



KNOWLEDGE AND INFORMATION MANAGEMENT SKILLS FOR THE WORKPLACE

Andre Mendes (1809313)

Lecture: Md KALAM

TABLE OF CONTENTS

- **INTRODUCTION**
- **EVALUATION OF KNOWLEDGE MANAGEMENT**
- **RELATIONSHIP BETWEEN ORGANIZATIONAL AND INDIVIDUAL KNOWLEDGE**
- **IMPLEMENTATION OF MODELING AND ANALYSIS TECHNIQUES TO IDENTIFY KNOWLEDGE ASSETS**
 - **POTENTIAL AND ACTUAL KNOWLEDGE ASSETS**
 - **IMPORTANCE OF KNOWLEDGE MANAGEMENT IN ORGANISATIONAL DEVELOPMENT**
- **THE IMPORTANCE OF INTELLECTUAL PROPERTY RIGHTS**
 - **CHALLENGES FOR KNOWLEDGE AND INFORMATION MANAGEMENT AT APPLE**
- **STRUCTURE FOR KNOWLEDGE MANAGEMENT CULTURE**
- **THE ORGANIZATIONAL STRUCTURE TO ALLOW KNOWLEDGE SHARING**
- **RECOMMENDATIONS FOR IMPROVING THIS STRUCTURE**
 - **CONCLUSION**

INTRODUCTION

One of the great challenges for organizations is how to extract the knowledge generated and accumulated over the years by an employee. In this sense, the concept of knowledge management emerged in the early 1990s, defined no longer as a mode of operational efficiency, but as a strategic part of organizations (Travis, 2017).

Knowledge management is the management of an organization's knowledge assets. It is a systematic process of identifying, creating, renewing and applying strategic knowledge in the life of a company. The concept covers a set of methodologies and technologies that aim to create conditions to identify, integrate, capture, recover and share the knowledge existing in organizations (Barão & de Vasconcelos).

This study aims to identify the challenges in information and knowledge management within an organization and to implement an appropriate management information system.

The company chosen to serve as an object of study is Apple, which is an American multinational technology company founded in April 1976, headquartered in Cupertino, California, which designs, develops and sells consumer electronics.

In addition to maintaining the company's talents, another knowledge management challenge for Apple to continue to have its great value is to remain innovative. Continue to develop products based on its core competencies: design, friendly technology, mobility and innovation.

EVALUATION OF KNOWLEDGE MANAGEMENT

RELATIONSHIP BETWEEN INFORMATION, DATA AND KNOWLEDGE:

Information is treated data. The result of data processing is information. Information has meaning, decisions can be made, or statements made regarding the information. Data are codes that constitute the raw material of information, that is, it is untreated information. The data represents one or more meanings that alone cannot convey a message or represent any knowledge. And Knowledge is information processed and transformed into experience by the individual. Knowledge is the ability that the processing of information added to the individual repertoire gives us to act and predict the result of that action. Learning would then be any exposure to new information that, from then on, changes our behaviour and relationship with the environment that surrounds us.

If information is worked out, then knowledge is worked out.



Source: (kvaes.wordpress.com)

Processing data in an appropriate way to be transferred in information should be Apple's bet for its design challenge, friendly technology, mobility and innovation. Because with the effect of the COVID-19 pandemic on the Company's business, operating results, financial condition and share price; the effect of global and regional economic conditions on the Company's business, including effects on consumer and business purchasing decisions; the Company's ability to compete in highly competitive markets and subject to rapid technological changes, it is imperative to produce information based on a critical selection of relevant data. (Apple 2020 annual report). These data consist of the company's ability to manage frequent introductions and transitions of products and services, including delivery to the market and stimulating customer demand for new products, services and technological innovations in a timely manner; the effect that changes in the mix of products and services and in the geographic, monetary or channel mix, increases the cost of components, increases the cost of acquisition and delivery of content for the company's services, price competition or introduction of new products or services, including new products or services with higher cost structures, could have the Company's gross margin; the company's dependence on the performance of distributors of the company's products, including cellular network operators and other resellers; the risk of reductions in the value of inventory and other assets and the risk of cancelling the purchase commitment;

the effect of product and service design and manufacturing defects on the Company's financial performance and reputation (Report annual Apple 2020). Finally, knowledge enters the scene to analyse information from Apple's sales and revenues, using mathematical calculation tools to reach the appropriate conclusions.

RELATIONSHIP BETWEEN ORGANIZATIONAL AND INDIVIDUAL KNOWLEDGE:

Individual knowledge is of a subjective character if it is represented by the experience, skills, education and attitudes of people who develop their activities in a given organization (Bournois & Chauchat, 2017).

Collective knowledge is the group formed by elements of individual intellectuals and adapted to a business philosophy, enriched by technology. It is all the knowledge acquired and stored by the company or entity, what the individual does not “take home” when he leaves the organization. According to (Albu, 2017) this knowledge involves the result of all members belonging to the company.

The relationship between these two types of knowledge is one of reciprocity where each individual knowledge ends up helping to increasingly enrich organizational knowledge.



Source (tkilpatrickgroup.com)

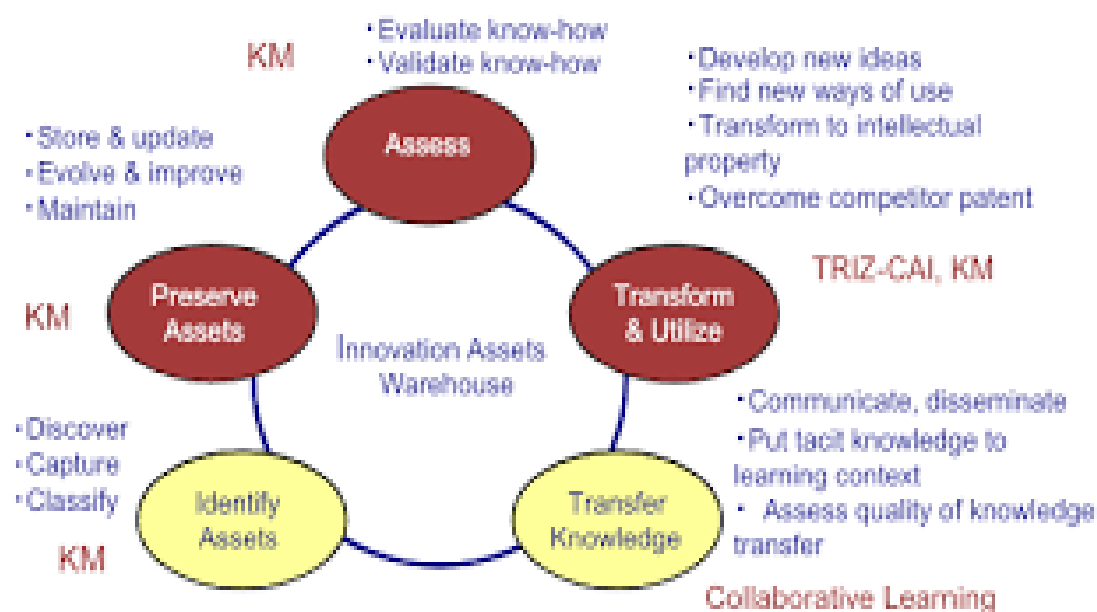
As illustrated in the image, Apple also uses the same method of transferring knowledge. As all highly powerful companies do, Apple also obtains information through rigorous research, giving rise to the great technological capacity to improve every second the methods and techniques of operation to always offer the best service to its customer. The reflection is done through the type of information, using the methods that best suit Apple. The knowledge that each brings is added to the collective, giving a great

advantage to everyone's learning and information flows naturally in a wave that leads to organizational knowledge that strengthens Apple's practical interventions.

IMPLEMENTATION OF MODELING AND ANALYSIS TECHNIQUES TO IDENTIFY KNOWLEDGE ASSETS

Knowledge asset refers to the combination of cognitive processes, the interpretation of context and experiences that relate to intelligence resources that are constantly accumulated in the company and that emerge from relationships with customers, suppliers and other business partners (Brown & Thomas, 2015).

It is the science that the rigging has in terms of concepts, learning, reminiscence, comprehensiveness, practical and cognitive abilities adjacent to aptitudes (Carlgren & Rauth, 2016).



Source: ascelibrary.org

The most respectable phase of management is the identification of wisdom. The knowledge management framework explains how (De Gieter & Hofmans, 2015). Knowledge is assessed, which focuses on modelling the puzzles management configurations, supported by knowledge assets, which the organization embraces. These same analysis techniques unfold into executable actions for solving puzzles, identifying the conveniences (Fominiene & Mejeryte-Narkeviciene, 2015).

Apple faces the Error problem on iOS13 and OS X El Capitan.

Each new operating system comes with errors that are fixed in subsequent updates and, in the case of Apple's new mobile and computer operating system, they have been frequent and annoying. IOS13 is already in its iOS13.2 version, which brings new errors instead of correcting them, which would only happen in iOS 9.1. On the computer side, many complain that OS X El Capitan slows computers down, causes WIFI disconnections and even spoils backups saved on Time Machine.

Apple, through the elaboration of detailed plans, worked at full speed to solve both technical problems, as well as marketing errors and dissatisfaction that users have with

several of its services and products, made available a new build of iOS 13.2 for put an end to the problems, satisfy its clientele and recover from the fall in the stock market.

POTENTIAL AND ACTUAL KNOWLEDGE ASSETS:

Knowledge, ideas and information were important, but today, as in no other time, they define our life at work. New jobs are knowledge jobs, just like old jobs, I think, so I exist and make money. It is inevitable that knowledge becomes an increasingly important asset for organizations, in fact, the asset is everything that transforms raw material into something more valuable, executes some process and outputs more valuable than the inputs (Jiang & Liu, 2015).

To solve the problems that Apple has faced recently and will face over time, Apple is betting on a potential deep technical knowledge that has to do with the latest technology, increasing its investigation to find solutions in a new iOS compilation that will solve all current technical problems.

However, knowledge represents a way of analysing business issues from the perspective of real knowledge. Apple needs to test all business activities, as well as analyse the demands of a knowledge-driven era. However, the field of intellectual management is practically non-existent and needs to be invented, as it is the greatest threat faced by companies in this century.

Risks are positive, the goal is not to eliminate them, but to manage them, that is, to choose what to bet on, how to protect bets and where not to bet at all. It is believed in concrete and objective elements; but not in leadership and empathy, and when risks are not carved in stone, but fluctuate like ideas, and when change is rapid and profound, calculations change. Therefore, creating the stock of knowledge is not enough to be really knowledge-driven individuals, we need to take risks as much as doctors need to live with diseases.

In this perspective, a new role "the leader" emerges, which would be someone capable of adopting global perspectives, foreseeing opportunities, creating a shared vision, developing and empowering people to make decisions, appreciate cultural diversity, build teams, favourable to change, guarantee customer satisfaction, gain advantages, share the leadership and live the values.

Today the leader has the role of self-confidence, vision and personal excellence, from the perspective of forming alliances with other organizations, making decisions, developing partnerships and treating people with respect and dignity, this is the image of the leader, as partner, negotiator, social director and broker.

IMPORTANCE OF KNOWLEDGE MANAGEMENT IN ORGANISATIONAL DEVELOPMENT:

Nowadays, with the constant changes in the corporate world, organizations are in an environment where it is necessary to be resilient to changes and, consequently, it is also necessary to take advantage of these changes.

Gone are the days when only routine machines and operational activities generated profitability for the company, nowadays companies are turning their attention to their intellectual capital, which includes behavioural and technical competencies, creative

skills and motivations, which are great generators of results and a fundamental factor for a company to remain competitive.



Source ITL Demand Management – bmc.com

Giving more attention to people is becoming a trend, because they are the ones who hold the most valuable knowledge to achieve expected results or also to establish the best process methodologies.

One way to optimize this learning process and continuous improvement of intellectual capital in organizations is to implement knowledge management, which is nothing more than a methodology that facilitates control and access to information from the organizational environment, which can be placed in a database that will always be working to select the relevant information for the organization's strategies (Kontoghiorghe, 2016).

However, when there is a lack of a successful strategy and where there are cultural barriers, the chances of organizational development are significantly reduced (Liedtka, 2015).

The implementation of learning factors in culture is the best strategy for an organization to achieve knowledge (Nienaber, 2010).

The company that applies this management understands that all the experience and information generated by the human being serves as knowledge, on the occasions when these are worked correctly, generating good results that aim to favour the organization through its own experiences, which can be gathered both indoors and outdoors.

Knowledge management must become part of the organizational culture and always having some objective in focus, so that the information presented is relevant and takes human capital to a continuous evolution of its intellect.

In short, we can say that Apple's well-practiced knowledge management produces incentives for its employees to be more motivated on a daily basis, because in fact, nowadays, a job that can provide great intellectual growth arouses greater interest. candidates, then jobs in companies that do not know the value of this concept.

THE IMPORTANCE OF INTELLECTUAL PROPERTY RIGHTS:

Intellectual property was one of the essential levers for the technological and economic progress of European countries after the Second World War. In quantitative form, for example, in the United States, there has been a significant advance in protected products. In 1947 less than 10% of exported products were involved, while 50 years after (1997) more than 50% were already involved. Today the United States has created a coverage belt for its industry ensuring security and return on its investments.

Currently, other countries such as South Korea and China also take advantage of the industrial property system to leverage technological and economic development and at the same time fight the piracy market.

Apple's innovation is built into its intellectual property, including patents, trademarks and copyrights.

Intellectual property is a decisive factor for a country's sustainable economic and social development. A country to add its competitiveness needs to create a business environment in order to provide companies with investment protection and stimulating innovation and technological training. For this, it is essential to have legal support through current legislation on the rules for trademarks and patents and on intellectual property.

CHALLENGES FOR KNOWLEDGE AND INFORMATION MANAGEMENT AT APPLE

Modern organizations are in a more complex and challenging world context. The globalization process expanded frontiers and increased its field of action, as well as allowing the expansion in number and diversity of customers, partners and suppliers. Technological advances have redefined the concepts of frontier and distance. The geographical reach was expanded by the use of the Internet and networked partnership operations. Local markets, previously served by companies located within the reach of physical proximity, have been invaded by competition from the world wide web.

If, on the one hand, organizations feel the pressure of increasing the reach of competition, on the other hand, they feel pressure from their own customers, who have become more demanding due to the gigantic volume of information they have available daily through modern information and communication technologies. Communication. Clients that are better informed and aware of the possibilities of consumption put pressure on organizations for better quality products and services that are more responsive to their needs. Loyalty has become a huge challenge in a world without borders and within the reach of the mouse and commercial operations over the Internet. And to ensure loyalty, Apple knows that it is imperative to always innovate. In fact, innovating is one of Apple's biggest challenges, if not the greatest of all.

Innovation is a word that refers to the idea again, differently. We can cite as examples of this concept legendary organizations, which have become references of prosperity. They survived to become giants these days: cases like Google, IBM and Apple that is our object of study.

Innovation is the “icing on the cake”. The whole cake itself is prepared through knowledge.

To make cake with this raw material, you must have it available, know where to find it, at the right time, in the right place and at the right time. Apple, in order to put an end to the iOS problems it has been facing, continues to work hard to boost knowledge management, working on intellectual capital, which is the raw material of the knowledge economy. And working with this raw material is not as easy as it seems; it requires investments and intelligence tools capable of mapping, capturing and working with this knowledge, to transform it into innovation that adds value to the final product and that certainly brings dividends to the organization.

We are in a new era, and a new society has been shaping up strongly: the information society, whose “exchange currency” is data, information. In the last few years with the increase in access to the media, mobile devices, which appear as the stars of the moment, have also grown at a stride, so wide, that people have never been more connected than now. They promoted the rapid growth of social networks and, with that, an exponential increase in data production to levels that today reach the Terabytes. If this growth continues in these proportions, we will arrive very quickly at the Petabytes, Exabytes, Zettabytes and Yottabytes. Within this scenario, organizations that have the capacity to use this information as a business strategy will offer innovative products and services. And that is exactly what Apple is aiming for, and is constantly working towards that, investing in the valorisation of the human capital available to them and in a policy of stimulating innovation.

This also changes the relationship between capital and labour, which has knowledge as a factor of change. In this relationship, the worker exchanges his workforce for knowledge, that is, he will use his workforce no longer, but his knowledge to become more productive and add value by producing knowledge through knowledge, employing greater importance. intellectual work, consuming, analysing and transforming information into knowledge to use it in the production process itself. This is the biggest challenge that the knowledge society brings as a differential.

To overcome the challenges and survive in this highly competitive environment, Apple has invested in the last decades in the modernization of its management models, in more efficient work processes, in information and intelligence, and in cutting edge technology. However, in order to achieve the expected level of return on the investment made, it is necessary that the most important asset of organizations be worked on: people. Efficient processes, cutting-edge technologies and exceptional strategies become effective when people work for the organization, aligned and committed to its goals.

If Apple can understand the diversity of cultures, the desire of consumers and apply knowledge in the right way, in the right place, in the right time, and make its products global, it will be part of the companies that will follow the natural flow of success , building a brand capable of surviving for generations and becoming a symbol of

innovation and desire, transforming products into utilities capable of winning trust and admiration.

STRUCTURE FOR KNOWLEDGE MANAGEMENT CULTURE:

1. Contribution of Knowledge Assets to an Organization

knowledge as a strategic asset that influences the diversity of combinations of internal and external capabilities of the company in the face of uncertain environments and continuous business transformations in today's society. The central element is the knowledge that the organization has developed and can use in multiple arrangements of its resources and capabilities, giving it dynamism in responding to market demands (Maatman, Bondarouw & Looise, 2010).

Research in knowledge management highlights the role of the learning process as a key element for creating and renewing operational capabilities, whose tensions are present during the strategic choice between creating new knowledge or reconfiguring existing knowledge. To create, share and disseminate knowledge, in order to transform it into new technologies and new products, organizations need to learn. Thus, knowledge assets accumulated over time are increased and transformed by the learning and innovation process, which gives the organization flexibility to survive and sustain its competitiveness in the market in which it operates (Yang, Fang & Lin, 2010).

Apple has its own brand as an asset. And he sees creativity as a power of human capital. In fact, Jobs said, innovation "has nothing to do with the amount of dollars you invest" in a company. "It is not a question of money. It is the team that the entrepreneur has, his motivation and how much he understands about the business" (Kahney, 2009, p.162). Qualification is not an academic characteristic, just. It has to do with experience and observation skills (the latter being a premise for creativity). Experience, as empirical knowledge, is an invaluable qualification. It is no coincidence that human capital is becoming increasingly important in management matters. Since the internal employee is the driver of the company's development, as an executor of its strategy and as an evaluator of the effectiveness of its strategies, it is a fundamental partner for business success. Aware of this, Apple continues to invest and invest in increasing workers' knowledge and encouraging them to always dare to innovate.

2. Knowledge Requirements for the Organization

Knowledge creation is a multi-dimensional concept with complexities, including intuition, learning, experiences, new ideas and instinct.

the creation of knowledge in organizations as a learning process that is configured as a basis for innovation through the creative use of two types of knowledge: tacit or codable (Nonaka & Takeuchi, 1995). In the innovation literature, the organization's ability to combine its knowledge through the learning process is treated as a source for heterogeneity between companies and as a basis for competitive advantage.

In this sense, the combination of a set of explicit and tacit knowledge is developed by the articulation of the company's operational capabilities, which differentiate them by

obtaining unique knowledge assets that support multiple possibilities of combining resources, routines and capabilities.

The authors argue that the effects of strategic choices on company performance are mediated by learning organizational skills in the company. The mediating role of the learning process in the creation of knowledge and the development of dynamic skills is a factor also defended by Easterby-Smith and Prieto (2008).

sustaining competitive advantage depends on the development of internal knowledge and the creative exploration of external knowledge capable of generating innovation.

Explicit knowledge is expressed by formal language, words, symbols and numbers and can be stored in a database that facilitates its transmission in the organization (Joia & Lemos, 2010). Tacit knowledge, on the other hand, presents its intangible nature associated with the learning process, which is dependent on the context and specific forms of social interaction. In general, this type of knowledge has been recognized by Apple as the basis for organizations' sustainable competitive advantage.

THE ORGANIZATIONAL STRUCTURE TO ALLOW KNOWLEDGE SHARING:

Knowledge sharing in organizations is related to knowledge management and its dissemination becomes more and more essential, as there is no point in having knowledge if it is not shared.

Apple has already shown a certain perception that the organization only benefits when knowledge is disseminated, transferred, shared and leveraged, that is, when there are network communication channels within the organization that facilitate the exchange of information and experiences. That is why it works hard on this dynamic through continuous training of employees, where exchanges in terms of knowledge are always possible.

As is known, there are two types of knowledge that can be shared: the tacit and the explicit. The explicit is formal and systematic and can be easily communicated and distributed through procedure manuals, reports, etc. tacit, on the other hand, is personal, difficult to formalize and communicate, as it is related to the individual's discernment, understanding, instinct.

In other words, the tacit is incorporated in people and the explicit in processes, services, registered in documents.

Apple explores the graphic of typification of the tacit and explicit for the conversion of knowledge. Using Socialization, the exchange of experience where each employee shares his tacit knowledge directly with another through language, observation, imitation and practice; in Internalization, the employee shares his tacit knowledge with several others, in a non-direct way; in Combination, knowledge that is already explicit is shared explicitly; and in Internalization, the explicit is shared directly, where the receiver transforms it into implicit knowledge.

The most important information is precisely in people (tacit) and not in organizations (explicit) and organizations overflow with tacit knowledge, which should be valued more. Unfortunately, many organizations have not yet awoken to the fact that much of

organizational knowledge is part of subjective knowledge, which resides in the minds of their employees, so it is necessary to promote collaboration and communication.

RECOMMENDATIONS FOR IMPROVING THIS STRUCTURE

Despite its good reputation when it comes to software updates, Apple has not been able to avoid a continuous avalanche of huge problems with the functionality of iOS13 that users are never tired of criticizing.

A profound change in the way the company tests its software is recommended.

The testing industry needs to be sure of a stable version before proceeding with its approval, thus preventing engineers from jumping to the development of a later version and consequently losing sustainability.

What happened with iOS13 clearly shows a lack of coordination between the testing industry and the engineers in charge of updating application versions. In order for this not to happen again, it is imperative that Apple continues to develop training courses so that the level of performance of employees in the workplace can be continuously improved. It is always necessary to be in a wave of training to develop more and more the skills of employees based on a constant sharing of knowledge.

Service innovation has a different logic from industrial innovation, just as its dynamics are characterized differently by their multiple trajectories (Vargas & Zawislak, 2005; Gadrey & Gallouj, 2002). In this sense, Apple must continue to innovate at all times and the company, as a whole, must be analysed as a “package” where each service, as a part, must dynamically combine due to the internal diversity of the sources of potential innovation and the interactions between them.

CONCLUSION:

The report concludes that knowledge management consists of the administration of an organization's knowledge assets is a systematic process of identifying, creating, renewing and applying strategic knowledge in the life of a company.

It was also found that knowledge sharing in organizations is related to knowledge management and its dissemination becomes more and more essential, as there is no point in having knowledge if it is not shared.

It was also seen that Apple, in order to put an end to the iOS problems that it has been facing, continues to work diligently in boosting knowledge management, working on intellectual capital, which is the raw material of the knowledge economy, through training courses that allow constant sharing of knowledge between employees.

The biggest challenge facing the Apple organization is to manage knowledge so that it continues to have great value and remain innovative. Continue to develop products based on its core competencies: design, friendly technology, mobility and innovation.

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