



Smart Approach to Warehousing

Self-Storage Industry

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<p>Self-storages are modified versions of industrial warehouses. Differing in functionality, except for the storage, industrial warehouses are more complex in design, operation and technology. This research was conducted with an aim of unmasking the needs that leads to emergence of such businesses. The relationship between features of a self-storage and its location are also listed under aim. In addition to these, the location selection methods are compared and checked for similarities or differences. Qualitative research method has been applied for collecting the necessary information with semi-structured interview questionnaires. The data is supported by theoretical framework consisting of features and functions, structures and models for selection of location, of both industrial warehouses and self-storages, later, compared and analyzed with the empirical findings. Industrial warehouses' functions are movement, storage and information flow, whereas, self-storages are designed to offer storage units with proper maintenance and other features. The results show that moving and renovation dominates the list of needs for renting a storage unit whereas marriage and divorce, seasonal stocking and deaths are other contributors. Visibility, accessibility and drive-up units are the key factors for selecting a location. Aforementioned factors and the location are closely related. Factor Rating Method is the common one between industrial warehouses and self-storages as per the analytics. The self-storage industry holds great growth potential in the European markets with few numbers of such businesses compared to that of US. The demand for such services is increasing day by day as more people are being born, but the total area of the Earth never changes.</p>	
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FOREWORD

Logistics has always been a subject of interest for the author. During the lecture 'warehousing and optimization', various concepts were presented and studied on warehousing techniques and tools invented and in the second part of the course, the students were supposed to process information on a computer program. Database were originally there which had to be processed and entry was to be made based on specifications of the items and customers. This aroused curiosity in the author about how the whole system took present form. What was the situation in the absence of these computers and respective programs? Numerous thoughts on the journey of logistics industry started swirling in the author's mind. More research took author's attention upon a new business strategy adopted by modern enterprises, 'self-storage industry', which determined the selection of thesis topic. The whole writing process becomes interesting when the topic is of personal interest.

The author has made an effort to develop an academic paper on the evolution of a new business sector involving warehousing and its guidance through an entirely new path though the first ever self-storage concept emerged half a century ago. Upon researching, very few literatures were available on this topic that enables the reader to learn about the story of relation between warehousing and self-storages, from past to the present and to the future. Author was curious about the working mechanism of such business model. Now, the work has been developed as thesis.

1 INTRODUCTION

1.1 Logistics

Logistics interact directly and indirectly with the modern industrial organizations. In simplest words, the term logistics can be referred to the management of inventory, (Goldsby and Martichenko, 2005), which can be at the point of supply and storage of raw materials or when the finished products are transported to retailers and end-users. There are numerous actors in-between, contributing at specific points of the whole process where management plays a vital role. With time, the process has grown more complex as exchange of items is no more limited in easily accessible perimeter but globally performed. Chinese business strategy, for instance, took over the global commerce with the biggest share of overseas business. Complex distribution network system has facilitated the availability of items produced in one corner of the Earth to the other, unquestionably, the storage and management too plays a vital role here though the transportation system apparently dominates most of the significant sector through the eyes of the end users as warehousing is somehow shadowed.

According to Christopher (2016),

“Logistics is the process of strategically managing the procurement, movement and storage of materials, parts and finished inventory (and the related information flows) through the organizations and the marketing channels in such a way that current and future profitability are maximized through the cost-effective fulfillment of orders.”

Experts have been continuously working on enhancing the warehousing system with all the science and technology available till the date as emergence of large scale warehousing and supply chain can be dated back to no more than few decades ago. This supports the idea of presence of numerous lacking factors still to be co-created bringing together innovative technology and business strategies. The standard of the services offered to the

end-users should be affordable and conveniently adoptable in meantime. During the course of time, countless technical inventions have come into existence, some successfully implemented while some hard works just perished in a flash for malfunctioning and security issues, for instance. A century long history of logistics has evolved from manual operation to automated and the innovative solutions popped up only after computers made entry in information handling during late 1980s (Robinson, 2015). However, the word logistics was coined thousands of years ago when it merely involved manual operations as per L.D.H. Weld (Alan McKinnon, 2010). By now, the concept has emerged into entirely intricate system.

“Logistics management activities typically include inbound and outbound transportation management, warehousing, materials handling, order fulfillment, logistics network design, inventory management, supply/demand planning, and management of third-party logistics (3PL) service providers. To varying degrees, the logistics function also includes sourcing and procurement, production planning and scheduling, packaging and assembly, and customer service.”

(Grant, Trautrim and Wong, p. 8, 2015)

Huge investments are being made in this field with active involvement of private parties in addition to the governmental organizations. The issue is not just limited to a local level but has impacts on the entire global system of supply chain when it comes to eco-friendly attitude of players in the field of logistics. Products are not meant just to be produced but distributed to the end-users in fair and sound condition which requires complex mechanism of handling and storage of items at different points during the transit. At the warehouses, where the items are received, stored and prepared for next journey, lies the major obstacles and delays so the experts have particularly been working to optimize the warehousing techniques.

Competitiveness has been the most essential factor in determining the success of a business which includes affordability, on-time delivery, quality and stocking as to mention few of the sub-determinants. This is where the storage and transportation play a vital role maintaining the level of competitiveness in any market.

“To remain competitive, business must design, produce and distribute their products and services while taking account of delays and increasingly restrictive quality requirements. To succeed, they put in new technologies and methods to continually improve their product and distribution tools. Such a system is called production system, or more commonly a logistics system.”

(Yalaoui, Chehade, Yalaoui and Amodeo, p. 7. 2016)

1.2 Self-Storage

The title ‘smart approach to warehousing’ refers to the service delivery mechanism of modern enterprises to the customers in need. Adopting the basic definition of warehousing, storage of items in controlled environment, many companies initialized a strategic goal offering storage space for common people. With time, the range of target customers were not only individuals but other businesses too.

Warehousing has been taken to a completely new level by modern enterprises offering storage options for public and businesses. The demand for common storage facilities rose as a result of increasing population in urban areas resulting in emergence of numerous companies to fulfill it. Discovering a completely new business sector, public storage facilities were constructed, and spaces were offered at a reasonable price for short-term or long-term contract periods depending on the customer’s need.

With 53,000 companies now, self-storage business evolved first in Texas, United States in 1960's. UK was the first one to introduce the concept of self-storage business to Europe only in the early 80's. However, the growth has been comparatively negligible if we have a look upon the American one. There are only over 800 facilities in UK. The northern and central parts of Europe are also experiencing such services. Espoon Minivarastot was the first Finnish company founded in 1993, which was established with an aim of offering self-storage services. Cityvarasto is the space leader in Finland with an impressive 23 facilities followed by Pelican's 12, the prior with storage facilities in Espoo, Tampere, Järvenpää, Turku, Lahti, and Kerava. Self-storage business has been seeking a bigger share on the NASDAQ Helsinki with other businesses opening up as well to compete and get something out of this opportunity. The Finnish market for self-storages looks unlikely. With spaces on offer of 770,000 square meters, Finnish self-storages' industry has a potential to grow vigorously in the coming days. Apart from just being an active member of FEDESSA, Itsepalveluvarasto Ry is the national association of self-storage facilities in Finland with 9 members. This business is worthy of a research in respect to its future prospects.

1.3 Research

1.3.1 Aim

The aim of the research is to study the reasons for preference of self-storages, at the same time, focusing upon the features and selection of location for such businesses. Logistical activities have been simplified to fit into daily life of normal individuals in the present context. Supply chain consists of mobility and transits. Warehousing solutions fall under the list as one of the emerging business sectors in the form of self-storages for personal as well as business purposes. The contributing factors for a need of such businesses and the relation between features and location are the main subjects of this research.

1.3.2 Research Questions

- What are the factors contributing to a need for self-storage warehouses?
- Do features of a self-storage and its location correlate?
- Is there a common method in selecting the location for an industrial warehouse and a self-storage warehouse?

1.3.3 Demarcation

The thesis comprises of facts related to self-storage industry. Though the thesis falls under logistical field, definitions of few and relevant terms used in Logistics are available. Warehousing is, however, thoroughly defined from definition, features and functions to structure and modern approach i.e. self-storages. Features of a self-storage in relation with location is the convergent point to all the data available in the thesis. In addition to these, the features of a self-storage warehouses are highlighted bringing together the constraints determining the features.

The theoretical part consists of data related to warehouses, developed by different experts in the field informing the reader about the structure, functions and features of an industrial warehouse. The various features and functions of a self-storage are developed in contrast with industrial warehouse. The location selection theory is explained in detail too. Regarding the empirical part, information about a single company (Pelican) is available, but a generalized overview of self-storage business is also equally focused. The study is done in Finnish self-storage industry only though global context is not completely ignored, occurring in few occasions.

1.3.4 Material

Primary data is gathered from the interview with the employee from a company operating in the field of self-storage (Pelican), whereas secondary data source comprises of literatures from authors in the similar field, articles, journals, scientific papers and academically recognized writings.

There has been lots of research in logistics' field as the materials are abundantly available, though, an academic paper with all the information about self-storage industry is a scarce. First, all potential literatures were listed under consideration and later filtered into no more than half a dozen which were analyzed thoroughly as thesis work's major theoretical framework. The concepts and theories from the various sources are analyzed and compared to build the theoretical part of the thesis.

The information and ideas gathered from different literatures contributed to the theoretical part while the analyzed data gathered from the interviews helped construct the empirical part. Qualitative data interpretation is quite challenging compared to other methods. The major focus was made in reducing and eliminating the bias as abundancy in sources and no concrete result were the risks. Useful and relevant concepts and ideas from both the sources was chosen for further analysis to reduce the contradictions emerging during the process and in the results.

1.3.5 Structure of thesis

The thesis work follows IMRAD structure. The paper starts with the introduction where the background of the topic is initiated followed by the theoretical support to the main idea. The theory comprises of the sturcture, functions and features, and location selection theory for warehouses and self-storages. The method applied in data collection is

explained and finally, the results are stated and analyzed which is discussed as per the research aim and the findings will be concluded with the scope for future possibilities.



Figure 1: Structure of Thesis

2 THEORETICAL FRAMEWORK

2.1 Warehousing

Warehousing can be defined as the process of storing products in a facility maintaining suitable environment during storage and preparing for further journey. These storage facilities are the nodes of the supply chain where items are received, consolidated, stored, assembled and dispatched for the destined region and customer group. All these activities performed inside a warehouse assist in smooth operation of business cycle. There is a continuous requirement for the proper management of a warehouse in order to achieve its expected functions. Warehousing management is, therefore, an integral part of logistics. (Grant et al., p. 230-232, 2006)

Business is full of uncertainties resulting in fluctuating demand of products. This demand has to be kept parallel with supply, otherwise, any deep-rooted organisation might fall back and be outcasted by its competitors in a long-run even if the operation continues. Supply can be maintained consistently with the inventory at warehouses. Consider the

Christmas season, for instance. Huge number of commodities are produced and sold during this season. There are products that repeatedly queue up in the Christmas list. These can be produced beforehand and stored, and later marketed with relevant market prices. Similarly, in case of production exceeding the demand due to uncertainties resulting in extra quantity of products, they can be stored at warehouses. However, being aware of the fact that storage is not the only function of a warehouse is essential.

“Warehousing affects customer service, stockout rates, and a firm’s sales and marketing success.”

(Bloomberg, LeMay & Hanna, p. 172, 2002)

2.1.1 Functions and Features of a Warehouse

“The primary functions of a warehouse is movement, storage and information transfer.”

(Grant et al., p. 236-238, 2006)

Warehouse acts as a support unit for manufacturing and customer specific product consolidation and bundling. It basically holds inbound raw materials from the suppliers and outbound finished products for the customers in the form of inventory. The inbound items are viable for quality and quantity check at the warehouses. This way it facilitates the manufacturing process acting as an allocation point for all the required raw materials. On the other hand, the finished products are received in huge bulks which are sorted and packaged in a warehouse and shipped to the customers. It can be referred to breakbulking. Product’s information flows between different parties when products are received, stored and dispatched. The acquired information is useful in inspecting warehouse effectiveness too. (Bloomberg, LeMay & Hanna, 2002).

The movement of products involves integration of multiple steps. Starting with receiving activity, uploading is the very first thing that happens at a warehouse. The products are then inspected for possible damages, checked for intended quantity and finally the information is updated in the inventory system. Now, the received products have to be transferred as per the product type. They can be stored, consolidated or shifted to dispatch points. Order picking follows next. Customized product assortment is performed on the basis of the order placed by the customers. Finally, the last process is shipping. The products are packed in boxes, cartons, containers or other special packages as per the requirement of the product with adequate information such as origin, destination, contents and so on. (Grant et al., p. 236-238, 2006)

A warehouse stores product in two different ways: Temporary and semi-permanent. The former is developed to store products required for basic inventory replenishment whereas, the latter serves as a method for storage of safety stock. (Grant et al., 2006) The temporary storage function of a warehouse is backed up by cross-docking method. In case of cross-docking system, the items are received and transferred directly to the shipping points without any further processing except than sorting. This method is best applicable in food industry as products have expiry date. Cross-docking is intendedly applicable only to the temporarily stored products. The semi-permanent storage arrangement can be adopted for products with seasonal and fluctuating demand. Also, the items that need to be stored for years before consumption fall in this category. Consider alcoholic beverages for an example. (Kasarda, 1996)

There are numerous actors inside a warehouse summing up to create a well-functioning system even after the facility has been all set with practical and strategic design and planning. All these must be frequently examined to ensure successful operation of the warehouse system. (Grant et al., p. 236-238, 2006)

2.1.2 Structure of a Warehouse and Technologies

“Five interrelated variables must be considered in a warehouse design: Land and building, management and staff, storage and handling equipment, computers and softwares, and operating methods and procedures.”

(Bloomberg, LeMay & Hanna, 2002).

2.1.2.1 Physical structure

Geographical location is one of the most important factors in determining the success of a warehouse. The proximity from the nearest port, from company's production sites and the accessibility to the targeted customer are a few of the things to be considered while setting up a warehouse. A warehouse built in Vantaa whose company's production site is in Kuopio with a goal to serve the retailers in Oulu is the poorest executed strategy. Experts across the world have developed various insights on selecting the best sites for construction of a warehouse to minimize transportation cost, boost Just-in-Time delivery and increase quality of customer service. There are plenty of theories assisting in selecting the best location from available alternatives. (Grant, et al., 2006)

2.1.2.2 Technical structure

In modern world, nothing has been left untouched by technology. Use of internet has increased accessibility and delivery of information between two or more parties like never before. Increasingly high customer demand for uniform delivery times and order cycles have been eased figuring out the peek holes in this particular industry. Communication has been the key in maintaining relationships. Customers are forever seeking information about the status of their item's shipments and transits. All these have been delivered with true conscience. Integration of logistical activities with information management have recently been a major transitional phase in the history of logistics. All in all, all these

serve to enhance Quick Response (QR), Efficient Consumer Response (ECR) and Customer Relationship Management (CRM). (Grant et al., p. 83-88, 2006)

2.1.2.2.1 RFID

RFID stands for Radio Frequency Identification. The items carry an active tag with the product-related information read by a device acquiring all the required information about the product. The tag engraved item emits radio frequencies readily readable by the receivers. There does not need to be any physical contact between the item and the frequency detector. The information is then processed by a computer that is useful for purposes like materials handling, inventory replenishment, asset and product tracking, authentication and other security purposes. (Grant et al., p. 85, 2006)

2.1.2.2.2 Barcodes

Barcodes, found on almost all of the products, are simply lines and numbers that carry information about the product. They comprise of parallel lines of uneven widths and varying spaces between them communicating about letters, numbers or special characters. European Article Numbering (EAN) Uniform Code Council (UCC) is the most widely used type in Europe. (Grant et al., p. 84, 2006)

2.1.2.2.3 Automation technology/ Artificial Intelligence

The science has been actively working for inventing a ROBOT that can fully operate in warehouse environment by itself. Though, full computerized warehouses do exist today, like in Alibaba warehouse, humans are still required to handle and operate some tasks that ultimately need to be operated manually. Invention of ROBOTS might fill up this space too. (Grant et al., p. 87-88, 2006)

2.1.3 Selection of Location (Factor Rating Method)

In the presence of numerous theories proposed for selecting the best location for establishing a new facility for an industrial warehouse, the choice being driven by the features and functions of the site to be built, Factor Rating Method was found to be the most relevant for this research paper. Therefore, the author has made an approach to introduce the Factor Rating Method in a simple but complete manner.

Factor Rating Method involves analysis of numerous pros and cons of selected sites holding the potential. The factors associated with the sites are selected, like accessibility, availability of resources, cost structures, per capita income, education and health, taxations and so on. As soon as the company's preferences and expectations from the new site are identified, a list of all key factors is prepared and then each of the factors are assigned weight as per their degree of importance. The sum of all weights should be equal to 100 % or 1. The table below illustrates this concept rather clearly. (Anderson, 2018)

Key Factors	Assigned Weight
Accessibility	0.30
Per Capita Income	0.25
Labor cost	0.30
Population density	0.15
Total	1.00

Table 1: Step 1 - Factor Rating Method

Now, the factors are examined individually for each site and scores are supplied. Then, the weight assigned for each key factor is multiplied with the score supplied that gives off the final figure to be compared. The table below might clarify this in a better way.

Key Factors	Weight	Scores (out of 100)		Weighted Scores	
		Helsinki	Rihimäki	Helsinki	Rihimäki
Accessibility	0.30	90	75	$0.3*90=27$	$0.3*75=22.5$
Per Capita Income	0.25	85	80	$0.25*85=21.25$	$0.25*80=20$
Labor Cost	0.30	65	70	$0.3*65=19.5$	$0.3*70=21$
Population Density	0.15	80	70	$0.15*80=12$	$0.15*70=10.5$
Total	1.00			79.75	74

Table 2: Step 2 – Factor Rating Method

The scores for Helsinki and Rihimäki are compared for further progress of the project. Helsinki seems to be the better site in the above illustration with average weighted score of 79.5 against 74 that of Rihimäki. This is just an example and the real task demands for optimum level of intelligence when assigning the weights to each factor. Also, the scoring for each site has to be reliable and done after proper research otherwise, the false data might result in selection of wrong location. The numbers used above for assigning the weights and scores are completely from author's own knowledge and understanding of the context. Searching for actual facts and figures would just be time-consuming and the main idea was to present the working mechanism of Factor Rating Method rather than analyzing the results for those two mentioned cities.

2.2 Self-Storage

2.2.1 Functions and Features of a Self-storage

Self-storages are simply established to offer storage units for private individuals. However, with this simplest of the functions, there are numbers of responsibilities to be fulfilled. The storage units must offer favorable environment for the stored items so that they do not deteriorate during the period of storage. The units might have been designed to accommodate particular group of products too because metal items and electronic items can not be stored under similar conditions. Too much humidity or low temperature might ruin the state of electronics whereas metals and furnitures are not that affected under same conditions. Similarly, self-storages are pretty concerned about security issues too. Customers are always seeking security and assurance on product's safety. Therefore, cameras constantly monitor the facility for 24 hours. Insurance is also offered to the customers in the form of outsourced one too. The units are also secured with locking systems and only accessible to the particular customer owing the unit and certainly the employees. The customers can withdraw and store additional items whenever they want unless within their contract period. Self-storages offer transportation services too. Again, the moving companies might be involved in this action if the self-storages do not possess necessary vehicles, forklifts and trailers. (Security Self Storage, 2018)

Business storage solution is an exclusive feature of a self-storage. They usually seek larger units and reliable insurance facilities, even transport assistance, elongating the contracts for over a year in average. Other features vary alot from company to company depending on the target customers. From storage units of varying sizes to Drive-up units and Parcel Pick-up service, self-storages are structured in order to meet the customer's need and keep them satisfied to the highest possible degree. The location plays a vital role in presence of Drive-up units as it requires enough space and accessible site. The customers can drive into such units with their vehicles and do their tasks decreasing the distance and workload of carrying items from parking area to the unit they rented, situated somewhere in fifth floor. The Parcel Pick-up service enables the customer to post the

items directly to their storage company and the employees store their items into the units they belong to. The arrival and storage confirmation are sent as a text message to the respective customer. (Lehtinen, 2018)

2.2.2 Structure of Self-Storages

Self-storages are simple in structure compared to sophisticated warehouses with complex network of information flow. The customers are the nodes in case of a self-storage network. They create and keep the up the flow. They create reasons for storage, seek stores and transport in and out of the stores from self-storage Businesses' point of view. The security and maintenance of the storage facility is however on company's list of responsibilities. The items are easy to store too, mostly comprising of commodities and seasonal ones, not requiring much specialization in the units other than temperature and humidity. (Interview-Pelican, 2018)

Self-storages are very much structured in a way facilitating Business-to-Business and Business-to-Customer at the same time. This makes this business an exciting one with just some spaces at reasonable price on offer as the major attraction amongst Value Propositions. Although, security and favourably maintained environment escort the space value, present strategies include 24-hour access to own units. Here, the customers are self-employed for themselves and carry out all the tasks of development of service (the space to be rented), transportation of items (into the units) and clearing out the units (on contract expiry). These facilities are better located in easily accessible areas, highly recommendable near main roads with nearby dense residential zone. This makes the customers happier than having to travel for tens of kilometres just to have an opportunity to clear dust out of their units. Customers come with different demands and needs. Some will seek short-term services while others might be interested in talking years of relation. (Interview-Pelican, 2018)

2.2.3 Selection of Location

Self-storage sites require critical thinking while going for the location that supports growth and success. There are numerous factors to be considered before physical structure of the storage facility is built. Research, just like in every other idea, plays a vital role in acquiring data related to target market. (Hajewski, 2016)

2.2.3.1 Market Conditions

The competitors are always best kept monitored. In a perfect location with potentials of huge inflow, the market share is definitely low in the presence of numerous actors acting on the same stage. Instead, new settlements are always beneficial. People residing at these places are sure to be looking for some space to hire. (Inside Self-Storage, 2016)

2.2.3.2 Signage

Even a perfectly located site might fall behind in case of a poor command in signs and boards clear enough to be attractive for the passers-by. Even better would be to hire the big hoarding boards at the most happening spots in town. (Inside Self-Storage, 2016)

2.2.3.3 Visibility

The studies are evident of the fact that half of all the customers for self-storage businesses happen to choose the particular site just by driving across it. This seems to be the easiest of the customers in the history of Customer Relationship Management. There is some additional cost associated with good location though. However, the cost is balanced and even out-casted with the revenue flowing in when a site is visible from main road or

motorway. The needy customers will come seeking services once they are aware of the presence of self-storage facility. Visibility mostly play its role when the competition is on. (Hajewski, 2016)

2.2.3.4 Population Density

Larger population definitely occupy larger space. Densely populated zones keep the occupancy of the units comparatively higher, clinging above 80% all around the year. People would consider going for the closest site rather than the one a few more miles across the residential area with better offers. The European average occupancy is 80 to 81% in 2017. (FEDESSA, 2018)

The customers will act as in snowball sampling method. Potential customers are informed about the company's existence and services by own customers in a place where people live in an intact neighbourhood.

2.3 Summary

Both, industrial warehouses and self-storages, are established with the function of storing items under favourable conditions. The structure differed from each other's in a great way. Industrial warehouses are found to be more complex in physical structure and involved high-end technological elements. Science has been continuously working on making the warehouse environment better and more secure. Tools such as RFID has contributed in easing out the basics of product's information transfer in addition to their identification and registration. The basic functions are found to be movement, storage and information flow. However, functions are dependent of features as the installed technological tools determine the limitations of the warehouse's functionality. As mentioned earlier, warehouses being the node, it has great effects on the chain and

therefore, studied, experimented and optimized to the optimal level. In this run, numerous theories on selection of location for building a warehouse have been created. Factor Rating Method is one of the simplest which involved supplying weights to the factors and scores to the potential sites, later, brought together and analyzed.

Self-storages, on the other hand, were simpler structures, physically and technically. Simple buildings could offer spaces on demand, the size of the units was not so hard to arrange. Camera surveillance and high-end security tools were enough to keep the customers satisfied with the services, though, competition in the market might ask for more. Exclusive features are always better and a must for levelling the competitiveness in today's markets. With functions as simple as storage, maintenance and movement of items, self-storages have been able to meet the needs of individual and business customers. The demand differs from these two customer groups. Location was the most important determinant for self-storages' success. Visibility was best available with a good location and other factors like population density, market conditions and signage were in the list of consideration while seeking a location for establishing a self-storage site.

3 METHODOLOGY

3.1 Qualitative Approach

One of the essential features of qualitative research method is that it enables the capacity in researcher to acquire data on abstract variables, impossible to measure in regard with any tendencies like feelings, thoughts and intentions to mention a few. The information listed under requirements for analytical approach to any subject can be found with the implementation of qualitative tools. The technique helps acquire that information from the users related to their attitude and opinion towards the service or any product subjected to a need for a research. (Aaker, Kumar & Day 2004, 189)

Qualitative research methods are usually intended in creating a favourably flexible environment and maintain a good relation between the interviewer and the respondent. The questionnaire is also less structured so as to make sure more insightful data is acquired from a small number of population representing only a part of the target population.

3.1.1 Types of Qualitative Research Method

Qualitative research can be carried out in many different ways. (Leonard, 2018)

3.1.1.1 Phenomenological Model

Interviews, observations and surveys are the activities conducted for acquiring required information from the subject under this method. Phenomenology is the ultimate key here. (Leonard, 2018)

3.1.1.2 Ethnographic Model

The user finds itself in a strange environment when the researcher gathers information on important matters. The prototype operation can be best described as this method. (Leonard, 2018)

3.1.1.3 Grounded Theory Model

This method digs upon a subject matter on question in general and reveals the process behind an activity. In case of good responses from the customers for an example, the

factors behind the positive feedback can be known and consistency can be maintained within that specific aspect. (Leonard, 2018)

3.1.1.4 Case Study Model

This model centralizes all of the energies to one particular subject, highlighting every detail of it. The subject can be a person or entire family, business or organization, or a certain place. (Leonard, 2018)

3.1.1.5 Historical Model

Past can be a good source of information for assessing the present and the future happenings as this model suggests. Any activity from the past can be analyzed thoroughly in order to anticipate results in the future. (Leonard, 2018)

3.1.1.6 Narrative Model

The research time is elongated for a longer period of time in this method. The subject is observed in a periodic pattern under different circumstances in the form of either obstacles or opportunities and the data is collected on a regular basis. (Leonard, 2018)

3.1.2 Individual in-depth interviews

These kind of face to face interaction between researcher and respondent involve well-addressed subject matter. The interviewer provides guidance and assistance to the interviewee in order to steer around the subject matter. Unless and until the respondent is aware of the subject matter, he is offered with all the freedom to present the ideas.

However, the amount of data acquired through such interviews completely relies upon the interviewer's management of the event. (Aaker, Kumar & Day, 2004)

3.2 Data collection

Data from different academic writings was analyzed to build the theoretical base while the information gathered from the interview was analyzed in the empirical part. For the interview, semi-structured in-depth questionnaire was offered to the interviewee that gave off the required data. The questionnaire was diversely created. The validity and reliability of the information was taken care of at all points.

3.3 Validity and Reliability

Research work relying upon irrelevant methods are of no value. The reader or user of the results must be ensured if the information is trustworthy and can be used for further references. This is possible when the research aim comprehends with the methods and reliable information is collected for analysis. The research questions determine the overall structure and relative research methods. Validity ensures that selected method, data and overall research design aligns along the subject matter. Reliability, on the other hand, assesses the degree of the reliability of the results.

“Validity has traditionally meant an estimate of the extent to which the data measure, or the design measures, what is intended to be measured.”

(Glenn, 2010)

Reliability can be achieved by relating one's research work with something reliable for the readers or audience. Establishing connections with previous research works leading to similar results might help gain reliability. Validity and reliability are essential parts of a qualitative research and all the conveyable information must not be missing or hidden from the reader. This helps maintaining standards for validity and reliability.

4 PELICAN

Pelican is a multinationally active business chain operating in self storage sector originally founded in 2009 by Nordic Real Estate Partners (NREP) which is now in its expansional journey reaching 9 by 2017 in Copenhagen and North Zealand. The number still keeps on being counted, with astonishing 15 in Finland and 11 in Sweden until last year. Pelican Finland Holding Oy was first in Finland established in 2010. It was Pelican Vallila funded by American Pension Fund and Nordic Real Estate Ltd. The facility located in Kilo, where the interview was arranged, was the first in Espoo, established in 2012. (Pelican Self Storage, 2018)



Figure 2: Pelican Kilo's customer service point and outlet

4.1 Need for Self-Storage

There are numerous life-situations where one experiences the need for a storage facility with affordable services. The most common reasons for individual customers include temporary migration, temporary or permanent movement, marriages, divorce, deaths ultimately resulting in unavailability of adequate space. The business customers make benefit of self-storages in a different way.

Mr. Lehtinen, Site Manager at Pelican, briefs that the reasons for renting a space are simply the daily life activities. When the house of residence conducts renovation of the whole building, there is no way out of the trouble in managing all of the stuffs but storing at a nearby storage company and getting those back when everything is good. This saves a lot of time, effort and money too. When two people get together, there might not be enough space to fit all of the items at a single place that came from two different places. Self-storages fill the gap of trouble in this case as well. Divorce is similar actor. When each of them gets their half, the new place might not be big enough to hold all the items and again the surplus items go to nearby storage. Unfortunate, but still deaths are responsible for inherence of the remaining of deceased to the living generation (Inside Self-Storage, 2016) and this is the point where one seeks a place to store all those items safe and secured until and unless further arrangements are made. (Interview-Pelican, 2018)

Companies have their own different story behind the need for self-storages, says Mr. Lehtinen (Site Manager, Pelican). There are lots and lots of items in a company that are rarely used but still offer great values when usable. Enterprises located in urban dwellings are offered very little space and larger spaces are unaffordable too. Furnitures, machines, stationary items and other advertisement related items are mostly stored in nearby self-storage facility with a long-term contract. Other businesses might save the expenses on having had to either buy or lease required spaces for expanding their premises or even build an own warehouse if the emergency hits. Urban area can offer only that much of

space, enough just to accommodate daily used items of the enterprises. This makes it hard for such enterprises to manage spaces for abundant items like furnitures and machines which are barely used more than twice a year. Affordably quality service is what it seems like to the customers owing some space in one of the self-storage sites. (Interview-Pelican, 2018)

4.2 Target Market

The self-storage business has maintained both Business-to-Business and Business-to-Customers bond in an impressive way. Pelican classifies its target customers as Movers, Smart families and Businesses. The movers ask for bigger units compared to the Smart families who show up demanding for smaller spaces. Smart families usually store seasonal stuffs like skateboards in winter. The contract period too differs from group to group among the customers. The movers stay as long as four months, the least being two months whereas companies are easily occupying for a couple of years. Companies made one-fourth of the total customers. Flexible contract terms and conditions, and online accessibility has increased the visibility of Pelican in this sector. Pelican prioritizes expanding visibility in recent times. (Interview-Pelican, 2018)

The average occupancy has been around 84 % in the last six months as stated by Mr. Lehtinen. The Christmas holidays are usually quiet while July sees vacations rather similarly. Summer brings May as the busiest of the months with people stocking-in boats, yachts, items for summer cottage and saunas. August is full of students gathering up for new semester in the Fall. Despite no such discounts for students, the revenue flow is pretty good. The temporary guests fill up the units one after another keeping the wheels moving for Pelican with such occupancy rate compared to European average of 80 % to 81 %. (FEDESSA, 2017) They establish a new site atleast around once in a year upon identification of any potential location. Expansion of business is a must when it comes to strategic approach. (Interview-Pelican, 2018)

4.3 Features and Services

Pelican has been in this business for quite a long now. Finnish Self-Storages' leaders include Pelican too. The competition is however a bit too strong in Finland with few but equally powerful companies' existence. To remain competitive, Pelican has strategically acted on the market. The drivers for such invincible professionalism include location as a one. Good location serves as a tool for increasing visibility and at the same time accessibility too. The availability of space determines whether drive-up units can be offered or not. Drive-up units are easily accessible with a vehicle allowing wide open doors, wide enough to let pass a small Truck. (Interview-Pelican, 2018)



Figure 3: Pelican's storage units

Reliable security arrangements are offered by Pelican with 24-hour camera surveillance. About the storage units, the keys are only owned by the customers. There are 3 keys for each unit. However, emergency situations might involve usage of master keys. The main gates can be opened with access codes all day and night and the employees are available for any kind of assistance at any point between 10.00 to 18.00. There is also an option of online services where new contracts, appointments, terminations and any queries can be sought out. (Interview-Pelican, 2018)

The outlet store sells packaging materials to the customers. This is open during the office hours, 10.00 to 18.00. Pelican offers free 24 hours of free trailers' usage to its customers. In case of need for a moving Van, Pelican's customers get 10 to 20 percent discount from its general partners specializing in moving purposes. Insurance facility ensures the safety of the items depending on the size of the units. Smaller units get up to 7000 Euros of coverage, whereas, medium units see a sum of 15000 to 40000 in case of an accident. The larger units get a coverage of maximum 50000 Euros. In addition to these features, flexible contracts and customer service are noticeably the powerful tools in building a long-term relationship with the customers. (Interview-Pelican, 2018)

5 RESULTS AND ANALYSIS

The collected data was right on line referring to the aim and objective of the research work. The reasons for self-storage's demand, the relationship between features and the location, together with the common method of selecting a location for industrial warehouses and self-storages were the focus of this research.

5.1 Factors contributing to a need for self-storage warehouses

Self-storage industry has already been popular in urban dwellings all around the world. The need for such storage facilities basically included lack of adequate space due to moving, marriage, divorce and business purposes. Seasonal stuffs that are not useful in any other season are also great contributors in self-storages' revenue. While all these reasons led a customer to the doors of a self-storage, the features equally mattered. The chart below shows the different factors contributing to the need for a self-storage.



Figure 4: Reasons for choosing a Self-storage

The moving and renovations are in the top of the list as both the individuals and businesses face renovations of the building and individuals move from place to place for several reasons. Marriage and divorces occur continuously and there are situations that seek storage options at times quite often. Seasonal stuffs are in the third place. Customers live differently in different seasons of the year. All those stuffs piling up at home gets unbearably messed up igniting the thoughts of renting a space at a self-storage. Last but not the least, deaths too contribute in increasing the number of customers for self-storages.

5.2 Correlation between features of a Self-storage and its location

Location plays its role in every aspect of business. Self-storage particularly relies in a great way on the situated location. The features are determined on the basis of the location and yes, the features are the driving factors for selection of specific location among the available alternatives. Visibility is one of the most important factors to be considered before going for a certain location followed by accessibility and other additional features such as drive-up units. While all these factors make certain location a good one, these factors are equally influenced by the location itself. All these factors are the components and the offerings of a good location and its benefits. This finding can be interpreted in a chart as follows:

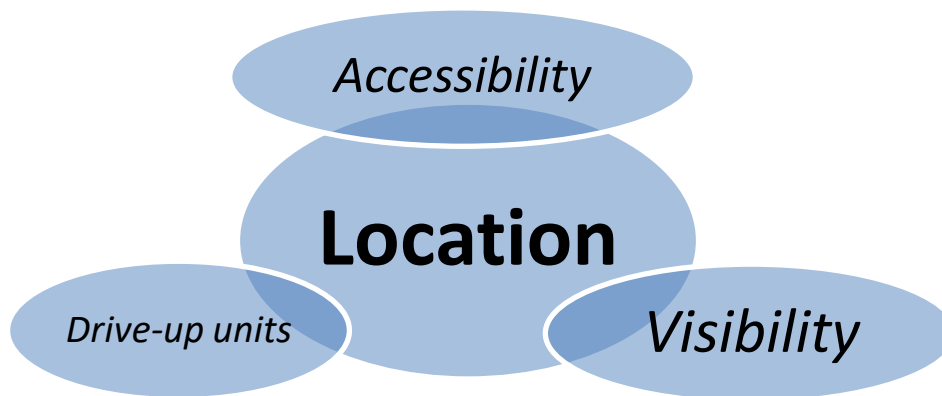


Figure 5: Location and Features of a Self-storage

Here, while on depth, location can still exist without all those attached ones, but they got no existence in absence of a good location. That location might eventually be reknowned as a bad site. The importance of visibility is also seen in marketing sector of the business. A good location with high level of visibility eventually saves a lot of money that should have been spent on advertising purposes.

5.3 Industrial warehouse and self-storage

The results show that self-storages are obliged to look upon few important factors before selecting a location in order to make the best decision. Similarly, aforementioned theory for selecting a location for industrial warehouse also indicates that Factor Rating Method requires identification of key factors depending upon the nature of the warehouse and the location alternatives under consideration. It is clear that self-storages do operate this particular action on the basis of the theory proposed for selecting location of an industrial warehouse. The key factors differ for these two types of storage facilities, but the process is similar. As a matter of fact, there is a common method in selecting the location for an industrial warehouse and a self-storage warehouse.

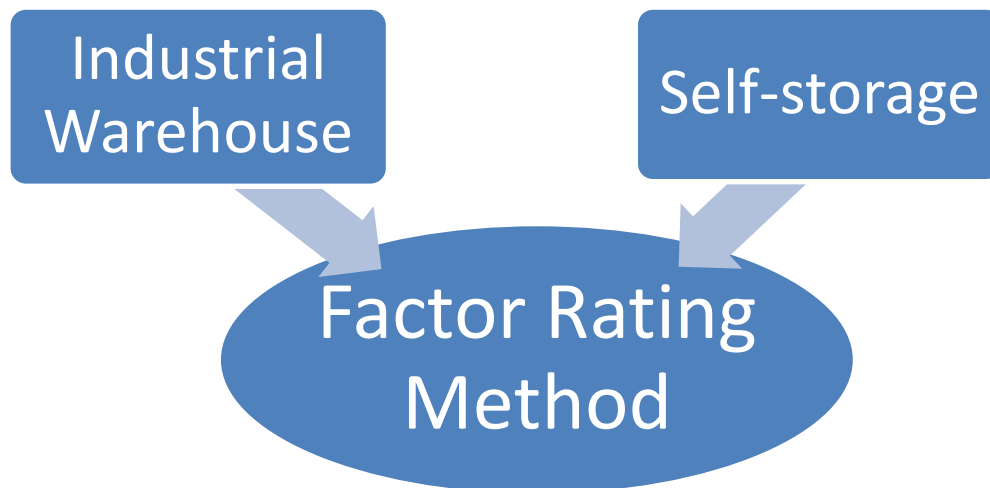


Figure 6: Location selection method

These two types of storage facilities are experiencing difference in demands from the customers. The industrial warehouses are significant nodes of a process that involves manufacturing, assembling, sorting, transportation, delivery and storage to mention a few of the supply chain essentials. These warehouses must assist in gaining economies of scale, cover the seasonal demand and cover the need during the lead time keeping the delivery service uninterrupted. Though the fundamental flow is about material, capital and information for self-storages as well, they are less functional regarding the diversity and nature of the demand. Here, the supply chain is simply from the customers to the self-storage and back to the customers; no transits, no bulking, and no assembling and sorting.

6 DISCUSSION AND CONCLUSION

Self-storages are the modern version of huge industrial warehouses but operating under different objectives. The author initiated the research work with an aim of figuring out the reasons for renting a self-storage and the relationship between its location and the features. The theoretical section adds up to the reliability of this research linking it with

previously assigned models. The theoretical framework basically includes the structure, functions and location selection theories for both industrial warehouses and self-storages. Previous researches were pretty handy for statements of comparison between the two. With application of qualitative research method, semi-structured interview precisely, the aim is met successfully. The interview with just one company is not enough and making it more than that would just make it complicated and time consuming too in arranging interviews, gathering, analysing and interpreting the findings. One interview at Finnish self-storage and a survey questionnaire answered by a maximum of 3 self-storages from 3 different nations may have led to more concrete findings. There is still shortage of information about Finnish Self-storage operations that are not so advanced and matured yet compared to the ones found in USA. The author feels; however, this research provides enough information to make conclusions.

The self-storage industry equals to a market value of 350 Million Euros, according to indices from last 12 months. As more and more population converge into city areas, the availability of adequate space lessens. This results in more people seeking storage alternatives once not able to fit everything at their residence. There were 467 new sites opened in 2017 and an expected number of 1,188 sites will start operating their services in next 3 years as mentioned by FEDESSA. (European Self Storage Annual Report, 2017) The same association also calculated the Compound Annual Growth Rate (CAPR) of 11.7 percent in the year of 2017. The status of business differs greatly from region to region and country to country. The same features and services applied in US might not work out for Finnish land as people might be experiencing need in a different way regarding the need for storages and therefore, the demand differs. Probably, due to significantly larger number of actors than any other place in the world, the margins and figures for US are rough, exhibiting a fall in the chart for self-storages.

'Stock valuations, meanwhile, are falling back to earth. Self-storage companies are trading at a 2% discount to the estimated market value of the properties they own, compared with an average 16% premium over the past five years, according to Green Street Advisors.'

“When you live in urban settings, you live small,” Mr. Rogers said.

(Grant, 2018)

The findings of the study conclude that the reasons people go for self-storages include basically daily-life activities; movement, migration, marriages, divorces and business purposes. Such elements are served with features offered by self-storages in exclusive fashion. Meanwhile, the features and location of a self-storage are interrelated with each other and are indispensable too. Visibility and accessibility are the two of the features most closely associated with location. With such an involvement in daily life of normal individuals and businesses, this industry is worth lot more focus and researches for development and improvement. Standardization in business models can be one of the approaches that might attract interests as it contributes in scale of economies. Also, benchmarking is another one where the comparisons can be made if these two particular industries, industrial warehouses and self-storage warehouses, can offer each other something to learn and adopt in business operation.

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APPENDIX

INTERVIEW TRANSCRIPT

(The conversation started after a few minutes of introduction, not recorded and included in the scripts.)

SUBEDI: *Okay! So, what do you think are the 3 most important factors while building a self-storage warehouse?*

LEHTINEN: *Mmhh! Location, easy-to-use and safety.*

SUBEDI: *Okay! And how many new storages do you open, do you establish annually? In average, let's say!*

LEHTINEN: *Hhmm! Around once in a year.*

SUBEDI: *Do all of your warehouses operate under similar technology?*

LEHTINEN: *Yes! All the warehouses are using the same, similar technology.*

SUBEDI: *Do you have some kind of application or software that you use?*

LEHTINEN: *No, we don't have but we send a text message.*

SUBEDI: *The customizations. Are there any customizations on the units?*

LEHTINEN: *Nothing much! The driving storages, I mean we offer the drive-up services to the customers with easily accessible units.*

SUBEDI: *How would you define the target group of customers for Pelican?*

LEHTINEN: *Mmm! The movers and smart families for the seasonal stuffs, and also the companies, renovations and things like that.*

SUBEDI: *Okay! What do you think are the most common reasons for renting a self-storage?*

LEHTINEN: *Ahh! You save a lot of time, like, moving in and out and if you are married or just divorced, if you are selling your apartment and then you, it's so much easier to sell the apartment, the house when it's empty and you bring some stuff here and you save some time.*

SUBEDI: *Does Pelican face the seasonal peaks and troughs in number of customers? Or is it constant throughout the year?*

LEHTINEN: *Well! The business is around the same every time in the year, the occupancy is in the same line. But there is some difference, example, winter is little bit quiet but when the summer comes, business will be growing. It's going to be little bit busy. Christmas is quiet. The occupancy is 84%.*

SUBEDI: *What do you think might be the factors affecting the self-storages in Finland? For Pelican precisely!*

LEHTINEN: *The customers are coming in from within a radius of around 5km. Usually families and older people and some of young people also but usually the average age is like 30-50 and even more than that.*

SUBEDI: *Okay! Let's get into the next question. What are Pelican's value propositions?*

LEHTINEN: *Ahh! Flexible contracts, safety, pick-up service for the companies, free trailer and also the customer service which is open 10 to 6pm. Also, you can get all packing materials from the office and the access is 24 hours. You can also rent a Van from our partners and also, we offer moving service.*

SUBEDI: *So, can you tell me, are they same for all locations? I heard there's something different with Töölö site?*

LEHTINEN: *Yeah! The Töölö site have more smaller units and some of the sites have drive-up units. Example in Kilo, we have a lot of drive-up units and those are good for the companies. For the movers, the smaller units are good. In Helsinki, there is no much space so that's why we thought that it would be a great idea to build a lot smaller unit in Töölö.*

SUBEDI: *Thank You for your answer! Do you think the location determines, so You say You have the smaller units in Helsinki because people have smaller apartments there?*

LEHTINEN: *Yeah!*

SUBEDI: *So, the features of a warehouse are determined with location too?*

LEHTINEN: *Just Yes!*

SUBEDI: *Can you tell us something about the safety? How you offer, how you ensure your customers they are safe here that their stuffs are protected?*

LEHTINEN: *Well! We have the camera system and all the customers have their own keys for the storage and own access codes which works for the gates and the doors. All the customers are insured. Usually, the smaller units have the insurance which covers the up to 7000 Euros, the*

medium ones have insurance up to 40 000 Euros. The bigger ones up to 50 000 Euros. The access code, the gates are open from 10 to 6pm and after that you have to use your own access code for the gates, which works 24 hours.

SUBEDI: *Would you allow a business that operates online and stocks all the items at your storage facility?*

LEHTINEN: *Yeah! We will. All the customers are welcome!*

SUBEDI: *Is there anything special for those customers?*

LEHTINEN: *No special services!*

SUBEDI: *How do you see this particular business, could it be something Pelican can offer space options for in the future? Are there any benefits for the Pelican regarding this specific group of customers?*

LEHTINEN: *Well! All the customers are welcome, and we'll acquire visibility from them.*

SUBEDI: *Thank You Mr. Lehtinen for the interview. I appreciate your assistance.*

THE END!