

Knowledge and information management

Gyorgy Vegyinas 1817909

Lecturer: Mohamed Kalam

Executive summary

The aim of this report to present knowledge and information management in the organization. Through the stages of relation between data, information and knowledge to the individual and organisational knowledge through technics and to creation, store apply and integrate and intellectual property importance. This work try to show a small slice from this huge material.

Table of content

Introduction	4
1.0 Importance of knowledge management in organisation	5
1.1 Data, information and knowledge relationship.....	5
1.2 Individual and organizational knowledge relationship.....	6
1.3 Technics to identify knowledge asset	7
1.4 Actual and potential knowledge asset evaluation	8
2.0 Create, store, apply and integrate knowledge requirement.....	8
2.1 Intellectual property importance.....	10
3.0 Contribution knowledge asset.....	10
3.1 Organization knowledge requirement.....	11
3.2 Recommendations.....	12
Reference.....	14

Introduction

The aim of this report is to examine information and knowledge management process in organisation through academic models, methods and theories and to develop understanding of the challenges of managing knowledge and information, and to identify and apply appropriate management information systems. The chosen organisation by writer is Firstport, an estate management plc. what manage around 180.000 properties including 60.000 retirement homes. The registered office of the Firstport is at 11 Queensway, New Milton, Hampshire. In 2019 Firstport was employer of the year. The first and second points of the report will analyse importance of knowledge management in organisation, evaluating data, information and knowledge. At third point will identify relation between individual and organisational knowledge. The fourth section is about technics to identify knowledge asset. The fifth section will talk about actual and potential knowledge asset. The second part of the report include two points, create, store, apply and integrate knowledge requirement and the second is about intellectual property importance. The third part of the report will analyse contribution knowledge asset, and organisation knowledge requirement. The last part contains recommendations.

1.0 Importance of knowledge management in organisation

To understand what knowledge management is, first is good to understand what knowledge is. There are many theories what is knowledge and there are more people who think that knowledge is power, and they are true in some way. According to Cambridge dictionary the knowledge is understanding of or information about a subject that a person gains by experience or study, either known by one person or by people generally. In this meaning even a two years old child has knowledge, in a broader sense it is distinguish two kind of knowledge, explicit and tacit. Explicit knowledge is stored, in different mediums such as document, articles, books. The tacit knowledge is interesting, because is about the individual such as value, belief, intuition, experience, skill and is hard to record. In another hand the knowledge must be manage, and through this it needed a system. Those organisations will survive in the competitive market who can manage the knowledge in right way or who can asset knowledge. Those organisations can adapt themselves quickly to the changing economy and market who are able to convert the tacit knowledge in explicit knowledge who pay attention to the employees experience, skill, value or intuition and convert them in documents, files, applications or even programs. The advantage of explicit knowledge is that it can be updated by individuals research, experiences and with the advancement of technology and science the explicit knowledge will be wider and wider. However, without tacit knowledge cannot be exist explicit knowledge, without intellectual knowledge cannot exist organisational knowledge. To understand better the nature of knowledge itself is good to understand the relationship between data, information and knowledge. Knowledge management is to collect tacit knowledge and convert it in explicit knowledge. In other words, are the methodical management of an institution knowledge assets for the aim of originate value and encounter strategic – tactical requirements. In this meaning when an organisation hire an employee that individual it has his own value, belief, experience and how is joining and the organisation is managing the knowledge in right way it will convert or store that particular (tacit) knowledge into (explicit) knowledge. In the present days knowledge economy has turn into progressively major capability to maintain knowledge (Dalkir2011). Knowledge management it helps organisations to successfully operate, save time, save innovation about products and reduce costs.

1.1 Data, information and knowledge relationship

To understand the relationship between data, information and knowledge is good to understand that all these concepts are hand in hand. Is impossible to separate one from another, in all context they will interact. Example the data itself is just a row of numbers, characters, codes which without process or a specific key will remain just

data. The transformation process of data (if is right) will result information, what must be authenticated, classified, sorted, aggregated, performed calculated or selected. Otherwise the information will remain just a piece of paper, text or phone communication without any further movement. Understanding the authenticated information and the experience in a certain area what is related with data is knowledge. However, the knowledge evolves parallel with information. Some of the information from the past has been updated as a result of modern research and the knowledge has been expanded and in this meaning the information and knowledge are in perpetual motion. From this point of view is important to manage the gained knowledge. Example during the second world war many times the decoders was the most important agents of the war. They decoded the data what been catch from enemy through different sources. They must process this data in right way to become information what after authentication been passed to headquarters. In these circumstances it was crucial that a data how it was processed, how become information and later knowledge, or example at Firstport when the manager set up a new task what must be implemented, the data is send by a message what first must be understand by the common language what the employees talk (if someone cannot speak the language this message remain just data), by understanding the message became information and when the employees complete the task become knowledge. Cooper (2017) highlight that discover unknown knowledge is the result of adaptation of improved methods of data organisation, storage, interpretation to huge datasets from data mining. Knowledge could be explicit or external such as file, document, media and tacit or internal such as values, belief, intuition, skill. To manage the knowledge means collecting intellectual value or internal knowledge and convert it in external or explicit knowledge. In this meaning every individual represents some intellectual value but in the classical meaning of knowledge management creating, managing, sharing and utilizing effectively is vital for organisations to take full advantage of the value of knowledge. Those organisations who manage the knowledge right who can evolve together with the information and knowledge will survive and will be able to adapt to the competitive market. Additionally, the relationship between data, information and knowledge is a direct consequence that with each concept must be processed, classified, selected in some way. Data must be processed in information, information in knowledge, and finally the tacit knowledge to convert in explicit knowledge to be involved in the perpetual motion circle. Without data and information, it is not possible for any organisation to achieve competitive advantage. Data and information sources must have close relation mean entity relationship.

1.2 Individual and organisational knowledge relationship

As it was mentioned before tacit knowledge or (know-how) is part of an individual such as experience, skill, intuition and explicit knowledge or (know-what) is part of an

organisation stored in form of document, file, article. First it is good to take in consideration that individual knowledge is good, organisational knowledge is better because while the individual knowledge is regarded as the thought of the combine result of a person experience and information what the individual possess this is called intellectual property or intangible, the organisational knowledge is the multitude of employees intellectual property exploited, and used for a better good. From one side of good for employees provide workplaces but from the most important side of good for organisation is crucial about success of it, through is able to build strategies, able to react to the market and to the global dynamic competitive economy. Example at Firsport individual knowledge is the employee knowledge what they are used to complete many tasks and through this jobs they contribute to a bigger good, namely the organisation is able to build a strong strategy and to accomplish the organisation mission what makes it No. 1 in estate management segment. From this perspective is identifiable that the individual knowledge and organisational knowledge are hand in hand. They cannot exist one without another, if it would not exist individual knowledge or tacit knowledge it would be nothing to convert in explicit knowledge or organisational knowledge. If explicit knowledge would not exist it would be nowhere to convert the individual knowledge. In the interest of divide or maintain knowledge distribution successfully in institutions, knowledge management should regard the principle of knowledge doctrinal (Jelavic, 2011). In another hand individual knowledge is important because is a human characteristic, just the human being is trying day by day to surpasses itself and through this ability the organisations can surpass themselves day by day. According to Nien-Chi and Min-Chi (2011) till the possessor do not allow the knowledge to be accessible that particular knowledge will not be disposable because the procedure is not easy and because an individual own competence only in a particular domain.

1.3 Technics to identify knowledge asset

There is a model of knowledge dimensions that explain how tacit and explicit knowledge is converted in organisational knowledge named SECI model. This model includes four ways that knowledge types can be converted teaching how knowledge is shared and created in organisation. These four ways or dimensions are: socialization, externalization, combination and internalization. As it seen below the first stage is socialization where tacit knowledge met with tacit knowledge through practice or observation. The second stage is externalization where the tacit knowledge met with explicit were the tacit is converted to documents, files, and so on. In this way the knowledge can be multiply in organisation. The third stage is combination were explicit met with explicit when files are combined to originate new knowledge. The fourth stage is internalization where the explicit met with tacit or the documents or files are used by students. This model can be seen as an energetic consecutive process where the knowledge is in perpetual motion as constantly is converted and created. This model was developed by Ikujiro Nonaka and Hirotaka Takeuchi in 1996. Another theory or model is WIIG what highlights three criteria what must to be current for an institution

to be successful, first is the existence of a business, the second must have means and the third must have power to take action. To exhort program members to take part in KM initiatives and to recommend ideas for new KM possibilities project managers can draw up a fetching impulsive bundle (Ajmal et al., 2010). The crucial objective in WIIG is noted as KM as an effort to make the institution clever taking actions by ease the origination, accumulation and use the nature of knowledge. These models have different characteristics, but both can be helpful to identify knowledge asset. In many ontological realities such as social-network, institutional, team or individual, knowledge origination befalls in some given purpose (Wu et al., 2010).

1.4 Actual and potential knowledge asset evaluation

Before to evaluate the subject first must understand what actual and potential knowledge is. According to Bacon (2016) actual knowledge highlight an alteration in learning perceive by a strict assessment of knowledge. This is mean the actual knowledge is the result of an individual or organisation has changed the way of learning what can be measured by the reached success. The actual knowledge at Firstport can be measure by the fact that from 2002 to 2015 it was a limited company from 2016 is a private limited company and is between the first estate management companies in the market. About the writer the actual knowledge is measurable because it started the academical study last year and by the promotion of the year and the presence in the current year show the reached success. The benefit of the actual knowledge is measurable is visible the growth. In this context the progress is predictable both for individual and for organisation. In the other hand the potential knowledge is something what the individual and organisations own but not using. Many people are so confident about their knowledge of how to do something – sitting passively – but the real test is how many individuals can apply that knowledge. In this context the question is the knowledge is power? Answering to this question or to the sentence from the beginning of this work many individuals may change them opinion. So how powerful is that knowledge what is not used? In this context is identifiable that the knowledge is not power just an accumulation of tacit knowledge and it is no matter that the individual is in organisation or not. Unused knowledge is not power is the weakness of the individual or organisation. The advantage of potential knowledge is that particular knowledge is still not exploit and if that knowledge was accumulated by many years of learning it could be a big opportunity for the owner. The disadvantage of the potential knowledge if is not exploited is unusable literature. If the individual who is not using his potential knowledge in the workplace deprive himself from ascension and the biggest problem his deprive his organisation to rise among the great. Knowledge asset is an experienced perspective to organise and register captured functional knowledge and the factors needed to make sense of it. Knowledge asset contain guidance, stories, documents and so on for additional examination. The advantage of knowledge assets is approachable, readable easy to integrate. Into a knowledge-driven economy the major anchor for knowledge management as these are deliberate highly invaluable is knowledge asset (Vishwakarma et al., 2018).

2.0 Create, store, apply and integrate knowledge requirement

To create, store, apply and integrate knowledge or knowledge management cycle is a method of convert information into knowledge within institution. Some institutions which enrol knowledge management will go through the method called KM cycle (Mohapatra et al., 2016, p. 13). Are the methodical management of an organisation knowledge assets to originate worth and meeting tactical and strategical requirements, what involve initiation, methods, strategies and structures that hold and extend the stockage, appraisal, sharing, sophistication and creation of knowledge. One of them is Bukowitz & Williams model, what shows how organisation develop, nourish and spread a strategically correct stock of knowledge to create value. In this model knowledge include – knowledge repositories, relationship, information, technology, communication, infrastructure, functional skills, process know-how, environmental responsiveness and so on. This model involves five stages get, use, learn, contribute and assess. The get stage is the first step of searching mandatory information to be able to make decision, resolve problems. The second stage is the use step and is about how to integrate information in a new way to support institutional innovation. The learn stage denote to the official method of learning from experience in the meaning of originate competitive gain. The fourth step is the contribute stage what encourage employees to share their knowledge. This is the stage where knowledge is visible and accessible to the organisation. Knowledge management ability increase the energetic ability of institutions and in turn increment institutional achievement and supply competitive advantage (Tseng and Lee, 2014). Example at Firstport when the writer is going in annual leave the management hire someone from agency who must be train. The get stage is when the writer joined the organisation an elder colleague has trained the writer too, so the knowledge has been gained. The second step is use what mean the writer has been use the knowledge gained but in a mean time the experience has been increased and the writer knowledge has been expand and added to his previous knowledge and in this way it can contribute in full to the organisation support. The third stage is the learn step where the increased knowledge and experience became competitive. The fourth stage is the contribute step – and here become interesting the annual leave – when the new colleague from the agency is coming the writer must train him in order to be able to get the knowledge solve problems and make decisions and be able to contribute to the organisation knowledge. If the management cannot hire anybody it will create a gap what if is not filled the knowledge cycle will stop. It is not good for organisation, employees and for customers. The next model is Meyer & Zak model is taken out from work on the projection and progression of information products. Are compose of technical facilities and processes of manufacturing products and services. In Meyer and Zak perspective the connection between the stages are logical and standardized. This cycle involves five steps acquisition or (create), refinement or (codify), storage/retrieval or (share), distribution or (access) and presentation/use or (apply). However, if include in this cycle the sources or (capture) and users or (re-use) than are seven steps. The first step is

acquisition and is related with creating scope, width, deepness, authenticity, punctuality, opportunity, importance, expense, survey and exclusivity about the data or information. The second step is refinement or codify can be physical example when data is organised (cleaned up, standardize) and can be logical example when data is restructuring. The third step is storage/retrieval or share what mean the storage id like a bridge between upstream addition and refinement stages that feed the repository and downstream stages of product creation. The fourth step is distribution or access and is about how is delivered the product to the user (fax, mail, print) enclose in language, time, form). The fifth stage is presentation or apply is about the context and its important role in presentation and application. If the context is not enough the content is unusable. The main evolution strategy of knowledge stock and mapped these stages onto knowledge management cycle. Example Firstport manage content in form of accounts relating to the personnel and as well relating to the customers. This kind of knowledge management is inevitable in the 21st century when the databases must deal with huge volume of information and data at the same time. Both personnel and customers can access to them account via the company website. Is important this kind of knowledge management because we can have access at the same time to many data and information, it can be checked those things what are related with the organisation for both parties. Due to lack of these it would need a lot of time to deal with this information, to be updated, corrected or even deleted.

2.1 Intellectual property importance

To consider the intellectual property is good to imagine that this property is like the individual child. It is part of the individual and if another individual or organisation do not respect that intellectual property is like to act against the individual will. Any individual has the right to use his own intellectual property as the individual want. The intellectual property represents an intangible value is the creation of the individual mind and is protect by law and it can manifest by invention, artistic work, literacy and allow to owner to trademark, patent or copyright it. By property rights peoples can earn recognition and financial interest. Example in the past it was common to download a music, movie or any data without to pay for it. This is stolen of intellectual property and is against the law. The protection of intellectual property encourages new creations, inventions and the owners if register them intellectual property can be shore that nobody is allowed to multiply or use it without the owner permission. Intellectual property right is good for organisation too because through this it can be protect the progress, technology and culture of humankind and prepare other innovations and helps economic and industry growth with through new jobs. Without intellectual property right the humankind cannot be able to move forward. According to Autio and Acs (2010) intellectual property protection, hereby, hearten specialization between differently competent contractors.

3.0 Contribution knowledge asset

The knowledge asset can drive the organisation to success, is the intellectual capital of the organisation. It is interesting to dig deeper in this field because taking in consideration that the knowledge can be unstructured or tacit and structured and explicit or codified. Knowledge deputize the main creative components of some institutes and it can combine in individual's facility or engrained into structural and technological assets (Schiuma, 2012). The more how the explicit knowledge is codified is easier to share it, is just couple of seconds and is gone via email, fax or internet. However, the tacit or unstructured knowledge the experience or the skill gained through long years it may take time to share it. Through competitive advantage an institution can substantiate revenue better than them present competitors through long period. Knowledge asset can contribute to achieve competitive advantage to the organisation through show the individual knowledge or experience with others from organisation and try different approach, and undergo to see what happen, notions and plans are good but acting them is better, an organisation must learn from mistakes in other words there are no mistakes just hundred ways how not to do something, apology can keep the institution values in case of mistake, if an organisation looks in his past can evaluate and learn from their finance and achievement, there is a crucial point how managers use the time and how organise means. Employees are resources and if the organisation can exploit it in the right way this value can help to achieve a huge competitive advantage. However, knowledge asset can add competitive advantage to the organisation because one part of knowledge asset is the tacit knowledge or the employees intellectual value is invisible for the competitors and for this reason is important for managers how they compensate, how they help the intellectual value of an employee to soar. The intellectual value is a source of amphibology because in this case is a complexity for competitors, they are unable to decode the success, they cannot reach the competitive advantage. Due that this code is unknown for competitor's amphibology is a distinctive of plan (Rahimil, 2012). If the organisation helps knowledge asset to be the demand-drive function of the success, concentrate on the best financial performing knowledge asset, to make sure that knowledge asset always working as beneficial method, is the knowledge asset success can be measurable, manage knowledge asset. These are just couple of points how knowledge management asset can add competitiveness to an organisation. At Firstport through the tacit knowledge the knowledge asset is respected by taken in consideration the employee's ideas, using them in a proper way, they appreciated the effort of the employees for the contribution to the competitive advantage what is visible by awards and accreditations.

3.1 Organisations knowledge requirement

To identify that a specific knowledge management framework is effective or not for the writer organisation, will be compared different models and theories apply to the organisation. As it was mentioned before the Nonaka & Takeuchi model has been

identified as a useful framework for Firstport. Example to make some strategy in order to implement a task efficient the team from Firstport have different kind of ideas, what the team is sharing to each other in order to create a plan. It is helpful for team to perceive the problem by numbers or sketch by paper form. It easier to understand and quickly can overview. Further restraint is connected to the acuteness of detection of the personnel implied in connection with tacit knowledge assignation (Joia and Lemos 2010). That sketch is been save and put in a special file where a huge number of sketches are available for the whole organisation and each colleague can see it and can combine them. When next time will occur the problem, the team can see these notes and can use them for a better result for other occurred problems. Another model mentioned before is WIIG where it was identifying all three conditions, the business exist (Firstport), it has resources (employee, facility, budget) and it has enough power to act. To identify deeper this method must know the significant stages of it. There are many experienced colleagues to the organisation, they have formal education so they can build knowledge. This knowledge is held in tangible form in the special file and is available always and can be used together with many others and in this way this system is a pool knowledge. Finally, this knowledge is used when a problem occurs and must be solved. However, another model in knowledge management cycle is McElroy model and is explain the knowledge production process. The first stage of the model is individual and team learning in organisational learning. The second step is knowledge claim validation what require codification in the organisational level. The third step require a formal process to codify the individual and group innovation. At this point Firstport is keeping in a closed system the knowledge but is not codify and just individuals can add knowledge to the system. The fourth step is information addition by an organisation intentionally or modestly gain knowledge or information what is produce by another outer organisation. By this stage, the knowledge is formulating at the organisation knowledge. This stage, is not exist at Firstport and this is the reason why the knowledge is not fresh, is depend the internal knowledge. It would be useful for Firstport to adapt external knowledge because it can change some old procedures to some new innovative way to achieve a goal, example quicker, cheaper and more effectively. At Firstport enable knowledge sharing is limited. Before to evaluate it must understand what knowledge sharing is. Knowledge sharing is a process or activity through which knowledge is shared or exchanged between individuals and organisations. As is seen Firstport can use the Nonaka & Takeuchi (SECI) model for knowledge sharing as well as WIIG model. However, there are two gaps if the organisation wants to apply McElroy model. As it was mentioned the knowledge sharing is limited and hierarchical accessed. Due that Firstport is an estate management plc the knowledge is sold for customers in form of managing them estate. When a new site is available the Firstport sell the knowledge by creating customer-first communities, customer priorities and by values such as friendly, inventive, respectful, skilled and trustworthy. Firstport management information system is GRM (enterprise content management) or document management system is an agile and professional scalable what smoothly integrates with customers IT infrastructure and database. Is one of the best solutions to create sharable knowledge and optimise business workflows. GRM include integrated data analytics, machine learning, DMS, version tracking and so on. If knowledge retardment is maximised assistant strategy

such as advise and training are significant as are labour redesign, time for retainer deliverance and documentation of processes (Silington, and Marshall, 2011).

3.2 Recommendations

Another gap in the knowledge share at Firstport is that that knowledge is shared only to middle management what mean they create learning classes for managers but there are no trainings below. So, example if an employee with less qualification would like to advance on the ladder, is impossible so the knowledge what the employee need must to acquire from another source. It would be great to be pay more attention to the stages or positions below because in the present situation there are two kind of knowledge into Firstport, one for upper class and one for lower class. In this meaning the knowledge cannot be shared widely just partial. Example to start catching up classes to avoid dual knowledge at organisation. Another example to set up different grades for a specific job such as junior, advanced, professional and senior, because through this can motivate the individual to achieve the next stage or grade. So, when the employee example is reaching, he senior grade to be able to step up another level example from cleaner to estate operative, from estate operative to maintenance, from maintenance to concierge and so on. Of course, to bridge the gap between two jobs to set up classes. In these ways the knowledge can travel from one level to another and the employee can get an opportunity to learn a new skill and to share the intellectual or tacit knowledge.

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