Impact of Knowledge Management in Supply Chain of Creative Industry

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Abstract- In Indonesia, creative economies are deemed as the alternative answers to difficulties facing stiff competition mainly brought by the technological revolution. This paper aims to contribute to the debate on the role of knowledge management (KM) in supply chain management. In this research literature focusing on the application of a KM in the supply chain system for creative industry in Indonesia presented. Results showed that KM is a commercial process that is allied to the production of new information and guaranteeing the espousal of the created knowledge in the company whenever it is needed. KM processes facilitate heightened organizational productivity, innovation, customer satisfaction, and enhanced productivity/process improvement in the supply chain context. The above business sustainability variables rely heavily on the capacity of creative workers to share knowledge, traditions, and experiences. Nonetheless, individuals in the creative world are inclined to hoard or hide knowledge for fear of knowledge risk and loss of livelihood. As a result, professional service firms (PSFs) should embrace. Recommendation of adopting nondisclosure or trade secrets’ contracts, patents, and trademarks to prevent creative staff from practicing knowledge hiding and knowledge hoarding, and consequently, promote knowledge sharing.

Keywords; Creativity, knowledge management, supply chain management, sharing, conversion, transfer.

1. Introduction

For three decades, researchers have investigated the influences of organizational knowledge, culture, and competence on a firm’s success, thereby paving the way for additional scholarly studies on organizational behavior and change management [1]. In the twenty years, research has majorly shifted to the creative industry with a heightened focus on the dynamics and distinctiveness that mark such field [2-5]. In [3] describe creative industries as business spheres with renewable resources that predominantly concentrate on promoting invention and creativity as the primary competitive advantages. Players in the creative sectors focus on the production of goods and services by relying primarily on aptitude, knowledge, and innovativeness as intellectual property [4]. The United Nations Educational, Scientific, and Cultural Organization (UNESCO) recognizes that creative economy as among the most quickly expanding industries in the globe and one of the highly transformative ones with respect to export earnings, employment creation, and income generation. As such, creative industries can contribute significant growth and affluence to countries, especially emerging nations, seeking to build resilience and diversify their economies.

In Indonesia, the creative industry is delineated as those businesses resulting from the exploitation of talents, skill-sets, and originality of individuals to create employment and support prosperity via the development and use of the innovative power and creativity of that worker [21]. Data from Indonesia’s Creative Economy Agency (BEKRAF) indicate that commercial enterprises operating within the creative industry, including those dealing with software development, music, publishing, broadcasting, architecture, art and design, advertising, crafts, fashion, and culture, contributed to more than 12 million job opportunities and 8% exports in 2015, which translated to 7.66% of Indonesia’s gross domestic product in 2016[5]. In particular, the creative business sector exhibited strong growth potential in 2017, contributing to approximately 990.4 trillion IDR to the GDP, including conferring job openings to 16.4 million Indonesians. The significant growth of creative economies in Indonesia and other parts of the globe can be ascribed to advancement in information, communication, and technology (ICT), as well as economic globalization, which have motivated individuals to be creative to survive the 21st-century turbulent business environments. Likewise, industrial developments have contributed to efficiency and affordability of distribution, manufacturing, and work patterns, while technological advances have inspired creativity and heightened productivity.

From the above analysis, it is apparent that knowledge is at the crux of operations and it is critical for developing competitive edges in the creative industries or professional service firms (PSFs), as they rely on the capacity of their innovative and skillful employees to synthesize professional inventive knowledge to accomplish both their short- and long-term goals [6-8]. In the article, “Creative Professional Service Firms: Aligning Strategy and Talent,” [9] explain that it is essential for firms involved in the media, software development, and architecture to choose a planned mechanism that is in line with their business strategy to manage organizational knowledge and align the KM tactic to the company’s general mission. In the above light, KM refers to the “creation of knowledge, followed by knowledge organization, knowledge sharing, knowledge transmission, knowledge application, and use”. Other scholars argue that
whereas assets, such as technology, processes, capital, and labor, are fundamental to organizational performance, the company’s capability to think is currently considered as a more significant factor [10]. As per the aforementioned authors, KM is tantamount to knowledge sharing in a large share of consulting companies implying that KM comprises of conversion of knowledge in individual’s brains (tacit information) into decodable information suitable for computerized storage and dissemination (explicit knowledge) and designing information technology frameworks to transfer this data throughout the firm to ensure that all employees have access to it. The above knowledge division structures call on companies to disregard the hierarchical control management system, whereby knowledge is the valued and enviously protected property of supervisors, and where the subordinate staff is given stipulated roles with minimal information.

Available pieces of the literature suggest that KM is a critical determinant of organizational success and a noteworthy antecedent of innovation, while the latter represents a milestone for every company [11, 12]. For instance, [13] conducted a comprehensive review of published pieces of literature to examine the correlation between KM, innovation, and organizational performance. The authors utilized data from n = 120 companies that are members of the Iranian Power Syndicate and grounded their analyses on the Partial Least Square (PLS) and Structural Equation Model (SEM) to support their hypotheses. The findings illustrated that KM practices straightforwardly influence organizational performance and creativity and indirectly via an elevation in innovation ability. The scholars noted that knowledge generation, incorporation, and utilization enable creativity and productivity. Specifically, the innovative attempts, encompassing exploration, testing, and development of novel services, products, and technologies, as well as experimentation of new manufacturing protocols and organizational frameworks, are fast-tracked by the availability of new information and the associated KM practices.

In similar research, [14] carried out a quantitative study to determine the association between invention capacity, creative strategies, and innovation performance in the Sri Lankan insurance industry. Based on the findings of published literature, the authors developed a conceptual framework to allow scholars to comprehend the factors that shape organizational innovative performance. The results showed a strong positive correlation between innovation ability versus creative efforts. Notably, innovation capacity is among the most significant aspects that determine the production of original products, services, and business strategies, and KM, creative thinking, motivation, and knowledge sharing, in turn, influence the development of a clear and effective innovation strategy [15]. The authors concluded that the Sri Lankan insurance companies first require to foster an organizational culture that can inspire creative behavior, collaboration among employees to develop inventive-fueled mindset. In sum, it is probable for companies to leverage knowledge and technology to generate better inventive outcomes and performance.

1.1 Statement of Problem
The review of the literature has shown a growing interest in applying knowledge management in supply chains. This seems due primarily to the fragmented nature of such industry sectors and the fragmented knowledge across complex supply chains. Irrespective of the positive correlation between KP and organizational innovative outcomes and performances, few studies have focused on the perceptions and views of creative employees. According to [16], although it is widely recognized that the creative industry can provide answers to the difficulties that confront numerous upcoming countries, the short- and long-term objectives of the industry versus those of the innovative individuals vary remarkably. Arguably, while on the one hand, the companies in the creative economic sector are interested in productivity and efficiency, on the other, the inventive staff are concerned with safeguarding their creativity and innovativeness [17]. In particular, a large share of the creative, talented, and professional workers consider knowledge as their brokering power; as a result, they may be unwilling to facilitate knowledge sharing. Contrastingly, as illustrated in the briefly appraised studies, organizational performance significantly depends on a culture of knowledge sharing to support team creativity and innovation, which, in turn, determine the overall firm performance [18-20]. Furthermore, creative workers may be against the maintenance of knowledgeable staff to avoid the loss of their bargaining power. Therefore, it is necessary to explore the ways that companies operating within the creative industry can realign the organizational goals with the individual objectives of knowledge workers.

As stated earlier, there is a positive correlation between KM and organizational innovation [21, 22]. However, in knowledge-based firms in the creative industry, innovation is the actual knowledge as well as a creation of a traded economy, therefore, the emphasis of KM is on implicit information [23]. As a result, maintaining a firm’s workplace environment that fosters novelty over time jeopardizes transforming into rivals between creative workers and the firms or employees and management, with either party deciphering organizational demands from their disparate standpoints. The above contests may be a challenge for the companies’ administrations attempts to execute a KM, particularly where the innovative capacity of the firm is principally grounded on creative workers’ individual competencies, talents, and skills.

1.2 Research Objective
The present paper aims to map literature focusing on the application of a knowledge management system in supply chain system for the creative industry in Indonesia.

2. Methods
Knowledge creation in the business sector is mounting at a fast rate, whereas at the same time, it remains interdisciplinary and fragmented. As a result, researchers have found challenges keeping pace with state-of-the-art and being at the vanguard of investigation, as well as evaluating the collective empirical proof in a specific sector of business studies [24]. Subsequently, a review of existing literature is considered a relevant research framework in business studies now more than before. The use of literature review as a
research design confers a strong basis for facilitating theory development and advancing knowledge [15]. As such, a literature appraisal can answer research queries by assimilating results and conclusions from numerous scientific studies with a higher power than that of one investigation. Besides, an effectively reviewed literature can also offer a summary of areas whereby exploration is both interdisciplinary and distinctive.

3. Results
Overall, the literature appraisal was considered a suitable approach of synthesizing study results to demonstrate empirical evidence of KM in the creative industry on a meta-level and expose areas that necessitate further investigations, which is a crucial element in building conceptual frameworks and developing theoretical models. The paper starts with a contextual analysis of KM within the creative industry in Indonesia, followed by comprehensive KM literature, KM process, and KM system. Finally, the literature review will focus on the utilization of the knowledge management system within the organizational structure of the creative business environment. Conclusions regarding the mechanisms that companies operating within the creative industry can realign the organizational goals with the individual objectives of knowledge workers will be drawn from the upshots of the appraised studies.

3.1 Knowledge and Innovation
As described earlier, knowledge is synonymized to a mix of fluids of bounded values, appropriate information, and knowledgeable imminent that confers support envisioned for approximating and incorporating new information and encounters. It is presumed to be the core resource that determines success for a large share of companies, as well as the mainstay of every firm seeking to establish and sustain a competitive advantage as it facilitates the process of innovation [12]. Innovation is described as the deliberate modification of existing business operations, ideas, services, and products to fulfill the changing consumer demands and acquire a competitive edge. Innovation alongside ingenuity has become elementary in the survivability of companies in established sectors that capitalize heavily on research and development (R&D) to remain viable. For a large share of small- and medium enterprises (SMEs), the way to outdo their rivals is to constantly innovate. According to Mayasari [5], innovation is associated with the development of an original, developmental, and profitable business model, service, process, or product.

In [3] investigated the association between successful KM processes and innovation forms in companies, as well as to identify the moderating impact of creativity on the relationship between the aforementioned variables. The authors surveyed n = 103 Turkish individuals in high-tech companies. The findings of the research illustrated that KM processes positively correlated with creativity, which subsequently enhanced organizational innovation. In the above light, knowledge is a tactical resource for every size and type of company, encompassing consumer and supplier relationships, market uncertainty, information intensity, competitive magnitude, competitors’ knowledge, and the employment of innovative technology. In [6] analyzed data from n = 146 companies to explore the role of KM capacity in the association between innovative performance and strategic human resource (SHR) practices. The outcomes illustrated that SHR tasks are positively correlated with KM capacity, and the latter determined the inventive performance of the company. In sum, the KM capacity in [12] serves a modulating effect between innovative productivity and KM capacity. Often, in the creative industry, the invention will result in replications that make innovation no longer a lasting source of competitive edge. Studies examining innovation in various fields suggest that the evolution of technology has served as an enabler of inventiveness, as such, the observable advancement of technology corresponds to the enhancement of R&D in both outcomes and financing.

3.2 Knowledge Management Process
KM is a commercial process that is associated with the generation of new information and guaranteeing the spousal of the created knowledge in the company whenever it is required. It is a multidisciplinary sphere of research that encompasses a diversity of grounds. KM is described as acquisition and formalization of information, proficiency, and experience that results in the creation of new prospects, facilitate improved performance, and fuel creativity and subsequently enhance customer value. KM has been discussed under an umbrella of an array of cross-linking terminologies, including mapping and indexing of knowledge, metrics, and valuation of knowledge, knowledge creation, knowledge transfer, knowledge dissemination, and knowledge sharing. A large share of studies on knowledge creation, regeneration, and transfer in the various fields have focused on new knowledge from a technological standpoint, thereby disregarding the sharing of tacit knowledge and traditions belonging to the creative organizations. The few papers examining the role of KM in the creative sector highlight the pivotal function of KM in the competitiveness of SMEs. In sum, the significance of KM as an instrument to attain a competitive advantage is an empirically tested fact. As such, all companies ought to marshal their information to foster and reinforce their business tactics, and KM represents a framework of mobilization and order of the organizational acquired.

Companies operating in the creative field are unable to flourish without relying on the cognitive capacities and innovative ideas of the inventive staff. However, creative workers believe in knowledge risk (KR), the possibility of information loss from the identification, protection, or storage of knowledge, which may reduce the strategic or operational profit of an organization. Within the KM scope, KR is delineated as a degree of chance and magnitude of the negative impacts of any practice involving or somehow associated with information that can influence the operations of a firm at any level. In the above light, KR should be managed with the cognition that they cannot be eradicated, including the possibility of creative workers to deliberately attempt to conceal or withhold information needed by others (knowledge hiding). In [21] explored the consequences of knowledge hiding on the company performance. Opposite to the belief that knowledge concealers rationalize their conduct and do not consider the adverse implications of their behaviors, in reality, they construe their practices as attracting retaliation or as harmful to internal relationships.
Besides, as reported by [3], it is the amalgamation of effective organizational structures, including suitable leadership and cultures and the individual tacit knowledge that contributes to the success of the industry. Previously, knowledge hiding has been demonstrated to differ from knowledge sharing. The two concepts are suggested to stem out from diverse motivational origins. While the latter is pro-socially inspired, the former may be driven by anti-social or instrumental incentives. Moreover, the failure to share information does not necessarily imply intentional effort to conceal. In [7] standpoint, talented workers and creative organizations operate on mutually beneficial associations, with the latter providing a platform that supports innovativeness, while the former serves as the core sources of inventive and codifiable ideologies. Thus, the co-dependency of creative workers and professionalism-reliant companies significantly influences the enforcement of KMS.

3.3 Supply Chain System

The processes of supply chain collaboration:

Purchase Order Processing: An effective collaborative application provides a comprehensive platform for managing and automating the purchase order process, resulting in faster cycle times and reduced errors that are an inevitable part of manual purchase order processing.

Release Processing: Automating the release process leads to a reduction in errors and results in real-time, accurate communication of requirements and the associated commitments from suppliers.

Supplier-Managed Inventory: supplier-managed inventory recognizes that suppliers often may have more knowledge and control over the logistical processes involved.

Kanban Process: The supplier can quickly and accurately determine requirements and be proactively alerted to exception situations such as a new or empty storage location.

Dynamic Replenishment: Dynamic replenishment is a process that enables suppliers to compare customer forecast or planning data with their own production plans to better match supply and demand.

Invoicing Processes: Invoice processes enable a complete closed-loop process for all supply side processes (purchase order, release, supplier-managed inventory, kanban, and dynamic replenishment). On the other, KMS serves a pivotal role in enhancing both the creative workers' and the company's performance. In [23] regard KMS as a combination of the following practices: creation and acquisition of new information, fostering and enabling content management, and transfer and re-utilization of attained knowledge to engender value. Thus, organizational framework, technological applications, and the contributions of individual creative workers are the core elements of KSM. In [6]considers KMS as a mechanism that relates to the employment of technology and information systems not as reinforcement but as knowledge instruments to develop, share, and apply knowledge in line with the protocols and provisions sourced from the knowledge management process. In [18] submit that technology is a product of a firm’s performance in a sector, and productivity is not lost. In [16] assessed the factors impeding innovative practices in Slovakian SMEs and noted that creativity was a vital component of the knowledge-based economy. Nonetheless, since the information creation process is an intricate issue, explicit and tacit knowledge is a combination that cannot be isolated in the KM process.

The intertwined link between knowledge management and supply chain management is pointed out primarily by the recurrent use of the phrase “knowledge supply chain” (KSC). Kluge et al. (2001) argue that effective KMS require to create a setting that intrinsically inspires employees to seek new knowledge and extract from sources within and beyond the organizational boundaries. As such, KMS operates as a process that fosters a culture of knowledge development, elicitation, sharing, and use, which, in turn, mark the appropriate organizational learning (OL) and OL creativity (performance). The above arguments are in line with the findings of existing pieces of literature reporting the positive correlation between organizational culture and innovation and the creativity of employees. For instance, [15] recognize organizational culture as an enabler for knowledge work (KW). As per the above authors, organizational tradition delineates the significance of knowledge and, to a large degree, rationalizes the creative capacity of the firm. Supportive organizational culture adds to the knowledge sharing practices, comprising of knowledge generation, communication, and cooperation. It is further associated with the readiness of individuals to share knowledge. Consequently, the innovative organizational culture will offer insights on how to support the innovation capacity of the company and inspire as well as enable individual staff in the company to motivate others to develop a creative mindset. In [11] add that an enabling firm climate inculcates teamwork, which, in turn, persuade knowledge or creative workers to share work encounter both formally and informally within the team and assist one another to develop novel skills.

There is a myriad of knowledge management systems implemented in diverse industries across the globe, including the process-based KMS. The latter encourages OL through the utilization of knowledge-generating mechanisms. In [19] performed an exhaustive review of published studies to identify a comprehensive taxonomy of KMS adopted by SMEs and to develop a catalog of tactics that can be utilized by SMEs to address KM processes. The authors found that the commonly used knowledge creation practices in the SME industry, encompass knowledge elicitation, interviews, competition, ideas, and brainstorming. The knowledge storage processes entailed social network, process mapping, problem-solving, knowledge modeling, and casual mapping while knowledge sharing mechanisms included project teams training, learning by actions, job rotation, focus group discussions, communities of information sharing, communities of practices, coaching/mentorship, and case-based reasoning.

On the other hand, the KM tools employed to facilitate the above KM practices in the knowledge creation phase are collaborative filtering, text mining, social data mining, expert systems, data visualization, and data mining, while knowledge storage procedures were ERP systems, management systems, product lifecycle, product data, content management, management systems, and configuration among others. On the other hand, the KM instruments used at the knowledge transfer phase comprise of the Wiki, social media, videocasting/podcasting, sharing,
4. Conclusions

The aim of this paper is to evaluate the relationship between knowledge management and supply chain management through the analysis of the existing theoretical and empirical works, and to contribute to the debate on the role of knowledge management in supply chain management. The adoption of an effective KMS has been attributed to various benefits to both individuals and to the knowledge-based organizations. In [7] appraised published papers to determine the profits of KM for SMEs. A large proportion of the analyzed articles concurred that KMS practices promoted employee development as illustrated by staff retention, OL, and skill increase; enhanced customer satisfaction as demonstrated by improved consumer loyalty and positive reputation; organizational success as indicated by fewer losses, rise in sales, and enhanced productivity and process improvement. Thus, in line with the appraised studies, it can be argued that the core dimensions of KM capacity of organizations, namely knowledge creation, knowledge transfer, knowledge use, and knowledge protection, positively influence a company's productivity via financial and non-financial performance. As illustrated by the conceptual model (figure 1) below, knowledge creation, which entails the attainment of information from internally or externally, has a substantial effect on a firm's performance. Suitable attainment of knowledge corresponds with augmented information stocks in the company, which, in turn, confer for-profit enterprises better capacity to make prompt, informed choices that are essential for superior organizational performance. Thus the role of knowledge, within the supply chain, in achieving superior performance at the firm level needs a deeper understanding.

Figure 1: Conceptual framework

In addition, the reviewed articles also confirm that knowledge that is created has to be codified, incorporated, and availed in an effective approach for it to be used and regenerated. On the other hand, the conversion of knowledge allows companies to enhance their efficiency and expertise by transforming created information into usable organizational knowledge and disseminating it to where it is. Similarly, knowledge utilization refers to the process of employing the created, stored, coded, and presented information in problem-solving and decision-making. Furthermore, knowledge application aids in translating information from a probable influence tool into actual inventions or innovations that facilitate the improvement of organizational performance. Therefore, since knowledge is a critical resource of sustainable innovation and competitive advantages for 21st-century enterprises, companies should invest heavily in safeguarding knowledge and the creative workers through the employment of effective KMS models. The paper proposes the application of such techniques as non-disclosure or trade secrets' contracts, patents, and trademarks to prevent creative staff from practicing knowledge hiding and knowledge hoarding, and consequently, promote knowledge sharing.

References


