the model of organizational knowledge sustainability based on the opinions of professionals; be able to provide a widely accepted definition of knowledge sustainability; you can compare these three groups to find out what knowledge sustainability means in different areas.

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