



## Nexus between Knowledge Management and Creative Organizational Climate on Smart Organizations: Case of the Manufacturing Industry

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### ABSTRACT

The purpose of this study is to examine the knowledge management and creative organizational climate to assess their impact on smart organization in manufacturing industry. However, a descriptive study was conducted using a mixed method research. Primary purpose data were gathered from 50 food and beverages manufacturing companies based in UAE. The secondary data were based on prior studies, literature, books, journal, and academic publications. This study has examined the empirical view of relationship measurement of each variable. As a result, there are significant relationship among each variable that explains the organizations must adapt and innovate in the quickly shifting business environment of today to remain competitive. Knowledge management plays a crucial role in capturing, organizing, and leveraging knowledge assets within an organization. It facilitates the creation, sharing, and application of knowledge, enabling organizations to make informed decisions and drive innovation. Moreover, fostering a creative organizational climate encourages employees to think critically, explore new ideas, and collaborate effectively. This study also highlights the significance of knowledge management and a creative climate in the development of smart organizations that are agile, adaptive, and capable of embracing emerging technologies and market trends. By effectively managing knowledge and creating an environment that fosters creativity, organizations can enhance their ability to innovate, drive growth, and achieve sustainable success in today's dynamic business environment.

### 1. INTRODUCTION

In the modern business world, organizations are faced with numerous challenges arising from rapid technological advancements, globalization, and evolving customer demands. To navigate these complexities and remain competitive,

organizations must transform themselves into smart entities capable of adapting, innovating, and leveraging their intellectual capital effectively. Two critical factors that contribute to the development of smart organizations are knowledge

management and a creative organizational climate .

Knowledge management involves the systematic capture, organization, and dissemination of knowledge assets within an organization. It encompasses processes, practices, and technologies that facilitate the creation, sharing, and application of knowledge to enhance decision-making, problem-solving, and innovation (Earl, 2001). By effectively managing knowledge, organizations can tap into their collective expertise, avoid redundant efforts, and promote learning and collaboration. Knowledge management provides a foundation for building smart organizations that can capitalize on their intellectual capital and leverage it to drive strategic initiatives and achieve competitive advantages (Desouza and Evaristo, 2003).

In parallel, fostering a creative organizational climate is essential for encouraging innovation and adaptability within an organization (Nuseir, 2021). A creative climate nurtures an environment where employees feel empowered, encouraged, and supported to think critically, challenge the status quo, and generate new ideas (Al-Kasasbeh et al., 2016). It embraces a culture of open communication, collaboration, and experimentation, providing the necessary psychological safety for employees to take risks and explore innovative approaches (Porzse et al., 2012). In a creative climate, employees are motivated to share knowledge, collaborate across departments, and engage in continuous learning, which fuels the organization's ability to adapt to changing market conditions and embrace emerging technologies (Isaksen and Aerts, 2011; M.ElKhatib, 2014).

The convergence of knowledge management and a creative organizational climate is instrumental in the development of smart organizations. By effectively managing knowledge resources and creating an environment conducive to creativity and innovation, organizations can optimize their decision-making processes, drive problem-solving, and foster a culture of learning and improvement (Adamik and Sikora-Fernandez, 2021). Smart organizations are agile, adaptive, and responsive to market dynamics, as they capitalize on their intellectual capital and leverage it to identify opportunities, mitigate risks, and drive continuous improvement (Matheson and Matheson, 2001) .

This study explores the impact of knowledge management and a creative organizational climate on the development of smart organizations. It delves into the strategies, practices, and technologies that enable organizations to effectively manage their knowledge assets, foster a creative climate, and harness the collective intelligence of their workforce. By examining real-world examples and research findings, this paper aims to provide insights into the critical role played by knowledge management and a creative organizational climate in shaping the success and sustainability of smart organizations.

### 1.1. Problem Statement

The advent of the digital age has brought about unprecedented challenges and opportunities for organizations to remain competitive and thrive in rapidly evolving markets. In this context, the impact of knowledge management and a creative organizational climate on the development of smart organizations has garnered significant attention. However, there is a need to further explore and understand the specific mechanisms and dynamics through which these factors influence organizational intelligence, innovation, and adaptability.

While studies have demonstrated the individual importance of knowledge management and a creative climate in enhancing organizational performance, there is a lack of comprehensive research that examines their combined impact on smart organizations. Existing literature often focuses on either knowledge management or creativity in isolation, without fully capturing the synergistic effects that can arise from their integration (Amiri et al., 2019; Chermack et al., 2015).

Therefore, the research problem at hand is to investigate and evaluate the impact of knowledge management and a creative organizational climate on the development of smart organizations. However, Knowledge Management provides different advantages to the employees of an organization. Proper knowledge about the process and strategies of an organization should be provided to the employees so they can understand the factors which will help them to grow and achieve their desired objectives effectively and efficiently. Different surveys were done to know the exact understanding of such factors as how

they play a vital role in the success of an organization. Different scholars and researchers went to the companies of manufacturing industries, and questionnaires were provided to the employees, and the questions were asked related to these factors. It was asked that how these factors facilitate an organization to grow and increase their productivity. Also, what are the main factors which are helpful for the employees if they have a creative organizational climate? If properly work on these aspects, then will employees achieve to create a smart organization. Employees said that it is essential for an organization to provide proper training related to knowledge management so that each individual worker of an organization should have adequate knowledge about the business plan and strategies, and they should work on it accordingly. Also, if an organization has a creative organizational climate, then it helps employees to motivate, to have a positive attitude and behavior, which is essential for the growth of an organization. Hence, it has been proven after such researches that if these factors are focused keenly, then it will create a smart organization.

2. LITERATURE REVIEW

2.1 Knowledge Management and its Dimensions

There are specific dimensions related to the knowledge of management in the industry of manufacturing companies (Nuseir and Elrefae, 2022). In order to understand knowledge management abroad way (Aityassine et al., 2022). The organization needs to develop individual pillars of dimensions. The company should build a strategy that will help them to convert all the innovative ideas into action (M Alshurideh et al., 2023; El Khatib et al., 2021). However, it is essential to understand the desired value to increase productivity (Kassem and Martinez, 2022; Nuseir, 2020). The new business world is working in such a way that management is taking an initiative to implement innovative ideas to perform better and have a competitive advantage in the market (Abudaqa et al., 2021; Alavi and Leidner, 2001).

*Creative Organizational Climate and Its Dimensions*

The climate of the organization suggests that ideas about the quality of work performed by the employees (M. El Khatib et al., 2022). The climate

of the organization can be evaluated by certain factors, which include the experience of the employees, behavior, and attitude of employees, and specific characteristics of the organization (Ahmed and Nabeel Al Amiri, 2022). There is a huge difference in productivity if the climate of the organization is creating a negative impact on employees (Ahmad Ibrahim Aljumah et al., 2022b). The productivity depends upon the motivation level of individual and group members, and the motivation level is increased by the organizational climate with the help of the leaders (El Khatib et al., 2022). This idea about the climate of the organization is originated from social psychology (I. Akour et al., 2022; H. M. Alzoubi et al., 2022a). There is a particular field of psychology that studies the causes and nature of human behavior as it is relatable to the people in a group or as a society.

2.2. Smart Organizations and Its Dimensions

In the current scenario, it has been assumed that the aspects of communication and technology have been a motivational factor that influences the change in the organization, and it motivates the employees to work effectively and efficiently (Muhammad Turki Alshurideh et al., 2023c; Bawaneh et al., 2023). As the trend is changing day by day in business market, companies are thriving and increasing their productivity according to needs of the market (Akour et al., 2023). Similarly, they keep providing innovative and new facilities through which they can capture the broader market and can satisfy the need of the customers which ultimately favors the organization and increase its revenue (Al-Kassem et al., 2022). Nowadays, the internet is a very reliable source to find solutions to those problems which cannot be handled manually (El Khatib and Ahmed, 2020). Smart Organizations are giving proper trainings and understandings to employees related to the latest technology, which helps them to initiate and apply creative and innovative ideas, which motivates them to add value in their products and processes (H. M. Alzoubi et al., 2022c).

**Dimensions of Knowledge Management**

Proper Training	Management should understand the importance of training and development of employees
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Knowledge sharing increases trust	Management should understand that it is essential for the employees to share knowledge, which increases the level of trust.
Support of Leadership	The management needs to understand that their support is very much important for the employees to work effectively.
Knowledge should be creative	The organization should provide knowledge to employees so that they can be creative

**Dimensions of Creative Organizational Climate**

The organizational and psychological process	Management should be very focused to have a proper regulatory and psychological process which is related to the success of an organization
Quality Productivity	Creative organizational climate ultimately increases the quality of the product
Increase in Profit	If the quality of the product increases it ultimately increases the profit ratio of the organization
Effects on Job Satisfaction	Creative organizational climate has a positive impact on the employees, and they feel satisfied at the workplace.

**Dimensions of Smart Organization**

Motivation of employees	Employees are much motivated while working in a smart organization.
Positive behavior and attitude	Smart organizations enable the positive behavior and attitude of the employees.
Advanced Technology	The use of advanced technology is very much essential to create a smart organization.

**2.3 Knowledge Management and Its Relationship with Creative Organizational Climate**

Knowledge management increases the productivity factor, and it stimulates innovation.

Different methods are used to increase the knowledge management. Companies now have to think differently and must promote knowledge management due to the change in technology day by day (Muhammad Turki Alshurideh et al., 2022c; Alzoubi et al., 2020; Hani Al-Kassem, 2021). The companies must increase the cognitive speed so they can compete in the market and keep counting on their experience so that they avoid those mistakes which they did in the past (El Khatib and Opulencia, 2015; Kurdi et al., 2022c).

If a company develops a culture that promotes creativity and innovation, then it will be one of the key factors through which they can have a competitive advantage in the market (Nuseir et al., 2020). Research is fundamental to understand creativity, and companies are now focusing on these aspects so that they can generate better revenue (Muhammad Turki Alshurideh et al., 2023b; El Khatib, 2015). As technological changes are getting advance these days, they are threatening the sustainability of the organization, and they are facing many challenges (Alzoubi and Ahmed, 2019).

Researchers have also contributed to analyzing the fact, and it has been reported that knowledge management has a positive impact on creativity level and innovation within the organizations (T M Ghazal et al., 2023a; Nuseir and Aljumah, 2022). Considering the example of manufacturing industries, the type of innovation and researches differ greatly depending upon the type of manufacturing industries. However, in trading companies, innovation plays a significant role in smoothening the processes of trading (Muhammad Turki Alshurideh et al., 2023a). Particularly, as the current era is all about increasing the influence of social media, therefore it has been observed that most of the trading companies are now switching their promotional and marketing activities towards social media platforms (Al-Awamleh et al., 2022). Some of the most prominent and influential aspects in the trading industry are the use of e-commerce and online shopping platforms like Amazon, eBay, Ali Baba, etc (Alshurideh et al., 2020; Farrukh et al., 2023). All the platforms have resulted in increasing globalization as people from different parts of the world are now capable of ordering their products from different platforms, and they are quickly delivered at their doorstep without making additional efforts (Al-Kassem,

2017; El Khatib et al., 2019). The concepts of creative culture have also helped the trading industries as people are now mostly focusing upon using social media platforms for communicating with their customers (Alzoubi et al., 2019). In addition, social media also helps in providing customer satisfaction to the maximum extent, as customers and employers can be directly in contact with each other to resolve their queries and issues (T M Ghazal et al., 2023b; M T Nuseir et al., 2022a). There is a very positive relationship between knowledge management and creative organizational climate, as they both play an important role related to the organization's innovation (Alshurideh et al., 2022; Blooshi et al., 2023; Kurdi et al., 2022b). The organization's success is dependent on various variables, and knowledge is one of them which can be gained from various resources (Muhammad Turki Alshurideh et al., 2022b). The factor of knowledge is an asset of organizations that are willing to find success in the business market and to survive with competition in markets (El Khatib et al., 2020b; M T Nuseir et al., 2022b). Without the proper knowledge, it will be tough for the organizations to counter the change which occurs in the market and maintain its credibility that is why knowledge management is becoming one of the most critical factors for the organizations whether they are small or large (Al-Marroof et al., 2022b; T M Ghazal et al., 2023c). Such type of organizations should understand that it is essential for the employees to have a healthy and positive environment in the workplace (Almasaeid et al., 2022). Leaders must play a vital role in creating a positive environment for the employees, and they should provide proper training and understanding so that the organization should have a strong position in the business market (El Khatib and Ahmed, 2019; Nuseir et al., 2021).

#### *2.4. Knowledge Management and Its Relationship with Smart Organizations*

It is very much important for the employees of the organization to understand the concept of a smart organization (Aljumah et al., 2021a; Varma et al., 2023). It has been observed that the learning and development of employees is one of the key factors which play an important role in the success of an organization (Lee et al., 2023; Mat Som and Kassem, 2013). But there are some other factors as well that play an important role for organizations

to achieve a sustainable competitive advantage in the market (El Khatib et al., 2020b). There are certain key characteristics of smart organization which require certain processes and activities that increases the learning and development of the employees (Al-Marroof et al., 2022a; Almasaeid et al., 2022).

The manufacturing industry is one of the most established industries in the world (Nadzri et al., 2023). Manufacturing includes the productions of products using different tools, machines, labor, and other instruments (Aljumah et al., 2021b). In this era, the modern manufacturing industries are using all types of advanced technology in their process to develop a product's component and finalizing their product (M. El Khatib et al., 2021). The process of manufacturing begins with the design of the product and the materials which will be used for production (I. A. Akour et al., 2022; H. M. Alzoubi et al., 2022b). The labor with the help of different machinery and equipment forms the product, which is ready to be sent to the market (Al-Kassem, 2014).

#### *2.5. Creative Organizational Climate and Its Relationship with Smart Organizations*

(R. S. Al-Marroof et al., 2021b), stated that knowledge management had become one of the most critical factors for the success of an organization, and it also increases the business (A I Aljumah et al., 2022a). As has been assumed in the 21st century, organizations are competing in the business market by working on various factors. It is very much important that such organizations should understand various ways to use the knowledge of management (Muhammad Turki Alshurideh et al., 2022a; Louzi et al., 2022b). They must know how to achieve success by using these factors (Aljumah et al., 2020). As stated by (M T Alshurideh et al., 2022) the correct use of knowledge management could give an organization a competitive advantage in their market if they know how to use them effectively (A. Al-Marroof et al., 2021; El Khatib et al., 2020a).

In addition to useful knowledge, it is also important for companies to focus on the innovative culture and promote creativity within the organizations (Muhammad Alshurideh et al., 2023; Mubeen et al., 2022). Moreover, the modern era is all about cultural advancements, which has resulted in enormous changes in the organizational trends and

their responses (E. Khatib et al., 2021; Louzi et al., 2022a). Moreover, innovation has also brought competition and challenges in the industrial sector as new technologies have brought several changes in operational activities (AlHamad et al., 2021). Similarly, considering the impact of innovation and creativity, it has been reported that it positively affects the performance and productivity of employees of the company (Alshurideh et al., 2022; Nuseira and Aljumahb, 2020). It is somehow dependent on the internal environmental conditions of the company as well (El Khatib and Ahmed, 2018).

If the owners and higher management of the company provide a smooth and stable environment to the employees and provide the opportunity to explore themselves in terms of creativity, then it will ultimately result in increased productivity and profitability of the company (R. S. Al-Marouf et al., 2021a; Mat Som and Kassem, 2013). One of the major examples of the positive impact of creativity has been observed in Apple Company, as employees are allowed to perform researches, innovations, and explore new concepts within their research and development department (Alshurideh et al., 2022; Khatib, 2022; Nuseir and Aljumah, 2020). As a result of the provision of a positive and supporting environment to the employees, the company has come up with numerous innovations and brought new features and characteristics within the devices they launched (Yasir et al., 2022).

#### *2.6. Knowledge Management and Creative Organizational Climate and Its Impact on Smart Organizations*

An extensive report suggests that there are multiple approaches related to the culture of an organization. According to an author (Akour et al., 2021; Alshawabkeh et al., 2021), Organizational climate is based on different characteristics that differentiate one organization from another, and it also influences the environment of the organization also changes the behavior of employees (Al-Kassem et al., 2013; Khan et al., 2022). It also emphasizes the leaders to work harder with an approach to achieve the objectives of the organization effectively (E. Khatib et al., 2022; Tariq et al., 2022b). Authors like (Ahmed et al., 2022; A I Aljumah et al., 2022b) stated that the climate of the organization provides us an

approach, which means that it is a set of characteristics that differentiates the organizations (H. M. Alzoubi et al., 2022d; Gaytan et al., 2023). It provides information as to how they deal with its members and the environment.

(Mohammed T. Nuseir et al., 2022) provided the information in its theory that the learning and development of the employees are one of the basic key factors which play a vital role in the success of the organization. It also provides a difference between a successful and unsuccessful organization, and it also helps to sustain in the market and have a competitive advantage in the field of business. Similarly, to achieve the position of the smart organization, employees need to be creative and innovative to get a proper understanding of the process and strategy of the organization, to provide proper training and development to employees (Al-Kassem et al., 2012; Aziz et al., 2023; Tariq et al., 2022a). (AIDhaheri et al., 2023) also offered a second thought on this theory and suggested that smart and creative organizations are those type of organization that provides high quality of products and services and those who take perfect and timely decisions (Al-Dmour et al., 2023; Gulseven and Ahmed, 2022). Companies need to make the right decision at the right time.

#### *2.7. Current Economy and Its Impact on Organizations*

Moreover, considering the current situation, it has been reported that organizations also largely depend upon the current economy of the world (Abudaqa et al., 2022; Kurdi et al., 2022a). In order to provide maximum profitability to the companies, the organizations have been using multiple strategies to ensure that effective operations and strategies are implemented to provide innovation and creativity within the organization (Taher M. Ghazal et al., 2023). Moreover, it has also been analyzed that knowledge plays a significant role in providing companies additional leverage and opportunity to design their functions smartly and acquire maximum benefits within limited budget and expenses (H. Alzoubi et al., 2022; Sakkthivel et al., 2022).

Knowledge plays an important role in increasing the economy of the company, as activities that are being modified and redesigned based on recent

researches and advancements are termed as knowledge-intensive activities (Ahmad Ibrahim Aljumah et al., 2022a; Khatib et al., 2016). Multiple examples have been observed of the organizations which ensure and practice knowledge-intensive activities; for example, Siemens has been using the technology of Share-Net for acquiring knowledge and designing their operations according to this technology (Aljumah et al., 2023; Amiri et al., 2020; Arshad et al., 2023). Whereas, Microsoft has been using the software of SharePoint, which also allows the company to acquire recent information and researches based on which they will design their activities and operations for the company (M. Alzoubi et al., 2021).

### 2.8. Research Question

**RQ1:** What is the effect of knowledge management on the productivity of smart organizations of manufacturing industries?

**RQ2:** Does knowledge management plays an important role in the success of an organization?

**RQ3:** What are the effect of creative organizational climate in behavior and attitude of employees of smart organizations of manufacturing industries?

**RQ4:** Are training sessions done by smart

organizations help to create an effective and creative organizational climate?

### 2.9.. Research Objectives

This research will provide a piece of information related to the impact of knowledge management and the creative organizational climate in smart organizations in the manufacturing industry. It is important to understand its importance as these are the key factors that will provide details regarding their impact on the organization.

### 2.10. Research Hypothesis

**RH1:** Knowledge management have a positive relationship with creative organizational culture in manufacturing industry

**RH2:** Knowledge management has a positive relationship towards smart organizations in manufacturing industry

**RH3:** Creative organizational climate has a positive relationship towards smart organizations in manufacturing industry

**RH4:** Knowledge management and creative organizational climate have a positive impact on smart organizations in manufacturing industry

### 2.11. Research Model

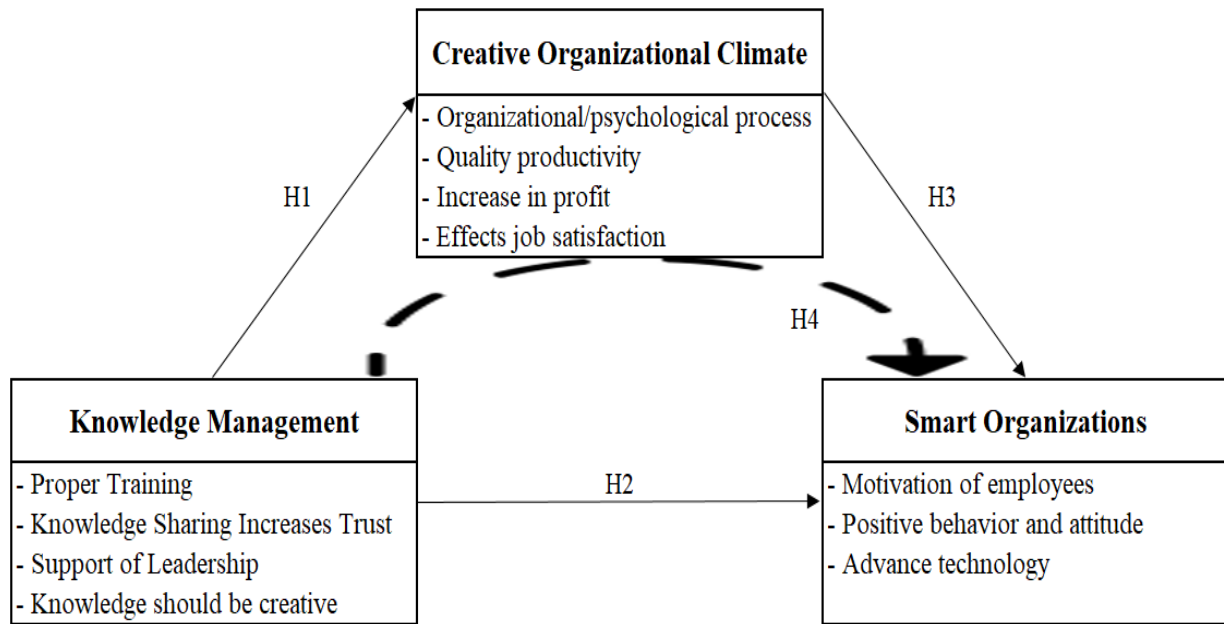


Figure 1 : Research Framework

2. METHODOLOGY

The study will focus specifically on the manufacturing industry of the UAE. The population of the research will consider all manufacturing companies within the UAE that focus on any type of manufacturing, whether food and beverages or vehicle or any consumer good. The total types of manufacturing companies, i.e., the entire population, and the sample was chosen is

summarized in the table below. The total number of manufacturing companies within the manufacturing industry of UAE sums up to 4499 based on the latest statistics up to the end of 2016. Data for the statistics has been retrieved from UAE government website (Ministry of Economics, 2017). Out of entire population, the selected population size is of 50 companies, the breakdown is provided in the table below.

3. EMPIRICAL ANALYSIS

Table 1:

Manufacturing Industry	Total Population		Sample Population	
	No.	%	No.	%
Food and Beverage	575	12.78%	5	10%
Non-Metallic Mineral Products	787	17.49%	7	14%
Oil Refining Products	125	2.78%	2	4%
Metal Products	1171	26.03%	11	22%
Other Transport Equipment's	92	2.04%	2	4%
Rubber and Plastic Products	539	11.98%	5	10%
Paper and Paper Products	254	5.65%	3	6%
Machinery and Electrical Supplies	241	5.36%	3	6%
Wood and Wood Products	433	9.62%	4	8%
Machinery and Equipment	157	3.49%	2	4%



Vehicles and Trailers	76	1.69%	1	2%
Leather and Leather Products	34	0.76%	1	2%
Scientific and Professional Equipment	8	0.18%	1	2%
Machines, Office Equipment And Computers	2	0.04%	1	2%
Audio And Video Equipment And Communication Equipment	3	0.07%	1	2%
Tobacco Products	2	0.04%	1	2%
<b>TOTAL</b>	<b>4499</b>	<b>100%</b>	<b>50</b>	<b>100%</b>

#### 4. DISCUSSION

In order to answer the research questions the empirical data has demonstrated a positive impact of each variable to describe the relationship of knowledge management with creative organizational climate and their impact on smart organization.

**RQ1 :** *What is the effect of knowledge management on the productivity of smart organizations of manufacturing industries ?*

It has theoretically evident that knowledge management has emerged as a critical factor in enhancing organizational productivity and performance across various industries, including manufacturing. In the context of smart organizations in manufacturing industries, the effective management of knowledge assets becomes even more crucial due to the complex and rapidly changing nature of these environments.

Knowledge management facilitates the availability and accessibility of relevant information, best practices, and lessons learned. This enables employees at all levels to make informed decisions, leading to more efficient and effective operations, improved resource allocation, and better problem-solving.

Knowledge management helps identify and capture process-related knowledge, enabling organizations to streamline and standardize workflows. By sharing and leveraging best practices and lessons learned, manufacturing organizations can reduce waste, eliminate redundancies, and optimize production processes, ultimately improving productivity. Effective knowledge management promotes knowledge sharing, collaboration, and cross-functional learning within smart manufacturing organizations. By capturing and disseminating knowledge about new technologies, market trends, and customer insights, organizations can drive

innovation, develop new products or processes, and stay ahead of competitors.

Smart manufacturing organizations often face challenges associated with an aging workforce and employee turnover. Knowledge management helps capture, store, and transfer critical knowledge, ensuring that valuable expertise and experience are retained within the organization. This mitigates the risks of knowledge loss and maintains continuity in operations, leading to sustained productivity.

**RQ2:** *Does knowledge management plays an important role in the success of an organization?*

Knowledge management is widely acknowledged as a crucial factor in driving the success of organizations across various industries. It encompasses the processes, practices, and strategies for identifying, capturing, organizing, and leveraging knowledge assets within an organization.

Effective knowledge management provides organizations with access to relevant information, expertise, and lessons learned. This enables informed decision-making at all levels, leading to more efficient resource allocation, better problem-solving, and strategic planning. Informed decisions contribute to overall organizational success by minimizing risks and maximizing opportunities.

Knowledge management fosters a culture of learning, collaboration, and innovation. By capturing and sharing knowledge, organizations can leverage the collective intelligence of their workforce, enabling the generation of new ideas and solutions. This promotes innovation, adaptability, and the ability to respond swiftly to market changes, technological advancements, and customer demands.

Knowledge management ensures that employees have access to relevant knowledge, best practices, and standard operating procedures. This facilitates

efficient execution of tasks, reduces errors, and eliminates redundant efforts. Sharing and leveraging knowledge assets also prevents reinventing the wheel, saving time and resources, ultimately boosting productivity.

As organizations face employee turnover, retirements, and knowledge loss, knowledge management plays a vital role in capturing and retaining critical knowledge. By creating repositories, establishing mentoring programs, and facilitating knowledge transfer, organizations can ensure continuity, prevent loss of expertise, and minimize disruption in operations.

**RQ3:** *What are the effect of creative organizational climate in behavior and attitude of employees of smart organizations of manufacturing industries?*

After reviewing and deep study analysis enable our study to justify the research question that show a positive relationship. A creative organizational climate is characterized by an environment that fosters innovation, encourages risk-taking, and supports the expression of new ideas. In the context of smart organizations in manufacturing industries, where adaptability and innovation are essential for success, understanding the effect of a creative climate on employee behavior and attitudes is crucial.

As a result, a creative climate encourages employees to actively participate, contribute ideas, and engage in problem-solving. This sense of involvement and ownership fosters higher levels of engagement among employees, leading to increased motivation, productivity, and satisfaction. However, a creative organizational climate provides the necessary psychological safety for employees to take risks, experiment, and think outside the box. It stimulates innovation by promoting idea generation, cross-functional collaboration, and exploration of new approaches. This leads to the development of new products, processes, and solutions, driving competitive advantage for smart manufacturing organizations. A creative climate signals that an organization values and respects employee input and ideas. This, in turn, contributes to higher levels of job satisfaction and a sense of fulfillment. When employees feel their contributions are valued, they are more likely to remain with the organization, reducing turnover and retaining valuable talent. It has also suggested by (Porzse et al., 2012) a

creative organizational climate fosters an environment of open communication, collaboration, and knowledge sharing. Employees are encouraged to share their expertise, learn from others, and engage in cross-functional projects. This collaborative culture enhances the collective intelligence of the organization, leading to more effective problem-solving, improved decision-making, and accelerated learning.

**RQ4:** *Are training sessions done by smart organizations help to create an effective and creative organizational climate?*

Training sessions play a crucial role in equipping employees with the necessary skills, knowledge, and tools to perform their roles effectively. In the context of smart organizations, which aim to foster innovation and creativity, training sessions are expected to contribute to the development of an effective and creative organizational climate. Moreover, different training sessions provide employees with opportunities to enhance their skills, knowledge, and competencies. By acquiring new skills and improving existing ones, employees become better equipped to contribute to the organization's goals. This can lead to increased effectiveness, productivity, and creativity within the organizational climate.

It can be said that trainings often involve knowledge sharing and learning from both trainers and participants. These sessions create platforms for employees to exchange ideas, share best practices, and learn from each other's experiences. This collaborative learning environment can foster a culture of continuous learning and knowledge sharing, which contributes to the overall effectiveness and creativity of the organizational climate.

Effective training sessions promote a growth mindset among employees, encouraging them to embrace challenges, persist in the face of setbacks, and view failures as opportunities for learning and improvement. This mindset is essential for fostering innovation and creativity within the organizational climate, as employees are more likely to take risks and explore new ideas without fear of judgment or repercussions.

Consequently, Training sessions that are designed and aligned with the organization's strategic goals and objectives can help create an effective and creative organizational climate. When training

programs focus on developing skills and knowledge that directly contribute to innovation and creativity, employees are more likely to apply what they have learned and contribute to the organization's success.

## 5. CONCLUSION

The impact of knowledge management and a creative organizational climate on smart organizations is undeniable. Knowledge management, through its processes of identifying, capturing, organizing, and leveraging knowledge assets, enhances decision-making, process efficiency, innovation, and knowledge retention within organizations. It enables employees to make informed decisions, streamline workflows, drive innovation, and ensure critical expertise is retained.

Additionally, a creative organizational climate fosters an environment that encourages risk-taking, collaboration, and the expression of new ideas. It stimulates employee engagement, promotes innovation and adaptability, and

improves employee satisfaction and retention. By nurturing a culture of learning, openness, and creativity, organizations can leverage the collective intelligence of their workforce and achieve sustainable success in a rapidly changing business landscape.

A creative organizational climate has the potential to significantly impact the behavior and attitudes of employees in smart manufacturing organizations. It promotes engagement, stimulates innovation, enhances job satisfaction, and fosters collaboration and knowledge sharing. However, challenges related to resistance to change, organizational structure, resource constraints, and alignment with organizational goals must be addressed. By actively fostering a creative climate and addressing these challenges, manufacturing organizations can harness the full potential of their workforce, drive innovation, and achieve sustainable success in a dynamic and competitive environment.

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