

**EFFECT OF TECHNOLOGY KNOWLEDGE MANAGEMENT STRATEGY ON
ORGANIZATIONAL PERFORMANCE OF THE INTERNATIONAL COMMITTEE
OF THE RED CROSS IN KENYA**

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Abstract

The pivotal role Knowledge Management Plays in any Organization anywhere in the world cannot be underestimated. Indeed, it is such a valuable resource and an asset that organizations invest heavily in it for overall performance. It is difficult and impossible for any organization and capital to deliver quality products and services without using this resource and managing it properly alongside other resources like land, labor, and capital. The purpose of this study is to assess the influence of technology knowledge management strategy on the performance of the International Committee of the Red Cross. Organizational learning theory and Knowledge-based theories guided this study. The target population of the study was 400 employees and from this a sample size of 178 employees took part in the study. Primary and Secondary data sources were used appropriately in this research. The data collection instrument includes a questionnaire that was administered through drop and pick method. Qualitative and quantitative data was collected respectively and was analyzed by use of descriptive and inferential analysis. Presentation of descriptive data was done by use of frequencies. Qualitative data was examined by using SPSS appropriate programs version 21. The findings underscore the crucial role of technology in organizational performance, highlighting the need for targeted training programs and streamlined reporting systems. These findings contribute to a nuanced understanding of the multifaceted interplay between technology and performance in humanitarian organizations, offering insights that can inform strategic initiatives and foster sustainable success.

Keywords: *Technology, Knowledge Management, Organizational Performance, International Committee of the Red Cross*

INTRODUCTION

Knowledge Management (KM) signifies a strategic approach for creating, safeguarding, and circulating valuable understanding, wisdom, and experiences across various individuals and groups within an organization that share similar requirements (Wanyama et al., 2018). This term is further defined as the structuring of frameworks, methods, technological tools, and strategies that promote the sharing of thoughts among individuals. It also encompasses the extraction, processing, and application of this accumulated wisdom to improve and pioneer new activities.

In essence, Knowledge Management is a method that adeptly connects a firm's internal and external informational resources. It ensures that the necessary data or knowledge reaches the appropriate recipient when they need it the most. The competent handling of knowledge within a corporate entity holds significant potential to boost its overall performance (Al Sokkar et al., 2018). Knowledge Management is integral in building a reservoir of collective intelligence in an organization. By nurturing a culture of knowledge sharing, the organization can tap into the insights and experiences of its workforce, promoting innovation and efficiency. Also, by systematically organizing knowledge in a way that can be easily accessed and utilized, an organization can improve decision-making processes, streamline operations, and gain a competitive advantage.

Thus, a strategic approach to KM not only involves leveraging the existing knowledge base but also fostering an environment that encourages the generation of new knowledge. It's about building a knowledge-centric culture, implementing robust tools and systems for managing knowledge, and continuously refining these processes to drive organizational growth and transformation. NGOs are particularly interested in Knowledge Management strategies to help them achieve their objectives in developing countries. Humanitarian organizations in developing countries have though gradually tried to put in place Knowledge Management strategies to help them better understand the complex tasks they undertake in assisting displaced people (Lodhi, 2019). When compared to Western and Asian economies. This is quite typical in Kenya, where Knowledge Management Strategies appreciation and integration are still in their early stages.

As put forth by Elrehail et al. (2019), for an organization to perpetually enhance its innovative capabilities, it is crucial to systematically generate, gain, integrate, disseminate, and apply knowledge insights and experiences. This consistent endeavor to nurture and exploit knowledge can help organizations accomplish their business objectives and attain success. In today's rapidly globalizing economy, knowledge assets are increasingly pivotal for multinational organizations to maintain a competitive edge. This intangible wealth of knowledge is often scattered throughout the organization across various regions and cultures. To truly harness the power of this distributed knowledge, organizations, particularly humanitarian ones, must construct and implement efficacious strategies for knowledge management.

Multinational organizations operating globally grapple with the unique challenge of managing and leveraging knowledge assets dispersed across diverse geographical locations, teams, and time zones. To surmount this challenge, these organizations need to set up robust knowledge management systems and processes that facilitate smooth communication, collaboration, and knowledge sharing beyond boundaries (Hislop, Bosua, & Helms, 2018). Implementing advanced technology and digital platforms could be a strategy to create a unified, accessible knowledge base (Razmerita, Kirchner, & Nielsen, 2016). Additionally, it's imperative for these organizations to cultivate a culture of continuous learning and knowledge sharing, prompting their employees to collaborate and exchange their distinctive insights and experiences (Chen, Huang, & Hsiao, 2010). Such a culture can stimulate innovation, enhance decision-making, and drive humanitarian missions more efficiently. Ultimately, a sound knowledge management strategy can help these organizations tap into the collective intelligence of their global workforce, propelling their success in the fiercely competitive, globalized economy (Wang & Noe, 2010).

Knowledge Management (KM) significantly contributes to improving organizational performance by facilitating effective capture, organization, sharing, and application of knowledge and information within the organization (Lee & Choi, 2003). KM can boost organizational performance by retaining valuable knowledge. It ensures that critical

knowledge and expertise do not vanish when employees leave the organization or retire (Massingham, 2014). By capturing and documenting knowledge, organizations can preserve essential information, best practices, and lessons learned, which can be utilized by current and future employees. Access to relevant and up-to-date knowledge via KM can empower organizational leaders to make more informed and effective decisions (Alavi & Leidner, 2001). KM systems provide access to comprehensive data, market trends, customer insights, and competitive intelligence, enabling leaders to develop sound strategies based on reliable information (Zack, 2019).

The International Committee of the Red Cross (ICRC) is a global humanitarian organization founded in 1863, headquartered in Geneva, Switzerland (Bugnion, 2012). As a key member of the broader International Red Cross and Red Crescent Movement, the ICRC's primary mission is to provide protection and aid to individuals impacted by armed conflicts and violent scenarios (Pfanner, 2011).

Statement of the problem

Understanding and implementing Knowledge Management (KM), particularly in the form of a Knowledge Management System, poses a significant challenge for organizations worldwide (Schneider, 2013). Notwithstanding, many entities have successfully invested resources in KM, particularly in developed regions. However, alongside success stories, instances of failure are also evident. Several factors, situations, and challenges can determine the ultimate success or failure of KM initiatives within an organization. Consequently, management must employ strategies to mitigate the risks associated with KM projects before committing valuable resources (Chua & Lam, 2005).

The ability of a humanitarian organization to create value is heavily reliant on its capacity to create, share, and transfer knowledge effectively, thereby enhancing organizational performance (Massa & Testa, 2009). Organizational KM goes beyond merely identifying the factors or processes that impact the implementation of KM. There's also a need to ascertain the measurable outcomes of KM and examine its impact on organizational performance, an area that remains somewhat nebulous. For instance, humanitarian organizations in developing countries like Kenya often grapple with issues such as diverse cultures, organizational structures, occasional lack of leadership engagement in KM activities, limited awareness of KM benefits, and lack of incentive systems, coupled with low levels of technology. Hence, it's crucial to have an integrated and comprehensive KM strategy in place to foster innovation and boost performance (Egbu, Hari, & Renukappa, 2013).

The role of any potential mediating variables between KM and organizational performance is yet to be definitively established. While it's accepted that KM directly influences organizational performance, further investigation is needed to fully understand this relationship. Therefore, this study examines the direct influence of Knowledge Management and its effect on Organizational Performance of International Humanitarian and non-profit Organizations in Kenya with the case study of International Committee of the Red Cross (ICRC). The ICRC operates in dynamic environments where knowledge and expertise are constantly generated. However the organization struggles to capture documents and retain critical knowledge. This hampers the ability to build upon past experiences and limits the effectiveness of future operations. The organization comprises a vast network of staff, volunteers and partners spread across different locations and diverse cultural contexts. The organization faces difficulties in facilitating effective knowledge sharing, collaboration, and learning among its decentralization workforce. This hinders the ability to leverage collective expertise, slows down decision making processes and limits the transfer of knowledge to new personnel.

LITERATURE REVIEW

Theoretical Review

Resource Dependency Theory

Resource dependence Theory is a sociological theory focusing on the interdependence between organizations and their environments, or resources. It states that the performance of organizations and their ability to survive and grow are based on their use of resources around them in particular the theory suggests that organizations must rely on their environment to gain access to essential external resources such as knowledge material technology and labor. As such, organizations are dependent on their environment and must form relationships to access these resources. Therefore, the core concept of resource dependence theory is that to achieve success, organizations need to maintain a balance of power with their environments. Lane, and White (1999), (Berta, Cranley, Dearing, Dogherty, Squires & Estabrooks, 2015). The process by which social interactions at the group and organizational levels support learning is known as organizational learning.

Organizational learning theory

The first stage of organizational learning, according to (Boyras and Ocak 2021) application of learning theory, is at the individual level, where learning occurs through self-study, observation, and the use of modern technologies. The individual gains knowledge of organizational ideals, attitudes, abilities, and insights. According to Watkins, Marsick, Wofford, and Ellinger (2018) the individual is always the main player at the individual level of learning. According to (Lozano, 2014), team learning sets the stage for organizational learning, which is the second type of learning. Conversational and collaborative thinking abilities are changing as a result of team learning, enabling people to gain intellect and ability that reliably exceed the talents of their team members. While (Tate and Page 2018) argued that learning occurs in all organizations, whether consciously and actively or unconsciously because it is essential to their survival and overall business growth. Learning at the organizational level is now a shared experience. It is important to pay attention to structures, how work is organized, culture, and processes to support learning at this level. This theory is relevant to the research topic because it explains how organizations create knowledge and share it with their employees, which improves performance.

Empirical Literature

Information technology plays a crucial role in eliminating communication obstacles that frequently impede the interaction between various segments of organizations (All Lamech et al., 2011). To advance knowledge management initiatives, it's important to invest in Information Communication Technology (ICT) (Lee and Choi, 2003). ICT should be tailored to assist with the unique humanitarian needs and projects of organizations.

Mehta et al. (2014) suggest that the use of ICT amplifies the level of knowledge exchange, particularly under conditions of high uncertainty in projects. Nouri et al. (2013) argue that it is the most critical factor when formulating a knowledge management strategy, which lies at the heart of any organizational strategy. To develop Knowledge Management systems, a variety of ICT tools are needed. According to Wang and Wang (2016), organizations are more likely to implement a Knowledge Management system when they recognize its potential to enhance the efficiency and effectiveness of their knowledge management practices.

Social networks, constituted by connections between individuals who seek knowledge from each other, also play a significant role in knowledge management. Essentially, a social network is a knowledge network of informal ties. Networks where employees share knowledge are extremely important for an organization to extract the value of knowledge sharing from individual to individual, independent of a Knowledge Management System

(Jennex, 2008). These networks are utilized by people to exchange resources and services (Aurum et al., 2008).

Performance indicators, according to Neely et al. (1995), serve to gauge the efficiency and effectiveness of operations within an organization. Establishing such indicators helps quantify the central goals of any organization, thereby aiding in the evaluation of its effectiveness and efficiency (Neely, 2005). Performance measurement plays a crucial role in providing insights to team leaders regarding strategic, operational, and tactical areas (Gunasekaran, Kobu, 2005). By enabling a comparison of current performance against anticipated outcomes, it assists in the effective implementation and realization of strategic objectives (Anderson, 2014).

In the context of humanitarian organizations, performance indicators may vary but commonly include measures such as reliability. Reliability is a fundamental trait that demonstrates an organization's ability to deliver appropriate supplies, both in terms of quantity and quality, on time (Lu et al., 2016). The humanitarian relief action often involves passing goods from donors to recipients through multiple channels in the logistics process, and this can be prone to errors or delays for various reasons. As such, the measure of reliability reflects the robustness of the entire humanitarian supply chain.

Additionally, organizations must be able to navigate uncertainties that could damage the humanitarian logistics network and cause disruptions, including local failures. This could be due to the unpredictable and often catastrophic nature of disasters (Wang, Liang, 2018). Therefore, the ability to mitigate such uncertainties is another important performance indicator. Quality of service delivery measures the quality of the services offered by Humanitarian Organizations. The metric focuses on the services offered by these NGOs. It should measure the efficiency and effectiveness of service delivery, such as the number of people served, the satisfaction with the services, and any complaints received.

The financial sustainability indicator assesses whether the NGO is financially sustainable in the long run, how effectively the NGO manages its finances as well as how financially secure its income sources are. (Anderson, 2014) The transparency indicator evaluates how transparent the NGO is in its decision-making, operations, reporting, and financial management. ICT measures how any communication and activities are shared with stakeholders in addition to the media and the general public. Sustainability of impact assesses the sustainability of NGO programmatic objectives and impact over time, and how well the NGO can achieve its goals such as providing long-term benefits to the target population and maintaining a positive impact on the environment. The human impact measure is a performance measure that evaluates the extent to which the NGO can provide effective humanitarian aid as well as how much of a positive humanitarian impact the NGO is having, such as providing housing and food security or improving health and education outcomes. Another important measurement is the organization's growth. That is the rate at which the NGO grows and expands its reach (Anderson, 2014).

METHODOLOGY

Descriptive research was employed as the method of analysis in this study. This design is a method of gathering information to clarify the current state of a research and provide light on its context (Kothari, 2006). The study involved 400 ICRC employees from Top Management, programme coordinators, field supervisors and logistics staff. A purposive sampling technique was used to select respondents from each category based on their role and its perceived impact on knowledge management and organizational performance (Patton, 2002). Participants were approached directly through official channels to ensure that the selection process adheres to ethical considerations and organizational protocols (Creswell & Creswell,

2017). The study utilized a 50% sample size from each subgroup within the population. The total sample of the study was 106.

The researcher utilized self-administered questionnaires with multiple-choice questions to gather data. Data was coded to make it easier to enter it into the computer for analysis. The data was analyzed using the Statistical Package for Social Sciences (SPSS) to produce descriptive statistics such as frequency counts, percentages, means, modes, and standard deviation. To determine the relationships between the independent and dependent variables, correlation analysis was employed.

FINDINGS AND DISCUSSIONS

Effect of Technology on the Organizational performance

The study sought to determine the effects of technology on the organizational performance, a mean of 2.7416 with a standard deviation of 1.42637 of the respondents suggested that they understand the role played by different departments , a mean of 2.8146 with a mean of 1.45533 of the respondents suggested that Decision Making and communication are excellently done in different departments, on the other hand a mean of 2.0562 with a standard deviation of 1.11851 of the respondents revealed that they understand the reporting system in different departments, the study also found out that a mean of 2.5225 reflecting a standard deviation of 1.37041 of the respondents revealed that Knowledge management tools have been integrated into the different departments while a mean of 2.0112 with a standard deviation of 1.08398 of the respondents revealed that their organization encourages collaboration in managing information with other departments. Majority of the respondents suggested that they understand the role played by different departments in the study carried out to assess knowledge management strategies on performance of humanitarian organizations, case of international committee of the red cross in Kenya

Table 1: Effect of Technology on the Organizational performance

	N	Minimum	Maximum	Mean	Std. Deviation
I understand the role played by different departments.	178	1.00	5.00	2.7416	1.42637
Decision Making and communication are excellently done in different departments	178	1.00	5.00	2.8146	1.45533
I understand the reporting system in different departments	178	1.00	5.00	2.0562	1.11851
Knowledge management tools have been integrated into the different departments	178	1.00	5.00	2.5225	1.37041
Our organization encourages collaboration in managing information with other departments	178	1.00	4.00	2.0112	1.08398
Valid N (listwise)	178				

Source: Field Data (2023)

Correlations analysis

The research indicated a robust and highly significant positive correlation ($r = 0.848$, $p < 0.01$) between the adoption of technology and organizational performance, underscoring the pivotal role of technological advancements in enhancing overall effectiveness.

Table 1: Correlations

		Performance
Technology	Pearson Correlation	.848**
	Sig. (2-tailed)	.000
	N	178

Source: Field Data (2023)

Conclusion

The study highlights the pivotal role of technology in shaping organizational performance within the International Committee of the Red Cross in Kenya. It is evident that there is room for improvement in terms of employees' understanding of departmental roles and the reporting system. Therefore, the study recommends the development of targeted training programs to enhance departmental awareness and investments in user-friendly technology tools for more efficient reporting. The integration of knowledge management tools and the promotion of a collaborative culture are crucial for enhancing organizational performance in the context of technology adoption.

Recommendations

The study recommends that the International Committee of the Red Cross in Kenya should develop and implement training programs to enhance employees' understanding of the roles played by different departments. This would foster better collaboration and improve organizational performance. Additionally, the organization should invest in improving the reporting system through the integration of user-friendly technology tools to streamline information flow and make reporting more efficient. Continuously integrating knowledge management tools into different departments and providing proper training to maximize their utilization is essential. Lastly, to promote a culture of collaboration in information management across departments, incentives and recognition programs should be implemented, further enhancing organizational performance.

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