Knowledge Management (KM) Practices of the Retail Industry in Camarines Norte, Philippines: A Descriptive Quantitative Analysis

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Abstract

This study was conducted to ascertain the Knowledge Management (KM) practices of the retail industry, utilizing the quantitative descriptive research design. Using survey within the Philippines border the findings revealed that the majority of the retail industries in the province were highly understand the concept of Knowledge Management. Among its four major components the retail industries have the highest level of awareness towards the component of people, whereas, on the level of application, it is on the component of the strategy. While on customers' needs and satisfaction, KM strongly contributed to the retail industry and help uplift business operation and performance as well as long-term sustainability. It is concluded that by embracing Knowledge Management in business operations, the status of retail industry would rise up. The formulation of a centralized Knowledge Management system and collaboration to the government agency like the Department of Trade and Industry (DTI) will steadfast the growth of the retail industry in the province of Camarines Norte, Philippines.

Introduction

Sustainable Development Goal #9 seeks to build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation. Industrialization drives economic growth, creates job opportunities, and thereby reduces income poverty. Innovation advances the technological capabilities of industrial sectors and prompts the development of new skills (UNOOSA, 2021). Technological innovation and globalization encompasses a massive impact on the economy, society, and way of life (Haseeb et al., 2019). Many are adopting new models and finding new ways to guaranteed continuity within business approaches, stemming from a spear in technology-inspired industrialization (Vargo et al., 2020). In business, the application Knowledge Management is one of the digital transformations in the retail industry. Dzenopoljac et al., (2018) examined Knowledge Management practices and analyzed it to have a positive and significant impact on perceived retail business performance. Retailing involves the sales of products or goods from the point of purchase to a customer who has an intention to use the product (Chegg, n.d.).

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This sector is a huge industry employing millions of people around the world and a significant contributor of a country's gross domestic product since it generates trillions of dollars annually in sales revenue (Farfan, 2020).

The launching of internet during the 1990 eras give way to radical change in the retail operation wherein e-commerce almost dominated the shopping interest of the people shifted from traditional brick-and-mortar way of retailing into purchasing merchandize with the use of internet related devices and diving in various shopping applications. This situation left remarkable decline in the sales of the conventional retailers thereby affecting revenues and employment. In the research conducted by the University of Buffalo, it shows that 96 percent of the decline in traditional shopping mall revenue is due to the popularity of online retailing (Yan, 2018). Likewise, in a report of Thomas (2020), as of August of 2020 about 60 percent in the retailing industry experienced and filed for bankruptcy listed a loss of more than $100 million in assets, as compared with 50 percent and 36 percent in the same period of 2019 and 2018 respectively.

In the Philippines, the Philippine Retailers Association (PRA) (2018) noted a disruption in the retail industry in 2018 as the growth of e-commerce platforms with online sales capabilities was threatened and disturbed start-ups business or even the long-established retail businesses. Arreola (2020) sustained evidence on this trend denoting 64 percent of Filipino internet users were spending more time on social media, with 23 percent indicating an increased in online shopping activity. In Camarines Norte, retail industry is one of the economic sources of the people since its rapid increase was established and concentrated mostly on selling food, grocery items and personal stuff. However, challenges started to occurs when the popularity of e-commerce and online shopping rise and the advent of online delivery services hit the market. Added to this is the emergent of the COVID 19 pandemic which make those challenges becomes harder to the people in the retail business. People in the local retail sector started struggling for their survival. The massive impact of online commerce and the use of digital technologies in business process became an innate requirement for the retail industry in the province. The reality is technology has already transformed online business transactions into an infinite marketplace. Local retail business has to build a sustainable and scalable enterprises which is ready to adopt a technological tools that streamline tasks, boost productivity, and render customer services in real time. In reality, if the local retail industry in the province fails to sustain the concept of digital or technological innovations, this business group will not see another generation of customers.

Rooting on the stated current situation of the retail sector, it is imperative to determine the approaches of the local retail industry with regards to the challenges posed of technological innovation. In this study, the research focus is on the Knowledge Management, or interchangeably used as KM, practices of the local retail industry which is an important business processes for the local retail store to stay relevant in the market.

Literature Review
Knowledge Management

Knowledge Management (KM) is a technological approach which involves knowledge creation, storing sharing and disseminating information. It facilitates communication and knowledge transfer within the organization and its external stakeholders that lead to its competitive advantage, sustainability and economic growth (Clark, 2020; Usman et al., 2021). In a recent study of Durst et al., (2022) it

showed that capabilities, performance and innovation are the knowledge management aspect which have relevant contribution on the strategy applied of business organizations to surpass the competing world of business.

In the retail sector, KM has been carried out on the evolution of the fourth industrialization which involves the inter connectedness of machines, human ability, and processes to search out and sha re data that significantly influences the organizational performance (Manesh, 2019). The KM components which comprised of people, process, tools, and strategy plays a significant role in knowledge acquisition, utilization, and sharing processes which increase the ability to innovate and manage the business operation (Rodli, 2017). Lam et al., (2021) explained that applying KM practices augment business performance since it is most likely to provide superior productivity and competitive advantages. Further, Tajpour et al., (2022) emphasized that to stay relevant in the market, technology driven business need to stimulate knowledge acquisition, optimizes learning and create value in a dynamic business environment.

Retail Industry/ Retailing

Retailing is the meeting of two parties involving the trade of an item with the use of money or the involvement of business entities that sells products to its customers. It is a competitive industry that boost shopping experience of the market through the offering of assorted merchandise to the people (Assosia, n.d.; Britanicca, 2022). According to Da Silva (2020), one sector that fourth industrialization has great promise is the retail industry. Since the inception of new technology, its tremendous evolution manifested such as increasing consumer demands and rapidly shifting economic conditions. The advent of digital platforms altered the retail exchange as they become the intermediate

actors in the supply chains. With the used of technologies like the big data, the retail sector highlighted consumer understanding and improved organizational capabilities amidst market competition (Hanninen et et a., 2018; Klaus, 2022).

Moreover, Gouveia & Mamede (2022) evaluated the retail selling process, more particularly those operating in small and medium enterprises in the area of digital thinking and technological strategy which demonstrated a very satisfactory result. Applying digitalization like knowledge management positively affect organizational innovation and customer relationship. The intensive use of communication technology enables retail sector in targeting various market segments (Khanh Chi, 2021). In the current study of Marjanovic (2022) it proposed the application of business analytics which creates knowledge intensive procedures that helps decision makers in developing value creation mechanisms, sharing and turning knowledge into action which enable business organization to have competitive advantage. Further, knowledge management is the innovation-led methodology applied by retail sector which develop a context of sharing individual knowledge set in artificial intelligence programs that increased job commitment and reduced turnover intentions thereby enhancing an effective individual employee outcome (Ashish Malik et al., 2021).

The related literatures suggested that Knowledge Management has positive impact on business approach of different related industries more so in the aspect of retailing. Knowledge based system can be used for organizational interactive capabilities, consumer satisfaction, the support for employee improvement could be explicitly enumerated and a clear positive relationship in the viewpoint of production was denoted (Ali & Anwar, 2021). Thus, the scalability of the KM system in the retail sector has to be

determined if it could be translated as key for the successful future development if properly practice by this business sector.

Henceforth, the premise of the study was based on the following research objectives; RO1: determine the level of understanding of the retail industry regarding the concept of Knowledge Management;
RO2. assess the level of awareness of the retail industry towards the components of Knowledge Management as to a.) people b.) process c.) tools and d.) strategy;
RO3. ascertain the level of application of Knowledge Management in the retail industry along the components of a.) people b.) process c.) tools and d.) strategy;
RO4. identify the contributions of Knowledge Management to the retail industry operations in responding to the needs and satisfaction of customers; and
RO5. develop or formulate a specific framework from the results of the study that help the retail industry enhance business operations and sustainability.
Methods

The study utilized a descriptive quantitative analysis research design. The primary concern of the research was to gather numerical data in the area of knowledge management such as on the level of understanding, awareness and application of retail sector as well as KM contribution to customer satisfaction. The gather social concept from the retail sector was counted and turning the phenomenon into numerical treatment and measurable explanations. The variables in the study described how KM pracrtices caused retail industry enhance business innovation and performance in the emerging competitive market condition (Thompson, 2018; Wisdom & Creswell, 2013). Although, the sample size of the study is fairly limited to only 10 respondents, total enumeration was used in drawing the population and it based on the list provided by the provincial office of the Departmet of Trade and Industry,

they were considered to generalize the findings as KM can be generally applied in business context, organizations and in most cases subjecting to real time application (Nikolopoulou, 2022). The name of the retail business are not disclosed in any section of this paper to protect their integrity and business legal personality as well as in compliance with the Republic Act 10173 or the Philippines Data Privacy Act of 2012.

The study instrument was a survey questionnaire that passed through the rigorous review of the research technical expert and was validated using a representative sample from other areas of business operation. Questions were standardized and a 3-point Likert scale was used as measurement from which the respondents picked the best options among the choices. A focus group discussion was organized among the 10 participants to substantiate and identify the knowledge management practices of their business. The procedure in analyzing the study involves quantitative interpretation. The data gathered were encoded and tabulated accordingly and statistically treated, interpreted, and analyzed. The computation of weighted mean was employed in analyzing the Likert scale measurement. In order to better understand the quantitative results of the study, it was supported of data gathered from the focused group discussion. In line with the research best practices and ethical considerations, free prior and inform consent was given and accomplished by the participant ensuring that their participation in the study was their voluntary act and not forced by any circumstances, thus any refusal may not mean to some extent bring effects to their usual business operations.

Results and Discussions

The study was conducted last December 20210 to June 2022 at the Central Business District of Daet, Camarines Norte,

Philippines, the capital town of the province. Most of the businesses were operating in the form of partnership organizations, and have been operating for not less than 5 years.

Research Objective 1: Level of understanding of the retail industry regarding the concept of Knowledge Management

Using the interpretaion for Likert scale measurement as highly understand (2.34-3.00), moderately understand (1.67-2.33), and not at all understand (1.00–1.66),

results presents in Table 1 the retail industries understanding on the concept of KM.

Result presents in Table 1 shows the level of understanding of the retail industry regarding the concept of Knowledge Management. It reflects that respondents were highly understand the concept of Knowledge Management with a weighted mean of 2.50, interpreted that the retail industries were cognizance to the concept of Knowledge Management related to their business operation.

Table 1. Level of Understanding of the Retail Industry on Knowledge Management Concept

Level of Understanding of Retail Industry to the idea/concept of Knowledge Management	Weighted Meant	Adjectival Rating
Retail industry concept of KM	2.50	HU

Legend:	Highly aware (HA) 2.34 - 3.00	Moderately Aware (MA) 1.67– 2.33	Not at all Aware (NA)1.00 – 1.66

The retail industry's standpoint on the use of technology possessed utmost knowledge and openness to embrace the use of technology, as well as the significant utilization of innovation and advancement in their business operations. The concept of the knowledge management is an evolving field that considerably influences the current organizational performance in every retail industry. In this context, this sector needs to develop a business ecosystem wherein the effectiveness of industrialization and technological innovation is clearly understood, how it is being created and applied throughout the organizational system.

The result of the study is with similarity to Bostoganashvili (2021) findings stating that Knowledge Management provides favorable opportunities, as well as challenge market monopolization. Technological platforms have generated new types of businesses and have empowered new value chain sources and a competitive environment. The advent of

industrialization triggers new innovations that complement the change in the business processes, finding new ways in getting in touch with customers to be able to communicate with them. The retail industry will continuously evolve to follow development that will build its own dynasty in new retail model introduced by the global retail business (Ellitan, 2020).

The result of the study further implied that KM was a symbiotic part of a retail industry. As the significant component of the organization, it can be considered as the channel of traversing creative ideas, applying for internal and external processes, and sharing them as this approach were the keeper of knowledge. Sharing knowledge requires tools that will convert ideas into information that must be accessible for all in order to generate strategies in achieving organizational goals and enhancing competitive advantage. The study has a similarity to the study of Choi et al., (2020) stresses that KM activities optimistically impact an organization's

performance, highlighting the need for continuous refinement and development of system thinking in order to direct company or business organization high level of innovation performance.

Research objective 2. Retail industry Level of Awareness towards the Knowledge Management components such as people, process, tools and strategy.

Table 2 inferred that generally retail industries are highly aware of the different components of Knowledge Management gaining a total weighted mean of 2.60 means that the retail industries are absolutely or fully-aware on the different concept of Knowledge Management adopted in their business operation more particularly on the component of people.

Table 2. Retail Indsutry Level of Awareness on different Components of Knowledge Management

Knowledge Management Components	Weighted Mean	Adjectival Rating
People (keep, apply, and share knowledge)	2.80	HA
Process (create, capture, store, organize, and distribute knowledge)	2.50	HA
Tools (system and technology use for sharing KM information internally and externally)	2.50	HA
Strategy (facts and data that people are converted and apply as knowledge)	2.50	HA
Total Weighted Mean	2.60	HA

Legend: Highly aware (HA)   Moderately Aware (MA)   Not at all Aware (NA)1.00 – 1.66
                 2.34 - 3.00   1.67– 2.33

Result denotes that the retail industry is highly aware of the significance of the different components of KM in their organization. The business needs the right *people* at different levels and different areas of the organization who will keep, share, and apply the concept of knowledge management and really build knowledge sharing into the organizational culture to ensure the sustainable implementation of the program in organizational approaches.

Smart *processes* and *tools* are needed to manage and measures KM drives that will connect people to the right strategy and content at the right time (Harper, 2019). The *process* is based on the retail industry knowledge management framework. It will allow them to create, capture, store,

organize, and distribute knowledge that generates value for their organization. A clear and documented work flows, content, and a compelling strategy is an imperative component of the KM for it will help leverage the retail industry and assess results to improve their strategic decision-making.

Knowledgeable people on the process of KM is the best asset, their top management allowing their people to attend in training regarding technological innovation so that employees are become adept with the latest trend in technology and innovation. With all the technological changes and influence on business strategies, more and more businesses tend to change or create new

business segments and develop sustainable directions (Tohãnean, 2020a).

The result of this study is with resemblance with Tohãnean (2020b) analysis which shows that business organizations that invest in digital tools in order to develop more agile practices are likely to report that expectations of digital transformation efforts at the forefront of their business and investment plan. This is in order to achieve more and bring innovative business solutions by developing internal creativity, bringing new skills to the business market especially in the field of digital knowledge. The result is clear, innovation, sustainability, and technology are present at all levels of business organizations, and these are the key pillars for business success especially in the expanse of the retail market.

*Research objective 3 Retail industry Level of Application of Knowledge Management Components along with **People***

Data in Table 3 reflects the level of application of the retail industry of Knowledge Management along with the component of people. Promoting collaboration with other functional units within the business organization is the KM component that is highly applied by the retail industry in business processes with a weighted mean of 2.70. It was followed with the application of assisting people and ensuring that the skills gap is a bridge through continuous transfer and sharing of knowledge from one functional area to another department making proper utilization of implicit knowledge related to the knowledge management having a weighted mean of 2.50. However, it is noteworthy that in general view the application of the concept of people is only at the level of moderately applied with a total weighted mean of 2.14, interpreted as the retail industry is reasonably or fairly applied the KM concept in their entire operation.

Table 3. Retail industry Level of Application of Knowledge Management Component as to People

Knowledge Management Concept PEOPLE	Weighted Mean	Adjectival Rating
1. developing people potentials related to the application of Knowledge Management in the 4.0 era	1.90	MA
2. assigning people with high level knowledge on the application of the concept of 4.0	1.90	MA
3. acknowledging people with initiative and lead organizational and technological change	1.90	MA
4. assisting people and ensuring that the skills gap is bridge through continuous transfer of knowledge	2.50	HA
5. promoting collaboration with other function and ensure organizational effectiveness related to 4.0	2.70	HA
Total Weighted Mean	2.14	MA

Legend:
Highly applied (HA) 2.34 - 3.00   Moderately applied (MA) 1.67– 2.33   Not at all applied (NA)1.00 – 1.66

The finding shows the retail industry idea on applying the component of KM as to the concept of people which figuratively promote collaboration with other functions ensuring organizational effectiveness through the continuous transfer of critical knowledge within the entire organization. As it was previously learned that people are the most important asset of any organization, the top-level management of the retail industry must extend support to the development of their employees

especially in the context of adopting technoligical innovation like knowledge management systems. Encouraging and nurturing employees' talent at all levels and initiating long–term commitment from the top management will enable the KM system to work in the industry. The important function is the documentation of individual knowledge especially the tacit one and the dissemination of it within the organization once it was converted to explicit knowledge. Investment in knowledge management throughout the entire business operation helps the organization develop new strategies and refine existing offerings (Gonzales, 2014).

Employees' motivation is a key determinant of success, it will stimulate creativity, to come up with the out of the box approach that will foster innovation. However, it cannot be denied that there were also employees which are resistant to changes especially those who are not so much affable of using new technologies. The reason why some of the retail businesses in the province were reluctant to fully implement the technological changes in their business operations.

Zahari (2020) similarly explains that every organization must have a mechanism to manage existing knowledge which is cited as knowledge management (KM), a collection of principles, processes, organizational structures, and technological applications that helps business to share and leverage organizational knowledge which is aligned with business goals. The focus is the responsibility of individuals or knowledge of employees on the holistic concept of knowledge management. It is considered the elemental of sharing and application of data, and often rationale why the creation and application of latest knowledge are incredibly important for the survival of business organization today.

Supported the concept of the KM, retail organizations can capture any types of knowledge that are structured and reuse them as a strategy to support business learning cultures in enhancing the organization's competitive advantage.

Research objective 4 Retail industry Level of Application of Knowledge Management Components along with Process

Results in Table 4 inferred the retail industry level of application of KM as to the concept of process. Majority of the processes are highly applied by the retail industry which include knowledge storage as designing, preserving and creating knowledge in all areas of operation and knowledge use such as reviewing the knowledge as to its relevancy, accuracy, and applicability. Both have a weighted mean of 2.80, while knowledge distribution or accessing and sharing KM through documentation, informal posts, collaboration activities and through push and pull mechanism with a weighted mean of 2.60, and the knowledge acquisition by identifying and collecting knowledge that is critical to strategy and operation gaining a weighted mean of 2.40. In general, results depict that retail industry is highly applying the knowledge management process in their business operation having a total weighted mean of 2.64.

**Table 4. Retail industry Level of Application of Knowledge
Management as to Process**

Knowledge Management Concept PROCESS	Weighted Mean	Adjectival Rating
1. Knowledge acquisition by identifying and collecting knowledge that is critical to strategy and operation	2.40	HA
2. Knowledge storage designing, preserving and creating knowledge in all areas of operation	2.80	HA
3. Knowledge use - reviewing knowledge as to its relevancy, accuracy, applicability, and using it to solve problems and make informed decision	2.80	HA
4. Knowledge distribution accessing and sharing KM through documentation, informal posts, collaboration activities, and through push and pull mechanism	2.60	HA
Total Weighted Mean	2.64	HA

Legend: Highly applied (HA) 2.34 - 3.00   Moderately applied (MA) 1.67-2.33   Not at all applied (NA) 1.00 – 1.66

The result implies that the retail industry highly applying the different KM processes. Knowledge acquisition can be done by obtaining knowledge from the business environment, primal facts that are being transformed into explicit information which can be of help to solve business-related problems. Knowledge acquisition is critical because once collected data is incorrect, knowledge gain would also be inaccurate. This may bring disaster to any business organization.

On the manner of storing knowledge particularly on customer records, the retail industry repository of knowledge is through their computer database. Retail industry ensure that all collected information and data from their customers are properly organized in an orderly manner for better use and easy retrieval for references. Accordingly, majority of the retail businesses have existing local area networks that support their information technology. Respondents stressed that full computerization in their operation is included in their business strategic plan. The importance to level up computerization is one way to have better service to the customers. Customer-related information that transferred into knowledge

management is a significant factor in retaining business competitive advantage (Ebrahimi et. al, 2021; Majumder, 2022), the reason that a certain percentage in the total operating expenses were allotted for the upgrading of their computerization program and systems. This approach could also help the retail business improve organizational processes and create a well categorized and excellently mapped information.

With regards to knowledge utilization, the retail industry applied it within the context of the organization. Knowledge use is an important component of the management process since it facilitates value creation for customers and encourages faster transactions of the business. Knowledge can be applied to either be explicit or implicit. Results implies that knowledge obtain is reviewed as to its relevancy, accuracy, and applicability. To what stage of the business process it must be applied in order to complete a certain task necessary for rendering an important decision. The acquired knowledge is not useful if it is not distributed to the right people at the right time in the organization. The retail business allows its employees to have access to the collective information of the business

through their computerization process. The knowledge-based program utilizes employees' interactive capabilities and attempts to standardize knowledge in a properly stored format to make them available to all employees who would benefit the most (Hughes et al., 2021).

However, it was also point out that the level of implementation of knowledge management is not fully realized due to some constraints like the available resources and the right manpower who will manned the program.

Research objective 5 Retail industry Level of Application of Knowledge Management Components along with Tools.

The data revealed in Table 5 show the retail industry Knowledge Management concept on tools used in organizational process which commonly include application such as E-commerce and Smart retailing, with the weighted mean of 2.80, interpreted as fully applied. Whereas, the use of big data was the least tool that applied in the retail business operation, obtaining a weighted mean of 2.00.

In general, the retail industry in the province highly applied the different KM tools in their strategic business process, with a total weighted mean of 2.46.

Table 5. Retail industry Level of Application on Knowledge Management as in Tools

Knowledge Management Concept TOOLS	Weighted Mean	Adjectival Rating
1. E-commerce (business approach that let firms and individuals buy and sell things over the internet)	2.80	HA
2. Big data (large base of information that can be turned into knowledge)	2.00	MA
3. Smart retailing (a set of smart technologies designed to give the consumer greater, faster, safer and smarter experience when shopping)	2.80	HA
4. Internet of Things (connectivity of cyber object through the internet to send, share, exchange, and comprehend data and information)	2.60	HA
5. Cyber-physical system (a class collection of system enable integration which facilitates computation, communication, controlling operation, and interaction with the task environment)	2.10	MA
Total Weighted Mean	2.46	HA

Legend: Highly applied (HA) 2.34 - 3.00   Moderately applied (MA) 1.67– 2.33   Not at all applied (NA) 1.00 – 1.66

The findings of the study present the concept on the KM tools utilized by the retail industry in business their operations. The majority of the respondents applied the technological tools which was the evolvement of digitalization and technological advancement. It encourages

new platforms of communication to create a more connected model across the organization.

The result of the study is with similarity to the study of Joshi (2019), explaining that the retail industry is doing its best to

manage the changes, embracing a shift in work processes, as well as to the entire organizational culture. Automation becomes the heart of the workflows, particularly in the aspect of customer service, inventory management, purchasing, supply chain management, and the like.

The introduction of e-commerce and smart retailing approaches gives rise to customer-centric business strategies, and promotes innovative changes in their business models. Integrating knowledge management tools in the business process interject the ability of organizations to become a customer-oriented organization, improving firms and the customers' relationships (Abu-Shanab, 2014), thus improving performance and loyalty for future transactions, and market share.

A parallel study conducted by Zhan et al., (2020) in the field of retail pharmacy explained that the digital economy is forcing the retail industry to develop a framework that will help retail businesses in realizing operational excellence. Big data captured on social media especially customer behavior and interaction help retail organizations obtain insights into current market needs and enhance business intelligence. The same with the result of the present study, it further revealed that the application of social media in the areas of marketing, customer service, and product are the issues that the retail industry needs to consider; hence, improving technological platforms will significantly improve operations and quality of customer service.

In the conference spearheaded by the Philippine Institute for Development Studies (PIDS) in December 2019, the importance of business digitalization was emphasized, that, to be able to tap business opportunities in the evolving digital economy, digital transformation is a key, and this must be done briskly, otherwise, the retail industry will be left behind (Pascual, 2019).

Research objective 6 Retail industry Level of Application of Knowledge Management Components along with Strategy.

In Table 6 result of the study disclosed the level of application of different strategies of the retail industry which included the integration of data and knowledge management into different business process together with the implementation of core competencies related to the knowledge management both gaining a weighted mean of 2.80. It was followed by embracing technological advancement through investing resources to digitalization, with the mean of 2.70, and improving and using of digital information and transforming it to explicit knowledge. On the other hand, the least strategy applied was sustaining holistic approach of data driven decision making along knowledge management having weighted mean of 2.50.

Generally, the level of application in terms of knowledge management concept on Strategy of the retail industry manifested high application exhibiting a total weighted mean of 2.68.

Table 6. Retail Industry Level of Application on Knowledge Management as to Strategy

Knowledge Management Concept STRATEGY	Weighted Mean	Adjectival Rating
1. Contribute to overall organizational goals by embracing technological advancement through investing resources to digitalization	2.70	HA
2. Balance people, and processes in implementing core competencies in the business practice	2.80	HA
3. Develop appropriate integration of data and knowledge management into organizational capabilities	2.80	HA
4. Using common processes and technological tools to encourage collaboration among or within the organization to improve digital information	2.60	HA
5. Innovate the KM concept to sustain holistic approach by creating tangible results or transforming it to explicit and useful knowledge that driven strategic decision making	2.50	HA
Total Weighted Mean	2.68	HA

Legend: Highly applied (HA) 2.34 - 3.00   Moderately applied (MA) 1.67– 2.33   Not at all applied (NA)1.00 – 1.66

The study emphasized the retail industry application in terms of KM concept as to strategy which involved plan to help them manage relevant information, integrating the gathered data, converting to explicit knowledge and utilizing it through appropriate technological tools and competent people to ensure the success of organization. Knowledge management concept must be converted into useful and tangible strategy aligned to the business long term goals and will contribute to overall accomplishment of organizational objectives. The increase or decrease in KM strategy performance should be given preferential attention because it may entail cost or revenue to the business. Retail owners should look into consideration the scalability of the program be it software or hardware concern and should be reviewed and evaluated on a regular basis.

Omotayo (2015) articulates the role of knowledge management in value creation and comprises a multiplicity of integrated projects or activities phased over time including quick wins in addition to long-term benefits. An organization's KM strategy should not be one-sided but depends on the way the retail business serves its clients, the economics of its business, and therefore, the engagement of the people. It has been advised that KM must not be implemented only because it is just an idea of nice-to-have (Kahupi et al., 2021) but rather it is a critical organizational resource and the alignment of KM to business strategy is, therefore, a measurement of impact in driving business results.

Moreover, the present study has similar with the study of Kunc and O'Brien (2018) which clearly denoting that several organizations consider business analytics to be a key to organizational capability. Today, there is little evidence on how retail industry included analytics at the guts of their processes by providing important data-driven insights into strategy. It is therefore, important to the retail industry to define KM priorities and how it will be

linked to overall business priorities, communicate critical knowledge management strategies in all levels of organization, and evaluate progress.

Research objective 7. Contribution of Knowledge Management to the Retail Industry in responding to the needs and satisfaction of customers.

Data in Table 7 reflected how the retail industry use knowledge management in satisfying the needs and wants of the customers, obtaining a total weighted mean of 2.86, interpreted as in all instances of business operation, KM was integrated to the strategy for customer satisfaction. KM empowering customers to get what they want, whenever they want, and how they want it, use also as feedback mechanism, help to anticipate the needs of present and future customers, and encouraging the retail industry to build personalized customer experience.

Table 7. Contribution of Knowledge Management in Customer Satisfaction

Knowledge Management (KM) Contribution to the needs and satisfaction of customer	Weighted Mean	Adjectival Rating
1. KM helps the retail industry to empower customers to get what they want, whenever they want, and how they want it.	2.90	SC
2. Having the right KM approach helps retail industry to power up digital strategies which is fundamental in delivering up to date services to the customer.	2.90	SC
3. KM encourages retail industry to build personalized customer experiences.	2.70	SC
4. KM serves as feedback mechanism tools to further optimize customer satisfaction.	2.90	SC
5. KM anticipates the needs of present and future customers of the retail industry.	2.90	SC
Total Weighted Mean	2.86	SC

Legend: 3.00-2.34 Strongly Contribute   2.33-1.67 Contribute   1.66-1.00 Not Contribute

The result explained that KM plays a significant role in the retail industry in responding to the needs and satisfaction of their customers. It implies that when the retail industry collects and understand information about their customers, it started building a competitive advantage by responding to the needs and providing satisfaction of customers. The value of customer knowledge must not be neglected. Knowledge management platform will help the retail business to stay focus on customer information. It will eliminate delay as all information is combine in one platform making it easier for retrieval and use.

Having an updated and accurate consumers' information helps retail industry to become abreast to the changing needs and desires of their client as this may serve as feedback mechanism. This will enable the retail industry to fast track to the most frequently raised issues or concerns of their customer. Because of the deposited customers' information in their database, the business was able to connect with the client and extended services through digitalized store operation. In responding to the government's call to stay at home, the IT department of some retail business developed an online platform wherein

customers automatically receive messages or information asking if they want (customers) to order/buy food packs or grocery items and be delivered at customer's own doorstep. Many customers responded to this approach and unitl now the retail business was continously using the platform. With this kind of strategy, customers felt their importance. The result of the study was supported by the study of Castagna (2020), that through the support of KM processes, the retail industry was able to build strong relationships with customers, thus promoting loyalty in the end. This proved that the KM approach helps the retail industry to power up digital strategies which are fundamental in delivering up-to-date services to the customer, simplifying customer information and amalgamating all communication to better achieve organizational objectives. The study is similar with Chierici et al. (2019a) study which revealed that customers' data gathered from social media produce different effects on knowledge management practices and firms' innovation capacity. Increased innovation capacity turned out to affect customer relationship performance directly while it contributes to gain better financial performance only when it is used to gain relational outcomes. Thus, business organizations should meet the demands and expectations of customers to provide satisfying services and enhance service quality (Al-Suraihi, 2020), and that the integration of knowledge management leads to a sustainable competitive advantage (Bashir, 2018) which would automatically boost firm competence.

Research objective 5. Formulation of the proposed framework to enhance the performance and sustainability of the retail industry

The proposed framework of the study will be called a Giant 10 Knowledge Management Framework. As the centralized platform of repository of knowledge, this framework will connect people across the business/ industry, the local retail businesses, the customer, the government, the academe, and the non-government organizations or NGOs, and the civil society. The system will be administered by the Camarines Norte State College-College of Business and Public Administration (CNSC-CBPA) in its initial stage of implementation to foster fairness among the users.

The KM program will design, collect, and disseminate customers' surveys, organizations' best practices, product information, services offered, consumers/customers' inputs/concerns, and other qualified and valid insights. These database will provide a continuous up-to-date knowledge and the information collected will be the basis of creation of set of action that will help build competitive advantages among the retail industry and promote better relationships with customers and the general public.

Presented in the following page is the Knowledge Management Framework of the Giant 10 Retail Industry;
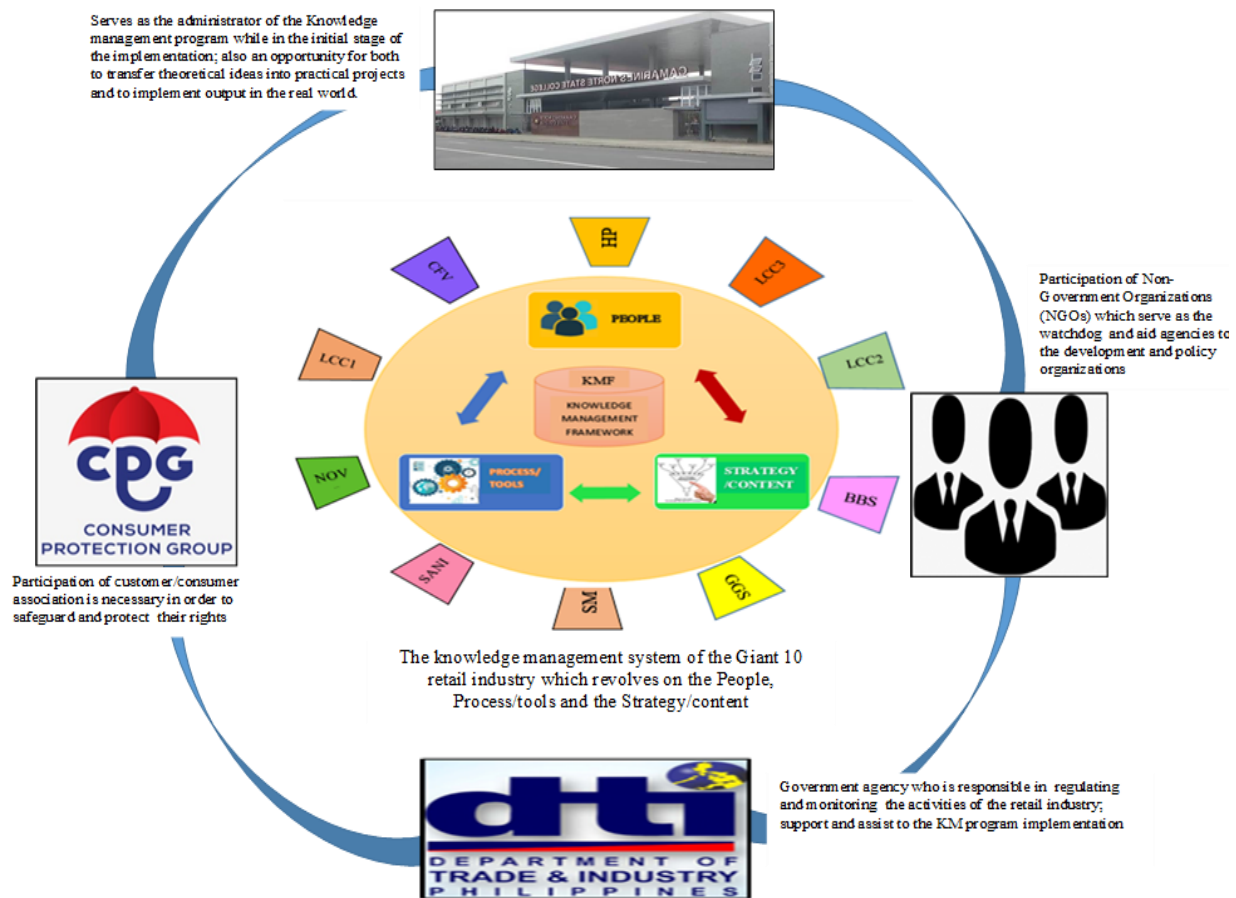
Figure 1. The Knowledge Management Framework of the Giant 10 Retail Industry

Conclusion

The study concluded with compliance to the Sustainable Development Goal (SDG) #9 that technological progress is a key to finding lasting solutions to economic and business challenges, promote sustainable industries, and ways to facilitate sustainable development. The occurrence of the digital revolution era towards the network of the retail industry has transformed the way the retail business is being performed. The majority of the respondents are cognizant to the concept of the Knowledge Management, possessed utmost knowledge and openness to embrace the use of technology and the significant utilization of innovation in their business operation. The retail industry adopted the idea of Knowledge Management denoting the significant role of its different components

like the need of having the right people in different areas of the organization to keep, share, and apply its concept (Rezaei et al., 2021).

The process is the framework that create, store, organize, and distribute knowledge that generates value for the organization. It encourages a new platform of communication tools to create a more connected model across the organization with the support of a compelling artificial intelligence. The application of knowledge management strategy in the retail sector stimulate fast growing communication and in connecting things to improve business process. Automation becomes the heart of the workflows especially in the process of responding to the needs and satisfaction of

the customer (Mukthar et al., 2022). Moreover, the value of customer knowledge must not be neglected, for it helps the retail industry to become abreast of the changing needs and desires of their client as this may serve as a feedback mechanism. Hence, technological adaptation will rise up the potential to boost business process. Knowledge Management practices have a significant impact in the operation of the retail industry (Areiqat et al., 2021). The formulation of a centralized knowledge management framework and the collaboration with the government agency like Department of Trade and Industry (DTI) is essential to steadfast the growth of the retail industry that will give impact to the economic development of the province.

Practical Implication

The result of the study highlighted the application of Knowledge Management practices of the retail industry in the province of Camarines Norte, Philippines. In order to leverage the KM practices of the retail industry, this study helps to encourage group effort among the retail business to have a digital-sharing system of important ideas related to KM (with an exception of the business trade secrets), technology resources, best practices like collaborative culture, strategies and lessons learned. This study further implies how retail industries improve infrastructures and process so that the entire industry will refurbish with a centralize repository of knowledge and promote a new culture of knowledge sharing and customize information in an innovative way (Kapoor & Aggarwal, 2021; Lai et al., 2022; Ting et al., 2021).

Moreover, the result of this study would intensify retail industry awareness on how to enhance customers' service. Knowledge management through artificial intelligence could help retail industry develop a customer-centric organization focus on service quality in order to build long term relationship with their customers (Trawnih

et al., 2022). Bratianu, et al., (2022) explained that customer knowledge management is an innovative work procedure that a firm have to adopt to achieve efficient innovation processes more particularly in an exhaustive market situation to gain customer competitive advantage. On the other hand, the government should promote framework of collaboration among the different agencies particularly the Department of Trade and Industry (DTI), the retail industry, academic community, the civil society and other non-government organizations to undergo technological projects and scientific researches in the areas of knowledge management, artificial intelligence and other technologies that will provide retail practitioners a good starting point in the emerging market that boost retail business innovation to help ensures its sustainability (Khan & Zaman, 2021; Zhang et al., 2022).

Lastly, the retail sector may adopt the formulated framework of knowledge management to leverage business innovation and technological capacity. The findings of the present study is similar to the empirical results Kumar et al., (2022) and Liu et al., (2021) which denoted that KM are mechanism that could strengthen the operation and sustainability of the business sector in the lens of digital transformation.

Declaration of Interest
There is no potential conflicting interest in the conduct of this study with respect to authorship and publication of this paper.

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