Warehouse performance measurement of tesco online commerce essay

Tesco being the 4th largest online retailer as per revenue and 2nd largest online grocery retailer as per profit is constantly increasing its online grocery business which is being done from its Superstore chain. Tesco introduced a DOTCOM dedicated store more commonly known as DCOS (Dotcom only store) in Aylesford in 2009, which was a huge success and a boost to its online grocery business. As it was highly disturbing for the local superstores carrying out Dotcom business within them in line with the other regular store operations, it was becoming a quite a need to open a dedicated store Dotcom store in London, which TESCO did made possible by opening another DCOS in Greenford London. Tesco needed to reduce the impact of the Dotcom operation in certain stores at the same time addressing space constraints for the Van numbers in particular geographic areas, with a store-based order fulfillment model. This led Tesco to re-evaluate the potential for a dedicated facility.

Being a Tesco DCOS employee myself, I am very well known that the Product Availability is the highest priority in any DCOS or a superstore running Dotcom in it. Tweaking the performance of Warehouse is one of the key possibilities to make that high priority element easy to live with.

According to Goh and Pinaikul (1998) for a company to run and have a sound and effective supply chain operations, companies have put a lot of their time and effort in this field. If the logistics of a company is well handled, it can take a company to a different level of success and it becomes easy for a company to defeat its rivals (Mentzer et al., 2004).

With the new advancements in technologies there is always room for improvement and upgrades in a company's Warehouse Management. In DCOS Warehouse Management case there is a large number of logistic operations taking place. There have been many researches which discussed how to improve the performance of a company's warehouse by adapting different models and how to implement them. Moreover, this research will provide the company with the better understating of how to enhance its performance by measuring its performance with the variable benchmarking. Competitive advantage can be gained over rivals if the company's WMS is flexible and any process that is not performing well can be used as a benchmark to measure Warehouse Management's performance.

Any flaws or drawbacks that maybe present in the current Warehouse Management Techniques will be reduced / diminished by the help of this research.

LITERATURE REVIEW:

WAREHOUSE MANAGAMENT:

To have a very successful and efficient supply chain, an organisation has to focus on some major operations like warehouses. In today's day and age a firm is considered to be a flop which does not take care of its warehouse management functions. It has become vital for companies who manufactures on a large scale and in bulk to be efficient if their warehouse management system is not able to help company in all economic climates (Henneberry, 1987; Power et al., 2007).

As per Brown (1990) and Lindley et al., (2008) there are numerous factors that are responsible for the vitality of warehouse management systems (WMS) some of which are that customers can place orders recently a new trend in the market has started in which people are leasing their land or building warehouses and then leasing them to different companies. This trend only came in to existence because of this mounting need of warehouses by mass producers and retailers (Jones and Hillier, 2000)

Source: Adapted and modified from Mulaik and Cooper (2000).

Warehouses can be defined in different ways but as per Gunasekaran et al., (1999) a warehouse can be defined as a place where commodities and goods are saved and stored for many reasons like social, commercial and assets safety. The designs of warehouses should be able to provide company with different technical and operations (Hassan, 2002; Faber et al., 2002).

Warehouses are facilities that provide the right environmental conditions for the storage of finished goods and/or materials that require protection from the elements, as well as ensure commercial security and social safety (Gunasekaran et al., 1999). As such, warehouses have to be designed to satisfy a combination of several technical and operational requirements (Hassan, 2002; Faber et al., 2002). According to Lodree et al., (2004); Gaur and Ravindran, (2006) the basic functions that should be present in a warehouse are " engineering structural capacity to bear the loads of the materials to be stored as well as the associated handling equipment, receiving and shipping operations and associated trucking, and the requirements of the operating personnel".

Store-keeping places hold very important for proper warehouse management Gaur and Ravindran, (2006). There are following six major functions which are in the figure below.

As per Lambert et al. (1998) there are more than 750, 000 warehouses around the globe. These include private leasing warehouses, state of art warehouses, highly sophisticated warehouses, storage warehouses for companies and self-storage places. Lambert et al. (1998) further says that if the warehouses need so much money to have and operate then why they exist? He answers his own question and says that they play a vital role in company's supply chain management and they are usually build and kept to help companies in achieving transport and production economies, quality purchase discount and forward buys.

Warehouses are a key factor in any organizations operations. Their main purpose is to supply, circulate, store, consolidate and changeover cargo. Henneberry (1987) and Power et al. (2007) claim that in today's day and age to consider profitable allocation or to consider large scale manufacture it is vital to give thought to the role of warehousing. According to Brown (1990); Lindley et al., (2008) partly because of the increasing dependence on the electronic alternatives for order placing by commercial and private customers and also to the manufactured goods industry the demand for warehousing is on an all-time high. Due to this demand of electronic order placing a greater weight is placed on distribution centres to hold the right amount of all the different stocks in order to meet clientele demands. Warehousing is required due to the developing capability in stockholding by vendors and producers.

Boasting a direct impact in flexibility, operational costs and service levels warehouse operations prove that they are indeed indispensable (Baker and Halim, 2007). Warehouse operations being those of warehouse location, goods handling, warehouse design, inventory and storage guidelines hold a great importance in addressing the specific issues which are faced in achieving strategic goals. These issues can only be addressed once an organization has distinct strategies that will help define their long term performance (Bowersox et al 2002, p. 389; Bowersox and Closs 1996, p. 396). As stated by Korpela and Lehmusvaara (1999, p. 135) a major point to consider when allocating warehouses or distribution centres (DC's) is their location. This is a very important decision and requires a lot of thought as it will determine the continuing profitability of the organization, affect customer services and relations, costs and delivery schedules.

As pointed out by Huertas et al. (2007) a great emphasis is placed on the layout of the facility as it is a major deciding factor in the success of an organization. The warehouses layout depends on its specific operational demands and distinctiveness i. e. modularity, flexibility, compliance, allocation of arrangements, convenience, and neatness. The design of the layout varies according to the nature of the organizations operations and has to be adapted as per those operational requirements meaning there is no set layout or methodology to follow. Because of the diversity of factors influencing a warehouse's operations such as rack types and entrances, gangway entrance and harbour locations, selecting an adequate layout for any given case is not unimportant especially the usage of pallitization (Huertas et al. 2007).

Those responsible for the development of these warehouse services need to focus around the understanding of the necessities of the businesses that will vacate these premises (Reichhart and Holweg, 2008). According to Varila et al., (2007) most warehousing development is an approximation of how the market in storehouse rental could evolve. Formerly to meet these types of demands made by most retailers and manufacturers was easier, as most of their needs had been met within their organization. Ultimately resulting in relative ease in the prediction of vacancy levels, also the ease in establishing the capability of warehousing; the support available to promote proficient use of the services (Rubrico et al., 2008).

The main activities that play a vital role in the performance of a warehouse as defined by Koster and Warffemius (2005) are as follows:

Internal product relocation,

Return handling,

Cycle counting,

Quality inspection, and

Cross-docking

As a result of the above research one can come to the conclusion that in today's day and age warehouses plays a crucial yet multifaceted role in many supply chains. Baker and Halim (2007) emphasize that a warehouse makes up to 20% of the total logistics cost of an organization. And their

critical role as great customer service providers in particular distribution centres as they are the final point of contact.

INDUSTRY BACKGROUND:

Tesco was founded by Jack Cohen in 1919 from a small grocery stall. And now it is the fourth largest retailer in the world measured by revenues and second largest retailer in the world measured by profits. Started from the 25p Stock Market share, it is now making a profit of more than £200m. Tesco is now widely spread into more than 13 countries, including China and India.

Tesco. com, commonly known as DOTCOM is the UK's most successful online retailer. Launched in 1996, and officially registered in 2000, it is one of the fastest growing business selling everything from vegetables to computers, electronic appliances to normal grocery via internet. Back to its beginning, it started making its 1st annual turnover of £25m and was started from a single store. These days their average weekly turnover is around £30m and they currently employee thousands of people in stores across the UK making the DOTCOM procedure possible.

AIM, OBJECTIVE AND HYPOTHESIS:

The existing warehouse management of Dotcom Only store TESCO Greenford is appraised. The primary aim is to recommend set of measures and strategies which can be used to measure the performance and eliminate wastes, respectively. By studying TESCO Greenford's warehouse management and conducting interviews with the senior managers, the weaknesses within their warehouse management will be identified and the solutions would be provided by relating it with the strategies available in the

literature of this field and moulding it to the specific needs of TESCO DOTCOM Greenford. However, the core purpose of this research is to set the performance measures and eliminate wastes by identifying them in the complete Warehouse Management system implemented in all the TESCO Dotcom only stores.

The research aims to benefit managers in understanding the weakness and the processes which are wastes.

RESEARCH METHODOLOGY:

In order to answer a question, a proper research has to be conducted (Zikmund, 2003). When a standard set of procedures and rules are followed to answer a research issue and to validate the findings attained by a systematic approach is called as research methodology (Ghauri and Granhaug, 2005). It has been widely observed that there is no fix method of conducting a research but a research should answer the question and should be relevant to the available data (Hussey and Hussey 1997). According to Schindler and Cooper (2001); Collins and Hussey (2003); Denscombre (2003) the result outcomes should be the main centre focus point for any research methodology.

Substantiation of adopted research technique is briefly discussed in this section. Research design has been carefully selected to discuss the issues of the research for this particular research. The following plan is adopted:

Research Philosophy: This will explain that which philosophy is used to develop the understanding of research.

Research Design: This will provide with the design that is used to conduct the research.

Research Approaches: this will discuss the major kinds of approaches and which one is adopted for this research.

Research Data collection: this section will define the steps involved in the collection of the data

For the purpose of this research we have used the research " ONION" which was introduced by Saunders et al. in 2000 and then it kept on modifying. According to Saunders et al., (2009) the last shape of Onion is given below:

Research Philosophy:

As we have discussed in order to go around this dissertation, the Onion process is used. So first of all the requirement of explaining the research philosophy is a must (Saunders et al., 2009). Research philosophy is basically an embarkation for the understanding of the knowledge upon which the research is based (Saunders et al., 2009). In summary we agree with Johnson and Clark (2006: 108) that it's not important how philosophical the research is and how well it is delivered but the way on how we reflect ourselves through those philosophies.

There are many types of philosophies which are explained by Saunders et al. (2009) and are shown in the table below

Table 5: Types of Philosophies

Type

Meaning

Pragmatism

Do you have to adopt one position?

Ontology

What assumptions do we make about the way in which world works?

Objectivism

How social entities exist independent of social actors?

Subjectivism

Understanding the meanings that individuals attach to social phenomena

Epistemology

What is acceptable knowledge in a particular field of study?

Positivism

Working in the tradition of the natural scientist

Realism

Do objects exist independently of our knowledge of their existence?

Interpretivism

Understanding differences between humans as social actors

Axiology

What roles do our values play in our research?

Source: (Author)

However for the purpose of this research we will only briefly discuss four main kinds of research philosophies.

Positivism

This kind of approaches provides researcher with a feeling of a scientist and it is conducted in the same way as any normal scientist will conduct a research (Saunders et al., 2009). Remenyi et al. (1998) has supported this idea that a research creates a hypothesis just like a scientist does when conducting a natural research.

Realism

Realism approach means that the philosophical things are different then the reality (Saunders et al., 2009). He explains it in detail by saying that realism is a branch of epistemology and it has two sub divisions in business and management research which are direct realism and critical realism. According to Saunders et al (2009) by focusing on the knowhow of generating a common understanding of humans and basing it on the experience of external factors that have at one point impacted a business research can be conducted. However these factors that have impacted an organization may not provide suitable evidence to the exact situation.

Interpretivism

This kind of research is explained by Saunders et al. (2009) as a research in which the researcher has to bear in mind that all the humans are social actors and they all have a viewpoint towards things. He further explains that in this kind of research, a research has to get involved into details of the social world of the research question and has to observe the point through their i. e. social actor's point of view.

Pragmatism

Saunders et al. (2009) argues that pragmatism is that the most important factor is that what type of question you adopt for research and one may be more important than the other in order to achieve the answer. He further uses the support of Tashakkori and Teddlie (1998) who suggests " that it is more appropriate for the researcher in a particular study to think of the philosophy adopted as a continuum rather than opposite positions" (Saunders et al., 2009, pp 109).

Saunders et al. (2009) says that the research philosophies can be explained in more detail by the use of a concept known as research paradigms. Furthermore, this terminology, paradigm, is usually used in social science researchers and can become a cause of confusion as it gives birth to many meanings of one things.

Research Design

There are many ways to conduct a business research and there is as such no limitation which says that one research is superior over another (Hair et al, 2003). One may think that the data is qualitative or quantitative or may be

both but again it's all on how you want it to be (Jankowicz, 2003; Stevenson and Cooper, 1997).

EXPLORATORY RESEARCH

This can be used by people who are not highly knowledgeable and is completely based on the exploration. On the other hand, this research can be used for companies and industries which are highly innovative and are always evolving into new things. The importance of this type of research can be determined by the words of Swaddling and Zobel (1996) in the following pattern:

" When conducted well, exploratory research provides a window into consumer perceptions, behaviours, and needs. It enables companies to produce new products and make them successful easily. Highly level decision and a better understanding of market can be gained by such research. This type of research leads company into the innovation of new products and these products being a result of exploration is always very beneficial and profitable for companies."

Research Approaches

There are many kinds of researches approaches and any of them can be used to attain the answer of one's research (Saunders et al., 2003; 2009). The selected approach basically reflects the way theory was built when the project was initiated and is most critical selection (Creswell, 2003; Saunders et al., 2009). In general there are 5 major approaches and any of them can be adopted. According to Zikmund (2003) there are two major approaches i.

e. Theoretical and Methodological and both of these are divided into sub category of Inductive/Deductive and qualitative/quantitative, respectively.

While on the other hand Collis and Hussey (2003); Gray (2004); Hussey and Hussey (1997); Mangan et al. (2004) all agree that there are two major kinds of approaches which are Deductive and Inductive. Now in recent years another researchers introduced a new kind of research which is known as Abductive (Kovacs and Spens 2005; Saunders et al., 2009). We will discuss each approach briefly and will select the one that is most suitable for the purpose of this research.

DATA COLLECTION:

One of the most important parts of any research is the data collection method. There are several methods of collecting data but the method is completely dependent upon how the research is conducted (Creswell, 2003). Due to the nature of this research deductive technique is used and to collect data for such technique is defined by different researchers in a different way. Amongst all the methods researchers agree upon few like Sampling, Secondary data, Observation, interviews and Questionnaire (Saunders et al., 2003; Yin, 2003; Collis and Hussey, 2003; Saunders et al, 2009).

Each step is discussed briefly as following:

Secondary Data collection: The data which is collected by someone else and not by user is generally referred to as a secondary data (Saunders et al., 2009). The secondary data can be qualitative or quantitative (Collis and Hussey, 2003). Secondary data is beneficial if the cost issues exist or the

time is not trying to be wasted and this kid of data can also be descriptive or exploratory (Saunders et al., 2009).

Data collection technique: Initial information would be collected by the communication with the strategic level manager of TECO Dotcom Greenford and the website of the Dotcom Stores Tesco and the main website of the Tesco Plc. These websites would be used to collect the general background of the company. Later on Warehouse Manager of Tesco Dotcom Greenford will be provided with the some information which includes the current situations of the Warehouse Management of the store and the interaction between its clients. The literature review will be providing the support on the research on overall basis as well.

Primary Data Collection: secondary data is usually not always enough to understand and answer the research (Saunders et al., 2009). This kind of data can only be collected by having a deeper understanding of the issues and is usually targeted to answer the specific issues (Ghauri, 2005 and Saunders et al., 2009). Furthermore, it is explained that there are three major ways to collect primary data i. e. in depth interviews, questionnaires and observations which usually reflects the situation in detail and gives a researcher with a clearer picture of the situation (Creswell, 2003; Saunders et al., 2009).

Data collection technique: Primary data would be collected by paying visits to the Tesco Dotcom Greenford, conducting in depth face-to-face interviews with the managers at Tesco Dotcom Greenford and then a detailed telephonic interview with the Warehouse Manager at Aylesford Dotcom Only

Store, as they are directly involved in the issues faced by Tesco Dotcom Greenford at the moment (a good reason why Aylesford is involved with the problems faced by Greenford store is because it is the only relevant store of the type in UK and is up and running successfully). The interviews would be provided with the great deal of understanding of the situation. Later on, observation would be made about the processes happening at Tesco Dotcom Greenford and the email conversations between Tesco Dotcom Greenford and its suppliers. The issue with the palletisation and inventory is the major issue between Tesco Dotcom Greenford and Suppliers. Once the data would be collected then the communication through email will continue in order to fulfil any other requirement to conduct this research.

TIMESCALE:

GANTT

CHART

Jan

Feb

Mar

Apr

May

June

Problem Identification

Proposal preparation and submission

Literature

Review

Research

Design

Choice of Methodology

Data

Sources

Data

Collection

Data

Analysis

Writing up

Draft

Editing

Final

Document

Binding of

Document