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Individual Report on Knowledge and Information Management of Amazon.com

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EXECUTIVE SUMMARY

This report points out the importance of knowledge management in obtaining sustainable competitive advantages. This statement is mainly due to the fact that through its management, the needs of the stakeholders related to the company are detected and satisfied in an effective way.

This report points out that knowledge management systems improve the efficiency and effectiveness of Standard Operational Processes (SOPs) through the use of collective knowledge.

Globalisation means that the external constraints on companies are constantly changing. That is why knowledge management systems are dynamic processes of perception, retention, combination, transformation and use of information.

This report points out the importance of technology in Amazon.com to develop knowledge management. Artificial intelligence, coding, storage and virtual data management are the best tools to make use of knowledge from a technological point of view.

This report notes that Amazon.com's implementation of knowledge management systems has enabled them to provide innovative responses and seize market opportunities in a global knowledge-based economy.

This report shows that Amazon.com relies on knowledge management to provide value to the company. By acquiring knowledge based on capturing tacit information from its customers, Amazon.com has become the world's leading e-commerce company. At the same time, this good knowledge management allows them to make inroads into other lines of business with a greater competitive advantage.

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Section 1.- REPORT INTRODUCTION. -

The purpose of this report is to demonstrate the importance of information management systems for the proper development of knowledge management in the Amazon organization.

Amazon is an e-commerce company founded in 1994 in Seattle, USA. The pandemic caused by Covid-19 has made Amazon the big winner of this global health crisis, increasing its employees to 1.2 million workers around the world at the end of 2020 (Weise, 2020) and increasing its gross profit to 7,200 million dollars in the fourth quarter of 2020 (Orús, 2020).

Attending to these reasons, it seems interesting to identify, describe and analyse the information management system currently used in the aforementioned organization. This information will be contrasted with three academic models to check the effectiveness of information management in the creation of knowledge assets and productive customer relationship management in Amazon.

There are a wide range of academic knowledge management models. This report will focus on Nonaka and Takeuchi's model, Wiig's model, and Choo's "sense-making" model.

This report will begin with an approach to the concept of knowledge management through the DIKW (information-data-knowledge-wisdom) model in order to understand the basic terms of this management system.

Based on the above information, knowledge management will be defined. Evidence will be provided to clarify the importance of the management of knowledge assets in companies and how this concept can be integrated through organization's departments.

The main areas in which knowledge management can be divided will be pointed out, highlighting the importance of the implementation of a knowledge culture. The advantages of implementing such culture in the company will be evaluated.

This report will address the appropriateness of openly sharing knowledge assets within the organization and how that knowledge dissemination can be managed and protected.

The achievements made by Amazon thanks to the application of information management systems will be studied. The challenging task of identifying some gaps in said management system will also be addressed and suggestions for improvement will be proposed.

This report hopes to understand in depth different systems / models of knowledge management and their implication in the management of information within the company. In

the same way, the identification and understanding of the key processes in knowledge management for the correct development of the organization is sought.

Section 2.- KNOWLEDGE AND INFORMATION MANAGEMENT. -

2.1 Data-Information-Knowledge-Wisdom (DIKW model)

Understanding the meaning of Knowledge management is a challenging task. A first approach to the basic and intrinsic concepts of the nature of knowledge and information can be carried out through the DIKW model (data-information-knowledge-wisdom).

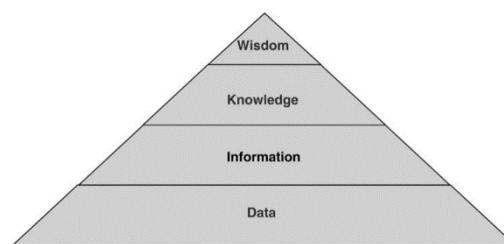


Table1.- DIKW Model

In accordance with the article *"The wisdom hierarchy: representations of the DIKW hierarchy."* (Rowley, 2007), the characteristics of each of the 4 levels of the hierarchy can be extracted:

- Data: this level refers to raw facts and figures. The data does not have any meaning by itself independently ("Know-nothing").

- Information: when a meaning is transferred to the data and they begin to be useful, they are transformed into information. At this level the description can already answer questions such as "who, what, when or where" (know-what").

- Knowledge: understanding how to use the information received involves transforming the information into knowledge (know-how). The level of knowledge can be reached by transmission from someone who has it or through experience.

- Wisdom: it is an individual concept, which allows us to be aware in the performance and resolution of the problems or personal situations that we face, relying on accumulated knowledge.

2.2.- Importance of Knowledge and Information Management (KM)

KM is a concept that deals with creation, storage and sharing the wisdom; is based on accumulated understanding and organizational skills in the execution of its processes, techniques and operations (Armstrong, 2006). Knowledge management can be defined as “any process or practice of creating, acquiring, capturing and sharing and using knowledge, wherever it resides, to enhance learning and performance in organizations” (Scarborough, et al., 1999).

According to Intezari (Intezari, et al., 2017), the keys to understanding and effectively managing KM are based on its classification into three main areas: knowledge Culture (KC), organizational structure (Knowledge Processes) and knowledge Technology (KT). More details will be given in section 2.3.

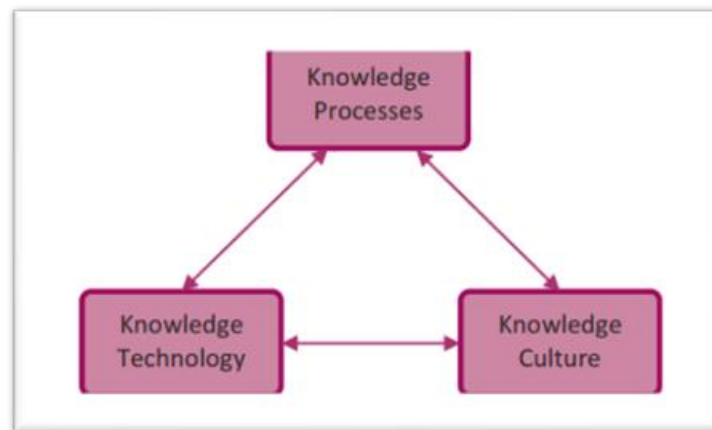


Table 2.- Knowledge Management Areas

Knowledge assets are those elements necessary for the creation of value in the organization (Nonaka & Takeuchi, 1995). There are frameworks such as the “Knowledge asset value spiral” that helps to identify and manage Knowledge-based assets (Carlucci & Schiuma, 2006).

The purpose of knowledge management is to identify and capture all the experience and collective knowledge of the company's assets in order to achieve effectiveness and efficiency in its development and, therefore, create value for the organization (Nonaka & Takeuchi, 1995).

Companies that use this management system have sustainable competitive advantages and a good position in the market by making effective use of their employees and promoting their creativity and sharing their experiences and knowledge with the rest of the organization (Mecklenberg, et al., 1999).

These competitive advantages in organizations are given because knowledge management systems allow, for example, a better understanding of customer needs; in that way companies can improve their innovation capacity and the quality of the response to these customer needs (Carlucci & Schiuma, 2006).

Due to globalization, the importance of knowledge management has become one of the most important factors to face the rapid changes in the world environment and obtaining competitive advantages. That is why we refer to knowledge management as a dynamic concept that must always be in continuous development. (Ichijō & Nonaka, 2007).

Good knowledge management leads to the creation of innovative and efficient structures to achieve strategic objectives, but, as described above, knowledge management is a dynamic concept and therefore its structures must be open to possible changes and adaptations (Ichijō & Nonaka, 2007).

2.3.- Knowledge Management Areas

2.3.1- Knowledge Processes (KP)

Knowledge processes can be classified into three interconnected groups: "knowledge creation", "Knowledge Sharing" and "Knowledge Implementation" (Intezari, et al., 2017).

The concept of "Knowledge creation" refers to the abilities to develop new ideas or solutions (Andreeva & Kianto, 2011). These skills include terms related to creation, generation, acquisition, construction, exploration, capture, accumulation or collection.

This creation of knowledge is totally personal and depends on the intellectual capacities of the individual and the way his/her mind works. It should also be noted that people are influenced by the culture in which they live, affecting the way they create knowledge (Newman & Conrad, 2000).

According to Yang (Yang, 2007), "Knowledge sharing" happens when individuals desire and are capable of assisting other people or when they are willing to learn from them. By itself, it is the process of making its own knowledge available to the organization and receiving the company's knowledge.

It should be noted that the transmission of knowledge is strongly related to the culture of knowledge in the organization. Companies should promote knowledge exchange processes and motivate and incentivize workers to stimulate the flow of knowledge in the organization effectively (Newman & Conrad, 2000). Knowledge culture will be dealt with in section 2.3.2 in more detail.

“Knowledge Implementation” refers to the processes necessary to use the retained knowledge and convert it into new services, processes and products that allow the objectives to be met more effectively and efficiently (Newman & Conrad, 2000).

2.3.2- Knowledge Culture (KC)

In the traditional concept of company, it is made up of different departments that respond to different areas of the company. This management system seems to be lagging in the past. Knowledge management opts for a more transversal conception of the company in which professionals are grouped according to their abilities and skills, in order to create multidisciplinary, flexible and high-performance teams (Andreeva & Kianto, 2011).

The main objective of culture of knowledge is to promote and encourage, through aspects such as those indicated in table 3, the dynamic nature of knowledge (Cabrera & Rincón, 2001).

The culture of knowledge is subjective to each organization and is built from the objectivity of the Knowledge-value base. This culture should create management strategies based on Knowledge-value that allow meeting the needs of key stakeholders.

If employees, teams and departments work in isolation, the knowledge and experience generated by each of the knowledge assets will not be connected and cannot be transmitted within the organization. It is important to create a culture of knowledge that promotes this transmission of knowledge assets.

According to Intezari (Intezari, et al., 2017), the great importance of the culture of knowledge in companies is based on the fact that being present in the entire knowledge management process is capable of negatively or positively influencing the objectives of the organization.

Being such a vast concept, to create a culture of knowledge it is proposed to divide it into seven categories (Intezari, et al., 2017): Social interactions, Openness in communication, Trust, Perception of knowledge, Top management's support and involvement, Freedom vs Control and Compensation system.

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Through the following table, the cultural aspects that will influence and improve the culture of knowledge in the organization can be understood.

CATEGORY	CULTURAL ASPECTS	
Social interactions	- Social interaction	- Communication
	- Interactions	- Friendship
	- Personal networking	- Familiarity
	- Socialization	- Social mechanisms
	- Interpersonal relationships	- Cooperation
	- Collaboration	- Networks
Openness in communication	- Networking	
	- Openness	- Informality
	- Open conversations	- Informal meetings
	- Informal networks	- Informal structure
	- Informal social networks	- Informal learning
Trust	- Transparent relationships	
	- Trust propensity	- Trustworthiness
Perception of knowledge	- Perceptions about the recipient	
	- Knowledge hoarding	- Reliability of knowledge
Top management's support and involvement	- Recognition of the value of knowledge	
	- Valuing KM	- Management support
	- Managerial support	- Managerial direction
	- Management involvement	- Being part of KM

Freedom vs Control	- Formalization	- Centralization
	- Decentralization	- Centralized Decision-making
	- Direct monitoring	- Learning from failure
	- Empowerment	
Compensation system	- Rewards	- Intrinsic rewards
	- Extrinsic rewards	- Performance evaluation
	- based on knowledge	- participation
	- Incentive	- Rewarding systems
	- Promotion	

Table 3.- Cultural Aspects

2.3.3- Knowledge Technology (KC)

Attending to Cabrera (Cabrera & Rincón, 2001), this technology aims to help the organization obtain knowledge from the outside (extranet) and facilitate the creation, transmission and retention of knowledge within the company (intranet).

Digital tools create routes for the dissemination and storage of information quickly and efficiently. A clear example of this knowledge management-technology relationship is the Amazon website and its databases. Through it, the company is able to collect customer preferences and process them to obtain knowledge about purchasing patterns in different locations around the world and use them to their benefit.

It is important to note that knowledge management does not refer only to the massive accumulation of data aided by technological systems (big data). Once again, it is recalled that its objective is to be able to extract all the important information from processes, employees, products, suppliers and all other related stakeholders through a culture of collective knowledge.

2.4.- Protecting Knowledge

Companies invest a lot of money in obtaining knowledge, so the protection of critical knowledge acquires a relevant importance (Qiu & Wang, 2018).

According to Liebeskind (Liebeskind, 1996), the protection of knowledge allows organizations to take advantage of the competitive advantages generated and obtain economic benefits from that knowledge.

The main route through which these knowledge leaks is through mobility for those employees who have high levels of knowledge creation and access to knowledge of the firm (Almeida & Kogut, 1999). By moving their knowledge to competing firms, these employees compromise the competitive advantages of the firm in which that knowledge was created.

Considering the previous reason, the importance of the culture of knowledge is pointed out to incentivize and motivate knowledge assets. In this way, the risk of knowledge-workers wanting to leave the company is minimized. (Intezari, et al., 2017).

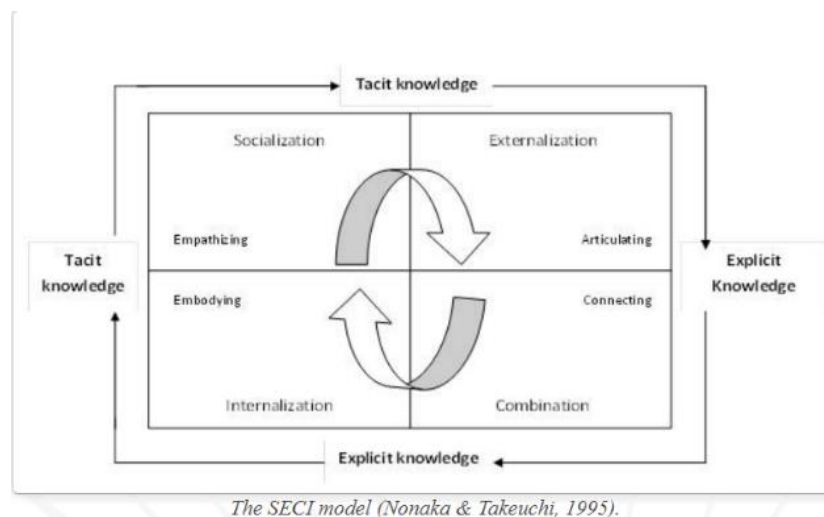
On the other hand, it is important to limit employee access to company knowledge. In this way, the risk of critical knowledge leakage from the organization is also minimized (Qiu & Wang, 2018).

The levels of Knowledge protection of a firm must be adjusted to the levels that other organizations with the same characteristics have. Extremely high levels of protection can have a negative impact on the knowledge transmission process in the organization (Qiu & Wang, 2018).

Section 3.- EVALUATION KOWLEDGE MANAGEMENT MODELS/THEORIES. –

3.1.- Nonaka and Takeuchi Model

The Nonaka and Takeuchi model (SECI model) was described in 1995. This model distinguishes between two types of knowledge: tacit and explicit. The interaction between these two types of knowledge leads to the creation of new knowledge, its distribution throughout the company and its incorporation into the company's systems, services and products. All this process in knowledge is carried out through four modes of conversion: Socialization, Externalization, Combination and Internalization (Nonaka & Takeuchi, 1995).



Explicit knowledge is the knowledge that can be encoded and shared in databases, documents, formulations ..., this knowledge can be formalized and transferred easily (Armstrong, 2006).

Tacit knowledge is not easy to detect and communicate as it is the knowledge that is in people's minds. Therefore, it is very difficult to formalize and share within a group or company (Armstrong, 2006).

Tacit knowledge at the strategic and tactical levels provides more value to the organization due to its reliance on accumulated employee experiences, expertise and unique nature (Earl, 1997).

At operational levels, explicit and already codified knowledge would be the most appropriate value among employees due to its ease of accessing and transmitting.

3.1.1.- Evaluating Nonaka and Takeuchi Model

The authors of this model and others like Grant (Grant, 1996) support that only individuals are responsible for creating knowledge in its strictest sense. They do not confer this power on organizations, leaving their participation to the simple application of the method.

Against these claims, this report points out authors such as Nahapiet and Ghoshal (Nahapiet & Ghoshal, 1998) who do not fully agree. They consider that organizations are also capable of creating knowledge thanks to the way in which they coordinate their activities and connect them to consolidate their development capacity as a social system. (Kogut & Zander, 1996).

This last statement generates a path not taken into consideration by the SECI model, the company can also join the use of technologies that help to capture, analyse, organize and process data in order to create and increase their knowledge as an organization (Lee & Kelkar, 2013).

Another aspect to take into account is that the SECI model is defined as a sequential model in which knowledge is generated through the process of socialization-externalization-combination and internalization. As understood in this report, in the use of the SECI model seems possible to go from one quadrant to another without following the established order.

This model does not refer to the company's knowledge needs ("Knowledge needs analysis"). It also does not refer to the process of selecting relevant information in a globalized world. They are important aspects in KM due to the dynamic nature of knowledge. For example, in the current and unprecedented situation of Covid-19, this model shows deficiencies to adapt to changes since it does not consider the company environment.

It is also pointed out that this model does not refer at any time to the cultural differences between the components of an organization (Lee & Kelkar, 2013). This aspect is very important because the accumulated experiences and knowledge of individuals from different cultural backgrounds can become a conflict point in the transmission of knowledge, by not considering the learning styles of individuals in different cultures or any aspect of the environment where they have acquired that knowledge (Gupta, 2008).

For this reason, it seems important to point out the existence of a theory that completes the SECI model, the "Knowledge-based Theory of the Firm". This theory completes the SECI model by adding factors such as the nature of the human being and the environment that surrounds it. (Nonaka & Toyama, 2007).

3.2.- Wiig's Model

K.M. Wiig, one of the pioneers in the field of management knowledge, described his model in 1993. It is a common framework that supports managers at the strategic and tactical levels in managing knowledge-related incidents. It provides them with a model that helps them, thanks to the organization and synchronization of knowledge, to identify their needs and meet business goals.

This model is based on four principles for obtaining and managing knowledge: building knowledge, holding knowledge, pooling knowledge and applying knowledge (Wiig, 1993).

The "Building Knowledge" function is about learning new knowledge. This learning can be obtained through creation, extraction of it from other sources or observation. Once obtained, it would have to be analysed, reconstructed, encoded and organized (Wiig, 1993).

This process can be explained through an example. UWTSD's student surveys provide to the university with a flow of information that, through processing, allows them to build knowledge about their student's preferences.

The "Holding Knowledge" function is based on the conservation of the knowledge obtained through its accumulation and its incorporation in repositories and archives (Wiig, 1993).

Based on the previous example, with all the knowledge obtained, the University will write documents or create digital archives where this new knowledge will be preserved.

The "Pooling Knowledge" function consists of coordination, union, access and recovery of knowledge that can be used for growth in the organization (Wiig, 1993).

To understand this concept, we use the example of Moodle. This tool would be the platform that groups and regulates access and coordination to different knowledge depending on the type of user (student, teacher, IT team...).

The “Applying Knowledge” function is about the process of using knowledge, from identification of a problem to making decisions to solve it (Wiig, 1993).

For example, knowledge gained through surveys of student preferences in UWTSD can be used to improve delivery teaching systems.

3.2.1.- Evaluating Wiig's Model

It is one of the most used and recognized models worldwide.

This model, like the previous one, does not take into account the initial phase of detecting the company's knowledge needs in a dynamic world. On the other hand, it does consider the company environment to generate knowledge.

This model is not a sequential model, its phases are connected and do not have to follow a chronological order (Wiig, 1993).

This model distinguishes between organizational knowledge and individual knowledge from a practical point of view. Theoretically they are very similar concepts (Wiig, 1993).

This model does not take into consideration obtaining information for sale to third parties; it only includes knowledge management within the organization (Wiig, 1993).

3.3.- Sense-Making Model

Choo model was created in 1998. It tries sequentially driving organizations toward a state described as "Knowing Organization" through the effective management of perception and information processing, knowledge creation and decision making. This will allow the company to be aware of the threats and opportunities it faces (Choo, 2005).

In its first “Sense-Making” stage, the model considers that the company's environment is constantly changing; this fact generates the appearance of ambiguous circumstances that can be interpreted differently by companies. The task of companies is to identify their information needs and, taking into account their past knowledge and beliefs, respond to environmental needs (Choo, 2005).

For example, the government receives a report stating that 65% of the population comply with the restrictions due to Covid-19 and 35% do not. With this information about the environment, the Government can interpret this change in different ways:

- 65% of the population comply with the restrictions ⇒ we need a better explanation of health consequences of non-compliance ⇒ advertising campaigns

- 35% of the population does not comply with the restrictions ⇒ we cannot trust the people ⇒ economic sanctions.

Through this example we see that in order to get people to comply with health measures, information can be interpreted in two different ways and different measures can be proposed.

In its part of “Knowledge creation” it takes as valid the SECI model already explained above (Choo, 2005).

“Decision Making” phase; the model divides the rational decision behaviour into a first approximation based on bounded rationality (cognitive, informational or values based) and a second approximation of decision routines (value premises, factual premises, search and satisficing). Through the different interconnections between these elements and the objectives of the company, the most appropriate solution is reached (Choo, 2005).

3.3.1.- Evaluating Sense-Making Model

The importance of this model lies in the fact that it highlights the importance of managing and obtaining information from the environment to adapt the company to changing scenarios.

This model indicates the need to interpret the facts; it is a critical phase for knowledge workers. If an interpretation of the facts is made with an inadequate approach, it will fail in the decision-making and therefore in the knowledge management process.

As for knowledge management purpose, it is a model based on the models explained above and does not contribute any new information.

Like the Wiig model, it differentiates between individual and organizational knowledge.

Section 4.- INVESTIGATION OF AMAZON.COM. -

4.1.- Amazon Background

Amazon is an e-commerce company that was founded in Seattle in 1995 by Jeffrey Bezos. They started their business by selling e-books. Through their website they offered a larger catalogue of books than in any physical store. They based their website on ease of use, ease of browsing and ease of searching for books; all these advantages in a virtual shop open to orders 365 days a year. (Amazon, 2019).

The company's ambitions have not stopped since then and it is always looking to the future; it currently has projects such as Amazon Prime Air, Amazon Scout, Amazon fulfillment, Amazon Go, ... all of them focused on economic benefit through a more aggressive integration of technology in society.

The company currently employs around 4 million people worldwide (Amazon, 2019). This fact gives them great power to influence governments and institutions in different countries.

Since its beginnings, Amazon.com has relied on technology to bring together different suppliers and offer a fast, effective, economical and quality service that generates customer trust.

Amazon.com has a technology-driven economy vision of the world. They base part of their model on computer science and coding to obtain patterns that allow them to gain advantages and place themselves in an advantageous position to respond to customer needs. For this reason, knowledge management has been the key for this business model to become a world leader.

4.2.- How Amazon.com Works

Amazon is a company with several lines of business. This report is based on the operations of its Amazon.com business line. Amazon.com's framework is very simple:

- 1º) Customers identify the product and make the payment using their credit/debit card.
- 2º) The order arrives at Amazon.com servers.
- 3º) If the product is in stock, the order is sent to the warehouse that is closest to the destination.
- 4º) If the product is not in stock, an order is sent to the suppliers to send the product to the Amazon warehouse that is closest to the destination.
- 5º) The product is sent from the warehouse to the destination via Amazon's distribution network or by post.
- 6º) The customer receives his product.

4.3.- Knowledge Management in Amazon.com

Amazon's knowledge management process can be understood through the three models cited earlier in this report.

Firstly, this report focuses its attention on the "Knowledge Process" part of knowledge management (acquisition-sharing-implementation).

Through its website Amazon collects a large amount of data on each customer: type of product, location of purchase, price range, dates, etc. This is how Amazon.com begins to apply the first phase of Wiig's model: "building Knowledge". The company builds explicit knowledge through the management of all this data. By means of artificial intelligence, it is able to analyse and extract customers' shopping patterns and thus offer each user a shopping experience that is personalised to their preferences and needs.

Through this first step, the company achieves a deep understanding of each customer in a very intelligent way (a concept Wiig called "Smart Work"). It manages to minimise traditional and costly resources such as market research or customer preference surveys and automatically uses the buyer's behaviour to get to know them individually. This allows the company to position itself as the first alternative in the market.

On the other hand, if we make use of the SECI model, the company is able to transform tacit knowledge that is in the minds of its customers into explicit knowledge. To perform this conversion, Amazon.com uses its website and artificial intelligence tools. By this way the company obtains explicit knowledge of its customers' preferences and offers them solutions.

All this knowledge obtained by Amazon.com is retained by one of the world's largest data warehouses. Compared to Wiig's model, this phase corresponds to his concept of "holding knowledge". This knowledge stays in the company in an orderly and organised way with the use of technology.

Once this knowledge is stored, the processes of coordinating, accessing and retrieving the information are necessary. This process, known by Wiig as "pooling knowledge", is carried out by the company through operational processes supported by cloud computing. It consists of a virtual information management system that allows knowledge to be pooled and made available to members of the company anywhere in the world; as long as these members are authorised to use this knowledge. As previously argued, it is important to restrict knowledge in order to achieve knowledge protection.

Although initially the Wiig model did not contemplate the sale of information, Amazon has managed to obtain economic benefits from its "pooling knowledge" stage through AWS (Amazon Web Service). Starting from the "Applying Knowledge" stage of the Wiig model, the company has managed to use the knowledge acquired to detect market needs and make an incursion into a new line of business. Again, it can be seen how knowledge management has enabled them to gain a competitive advantage.

Amazon Web Service is able to sell access to part of its databases, emerging technologies such as artificial intelligence, computing infrastructure, storage, data lakes and internet of things analytics. (AWS, 2020).

Amazon also applies the knowledge gained to improve its SOPs (Standard Operating Procedures), which allows them to work more efficiently and effectively and, at the same time, reduce processes costs. A clear example of how knowledge management improves Amazon's SOPs is the introduction of Amazon robots (drives) in its logistics centres. By using these drives, the company is able to improve both its storage capacity and the efficiency and accuracy of its logistics processes.

Another example of how knowledge improves Amazon's SOPs is its Pan-European Logistics Programme (Amazon, 2019). The company uses the knowledge gained from its customers to anticipate sales and distribute products across multiple logistics centres that are close to its customers. Inventory complexity and delivery time are reduced thanks to Amazon's demand forecasting algorithms.

On the other hand, I would like to point out that Amazon.com also makes a selection of information from the environment prior to the creation of knowledge, this stage was known by Choo as "sense-making". For example, one of Amazon's problems is the theft of products when they are deposited at the customer's door; for this reason, the company is planning to implement artificial intelligence systems in doorbells to detect if the product is picked up by an unauthorised person.

From the point of view of knowledge culture management, the company has implemented the "Kaizen" programme. Under this programme, employees are grouped into small employee groups to encourage the identification of areas for improvement and the making of proposals to simplify processes.

From the point of view of the technology part of knowledge management, the above arguments demonstrate the importance of this pillar of knowledge management at Amazon.com.

4.4.- Suggestions

After investigating the company from a knowledge management point of view, this report finds that it is a business model that makes very good use of knowledge. The suggestions that can be made are very limited. This report does not assess the ethical or moral aspect of the use of information.

It seems that the least developed area of the company is the management of the knowledge culture in the lower levels (operational workers); in the upper levels of the company this culture is clearly promoted. The use of programmes such as "kaizen" are aimed at obtaining knowledge from employees, but always in an upward direction towards their superiors. It could be a measure to consider to improve the knowledge of core operational employees and allow them to gain a broader view of their area of work within the company; by being trained in that direction and not just doing repetitive work, they could come up with more innovative ideas that would help in streamlining processes. Consequently, the "Kaizen" programme could be further enriched.

Another possible measure that would help in the transmission of knowledge would be the socialisation of employees working in isolation at their logistics stations. This measure would help, through the application of the SECI model, to generate knowledge through the interaction of individuals.

Section 5.- CONCLUSIONS. -

Knowledge management, in addition to providing value to the company, plays a very important role in obtaining competitive advantages and in improving the SOPs of organisations.

The 3 models studied, despite being created about 25 years ago, have served to understand and identify how Amazon manages knowledge for its own benefit. By obtaining a large amount of data it is able to predict the movements of e-commerce and discover new market opportunities.

Amazon's approach to knowledge management is very comprehensive; from its knowledge processes (relying on technology such as artificial intelligence and coding to optimise acquisition-retention-implementation knowledge process) to their knowledge culture framework that allows them to continue to open up new business horizons.

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