Inventory Management in Supply Chain and Logistics

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Learning Outcome 3

3.1 Financial Implication of Holding Inventory

One of the major financial costs when the inventory is held is the cost of the money when the inventory is tied up in the stock. One of the major concerns of the business is to make sure that they do not tie up any liquidity. OR instead, make sure that whatever amount is being spent during the business must be spent on making sure that the smooth running of the business is being looked after. That is not the case when the inventory is held up for a very long period. So the cost that goes into holding the inventory could be managed elsewhere. Then comes the storage costs that come from the business when they are holding an inventory. What it means is that there must be a certain area that must be allocated for holding the inventory instead can be allocated towards some other efficient area. If that is the rental premises where the inventory is held, it will eat up the rental cost, and if the external warehousing is being used, then that would also be on the higher side. The same context can be applied to the variable storage costs, where the warehousing cost can be implemented. The other major financial cost which is talked about a lot is the cost that goes into the management of the inventory. Most of the time, when organisations hold up the inventory for a long time, it means that the security, repair maintenance and other overheads are going to drive the inventory cost on the higher side. Furthermore, as the inventory is held at the end of the business, at times, the business has to maintain the cost as per the requirement of the inventory as well such as the temperature control and other measures. There are some other implications for the business as well that might go wrong and turn into the financial cost. For instance, if there is a shock instance, that is unforeseen, the likelihood is that it is going to lead towards the deterioration of the overall monetary value of the inventory. At the same time, some items are lost and go into obsolescence, so that is also going to have some financial implications for the project. There is also a loss regarding revenue consideration. Thus, it can be seen that many costs are associated with the value of the inventory, and they are bound to have an impact on the revenue streams as well. For instance, if some inventory becomes obsolete, and its market demand is not there, then there is the likelihood that it would impact the business in some way.

3.2 Elements Involved in Holding Inventory

One of the key aspects of holding the inventory is to make sure that a reasonable assessment is

carried out regarding the amount of inventory that is supposed to be handled. The other major concern that needs to be kept in mind is to make sure that what the nature of the business is. No matter what the nature of the business, the key aspect is to make sure that the excess inventory, in most cases, is needed to be avoided at all costs. At times, businesses are overly cautious when inventory management is supposed to be handled because of how the whole exercise is supposed to proceed. For inventory management and inventory holding, it is always a good idea to make sure that organisations deploy a good inventory tracking system. The key thing that an inventory management system would do is it would make sure that the merchandising is in stock at the given point in time. The corresponding order also needs to be taken into account, as well as the relevant time of arrival. All these things play a huge role in the determination of inventory management and inventory holding. There are manual methods as well that are being used to make sure that inventory tracking is being done in the right manner. Most of the time, the commonly used theme is to make sure that the entrepreneurs find out that being an entrepreneur makes it easier for them to make sure that they can compute the value of the inventory in the right manner. It also gives them an edge regarding the range of information they are supposed to be using. The other important element about holding inventory that has to be kept in mind is how the costs that are related to the extra overhead and debt services are supposed to be charged when holding excess inventory. Then, there are increased insurance and liquidity concerns that the business has to make sure to take into account when analysing the overall cost of the inventory in the given period. At times, there is a knee-jerk reaction in the business when they have excess inventory, and at times, there is a tendency to make sure that they sell the excess inventory at a much-reduced cost.

Learning Outcome 4

4.1 Two Inventory Systems Used In Business

The two inventory management systems that are used by the business are periodic and peripheral inventory systems. In the periodic system, the beginning status of the inventory, as well as the ending status, are some of the primary concerns for the accounting period. At the same time, inventory tracking on a daily basis is something that is not done when there is a periodic inventory system at work. The management of the physical inventory count is another area where inventory tracking is improved at a certain level. When the physical inventory reconciliation is completed, the balance that is shown in the purchase account is then shifted to some of the other inventory accounts. That account is then adjusted to make sure that the cost of the matching inventory is being reconciled in the right manner. Regarding the cost of the ending inventory, either the FIFO or LIFO accounting method is used for the reconciliation. It has to be noted that the beginning inventory becomes the ending inventory from the last period. So all these adjustments need to be made correspondingly in the given accounting Period

Now, when it comes to the perpetual inventory system, it is about making sure that the records of the

balances that one gets to see in the inventory are tracked when every transaction is carried out. What it tends to do is that it makes sure that the store can close down as far as the physical inventory stock taking account is carried out. Especially if one talks about the way continuous stocktaking is supposed to be carried out. The perpetual inventory systems make sure that the running account of the company inventory is carried out in the right manner. At the same time, when it comes to the calculation of the overall cost of the ending inventory, it has to be made sure that the LIFO and FIFO methods are chosen as accounting methods. Not only that, regarding the calculation of the ending inventory, corresponding to the previous period, it at times eliminates this need to make sure that the closure of the physical inventory has to be carried out. This is because a perpetual inventory system allows the continuous taking of the stock. It also keeps the running account of the inventory managed by the organisation. The key difference that one gets to see in both the recording system is that while the perpetual inventory system is more prone to manual and extensive record keeping, the periodical system does not have that much a great record keeping trail. At the same time, in the perpetual system, the system asks for the inventory to be kept on a separate ledger. The reason that this difference exists is due to the way record keeping is carried out, as the simplistic nature of the periodical system allows for much less record keeping. The general rule of thumb is that for smaller businesses that do not have extra money at their disposal for investment, the perpetual method might be the safer bet. For larger organisations and organisations that are more service-oriented in their structure, the peripheral system is better.

Learning Outcome 5

5.1 Modern Inventory System and Stock Keeping

Modern inventory control systems not only make sure that the annual stock-keeping policies are adopted at the level of the enterprise, but they also ensure that the inventory budgets are maintained in the right manner. The other important determinant that they can do well is to make sure that the optimisation of the purchasing procedures is carried out adequately. The other thing that has to be kept in mind is to make sure that the determination of the actual sales history, as well as the establishment of the demand pattern data, is also carried out. Furthermore, all the inventory items that have the inventory turnover are being sold in the given accounting period for the whole period. Most of the time, it would be about a year.

The other thing that it does is that it makes sure that the ABC analysis and classification are carried out in the right manner. The other important aspect of stockkeeping is to make sure that demand forecasting can be carried out in the right manner. With modern systems, not only is the demand forecast reasonably accurate, but also, with the option of replenishment automation, the whole operation management can be done in a bit more refined manner. The other area where there is a definitive improvement is the way inventory optimisation software works. The other thing that is very important when it comes to the stock keeping is how the process improvement is going to be carried

out. When the process improvement is made part of the process, it goes a long way in making sure that all the corresponding facets of stock-keeping and inventory management are going to be taken care of.

5.2 Input-Output and Adjustment

Supply chain and inventory management, at times, is a complicated subject. Management of the supply chain has to be done to ensure all the inflows and output are done correctly. There is another purpose for which these terms are being used, and that is about how input and output are witnessed as the form of the inventory. The key aspect that has to be taken care of here is to make sure that what is meant by input and output. The term input is about the raw material and unfinished goods that go into the processing. On the other hand, the output is about the finished goods that are witnessed when the whole production process is being completed for the said period. The inputs are the data items that are needed for the planning, as well as making sure that the operating logistics are being managed in the right manner. It has to be managed from the other sources as well as the customers and the company records for the given aspect for the whole period. The output, on the other hand, is an important determinant in making sure that the company records and the other particulars are being managed in the right manner. Input and output management are one of the most important determinants of supply chain management. The other important aspect of supply chain management is to make sure that some of the inputs and the costs are for the given period. The key thing that needs to be looked at here is to make sure that some of the adjustments are levied during the production and how it is going to be made sure that the corresponding cost elements are going to be verified. The adjustment is also used in the context of the way fuel adjustments are supposed to be carried out so that the variation in the fuel prices does not affect the viability of the operations.

5.3 Conducting Stock Audit

Many elements are crucial when it comes to carrying out the stock audit. The starting point is to analyse the cut-off time or carry out the cut-off analysis. It is done to make sure to foresee what are some of the procedures to make sure that the inventory is not halted at any process. The other aspect is to make sure that the observation of the physical inventory count is done in the right manner. It is done to make sure that the auditors are comfortable with the inventory count. The next thing that is very important is to make sure that the correct reconciliation is carried out regarding the way the general ledger works. What is needed to be done here is to make sure that the trace of the compiled valuation must be carried out from the physical value of the inventory regarding the way its movement is going to be happening at the general ledger. This also verifies how the counted balance was carried forward, especially in the company’s accounting records. Then comes the testing phase in which testing of the high-value items, testing of the items that are more prone to errors and the inventory and item cost testing is carried out. The review of the freight cost, as well as the analysis of

the finished goods, is also one of the ways through which the inventory audit can be carried out. The final phase is to make sure that the relevant inventory layers, as well as the corresponding ownership of the inventory, are being managed. The other thing that is an integral part of the inventory audit process is the way inventory allowance is supposed to be managed. Most of the time, what it tends to do is that it allows the observation of the obsolete inventory to be managed and carried out in the right manner. This is especially true in cases where the scrap is an adequate recording mechanism that has to be developed for the whole thing. Historical patterns and inventory usage reports are also some of the areas in which the audit team would like to look. It is because it gives a fair account of the way inventory management and reconciliation is supposed to be carried out for the given period.

5.4 Key Performance Indicators and Inventory Management

Most of the time, when the key performance is determined, the accounting methods and treatment are given precedence. Even though it is a good practice, at times, the way key performance indicators are set up does not fulfil the purpose that they are supposed to serve at the given period. Keeping in mind the perspective of the customer and the way their orders are processed. The low cost and the lower inventory management are some of the areas where accounting principles might not fulfil the requirement. Thus at times, completely relying on accounting practices is something that is needed to be looked. The only way the performance management can be improved is by making sure that the great attention towards detail is put together. It also means that the crucial insights related to all the items must be managed, as well as making sure that the day-end stock management is being done. The other pertaining issue is to make sure that how the details and the high-level perspective are going to work out. The only way KPIs are going to improve performance is if they provide key insights into the operational end of inventory management. That does not mean that the KPIs are not enhancing the performance. There are some customer-centric KPIs that need to be followed to make sure that the performance enhancement is carried out at a certain level. The internal view of the internal processes is another area where KPIs are bound to add some value. Thus, the way forward is to make sure that accounting principles, as well as process requirements, are at the centre of the KPI management.

Learning Outcome 6

6.1 Stock Rotation and Reorder Levels

Stock rotation is one of the ways through which an organisation can make sure that the potential loss that they are bound to face due to the expiration can be controlled. At least, it can be minimised. When the stock rotation is carried out, it is integral to make sure that the verification of the expiration of all the products is carried out. The key aspect of the stock rotation is how, at times, the items that

are sold to buyers are at a lower cost. That is being done to make sure that the level of profit that the seller has can be maximised. It is also to make sure that if any stock item is nearing its selling date, the reduction may be brought towards the level of stock. The price is also lowered to make sure that it can be made more appealing to the customers. It all depends on the business decision-making process as well regarding how they want to manage their stock. There is a strong relationship between the stock rotation policy that is used by the organisation and how they would proceed with the re-order levels. This is especially the case in which the firm holds the order management. Especially the case when the order needs to be placed so that the risk of being out of stock with something can be minimised to a certain extent. There is a certain risk factor as well that has to be determined, especially when it comes to the way the unit of the inventory item is supposed to be managed. Especially if one talks about reordering, then the effort has to be made to make sure that the stock level of the particular item of the inventory is managed in the right manner. This means that the firm and the business need to place an order first so that the fresh supply and replenishment of the item can be carried out. Similarly, the reorder quantity is the magnitude or the number of units of a specific item. These are the number of units that are needed to be ordered in the new purchase order so that the fresh supply of the particular inventory item. The other major difference that one gets to see is how the stock-keeping and the management of the order differentials would be managed. There are external factors involved as well regarding the way stock rotation, and the reordering level need to be managed. Most of the time, the set precedence that is followed is that the reorder level is something that keeps precedence over stock rotation.

6.2 Impact of Variables and Levels of Stock That must be managed

Many variables are bound to affect the level of the stock. For instance, the variation that one gets to see in the demand and the lead time variation comes across as one of the main reasons that are likely to affect the level of stock. The replenishment interval and the customer service level are other factors that might disrupt the overall level of stock. The level of service that the customer is demanding, as well as the cost that goes into the expedition, is another variable that might affect the level of stock. The most important among all of these variables is the random variation that one gets to see in the demand. The random demand variation might be happening due to the trend as well as the seasonality and the special causes that are associated with it. The identifiable events, such as the promotion and the catastrophe, along with the transaction errors, play a major part in the random demand variation. The variation that happens in the lead time might also affect the level of stock that the organisation has at its disposal. It is an important part because the probability of the order cancellation and the other concerns might disrupt the way the stock level needs to be managed. Things, at times, are a bit too complicated when it comes to manufactured goods. It is because they consist of the sub-assemblies along with the multiple components that might require more complex inventory systems, to say the least. When that happens, it is crucial that each of the items that are used is itemised and all the goods are stored accurately. The variable that is commonly used is the

lead time. It is the amount of time that is needed from the time when the order is placed to the final delivery of the product. The other factor that needs to be kept in mind is the way consumer demand is going to change. The key, as per the supply chain experts in this situation, is to make sure that the upper inventory level fluctuates by the synergy that is witnessed in the level of demand for that particular good and service. If the accurate demand forecast is carried out, it means that the timely re-ordering and the exact overview of the entire inventory will be carried out.

Learning Outcome 1

1.1 Supply Chain

A supply chain is one of the integral parts of the business these days. The way the supply chain works most of the time is to make sure that the creation of the network can be done between the organisation as well as its suppliers. When that network is created, the business can ensure that it can distribute a specific product in the right manner. At the same time, the supply chain also presents the steps that are needed to make sure that the desired product or service gets delivered to the customer. With the evolution of business and as the overall communication and infrastructural technology have become more robust, the role of the supply chain in business has increased with the passage of time.

A supply chain is also referred to as the system of the organisations, along with the host of activities that are carried out so that the movement of the product and service can be carried out. This movement is supposed to be carried out by all the intermediaries that are part of the business. They also involve the transformation of the natural resources as well as the raw materials along with the components that are part of the finished product that is supposed to be delivered to the end customer. Certain supply chain systems are rather complex, and in those systems, the used product might enter into the supply chain at any point in time. This case is especially applicable if there is a case where the residual value and the recyclable inventory are being used and witnessed. The important dimension of the supply chain is the way it connects residual values and the recyclables of the given product. The regulated use of the supply chain, as well as the increased efficiencies that one gets to see these days' means that the supply chain plays an important role in curbing inflation.

1.2 Components of the Supply Chain

Supply chain management is supposed to make sure that it covers the coordination and collaboration that exists among the channel partners at the given period. To do that, there are four components of the supply chain that are very important during the whole process.

The first one is demand management, which talks about making sure that the management and the focus of the business are towards ensuring that the needs of the customers are being met. It goes

way beyond making sure that merely the production process is being taken care of.

The other thing that is a very important component of the supply chain is to make sure that how the communication is carried out among businesses. It also allows the development of the same information mechanism, allowing the greater integration of the information to be carried out at all levels. When the communication is there, it means that all members are informed about the ongoing development. The integration is also an important component as it allows each of the member to make sure that they can reduce their inventory cost at all levels. It is a key technique when it comes to managing the organisation's supply chain. Most of the time, the way it works is that suppliers are supposed to share up-to-date information on demand to route and other such smaller considerations that impact the supply chain. The final component is to make sure that there is enough collaboration in the business so that it makes sure that the supply chain of the organisation is strengthened a great deal, allowing members to improve their teamwork as well as making sure that members are increasing their business.

1.3 Difference between forwarding and Reverse Logistics

In simple terms, the key differences that exist between forward and reverse logistics are as follows.

- In forward logistics, the goods are delivered to the receivers
- In reverse logistics, the things are received back from the users

Now, towards the technical side, one of the main differences between them is the level of complexity that is witnessed there. In forward logistics, the setup is a regular pick-up from one known business partner to them. On the other hand, in reverse logistics, the business model that is being used is more ad hoc in nature, as things are supposed to come from everyone and everywhere. Due to that, the forecast demanding estimation is much more straightforward in the forward logistics as compared to the reverse logistics. This is because there are many variables involved during the whole process. Even the product quality is bound to differ in both cases. Where in the forward logistics, the product quality is going to be more or less uniform in either case; the reverse logistics imply that product quality won't be uniform. There are fundamental differences in the way routing is carried out as well. In the case of forward logistics, the routing that is carried out is quite complex. On the other hand, if one compares it with reverse logistics, the routing is also quite unclear and much more hands-on, as decisions are supposed to be made on an instinctive basis. The more hands-on approach, and as things are done on a firefighting basis, also implies that most of the time, the way disposition is going to be carried out in each of the cases of forwarding logistics would be quite clear. The same thing cannot be said about reverse logistics regarding the way distribution is supposed to work out. The pricing is relatively uniform as well when one talks about forwarding logistics, but in the case of reverse logistics, it is much more complex as many factors come into play.

1.4 Evolution of the Concept of Supply Chain

In the last four decades, the most prominent change that has happened when one talks about the logistics landscape is the fact that how traditional purchasing and logistics functions have changed with the passage of time. While before, they were simple functions that did not involve many technicalities, that have changed now, and there is a need to apply a much more widely strategic approach regarding the way decision-making is needed to be done in these matters. The approach has also changed regarding the way materials and distribution management needs to be done at the enterprise level. The main trigger point where the need for a supply chain to be taken as a specialised subject was felt during the Second World War. It is because there was a need to increase production, and the world was entering into the era of productivism. That brought change to the customer as well as they were much more demanding; thus, the supply chain became an integral part of the business processes. As the whole process evolved, businesses in the 1970s started to develop a fair idea that to execute Manufacturing Resource Planning; it is important to make sure that the whole process is managed in the right manner. The major change was also witnessed during the 1980s when the increased demand was witnessed, and due to that, there was a need to make sure that there was an availability of cheaper and much more efficient logistics services. Many producers started to outsource the logistics activities, and this created a fair idea that logistics management is a separate discipline on its own. It needs its own set of expertise. The latest trend of evolution in supply chain management is the movement towards systems of supplier relations over national boundaries.

Learning Outcome 2

2.1 Supply Chain Management

Supply chain management is the key concept in a supply chain. It is about making sure that the business is actively streamlining and that the supply-side activities are carried out. It will ensure the maximisation of customer value and a competitive advantage over other people in the marketplace. At the same time, supply chain management also represents the efforts that are carried out by the suppliers to make sure that the development and implementation of the relevant supply chains are carried out. These supply chains are supposed to be efficient as well as economical to make sure that they add enough value to the business. It has to be noted that supply chain management is supposed to be a robust subject, and it takes care of the way production is being to the way product development is supposed to be carried out. The development of the relevant information systems to make sure that these undertakings are carried out is also an important part of supply chain management.

In typical cases, the supply chain management is supposed to take centre stage as well as ensure that it links the production. It is also supposed to make sure that the shipment and the distribution of the product are being done in the right manner. When the management of the supply chain is done in

the right manner, it will ensure that the companies would be able to cut the excess costs that come their way. They are also able to ensure that the product is delivered much faster. That can be done by ensuring better control over the inventories as well as developing the right production process.

2.2 Importance of Supply Chain

For any business, it is very important that they manage their supply chain in the right manner, as it is the most integral part of the business. There are many key functions that the supply chain management is supposed to perform in the business. For instance, if one talks about boosting customer service, what supply chain management does is allow a significant boost to customer service as well as ensure the product assortment and quantity are delivered in the right manner. Furthermore, supply chain management plays a huge part when it comes to making sure that the management of the operating costs is supposed to be carried out. What it tends to do most of the time is to make sure that there is a significant reduction in the purchasing cost of the product. Not only that, but it also tends to make sure that there is a reduction in the total supply chain cost as well for the given period. What happens is that the manufacturers and the retailers are dependent on the supply chain managers, who design the required networks so that the customer service goals can be met as efficiently as possible, keeping in mind the operational constraints. If the supply chain management of the organisation is done in the right manner, it goes a long way in making sure that the profit leverage and the reduction in the supply chain cost can also be carried out. It means that there is going to be enough surges in the way profits of the entity are going to be driven. If the supply chain management is done in the right manner, it ensures that the number of fixed assets that the organisation needs to have at its disposal is reduced sufficiently. Most efficient supply chain managers tend to ensure that the larger fixed assets are not needed to ensure higher performance.

Learning Outcome 3

3.1 Risks to the Supply Chain in Organization

Organisations face quite a few risks when they opt for supply chain management. The key thing is to make sure that the assessment of these risks is carried out in the right manner so that the mitigation strategy can be developed/One of the major risks that are faced by organisations related to the supply chain is the huge financial risk that they seem to carry. For instance, there are smaller things, such as the change in the exchange rates as well as the supplier’s bankruptcy, that can change the way supply chain management is supposed to work. Furthermore, there is some other financial risks as well as such as the overruns in the budget as well as the relevant limitations and the constructive changes that are witnessed during the supply chain management. Then, there are legal and regulatory requirements that are supposed to be followed. If they are not taken care of, they would, in turn, change into contract and negotiation disputes that might disrupt the way the interpretation of the contractual obligations is supposed to be carried out. There is environmental risk as well, and it is

critical for the supply chain managers to make sure that they are able to evaluate the risk that is created by the supplier and the contractor in the given period. The socio-political risk that is brought into the environment changes in response to the new government, which is also a critical requirement compared to the others. There are some other risks that are smaller in scale, such as the project organisation risk and the human behaviour risk, that are likely to have an effect on the way the management of the supply chain is supposed to be carried out. There is also a planning risk.

3.2 Risks to Supply Chain Based on Environmental Factors

There are significant environmental risks that organisations face when one talks about the way environmental risks are supposed to be changed. For instance, the irresponsible extraction of raw materials, as well as the procurement of products and services, plays a huge role in making sure that organisations can manage their risks in the right manner. Furthermore, in the current day and age, the lack of duty towards waste management is not likely to be taken in jest these days, and there are severe consequences for organisations. Especially if they are not able to make sure that they take into account the environmental factors that can disrupt the way things are supposed to be done. Some environmental liabilities are associated with the business. For instance, if the facility is using contaminated land for the production of agricultural products or some hazardous materials are being used in the inventory, there is a likelihood that it would disrupt the way business management is supposed to be carried out. Managers these days also have to be very sure about how they are using the energy and natural materials that they have at their disposal. If the energy usage is inefficient, it means that the raw materials are not supposed to be managed accordingly.

Especially important these days is to ensure that waste management is supposed to be carried out. The way organisations work these days, more or less all the organisations have a carbon footprint that they have to manage, and it is imperative that they work towards the goal in a manner so that there is enough reduction in this waste. An effort must be made to make sure that the legislation is followed when it comes to dealing with these environmental risks, as they can damage the business' viability in the long run.

3.3 Reduction of the Risks in the Supply Chain

It can be seen that the organisation faces huge environmental risks. They are wide-ranging risks and are rather complex when it comes to their management. To ensure that these risks can be minimised, the idea is to make sure that the management must be following formal management processes. When the formal management processes are followed, the organisations can adopt better systems. One of the key aspects of system development must be to make sure that international standards are followed by supply chain management and that these risks can be minimised. At times, when the system development is being done, it is always a good idea to ensure that they are being made part of the corporate responsibility programs. These programs take into account the social value as well as the relevant benefits that need to be provided to all the stakeholders. Following the guidelines that

are set by International Standards would also go a long way in making sure that corporate social responsibility is managed in the right manner. (Association for Supply Chain Management, n.d.)

The other important aspect of risk management is to make sure that the supply chain engagement programs and other initiatives are started. These initiates make sure that whatever the expectations that the entity has regarding the guidelines, they need to be managed. There is a supply chain code of conduct that larger organisations are developing these days. The key consideration in these codes of conduct is to make sure that relevant information is provided to all the stakeholders in the given period and to maintain sustainable environmental performance in the given period. The organisations would also be well served if they could make sure that the set of expectations the business is supposed to follow are translated into the set of guidelines. The organisations would be well served if they take into account all the risks that they are likely to face and then develop a subsequent mitigation strategy to avoid these risks. The reason that, at times, the business risks are magnified is that the organisation. Also, people, in general, are not well aware in advance about the sort of risks that the business would be facing, thus when they are faced with an unexpected situation, they are not able to react in the right manner in the face of the crisis.

Learning Outcome 4

4.1 Lean Thinking

Lean thinking is the business methodology that is about making sure that the business can organise human activities in the right manner. These activities are designed in a manner to make sure that more benefit is provided to society as well as providing value to the individuals while also ensuring that the reduction of waste is carried out in the right manner. The key aim of lean thinking is to make sure that the creation of the lean enterprise can be carried out. Not only that, but sustained growth along with the alignment of customer satisfaction and employee satisfaction are also key aspects of lean thinking. The idea is also to make sure that innovative products and solutions can be offered to the customer so that the service profitability can also be increased. Not only that but the overheads that are charged to the customers must be minimised. The protection of the environment is also one of the aspects of lean thinking. The other basic insight of lean thinking is to make sure that every person across the person is identified regarding their productivity. Thus, the idea is to make sure the people work together to improve the processes in the long run and remove the wastage in the given period. The resulting enterprise, thus, is likely to deliver more value without carrying out the same level of expenditure. In that way, the ability of the employee and their confidence level is also going to increase as they would be working with each other. The reason that the idea of lean thinking has gained popularity is that it allows the dynamic gains that are witnessed by the business to be materialised in a much more concrete manner.

4.2 Lean Concept and Supply Chain

One of the core reasons that lean supply management has gained prominence is because it allows considerable improvement in the business. When there is an application of the lean manufacturing process, it means that the technology can be implemented in a manner to make sure that the operational performance can be maintained in the right manner. Not only that, but it also makes sure that the level of quality that is witnessed from the whole process can be taken care of in the right manner. When there are zero defects during the manufacturing process, it would mean that not only would the waste that is witnessed during the operation management be brought down, but it would also ensure that efficiency at the organisation level can be achieved. Obviously, when the quality is going to be better, there is the likelihood that the customers will no longer be returning the goods. It also means that the resources that are needed to be placed to execute the projects would be lighter. This means that the quality issues and returns will be managed somewhat better. Businesses that want to implement the lean methodology should make sure that they improve their transportation procedures at a certain level. The idea is to ensure that the transportation projects are streamlined. Furthermore, when lean manufacturing is used in transportation, it increases the likelihood that the post-shipping decisions will be implemented in the right manner. In hindsight, it can be said that lean supply chain management would go a long way in making sure that the business requirement is set up in a manner that every process that comes into the supply chain is carried out in an identifiable manner. Also, to ensure that the areas where unnecessary resources are deployed can be quantified in some way or the.

Learning Outcome 5

5.1 Upstream Linkages with Supply Chain Management

Linkages are an important part of the way supply chain management is supposed to work. The upstream linkages are particularly important during the supply chain processes. It is because they are coming from the supplier side of the supply chain. The upstream linkages are crucial in a manner that they allow better coordination and integration at all levels, especially when it comes to the upstream linkages. It is because they are performing an important function as the upstream linkage would make sure that the production process that is involved in the extraction and searching of the raw material could be carried out in the right manner. This is especially the case in the upstream part of production, where processes are not necessarily related to the material itself. Instead, they are closer to the overall procedures that are supposed to be performed. In the upstream linkages, the process is carried out to make sure that the finding and the extraction of the raw material can be carried out. Thus, most of the time, any industry that relies alone on the extraction of raw materials is bound to have an upstream stage at one point in time. If one talks about it in a more general sense of way, the upstream might also refer to any part of the production where processes are supposed to be followed. If one talks about it in a more general sense, the upstream might also refer to any part of the

production that is related to the processing that is carried out at the extraction stages. For instance, in the fuel industry, the location and determination of the reservoirs would count as one of the ways through which the upstream linkages are supposedly carried out.

5.2 Downstream Linkages with Supply Chain Management

The downstream linkage is witnessed most of the time in the production process. What it tends to do is the processing of the materials. All these materials are collected during the upstream stage and the finalisation of the product. The downstream stage takes this process to the finalised ion as it also includes the finalised sales of the product that is supposed to be charged to the other businesses. There are some other stakeholders involved, such as the government and the individuals who are supposed to monitor the whole process. The end user that is going to stay would vary, and most of the time, it depends on the finished product and the shape it takes. In the industries where the downstream processing is carried out, most of the time, the process consists of converting the raw products into products that can be used and materialised. The way these products can be sold to the customer is also imperative. On the other hand, the representation of the structure where downstream processing is supposed to be carried out is also important. It goes a long way in establishing the key links in a supply chain. Most of the time, organisations place great value on downstream linkages. It is to make sure that the physical distribution of the goods and services from the customer end is supposed to be carried out at the end of the consumer. At times, when the downstream linkages are also linked with the physical distribution of the way products and services are supposed to be carried out. They also make sure that the value proposition that is supposedly offered to the customer can be implemented in the right manner. The downstream linkage goes a long way in establishing the principles against which the organisation might be willing to evaluate itself as they directly affect the customer.

Learning Outcome 1

1.1 Role of Transport in Supply Chain

The key to effective and cost-efficient logistics management is to make sure that the organisation is laying its foundation towards a robust transformation network. The robust transformation network implies that the organisation is in a position to make sure that it can bring about strategic changes. These changes include reducing costs and ensuring better customer service. It is also about making sure that the level of disruption that one gets to see in the overall flow of the supply chain needs to be evaluated correctly. Transportation is an integral part of supply chain management. This is because this movement refers to how movement is supposed to be carried out from one place to another. This process then culminates in the period when the thing reaches the end customer. To make sure that the robust supply chain network is managed, his business must be able to integrate transportation and movement across the board with its logistics expertise. Transportation costs

account for about 6 % of the global production value and thus represent a major part of the overall expenses that are incurred by the business. If the transportation management is efficient, it means that the organisation has some leeway regarding the way they can reduce their inventory. Not only that, there can be a significant reduction in the warehousing cost to make sure that the deliveries at the customer end can be carried out in the right manner. Thus, transportation goes a long way in making sure that not only is the criticality of the supply chain understood, but it also ensures value addition for the business.

1.2 Modes of Transportation in Supply Chain

The transportation modes are the means through which people and freight are supposed to gain mobility. In the context of the supply chain, there are four main modes of transportation that are used by the organisations. The mode of transportation varies as per the scale and the underlying scope of the project as well as the cost considerations of the project. The operational flexibility is another factor that is kept in mind. The first one is road transportation, which comprises road infrastructures and large consumer spaces that do not have large physical constraints. At times, physiological constraints are pertinent to the supply chain. The operational flexibility that road transportation provides is much greater, and thus, most of the time, it is the preferred method through which supply chain management is carried out. On the flip side, there are high maintenance costs associated with road transportation. Then comes rail transportation, which is mostly composed of the traced path. The trace path is designed in the manner that wheeled vehicles are bound through it. In the recent technological development, monorails and maglev are also used at the intermittent level. As compared to road transport, the level of operational mobility that one gets to see is quite on the lower side as compared to the instance when the other modes of transport are used. Despite this fact, it is one of the more cost-effective mediums of transportation in terms of supply chain and logistics.

Coming towards the pipeline routes, they are something that is rather unlimited in their scope as the advantage that they possess is that they can be laid on land as well as under the water. Especially if one talks about in the context of refineries and harbours, their importance has increased manifold. The fourth mode of transportation is maritime transportation. It has turned out to be most effective when it comes to the shipment of large quantities of cargo over a long distance. These routes are mostly comprised of the oceans, coasts and lakes, as well as some other channels that are responsible for supply chain management. As far as the cost perspective is concerned, maritime transportation, most of the time, is most effective when it comes to long-term projects, and it has to be carried out on instances when the scale of the project is such that it cannot be curtailed in the given period.

Learning Outcome 2

2.1 Principles of Transport Planning and Flow of Goods

Transport planning refers to how the flow of goods is going to be determined and what some of the underlying principles would be taken care of during the given project. It has to be noted that most of the time, when transport planning is carried out, it is imperative to make sure that the most important aspect is to ensure that the land use and transportation planning is being done in the right manner. When the planning is done effectively, it makes sure that the diverse perspectives related to the impacts and the decision making are done. If that is done in the right manner, it will allow for the identification and implementation of the goals to be done so that the flow of goods can be carried out without any major disruption. (Council of Supply Chain Management Professionals, n.d.)

Historically speaking, most of the time, when transport planning is carried out, it refers to the rational planning model that is supposedly followed by the organisation. It is then defined by the underlying goals and the objectives of the organisation. At the same time, it also allows the identification of the problems as well as making sure that enough alternatives are generated. Whenever transportation planning is being done in connection with the flow of goods, a multidisciplinary approach is followed. This is especially the case as the increase in environmental concerns has been witnessed. Another important dimension is the way accessibility is determined. It means making sure that whatever the flow of goods is, it is made sure that the ease through which one can reach the destination needs to be determined in the right manner.

2.2 Health and Safety and Transport Planning

As the process of urbanisation has gathered pace, it has become crucial for organisations and governments to make sure that they keep in mind the safety practices during transport planning. It means making sure that the transportation planning is carried out in a manner that allows for the meeting of the excess demand and that the improvement in the transportation system can be carried out adequately. Also, increased mobility would ensure that the navigational and complex challenges that come with the planning and design of the transport system are met adequately.

As the modes of transportation have become more complex and robust, it has become crucial for businesses to make sure that they take into consideration the inherent risks that are associated with transportation and react adequately. To make sure that this can be done, there is a need to ensure that a flexible and responsive approach is developed towards transport planning. Especially in the case regarding the handling of the bulk carriers and the firms that are predominantly working in the distribution model have to be careful. At the moment, it can be seen that there exists a strong correlation between the number of accidents that occur on the road and the underlying safety and traffic conditions. The other analysis that needs to be carried out is the sort of interplay that exists between the drivers as well as the vehicles and their surroundings. There are also some other factors that affect transport and logistics planning. As the carbon footprint of the vehicles and even the organisations has been maintained, it would become clearer what some of the issues are that are

faced by these businesses. Also, the roads and the overall transportation infrastructure play an important role in determining the health and safety risks faced by businesses.

Learning Outcome 3

3.1 Standardized Transportation Equipment

Standardised transportation equipment refers to the tools and equipment that are needed and approved at the international level for the execution of the transportation project. Standardised transportation equipment is the specific equipment that is being used at the different loading points during the transportation activity. The idea is to make sure that the shipping points and the corresponding specification of the equipment that is being used during the transport need to be standing most of the time. For the transportation equipment to be considered standardised equipment, it has to be made sure that not only is it following the legal regulations, but it should be in line with the national legislation as well, especially if one talks about domestic transportation that is supposed to be carried out. When one talks about the standardised transportation equipment regarding international and national legislation, the countries of transit ale become important. At times, there are instances when there is a need for an ADR certificate as well that must be present with both the tractors and the tanks and the trailers. It must be designed in a manner that mentions the code of the equipment as well as the number that is allocated to the driver. The driver or the user of the equipment should also have a valid ADR skill certification so that they can operate the given equipment in the right manner. There are very clear specifications regarding the design and material of the equipment as well. For instance, if it is a tank container, then it must be preferably made of stainless steel, and the minimum allowable working pressure must be monitored for that tank. Also, the compartment numbers and the exact contents of the exterior of the equipment are other things that need to be made sure of the given equipment. The outlet should be numbered in conformity with the compartment as well.

3.2 Importance of Standardized Transportation Equipment in Supply Chain

One of the key utilities of this equipment is to make sure that it allows a greater level of flexibility and that the productivity of the equipment is on the higher side. Furthermore, it also makes sure that the efficient distribution of chemicals and other related materials can be carried out without much hassle. Most of the time, when standard equipment is used, it ensures that there is a reduction in the level of risk regarding the damages that happen during transportation, such as spillage and other issues. Furthermore, it emphasises making sure that the movement of the empty units is cut down so that the positive environmental impact is being taken care of during the whole process.

When the standardisation of the transport equipment is established, it will make sure that there is

enough contribution regarding the way in which a responsible care program is initiated. At the same time, the specification of the transportation equipment goes a long way in making sure that the loading and offloading of all the units at the shipping points are needed in the right manner. This is especially the case when one talks about the execution of the contracted logistics standardised to a certain extent. It also means that all the shipping points are going to adhere to the specifications that are defined and already set in the given specifications of the units. Another important consideration of Standardized Transportation Equipment is to make sure that compliance is carried out with the important legal and national legislation regarding transport contracts.

Learning Outcome 4

4.1 Transport Planning

Transportation planning is the process through which the future policies, goals and investments for the given projects are designed. The basic objective of transportation planning is to make sure that the future needs of the organisation regarding its movements can be designed, and the overall planning can be done to make sure that future load management is done in the right manner. It is a collaborative process that allows the incorporation of the stakeholders and the various government agencies that are working at the given amount of time. Also, the management of private and public businesses is another area where transportation planning is carried out. Most of the time, transportation planners adopt a multimodal and comprehensive approach to make sure that the wider range of alternatives can be worked out so that the beneficial outcomes that are important regarding transportation planning can be managed in an appropriate manner.

When carrying out the transport planning, the planners are expected to make sure that they take into account the social, economic and environmental context of the market in which they are operating. At the same time, they also need to have an understanding of the legal and regulatory policy to make sure that the resource framework under which they are operating can be determined. They also can make sure that the basic understanding and creation of the transport policies are carried out and that strategies and plans are the needs that are important to make sure all of the social, economic and other constraints are taken care of in an adequate manner. Also, they are expected to ensure that they design the necessary transport projects in a manner that allows the commercial interests of the organisations to be taken care of using the relevant tools and techniques so that the maximum utilisation of the benefit can be ensured.

4.2 Importance of Transportation Planning

Transport planning is an important aspect as it allows making sure that the integration of the different modes of transportation is carried out. It also ensures that the integration of the different environmental factors is carried out in the right manner, along with the usage of land planning.

Transportation planning is also important because of how the creation of transport policies is carried out. The idea is to make sure that the strategies and plans that are related to the transporting planning care are carried out in a manner that can meet the social, economic and environmental needs of the business.

The other reason why transportation planning is very important is that the design of the systems and the projects allows the long-term orientation and planning for the business. Transportation planning is also important because of the way urban planning is supposed to be done. When the development of urban transport policies is carried out, it makes sure that the overall legislative activities are designed in a manner that makes sure that the funding bodies and the project manager are coming together one way or another. It makes sure that the involvement of the various agencies and organisations is done in a manner that makes sure that successful transportation planning is done in the right manner. With the greater need for energy conversation, there is a lot of focus these days on making sure that transportation planning is done in a manner that ensures that the usage of energy is carried out efficiently. It means that organisations, at times, need to make sure that they actively use alternative modes of transportation so that there is an enhancement in their level of efficiency. All these factors make transportation planning crucial at the overall infrastructural level.

4.3 Impact of External Influences on Cost-Effective Transport Planning

There are many external impacts that the transporters must be wary of when they are carrying out transport planning. The key aspect is how the direct and the indirect impacts must be assessed and what strategies can be carried out to make sure that these impacts do not turn out to be huge risks for the business or enterprise. Now, if one talks about the direct impacts, these are the impacts that are the direct consequence of the transport activities that are carried out at the level of the environment. These are the instances when the cause-and-effect relationship that exists between the variables is clearly defined and well understood. Most of the time, it is related to environmental concerns such as noise pollution as well as the emissions coming out due to carbon monoxide emissions. Then, there are indirect impacts that might have a long-term consequence on the way transportation planning is supposed to be carried out. These are related to the way fiscal policy, taxation and overall infrastructural development are carried out. These external factors or indirect impacts might not affect the business instantly, but they eventually work out in the manner that relationships, most of the time, are hard to determine and even harder to establish. For instance, when one talks about the particulates, they are an outcome of incomplete combustion and the other underlying issues that are faced by the business most of the time. There are changes in the business considerations as well such as the supply and demand issues that might bring about the change in the transport planning as some mode of transportation would suddenly gain prominence as compared to the others. So, it is pertinent to say that external influence has long-term relevance to transportation planning.

Learning Outcome 5

5.1 Determination of the Needs and Demand for Movement

The way movement is supposed to be carried out goes a long way in making sure that the need and the demand for the movement are carried out in the right manner. One of the key concerns during the movement is how the need for the movement is determined and what are some of the supply and demand considerations that need to be kept in mind to make sure that this whole issue can be resolved. Many parameters can eventually determine the supply and demand that would eventually play an important part as far as the movement of the goods is concerned. The key thing that needs to be taken care of is to make sure that how the supply of the movement involves a movement of the goods. At the same time, another consideration that needs to be taken care of is how the location of the movement of the good would terminate the delivery point towards the recipient.

For instance, for a small movement that is carried out between two countries, the key determinant that needs to be taken care of is how the place of supply and demand is going to work out. The other consideration is how what are the tax considerations at the place where the delivery is supposed to be carried out. Most of the time, the way delivery methods are being used and the key aspect is to make sure that the intrastate supply and taxes that are levied on it are carried out in the right manner. That also involves making sure that the consideration of the movement within and between the states must be kept in mind as it goes a long way in making sure the overall cost of the movement is going to work out.

5.2 Modal Choice and Organizational Planning

One of the important considerations when carrying out the choice regarding modal planning is to make sure that the determination of the network skims is carried out in the right manner. It means that the overall travel time and the cost determination need to be done accurately. When the generation of the inputs is carried out in the right manner, they go a long way in making sure that the mode choice model is determined in the right manner. To make sure that this issue is sorted out, it is important that the alternative modes are determined in the right manner. The advantage that organisations have these days regarding modal planning is that they have good geographic information at their disposal. Not only that, but they are also in a position to make sure that they carry out the GIS-based representation adequately in the manner that the determination of the highway network is done. It is an important consideration in the planning phase as it can ensure that the generation of the drive-along and shared ride rims is carried out in the right manner. This is especially the case when one talks about the way the corresponding zone-to-zone transit is carried out. The organisations, though, have to be proactive when they are carrying out the estimation of this information as they have to make sure that they take into account the impact of the smaller transit

movements as well as the vehicle in and out transit times that are witnessed in the given period. Further data collection also needs to be carried out so that the enhancement of the modal capacity is done in a manner that allows the cost and time estimates to be much more accurate.

5.3 Planning Process of Need and Demand for Goods

One of the biggest concerns for supply chain specialists is to make sure that they understand the supply chain glitches that are happening in the organisation in the right manner. The planning in this phase becomes important. The supply chain processes often work out in a manner that they can make sure that if there is any lack of communication among all the variables, it must make sure that all the critical needs of the operational planning are taken care of in an appropriate manner. It means that all the important functions of the organisation must work in liaison to make sure that this goal is achieved one way or the other. To make sure that this challenge is diluted to an extent, one of the key things is to make sure that the correct forecast of supply and demand is carried out. To make sure that organisations forecast demand in the right manner, they should be able to estimate the demand for each of the SKUs, industries, and products so that the level of insight into transportation movement can be improved. Not only that, but the supply side of things can also be looked at by the organisations collecting the data related to the current producers and suppliers as well as the technological knowledge. At times, the issue is created because the suppliers are not well aware of how the current production for the given SKU is working out. However, with the more data-driven tools that they have at their disposal, it can be made sure that the strategy and planning at every level can be improved. If you can use demand forecasting to get a handle on future revenue, plan production capacities, or manage stockouts, you can also use the same information to help functions like Product Management, Marketing and Product Design.

Learning Outcome 1

1.1 What is Inventory

The term inventory has been used in many contexts within the business. Most of the time, these are referred to as the itemised catalogue or list of tangible goods and property. There are instances when even the intangible attributes and qualities are termed inventories. The inventory is the value of the materials that are held by the organisation. The key objective of the inventory is to make sure that support can be provided to the production department. It constitutes but is not limited to raw materials, subassemblies and works in process. They are also used to provide support activities such as repair and maintenance. Most of the time, the inventory is the largest item in the listing of the current assets. Thus, it has to be made sure that it should be counted correctly, and the valuation must be carried out towards the end of each accounting period. It is an important practice to make sure that the profit and loss of the organisation can be estimated. Organizations whose inventory has a large unit cost have to ensure that they keep day-to-day records of the changes in the inventory so

that the necessary controls can be maintained for the business. The accounting principles require that the inventory must be recorded by its value or market price, whichever is lower. It is being done to make sure that the overstating of the assets in the balance sheet must not be made possible. Also, offsetting the effect that the value of the inventory is going to increase due to the inflationary pressure. The optimum level of inventory that is needed in the organisation is determined by carrying out the inventory analysis. These are goods that are either made at the organisation's level, such as by being bought from the organisation or made on their own. It has to be noted that the inventory, most of the time, is classified as a current asset.

1.2 Importance of Controlling Inventory

Inventory control is an important part of an organisation's warehousing management. Business has to make sure that they adopt the right balance in this regard. Businesses do not want to lose a sale because they don't have enough inventories at their disposal, so they are not fulfilling the order. Similarly, businesses would not like to have excess inventory in their hands, thus increasing the cost of inventory as well as creating other bottom-line issues for the organisation. Another thing that has to be noted is that acquiring inventory is an expensive process for most organisations. The expectation most of the time from the organisation is that the inventory that is going to be purchased will be sold at a higher price. As the organisation expects to sell them at a higher price, they would want it to be equalised with the cost plus some profit margin as well. When the organisation is not managing the inventory, they are facing working capital issues for it.

Inventory control is not a concern for companies that deal with finished goods. Instead, it is about the way management of retailers and wholesalers would be carried out. The manufacturers are also critical as far as inventory management is talked about such as the way material management is being done. The work in process and the finished goods are another area that needs to be managed. Thus, inventory management goes way beyond the conventional in-and-out stuff. Instead, it is about making sure that how the working capital is being managed at the organisation's end. Also, if the essential raw materials are not available, the production process is going to be halted. That would eventually disrupt the cost of the production of the entity. Thus, the right balance has to be managed when it comes to inventory control.

1.3 Alternatives to Inventory Handling

As inventory management is highly customised and will vary from one business to another, the alternatives will vary from one business to the other. Regardless of the system, though, some alternatives are commonly followed by businesses. One of the techniques that are used is setting the par levels for each of the respective items that are part of the product line. Par levels are the minimum amount of product that should be on hand at all times. When the inventory stock is below the predetermined level, the business has this knowledge that it is time to replenish the stock. The method that is being used at an extensive level these days is the Just In Time Inventory, also termed

JIT.

One of the key premises of this method is to make sure that the inventory levels are kept low just about to make sure that the specific customer orders are being taken care of. What it does is that due to that, there is a reduction in the investment that goes into the inventory as well as the way the management of the scrap costs is carried out. It has to be noted that even if the JIT method is being used to hold the inventory, the level of coordination is also always needed. At the same time, as the production runs become shorter, it is quite easy to halt the production of a certain type of product and make sure that one can switch from one product type to another so that the changes in the overall demand of the customer can be met with greater ease. It also allows us to make sure that the holding costs are taken care of appropriately.

Contingency planning is also important in terms of the way inventory management is supposed to be carried out. At times, when the sales are spiking at an unexpected level or there are cash flow issues that need to be managed. The space that is needed at the warehouse might not be enough. All these risks call for better contingency planning on the part of the organisation. One alternative is thought to make sure that proactive forecasting and planning are carried out so that the element of risk that one curtails in inventory management can be lowered to an extent. Organizations also, at times, tend to realise that they tend to place their attention more on some products than others. The technique that is used by the businesses is the ABC analysis. It allows the organisation to make sure that they have an insight into how inventory management is supposed to be carried out. One way of doing it is to separate out the products that need a lot of attention. In that way, the financial impact can also be calculated in a much more accurate manner. Another popular alternative that organisations follow these days is drop shipping. It has turned out to be an ideal solution when it comes to the way inventory management is supposed to be carried out. Many wholesalers opt for drop shipping as a service. Despite this fact, even if the supplier is not comfortable, there are still options that need to be considered. In that way, the organisations can make sure that they can appropriately manage their inventory cost and also disable inventory management at the broader level.

Learning Outcome 2

2.1 What is Stock?

Despite the fact that the terms stock and inventory are used interchangeably, there are some fundamental differences with regard to their interpretation. The difference is subtle, though, and most of the time, it is perceived from the point of view of accounting. A stock is a finished product that is sold by the business. At times, the business might be selling these goods to other customers in the form of raw materials. Stock items tend to deal with the product that is sold as the daily operations of the business. The tracking of the stock is supposed to be carried out. The stock inventory, most of the time stored in the warehouse storage area, and the tracking has to be carried out regarding the quantity. The common stock-keeping unit (SKU) is the term that is predominantly used for it. The

distinct attributes of each of the products are also taken into consideration. Thus, there are some key differences regarding the way stock and inventory management is supposed to be carried out in the given period. Another important defining attribute of stockkeeping is how various stock-keeping items are grouped. As compared to the inventory, the stock number or batch number is used to make sure that the element of control over the various stock items can be created. They are tracked based on their grouping or expiration dates. If the stocks are kept in the form of a serialised inventory, then they can also be tracked by the serial numbers of the given inventory. Again, the basic idea of the term is how the accounting of each of the respective asset classes is supposed to be carried out and how record-keeping can be done correctly at the end of the business.

2.2 Importance of Controlling Stock

Businesses have to maintain the stock of raw materials and supplies. There are also works in process and finished products that are important to make sure that the day-to-day operations of the organisation are managed in the right manner. Companies are using stock control to make sure that the appropriate level of materials is maintained and that customer demand can be maintained. The critical problem for any business is when they are facing a situation of stock out when there is not enough material to pursue production. Organisations tend to overstock their items. It is also a wrong approach as when the high level of stocks is managed, it tends to tie up the business' capital. The same capital can be used for some other purpose. The excess raw material would amount to higher storage and warehousing costs as well. It means that the warehousing costs are also going to increase. The raw materials might also get outdated or obsolete before a business can sell them to anyone. Thus, the handling of how much stock an organisation wants at their disposal needs to be carried out carefully. Stock control also allows the business to make sure that they can make the right purchase decisions regarding the way inventory quantity is supposed to be managed. All the relevant departments, such as marketing, sales, and purchasing, must work together to ensure that the appropriate levels of stock are being managed at the organisation level. It would ensure that the sales forecast that is being carried out by the business is being done. Thus it is imperative that the organisation should appropriately control the stock.

2.3 Alternatives to Holding Stock

Most of the time, stock keeping comes across as a balancing act. For instance, if there is a shortage of stock, the organisation might lose out on some potential sales, while on the other hand, if there are excess costs, it might affect the bottom line of the business. As the traditional stock-keeping methods are not good enough, some other alternatives need to be taken into consideration. The first alternative that is used is drop shipping, which is somewhat different as compared to the idea of just in time inventory. With just the just-in-time inventory method, retailers are supposed to rely on more conventional methods of inventory control. Whereas when organisations opt for drop shipping, they do not feel the need to store or ship any items. Once an order is going to be submitted to the system,

the vendor or the wholesaler that has raised the request will be notified so that the task handling can be carried out in the right manner. What it implies is that the retailers would be able to concentrate on the matters and provide the customers with more than adequate experience that is going to fulfil their demand one way or another. It also allows the business to make sure that the floor space that would have been gone for the stock handling goes towards saving the rental cost. Furthermore, it allows the organisation to improve its order management. These days, customers are accustomed to finding and ordering anything that they can get through an e-commerce portal. As the stores are getting more and more flexible regarding the way order management is supposed to be carried out, the same thing has to be managed as far as the way stock management is carried out at the level of the enterprise. One of the more effective ways to use this new model to their advantage is that businesses have started to use the endless aisle model for stock management. It allows businesses to make sure that they can bring the digital and physical components of shopping to their in-store experience. It also comes across as an efficient alternative to stock holding. Another commendable alternative that one gets to see for stock handling is intelligent inventory management. It is a well-known fact that these days, many organisations are leveraging their analytics to make sure that they get to manage their stock positions in the right manner. As per the report circulated in 2016, about 50 % of businesses do not feel this need to track their stocks. What happens when (Bright & Cortes, 2019)

As intelligent inventory systems are improving, retailers can harness big data to make sure that they can appropriately manage their stock. It would also allow the organisation to stick out in a much more efficient manner before they run out of it. The intelligent inventory system also allows businesses to make sure that they view stock history reports and can update their inventory more easily. If there is an intelligent inventory system, the retailers can harness big data so that they can manage their stock ably and order more before they run out of it. These three alternatives for inventory control can solve many problems encountered by brick-and-mortar retailers. Endless Aisle is an effective way for retailers to bring the digital and physical components of shopping to the in-store experience. Many companies aren’t leveraging analytics to manage their inventories. With intelligent inventory, retailers can harness big data to manage their stock and order more before they run out.

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