South Asian Journal of Operations and Logistics
2022 Vol. 1, No. 2, pp. 53-64
DOI: 10.57044/SAJOL.2022.1.2.2208
© 2022 SAG Publishing. All rights reserved

Improving Supply Chain Performance: A Case Study of Interwood Mobel

Shahrukh Shar [1*]
Zaeem Inayat [2]
Muhammad Haris [3]
Muhammad Anas Buksh [4]

[*1,2,3,4] *Researcher, Department of Business Administration, Iqra University, Karachi, Pakistan*

**Corresponding author email: shahrukhshar80@gmail.com*

Article History

Received: 06 September 2022
Revised: 27 September 2022
Accepted: 10 October 2022
Published: 12 October 2022

JEL Classification
L68
L69
R41
J20

ABSTRACT

This study aims to determine the impact of variables on the amount of time it takes to order inventory and how supply chain performance can be improved in the company. The paper also encompasses the discussion in which the methods of managing inventory in an organization and minimization of expenses related to stock are highlighted. Moreover, the study discovers the effect of product demand pushed from the consumer end and selling plans on procuring material or inventory stock. In order to conduct the research, a deductive research approach has been utilized through which the variables are being elucidated, and an association between the variables is established to grasp the outcomes. As the data is collected through questionnaires and survey forms from the workforce of the company, the research method has been used quantitative method, and it has assisted in concluding the problem and proposing recommendations. Additionally, the study has also facilitated an understanding of the return on investment that can be attained by restocking the inventory at the warehouse to satisfy customer needs within due time.

Keywords: *Furniture industry, Lead time, Supply Planning, Demand Planning, Inventory management, Transportation, Raw material*

Citation of this article:

Muhammad, A. H. (2022 Improving Supply Chain Performance: A Case Study of Interwood Mobel. *South Asian Journal of Operations and Logistics*, *1*(2), 53-64. DOI: 10.57044/SAJOL.2022.1.2.2208

Improving Supply Chain Performance: A Case Study of Interwood Mobel

1. Introduction

In 1974, Interwood Mobel (Pvt.) Ltd. was established as a private limited liability company. Interwood Mobel (Pvt.) Ltd is Pakistan's most dependable company in manufacturing and marketing premium-quality furniture. On the other hand, it also carries the title of a trendsetter. It is the industry leader in providing variations in the groups of office and home furniture, kitchens, accessories, wardrobes (for clothes), doors (for offices and houses), flooring (for offices and houses), and bespoke furniture, among others. Interwood set foot into the furniture industry as a central market participant and within a short span of period, it expanded its network of offices spread across the country and a retail network consisting of 11 showroom locations. Various showrooms have been established in various cities to suit the needs of customers who shop at various retail outlets. In the Fiscal year 2019, Interwood's newly opened showroom located in the capital city of Pakistan represents a breakthrough moment in the company's history. This showroom is spread up to 55,000 square feet and provides consumers with a superior retail setting while offering a large selection of high-quality furniture. Besides that, it has also broadened its product offerings by allowing greater customization in manufacturing the products. Interwood has also collaborated with international specialists such as Italian architect Alfredo Zengario to continuously modernize a wide range of product classifications through a brilliant product design that captures the target market's attention (Baloch & Rashid, 2022).

Along with increasing its roots in the domestic market, Interwood has also lengthened its reach into the international market to compete on a global scale. In addition to local luxury residential apartments/projects (where people live and work), hospitals, schools, malls (where people shop) and airports; Interwood has also continued to create its mark on a variety of businesses and corporations in the United States, Europe, Middle East and Africa. Interwood is a member of the International Wood Association (IWA). Interwood Mobel (Pvt.) Ltd., which was formed in 1974, has standardized itself as the country's top luxury furniture, home and office accessories producer (Shaheen, 2022). The unique vision Interwood Mobel brings into the furniture industry when it comes to serving its devoted customers distinguishes the company from all of its rivals. The repurchasing and complete end-to-end solutions display the consumers' trust in Interwood Mobel (Pvt) Ltd. When doing research, it is common practice to begin with a problem statement, which is a claim that summarizes the issue that the study will investigate. The problems that the research study has attempted to answer are outlined in further detail in the problem statement below:

The company's inventory includes unprocessed commodities, final products after manufacturing and more. The company has struggled to actively manage the inventories to boost the supply chain activities and lessen the likelihood of an inventory shortfall, which causes postponement in meeting the required amount of stock within due time. Delivering exceptional quality to clients on time is critical in a competitive market where time is of the essence, and on-time production and delivery are critical for success. In production and planning, safety lead time is involved in the structures. Safety lead time is a process whereby purchase orders are launched and scheduled to be delivered one or more periods earlier than required in order to meet production or customer demand (Alrazehi et al., 2021; Anwar, 2022). Obtaining the necessary materials on time and putting them to use before they expire has always been a challenge for the company; with increasing supply and demand, the company's concern has grown and relocated to manage lead time and resource usage better. There has been a reasonable gap in the company's strategy to sustain the supply chain processes as its competitive advantage (Faster & Better) are not achieved combined. The quality of the goods produced is better, but they lack in managing to produce and deliver the better quality faster in time.

As long as the listed complicated matters are intact, the management of Interwood Mobel (Pvt.) Ltd will have to endure either sales loss or client switches (consumers might change their brand and switch towards competitors). In this situation, the company will suffer negatively, so to surpass these odd scenarios, the management at Interwood Mobel needs to plan in such a way that benefits the

consumers and the company itself, as a satisfied customer is one of the keys to success. The purpose of this study was to aid in modifying the supply chain activities at Interwood Mobel to reduce the lead time for delivery to avoid customer dissatisfaction. The study has been conducted to address the impact of delays in the production and delivery processes of goods and services to make a solution available and meet consumer demands through the commitment made by the company. For example, according to past research, lead time is essential for acquiring a competitive advantage over the rivals in the market.

2. Literature Review

Lead time is between an order being placed and the delivery invoice. In contrast, a more detailed description of lead time is the period between an order being prepared by the buyer, being sent or placed, being received by the seller or distributor, being prepared by that provider or seller, being shipped, and being received by the consumer and being compared to the order placement (Amjad, 2022; Rashid & Rasheed, 2022). When applying the definition to service firms, lead time can be defined as the period between the time a customer requests a service and submits a requirement to the supplier, the period that the organization's officers spend working on the request, the period that they devote to making available the resources needed to provide the service and the period they devote to any other activities (Hashmi & Mohd, 2020; Hashmi et al., 2021a).

The primary goal of this phase of the study is to determine the optimal forecasting approach that will work best in the organization and be most beneficial to the business in terms of inventory classification and lead time reduction. Lead time decreases primarily expedite cost reductions, benefit gains, and increased competitiveness are supported by evidence. Reduced Lead Times can result in lower inventory levels and more cash available for corporations to use as needed (James, 2003; Hashmi et al., 2021b). From a number of perspectives, it indicates less risk, exposure, and management of materials and resources. Client time intervals that are shrinking would be a fundamental exception. When the client time interval shrinks, it might result in more trade being won and, at the same time, higher stocking levels being maintained; this is especially true when there is a variation between the Client time interval and, consequently, the Total time interval. The administration of time intervals is frequently viewed as a distinct competitive advantage (Banerjee, 1986; Rasheed, 2022). The ability to provide things or services more quickly than the competition is referred to as time-based competitiveness. Efforts to reduce time intervals are responses to calculated challenges that arise in the areas of procurement, manufacturing, and distribution. An examination of lead times in dispersion frameworks reveals several potential areas for improvement (Victory et al., 2022; Williams & Tokar, 2017).

Items streams are traditionally managed by discrete organizational units that operate independently and are ineffectively assisted by the organization. Rather than being interconnected, value-based frameworks handle information about the time and amount of item streams. This includes the necessity for receptive behavior and the timing of consolidation chances. The use of a lean considering method specifically assists in this motivation and, in a roundabout way, increases the likelihood of achieving optimal request fulfilment and meeting the sales objective (Hashmi et al., 2020a). When innovative lean processes are combined with a prominent marketing display, the supply chain's execution can be significantly enhanced in some instances. Time is of the essence, and clients require shorter lead times. Before the process and post-processing stages, firms evaluate cycle times in production, logistics management, and project planning (Agrell, 1995; Hunaid et al., 2022).

As this research is a quantitative and deductive approach, the technique applied here is (ABC Analysis Technique). The ABC analysis is a method of inventory control that ranks the significance of different stock items according to their potential financial impact on the company. ABC inventory managers rate products on demand, price, and risk data, then arrange items into classes according to those criteria. This enables business executives to better understand which items or services are essential to their firm's profitability (Ali, 2022; Kiani & Sangeladji, 2003). "Class A" items are the stock-keeping units (SKUs) that have the highest significance depending on the sales number or the company's

profitability. "Class B" items are the second-most essential, while "Class C" goods are the least significant. Other businesses may choose a categorization scheme that divides things into more categories than those three (Basit, 2022; Cole & Stuart, 2010).

2.1. Empirical Reviews

There have been a bunch of observations regarding the inventory management systems and management of the overall lead times (from supplier to end-user) in the organizations that made a huge impact either positively (if the management of inventory and lead time is upright) or negatively (if the management of inventory and lead time is inadequate) (Asif, 2022; Hashmi et al., 2020b). The central idea behind this research proposal is to make the management at Interwood Mobel (Pvt.) Ltd about the consequences of not planning fittingly that many other firms have faced, such as IKEA (a Swedish-founded furniture retail company) is currently struggling to supply its customers accurately within the provided timeline. Customer feedback has been observed complaining about the waiting time for the furniture products to be stocked back has increased, which is unsatisfying for the customers. Hence, planning for the inventory according to the forecasted customer demand would positively value the company.

This part of the research initiates the research framework to progress the study. So, the research framework developed for this study is constructed on the following approaches and concepts identified in the literature review. The framework's objective is to clarify the direction of the study, its conceptual logic, and the leading ideas, which helps to explain its concepts briefly. Since the study aims to reduce lead times, the main activities should be discussed first. The investigation stages checklist must be done to finish the study effectively. It is strongly advised that such stages be depicted in the shape of a layout proposed study. (Alam, 2022). Figure 1 illustrates the conceptual framework of this study.

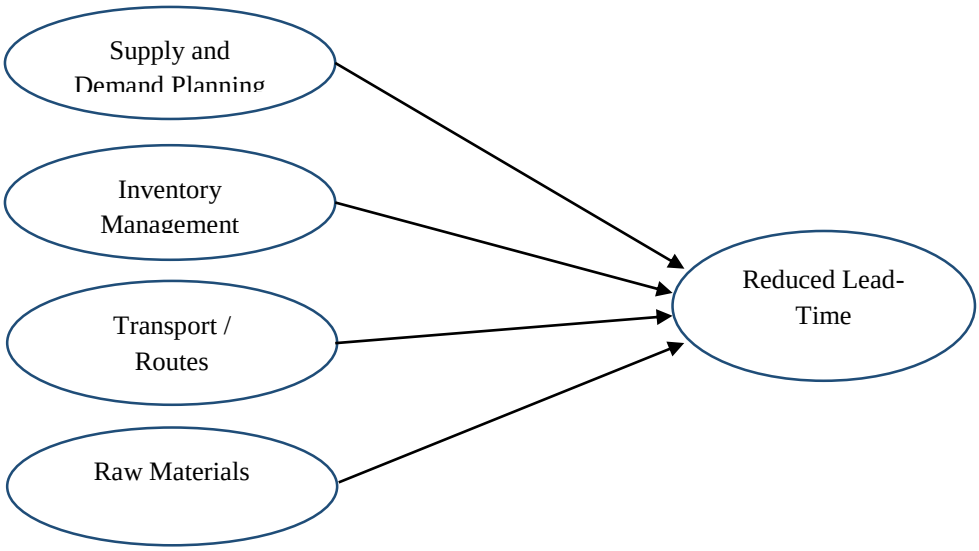

Figure 1: Conceptual framework

In response to the literature, this study aims to identify the factors affecting the lead time, i.e., Supply and Demand plan, Inventory, Transportation and Routes and Raw Materials. So, the complete hypotheses are given below:

H1: Supply and demand plans significantly affect lead times.

H2: Inventory management significantly effect lead times.

H3: Transportation and routes significantly affect lead times.

H4: Raw materials significantly affect lead times.

3. Research Method

A research methodology is a process of choosing a path to do research; whether it is a qualitative or quantitative, deductive, inductive, or mixed method, it is based on the research philosophy. (Khan et al., 2022a; Uddin, 2022). First, it establishes a means by which data will be acquired and specifies the technique used, including a survey, interviews, or direct observation. Second, it involves making an objective evaluation of the population that will be used as the source of the sample that will be chosen to gather the data. This sampling choice must be founded on some justification. Third, it provides information on the construct, such as who built the instrument and whether it was self-constructed or adopted. In conclusion, it describes the technique of analysis, which includes how the collected data will be examined to arrive at a conclusion. This is done by identifying the relationship between the dependent and independent variables (Ayaz, 2022; Khan et al., 2022b; Muzammil, 2022).

The deductive approach has been used for collecting the data in this quantitative research. The deductive method starts with a theory that is explained in past research, then moves on to the development of hypotheses based on that theory, followed by the gathering and examination of facts to test those hypotheses (Barton et al., 2010; Rashid, 2016; Khan et al., 2022c). The research explains the impact of variables affecting the lead time at Interwood Mobel Pvt Ltd. In order to carry out research, the method that has been chosen, which will be deductive, is one in which specific variables are stated. In order to achieve a successful outcome, the link between them must first be created. In order to get to a conclusion about the problem and provide a remedy for it, a quantitative approach is employed to collect data from respondents. The approach used is a business research study, with the study's primary objective being to explain the issue that a particular corporation is facing. The context of research methodologies and procedures chosen by a researcher to perform a study is the proposed study. The design uses scientific methods to fine-tune research methodologies appropriate for the topic area and put their investigations to good use (Haque et al., 2021; Khan et al., 2021; Rashid & Amirah, 2017; Tersine & Hummingbird, 1995).

3.1. Sampling and Statistical Techniques

As the research is a business research-based study, the sampling design depicts the targeted population, the size of the sample to conduct the research and the sampling technique applied for the investigation. In a positivist philosophy, a hypothesis (or hypothesis) is developed based on a testable theory. Then, a study plan is created to examine the hypothesis (Agha et al., 2021; Banerjee, 1986; Rashid et al., 2019). The persons who will be the focus of the study and analysis carried out as part of the interventions make up what is known as the target population. When conducting a cost-effectiveness study, it is essential to provide detailed descriptions of the features of the target population and any subcategories. The selection of attributes is determined by the existing health literature and practices, the research goals, and the contextualized data. Age, gender, and other potential risk variables could be the most important aspects to consider in research on VAD and ECMO (Rashid et al., 2020; Zhao et al., 2013). The data has been collected from the workforces of Interwood Mobel (Pvt) Ltd. working in different departments such as Sales and Marketing, Warehouse and Inventory Management, Supply Chain and Logistics and E-Commerce.

The number of people who participate in or make observations for a research project is the number of respondents. The symbol for this value is often denoted by n. Both of these statistical features are impacted by the size of the survey; 1) the accuracy of our estimations and 2) the value of the research in terms of its ability to make inferences. (Pfeffer & Jarcho, 2006; Rashid et al., 2021). The overall population consists of 98 participants from Interwood Mobel, by whom the data has been collected, and their sample size is 98 (it has been taken randomly from the population). Simple Random Sampling from the Probability Sampling Technique has been utilized to provide an equal chance for a sample to be chosen/selected. Random sampling is a kind of selection in which every subset has an equal opportunity to be chosen randomly. The goal of a randomly selected sample is to accurately reflect the demographic as a whole (Cox, 1972; Rashid et al., 2021). The data collection is based on how to reduce the lead time by classifying the inventory at Interwood Mobel (Pvt) Ltd. The data has been collected

from the Top Tier to First Line employees (working in different departments as mentioned in the target population) of Interwood Mobel, having information on order placing and receiving and those connected to providing the delivery within the lead-time. The data has been gathered from Interwood Mobel (Pvt) Ltd.'s main office located in Karachi and their Warehouse. The source of surveying data in the collection of information has been utilized. The statistical technique used in this research to get the results are; ANOVA: It is used to separate the data on the variance explained into its components so that it may be applied to different tests (Baker, 2018). Regression and correlation: Correlation and linear regression are this study's most widely utilized methods to investigate the relationship between two quantitative variables. Regression represents the relationship as an equation, whereas correlation measures the strength of the linear regression between two variables.

4. Results and Findings

4.1. Demographic Analysis

Based on the above criteria, Male responses received are higher with 65%, whereas 34.7% of the responses are from females. In the responses received from the mentioned genders with percentages, the age group who responded more is between 20-30. As mentioned in table 1, 58.2% of people are the ones who belong to this age criterion, and the second most responsive are from the age group of 41 to 50, as they are 20.4% of the total population. Following the second, the third most responsive age group is between 31-40 with 13%, and the rest are 50 or above with 8.2%. Keeping in mind the education criteria, the group of Graduates are more responsive, with 52% of the total population. In contrast, responses from the group of Postgraduates stand second from the total population with 39.8% and the minor responses are received from the group of Undergraduates. Note that 100% of responses are collected from people currently employed at Interwood Mobel Private Limited.

Table 1: Demographic attributes

Demography	Group	Frequency	Per cent	Valid Percent
Gender	Male	64	65.3	65.3
	Female	34	34	34
Age (Years)	20-30	57	58.2	58.2
	31-40	13	13.3	13.3
	41-50	20	20.4	20.4
	50 or above	8	8.2	8.2
Education	Undergraduate	8	8.2	8.2
	Graduate	51	52.0	52.0
	Post Graduate	39	39.8	39.8
Occupation	Employee	98	100.0	100.0

4.2. Validation of Model

The reliability analysis is conducted by measuring Cronbach's Alpha value, where the minimum value for the data to be reliable is 0.7 of the dependent variable (Hashmi et al., 2021b). In this case, the value for the reliability of the dependent variable, i.e., Reduced Lead-Time, is 0.672 (shown in table 2), which explains that data collected for the study is reliable and can be used for further reliability analysis using Cronbach's Alpha of each independent variable. The reliability statistics of independent variables are also described in table 2, such as the reliability values for supply & demand plan, inventory, transport/routes, and raw material are 0.710, 0.650, 0.699 and 0.758, respectively. The N of items depicts the number of questions asked of the respondents from all variables. Furthermore, to validate the data and align with the sample size, whether it is suitable or whether results can be generalized appropriately or not. The minimum level of the sphericity test is 0.6 (Rashid et al., 2022). Here for our study, the result of the data is found.

Table 2: Reliability analysis

Variables	Cronbach's Alpha	N of Items
Reduced Lead Time	0.672	5
Supply and Demand Plan	0.710	5
Inventory	0.650	3

Transport/Routes	0.699	4
Raw Material	0.758	6

Table 3 displays the total population, i.e., 98 from whom the responses are being collected, denoted by N. The mean and standard deviation of each question being asked in the segments of independent variables and dependent variables, respectively, are exhibited separately. Also, note that the significance value of Reduced Lead-Time is 0.007, Supply & Demand Plan is 0.023, Inventory is 0.031, and Transport/Routes is 0.025. Raw Material is 0.004, meaning that the hypothesis supports the claims and reliability analysis is significant.

Table 3: Standardized beta coefficient

Variables		N	Mean	Standard Deviation	Coefficients		
					Beta	t	Sig.
Reduced Time Lead	RLT1	98	3.53	.998		2.762	.007
	RLT2	98	4.01	.917			
	RLT3	98	3.99	.973			
	RLT4	98	3.86	.963			
	RLT5	98	4.03	1.026			
Supply and Demand Plan	SDP1	98	4.03	.956	.307	2.324	.023
	SDP2	98	4.05	.813			
	SDP3	98	4.15	.917			
	SDP4	98	4.06	.982			
	SDP5	98	4.03	1.061			
Inventory	INV1	98	3.81	1.003	.260	2.196	.031
	INV2	98	4.00	.890			
	INV3	98	4.01	1.015			
Transport/Routes	TR1	98	3.90	1.000	.011	2.094	.025
	TR2	98	4.08	1.002			
	TR3	98	3.93	.955			
	TR4	98	3.99	.947			
Raw Material	RM1	98	3.69	1.183	.202	2.790	.004
	RM2	98	3.94	.921			
	RM3	98	4.09	.887			
	RM4	98	3.85	1.040			
	RM5	98	3.84	1.010			
	RM6	98	4.21	.776			

Note: (dependent variable = reduced lead-time)

Tables 4 and 5 display the statistical technique applied during this Quantitative research, i.e., Regression Analysis. It is a model summary showing the R square and its adjusted value, which helped explain the reliability and the positive relationship among variables. The variation caused by the independent variable in the dependent variable is around 45%.

Table 4: Regression analysis (adjusted R square)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.673[a]	.453	.425	.45363

Note: a. Predictors: (Constant), RM, TR, INV, SDP

Table 5: ANOVA (regression model)

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	13.459	4	3.365	16.351	.000[a]
	Residual	16.257	79	.206		
	Total	29.716	83			

Note: a. Predictors: (Constant), RM, TR, INV,SDP; b. Dependent Variable: RLT; The significance or p-value in the above table of ANOVA is .000, which is less than .05, showing that the model is fit and significant.

The supply and demand plan positively impacts the reduced lead time and its significance, whereas the Beta value is .300, T-value is 2.324, P-value is 0.23, and the results are supported. Inventory positively impacts the reduced lead time and significance, whereas the Beta value is .212, T-value is 2.196, P-value is 031, and the results are supported. Transport/routes positively impact the reduced lead

time and its significance, whereas the Beta value is .009, T-value is 2.094, P-value is 0.25, and the results are supported. Raw material positively impacts the reduced lead time and its significance, whereas the Beta value is .201, T-value is 2.790, P-value is .004, and the results are supported. All hypotheses were supported and had a positive impact on the given study. Summarizing the hypothesis testing defines that all independent variables such as Supply & Demand Plan, Inventory, Transport/Routes and Raw Material denoted by H1, H2, H3 and H4, respectively, support the dependent variable Reduced Lead-Time.

Table 6: Hypothesis testing

Relationship/hypothesis	Beta	T-value	*p*-value	Results
H1: SDP→Reduced Lead Time	.300	2.324	.023	Supported
H2: INV → Reduced Lead Time	.212	2.196	.031	Supported
H3: TR→ Reduced Lead Time	.009	2.094	.025	Supported
H4: RM → Reduced Lead Time	.201	2.790	.004	Supported

Source: SPSS output

5. Conclusion, Discussion, Implications, Limitations and Recommendations

This study aimed to identify the relationship between demand and supply plan, inventory, Transport/routes, raw material and reduced lead time of products that are directly related to the supply chain performance of Interwood Mobel Pvt Ltd. Furthermore, Reduced lead times specifically expedite cost reduction, provide benefits, and increase competitiveness, (Boonsthonsatit & Jungthawan, 2015). Moreover, it was noted that the inventory was not being refilled or kept in the warehouse, which increased the lead time and often resulted in reduced sales. In addition, this research has given particular attention to stock categorization and firm supply chain operations. Streamlining processes and boosting productivity can increase output and revenue. Longer waiting times, however, have a negative impact on sales and production activities and customer satisfaction as well; reduced lead time has a positive impact on customer satisfaction (Das et al., 2021).

5.1. Discussion

Discussion engages the readers in the analytical analysis of issues based on an evidence-based interpretation of results; it is not rigidly bound by objective information delivery (Mitchener & Basturkmen, 2019). There will be a split of inventory in the warehouse's bisection, which indicates that while the inventory for the lucky one showroom will also be kept in the same warehouse, it will also be accessible for the Bukhari showroom. Internal communication must be on such a fast track that the movement of inventory is visible to decision-makers, as a consequence of which any unexpected demand or correction within a product by a consumer may be dealt with appropriately within a brief period whenever a customer's requirement arises. It can also be appropriately handled in a product (customer-requested change) in a relatively short period. Timely shared data at the right moment can help to decrease product delays.

It is the responsibility of the firm's top management to ensure that the sales team shares sales data with the production team at the appropriate time in order to avoid any type of delay in the product's structure and that the production department is completely obvious on key questions such as what to produce, where to send the product, and how much items are needed. If the firm takes steps to reduce lead time, it must employ cross-dock transportation to deliver finished items. This will raise transportation costs, but the reduction in lead time will be noticeable, and the ultimate goal of on-time delivery of the product will be met. Because Interwood relies on responsive transportation behavior, it must construct a cross-dock transportation system to deliver finished items. Using a local supplier can affect the quality of the materials because the company currently uses imported materials to create their product offerings, which raises the cost of the product. If local suppliers are associated with the firm, the quality of products will be compromised, but the cost of the product will also be reduced so that it can gain a good profit due to its brand image. Making decisions about the inventory can benefit by categorizing the product into classes like A, B, and C, which will give a clear image of the fast-moving inventory, fair movement of inventory, and slow-moving items or dead stock.

5.2. Implications

Interwood Mobel must classify the equipment to segregate and arrange them in terms of precedence, which will help facilitate decision-making. The storage division needs to be divided into two areas so that one can accommodate LuckyOne Showroom's needs and the other can accommodate Bokhari Showroom's needs. It is proposed that adopting and incorporating the said structure into Interwood Mobel's procedures would be novel for them, and an explanation is also provided for it. The study provides good results for the industry experts, specifically the management of Interwood Mobel, for effectively managing their demand and supply plan, inventory, Transport/routes, and raw material so the lead-time can be reduced and supply chain performance can be improved. In the conclusion of the research, which showed that inventory management substantially impacts supply chain performance overall, management should concentrate on bolstering it more to gain a competitive edge or save expenses associated with inventory and material handling. It also emphasizes the significance of lead time.

5.3. Limitations and Recommendations

The study's conclusions are constrained from several angles, including sample size restrictions, geographical reach, respondents' degree of comprehension of the value of the research process, and the organization that was intended to be the project's target group. Results cannot be extrapolated to other large-scale and Pakistani businesses. We recommend Interwood Mobel categorize the materials so that the inventory is separated and set up in a priority sequence, making the decision-making process more accessible. Therefore, we must partition the warehouses into two spaces, one of which must serve the demands of LuckyOne Showroom and the other of which must serve those of Bokhari Showroom. We have also justified it because we understand that it will be something new for IWM to adopt and incorporate into their process. We will be able to determine the product demand at each showroom once we put our new strategy into practice, allowing us to estimate future orders so that they may be created and restocked as soon as possible to reduce the lead time (Banerjee, 1986). Enhance Internal Communications: The warehouse's replenishment process has to work effectively together internally in order to avoid causing unforeseen delays. In order to avoid unanticipated delays in the restocking of class A and class B, the fast-moving product and Interwood warehouse should effectively interact with the manufacturing and sales departments through the ERP system. We can advise them to work on their ERP software in other statements. It was noted in the discussion above that the forecasted data and actual data differ from one another (the unit forecasted vs the unit sold are different), so they can work on visualizing the data to make appropriate decisions on time.

Cross-dock Shipment: Interwood's main problem, which several sources have brought up, is its long lead times. We advise the company to concentrate on cross-dock shipments by handling multiple orders from clients effectively, which will impact the cost of transportation, boost profitability, improve customer satisfaction, and shorten lead times. Provide Sale Forecasting: Interwood should share the sales data timely with the production department, which helps them to anticipate the needs and speed up the fulfilment process. Utilizing local suppliers: Interwood currently purchases its materials from foreign suppliers, which results in lengthy supply chain lead-time due to distance, shipping, port formalities, and then land transport. To avoid these hassles, the company has formed strategic partnerships with local supply chain partners who can maintain inventories and provide as necessary.

References

Agha, A. A., Rashid, A., Rasheed, R., Khan, S., & Khan, U. (2021). Antecedents of Customer Loyalty at Telecomm Sector. *Turkish Online Journal of Qualitative Inquiry*, *12*(9), 1352-1374.

Agrell, P. J. (1995). A multicriteria framework for inventory control. International Journal of Production Economics, 41(1-3), 59-70. https://doi.org/10.1016/0925-5273(94)00054-9

Alam, M. (2022). Supply Chain Management Practices and Organizational Performance in Manufacturing Industry. *South Asian Journal of Social Review*, *1*(1), 42-52. https://doi.org/10.57044/SAJSR.2022.1.1.2204

Ali, S. B. (2022). Industrial Revolution 4.0 and Supply Chain Digitization. *South Asian Journal of Social Review, 1*(1), 21-41. https://doi.org/10.57044/SAJSR.2022.1.1.2205

Alrazehi, H. A. A. W., Amirah, N. A., Emam, A. S., & Hashmi, A. R. (2021). Proposed model for entrepreneurship, organizational culture and job satisfaction towards organizational performance in International Bank of Yemen. *International Journal of Management and Human Science, 5*(1), 1-9.

Amjad, S. (2022). Role of Logistical Practices in Quality Service Delivery at Supermarkets: A Case Study from Pakistan. *South Asian Journal of Operations and Logistics, 1*(1), 39-56. https://doi.org/10.57044/SAJOL.2022.1.1.2204

Anwar, M. F. A. (2022). The Influence of Inter-Organizational System Use and Supply Chain Capabilities on Supply Chain Performance. *South Asian Journal of Operations and Logistics, 1*(1), 20-38. https://doi.org/10.57044/SAJOL.2022.1.1.2203

Asif, K. (2022). The Impact of Procurement Strategies on Supply Chain Sustainability in the Pharmaceutical Industry. *South Asian Journal of Social Review, 1*(1), 53-64. https://doi.org/10.57044/SAJSR.2022.1.1.2203

Ayaz, J. (2022). Relationship between Green Supply Chain Management, Supply Chain Quality Integration, and Environmental Performance. *South Asian Management Review, 1*(1), 22-38. https://doi.org/10.57044/SAMR.2022.1.1.2203

Baker, L. M. (2004). The information needs of female police officers involved in undercover prostitution work. *Information Research, 10*(1), 10-1.

Baloch, N. & Rashid, A. (2022). Supply Chain Networks, Complexity, and Optimization in Developing Economies: A Systematic Literature Review and Meta-Analysis. *South Asian Journal of Operations and Logistics, 1*(1), 1-13. https://doi.org/10.57044/SAJOL.2022.1.1.2202

Banerjee, A. (1986). A joint economic-lot-size model for purchaser and vendor. *Decision Sciences. Journal of English for Academic Purposes, 17*, 292-311. https://doi.org/10.1111/j.1540-5915.1986.tb00228.x

Barton, T. M., Gleeson, R., Topliss, C., Greenwood, R., Harries, W. J., & Chesser, T. J. (2010). A comparison of the long gamma nail with the sliding hip screw for the treatment of AO/OTA 31-A2 fractures of the proximal part of the femur: a prospective randomized trial. *The Journal of Bone and Joint Surgery (American), 92*(4), 792-798. https://doi.org/10.2106/JBJS.I.00508

Basit, A. (2022). The Influence of Green Supply Chain Management on Sustainable Performance. *South Asian Management Review, 1*(1), 49-66. https://doi.org/10.57044/SAMR.2022.1.1.2206

Mitchener, J., & Basturkmen, H. (2006). Perceptions of the difficulties of postgraduate L2 thesis students writing the discussion section. *Journal of English for Academic Purposes, 5*(1), 4-18. https://doi.org/10.1016/j.jeap.2005.10.002

Boonsthonsatit, K., & Jungthawan, S. (2015, May). Lean supply chain management-based value stream mapping in a case of Thailand automotive industry. *In 2015 4th International Conference on Advanced Logistics and Transport (ICALT)* (pp. 65-69). IEEE. https://doi.org/10.1109/ICAdLT.2015.7136593

Cole, S. R., & Stuart, E. A. (2010). Generalizing evidence from randomized clinical trials to target populations: the ACTG 320 trial. *American Journal of Epidemiology, 172*(1), 107-115. https://doi.org/10.1093/aje/kwq084

Cox, D. R. (1972). Regression models and life-tables. *Journal of the Royal Statistical Society: Series B (Methodological), 34*(2), 187-202. https://doi.org/10.1111/j.2517-6161.1972.tb00899.x

Das, S., Ghani, M., Rashid, A., Rasheed, R., Manohar, S., & Ahmed, S. (2021). How customer satisfaction and loyalty can be affected by employee's perceived emotional competence: The mediating role of rapport. *International Journal of Management, 12*(3), 1268-1277. DOI: 10.34218/IJM.12.3.2021.119.

Haque, I., Rashid, A., & Ahmed, S. Z. (2021). The Role of Automobile Sector in Global Business: Case of Pakistan. *Pakistan Journal of International Affairs. 4*(2), 363-383. https://doi.org/10.52337/pjia.v4i2.195

Hashmi, A. R., & Mohd, A. T. (2020). The effect of disruptive factors on inventory control as a mediator and organizational performance in Health Department of Punjab, Pakistan. *International Journal of Sustainable Development & World Policy, 9*(2), 122-134. https://doi.org/10.18488/journal.26.2020.92.122.134

Hashmi, A. R., Amirah, N. A., & Yusof, Y. (2020a). Mediating effect of integrated systems on the relationship

between supply chain management practices and public healthcare performance: Structural Equation Modeling. *International Journal of Management and Sustainability, 9*(3), 148-160. https://doi.org/10.18488/journal.11.2020.93.148.160

Hashmi, A. R., Amirah, N. A., & Yusof, Y. (2021a). Organizational performance with disruptive factors and inventory control as a mediator in public healthcare of Punjab, Pakistan. *Management Science Letters, 11*(1), 77-86. https://doi.org/10.5267/j.msl.2020.8.028

Hashmi, A. R., Amirah, N. A., Yusof, Y., & Zaliha, T. N. (2020b). Exploring the dimensions using exploratory factor analysis of disruptive factors and inventory control. *The Economics and Finance Letters, 7*(2), 247-254. https://doi.org/10.18488/journal.29.2020.72.247.254

Hashmi, A. R., Amirah, N. A., Yusof, Y., & Zaliha, T. N. (2021b). Mediation of inventory control practices in proficiency and organizational performance: State-funded hospital perspective. *Uncertain Supply Chain Management. 9*(1), 89-98. https://doi.org/10.5267/j.uscm.2020.11.006

Hunaid, M., Bhurgri, A. A., & Shaikh, A. (2022). Supply Chain Visibility in Leading Organizations of the Shipping Industry. *South Asian Journal of Social Review, 1*(1), 8-20. https://doi.org/10.57044/SAJSR.2022.1.1.2202

James. (2003). Lead Time Reduction in Order Arrival. *International Journal of Operations & Production Management, 12*, 42-56. https://doi.org/10.1108/01443579510080382

Khan, S. K., Ahmed, S., & Rashid, A. (2021). Influence of social media on purchase intention and customer loyalty of generation Y with the mediating effect of conviction: a case of Pakistan. *Pakistan Journal of International Affairs. 4*(2), 526-548. https://doi.org/10.52337/pjia.v4i2.207

Khan, S., Benham, A., Rashid, A., Rasheed, R., & Huma, Z. (2022c). Effect of leadership styles on employees' performance by considering psychological capital as mediator: evidence from airlines industry in emerging economy. *World Journal of Entrepreneurship, Management and Sustainable Development, 18*(8). https://wasdlibrary.org/publications/journals/wjemsd/

Khan, S., Rasheed., R., & Rashid, A., Abbas, Q., & Mahboob, F. (2022b). The Effect of Demographic Characteristics on Job Performance: An Empirical Study from Pakistan. *Journal of Asian Finance, Economics and Business, 9*(2), 283-294. https://doi.org/10.13106/jafeb.2022.vol9.no2.0283

Khan, S., Rashid, A., Rasheed, R., & Amirah, N. A. (2022a). Designing a knowledge-based system (KBS) to study consumer purchase intention: the impact of digital influencers in Pakistan. *Kybernetes, 51*(1). https://doi.org/10.1108/K-06-2021-0497

Kiani, R., & Sangeladji, M. (2003). An empirical study about the use of the ABC/ABM models by some of the Fortune 500 largest industrial corporations in the USA. *Journal of American Academy of Business, 3*(1/2), 174-182

Muzammil, M. (2022). Evaluating the Factors to Improve the Organizational Performance. *South Asian Management Review, 1*(1), 39-48. https://doi.org/10.57044/SAMR.2022.1.1.2204

Pfeffer, M. A., & Jarcho, J. A. (2006). The charisma of subgroups and the subgroups of charisma. *New England Journal of Medicine, 354*(16), 1744-1746. https://doi.org/10.1056/NEJMe068061

Rasheed, T. (2022). Supply Chain Sustainability Through Green Practices in Manufacturing: A Case Study from Pakistan. *South Asian Journal of Operations and Logistics, 1*(1), 57-71. https://doi.org/10.57044/SAJOL.2022.1.1.2205

Rashid, A. & Rasheed, R. (2022). A Paradigm for Measuring Sustainable Performance Through Big Data Analytics-Artificial Intelligence in Manufacturing Firms. *SSRN 4087758*. https://doi.org/10.2139/ssrn.4087758

Rashid, A. (2016). Impact of inventory management in downstream chains on customer satisfaction at manufacturing firms. *International Journal of Management, IT and Engineering, 6*(6), 1-19.

Rashid, A., & Amirah, N. A. (2017). Relationship between poor documentation and efficient inventory control at Provincial Ministry of Health, Lahore. *American Journal of Innovative Research and Applied Sciences, 5*(6), 420-423.

Rashid, A., Ali, S. B., Rasheed, R., Amirah, N. A. & Ngah, A. H. (2022). A paradigm of blockchain and supply chain performance: a mediated model using structural equation modeling. *Kybernetes, Vol. ahead-of-print No. ahead-of-print*. https://doi.org/10.1108/K-04-2022-0543

Rashid, A., Amirah, N. A., & Yusof, Y. (2019). Statistical approach in exploring factors of documentation process and hospital performance: a preliminary study. *American Journal of Innovative Research and Applied Sciences, 9*(4), 306-310.

Rashid, A., Amirah, N. A., Yusof, Y., & Mohd, A. T. (2020). Analysis of demographic factors on perceptions of inventory managers towards healthcare performance. *The Economics and Finance Letters, 7*(2), 289-294. https://doi.org/10.18488/journal.29.2020.72.289.294

Rashid, A., Rasheed, R., Amirah, N. A., Yusof, Y., Khan, S., & Agha, A., A. (2021). A Quantitative Perspective of Systematic Research: Easy and Step-by-Step Initial Guidelines. *Turkish Online Journal of Qualitative Inquiry, 12*(9), 2874-2883.

Shaheen, S. (2022). Quality management and operational performance: a case study from Pakistan. *South Asian Journal of Operations and Logistics, 1*(1), 14-19. https://doi.org/10.57044/SAJOL.2022.1.1.2201

Termine, R. J., & Hummingbird, E. A. (1995). Lead-time reduction: the search for competitive advantage. *International Journal of Operations & Production Management, 15*(2), 8-18. https://doi.org/10.1108/01443579510080382

Uddin, S. Q. (2022). Supply Chain Integration, Flexibility, and Operational Performance. *South Asian Management Review, 1*(1), 1-21. https://doi.org/10.57044/SAMR.2022.1.1.2202

Victory, G. O., Lizzie, O. A. & Olaitan, A. A. (2022). Climate-Smart Agricultural Practices at Oyo State-Nigeria. *South Asian Journal of Social Review, 1*(1), 1-7. https://doi.org/10.57044/SAJSR.2022.1.1.2201

Williams, B. D., & Tokar, T. (2008). A review of inventory management research in major logistics journals: Themes and future directions. *The International Journal of Logistics Management, 19*(2), 212-232. https://doi.org/10.1108/09574090810895960

Zhao, L., Tian, L., Cai, T., Claggett, B., & Wei, L. J. (2013). Effectively selecting a target population for a future comparative study. *Journal of the American Statistical Association, 108*(502), 527-539. https://doi.org/10.1080/01621459.2013.770705