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Comprehensive Analysis on Effectiveness of Inventory Management Practices on the Performance of Wholesale Drug Dealers

Bipul Ch. Kalita[1] and Bapan Kalita[2*]

[1]Assistant Professor, K. C. Das Commerce College, Chatribari, Guwahati, India
[2]Assistant Professor, The Assam Royal Global University Assam, India
*Email: munbarimukh@gmail.com

Abstract
The resource management is one of the most significant strategies for organizational effectiveness and sustainable development. The accurate and optimum utilization of resources will contribute in long-term stability influencing the product lines, supply chain, logistics and overall product development life cycle. This paper aims to identify the effective inventory management practices and justify how inventory management influences the performance of Wholesale Drug Dealers. To meet this purpose, the impact of inventory management on the performance, inventory practices such as Just in Time, Economic Order Quantity, Inventory Categorization Technique, Replenishment Principle and Material Requirements Planning have been used. The target population of the study is 1952 licensed wholesale drug dealers of Kamrup District of Assam, with a sample size of 325 dealers. A standard 5-point Likert scale is used and hypotheses are tested through Pearson's Chi-Square. An exploratory factor analysis has been done to the categorical variables to know the important components for the study. The predictive analysis is used to establish the cause and effect relationship between stock holding and sales as well as stock holding and profit. The study reveals that there is linear relation between stock holding and profit, and stock holding and sales. The structural equation model established the effectiveness of various inventory management techniques on the performance of Wholesale drug dealers. The authors suggest that the dealers require deep-level training by the experts in order to execute appropriate inventory management practices efficiently.
Keywords*: Inventory management, Healthcare, Organizational Performance, Resource Management, Strategy*

1. Introduction

The resource management is one of the most significant strategies for organizational effectiveness and sustainable development. The accurate and optimum utilization of resources will contribute in long-term stability influencing the product lines, supply chain, logistics and overall product development life cycle. Naturally, the success or failure depends on inventory management practices followed by the particular firm. The present study deals with healthcare sector. It aims to analyze the effectiveness of inventory management practices with respect to drug dealers. The healthcare sector has witnessed many reforms during COVID-19 pandemic outbreak. It is sensitized to the great extent in developed, developing, and underdeveloped economies as well. The inventory management proved its role during the production, availability and usage of vaccines to different age groups. India could export and help other countries in this regard.

2. Background of Study:

The drug business is one of the most indispensable businesses in healthcare

sector. The wholesale drug dealers purchase large quantities of medicines directly from manufacturers at a low price and sell them at a profit to retailers. Therefore, drug dealers are responsible to have adequate inventory of good quality medicines of all kinds and supply them at reasonable prices to retailers or customers so that health care sector can ensure a regular support from it. Assam is gateway of North East India. As the capital city, Guwahati has not only become the most preferred location in health care sector in the region but also for the neighboring countries like Bhutan, Bangladesh, Myanmar and Nepal. From a place of primary healthcare Centre, dispensaries and clinics, the city has now expanded itself into a hub of critical care and multi –specialty Centre. In this city there are Gauhati Medical College and Hospital, MMC Govt. Hospital, B. Baruah Cancer Institute, North East Cancer institute, Sri Sankardeva Nethralaya, AIIMS (under construction) and so many private hospitals with state-of-the-art facilities. Therefore, to support this health care sector, businesses dealing with pharmaceutical drugs have grown rapidly. But if we compare this with other regions of the Country like Chennai, Mumbai, Delhi, Kolkata, Hyderabad, etc. the scenario of this region is still at an infant stage. So, to have uninterrupted supply of sufficient drugs/medicines, drug dealers must manage their inventory efficiently to sustain in a competitive market. It has also observed from the literature that making use of formal inventory management practices is one of the ways to acquire competitiveness, which leads to adequate supply of inventory and maximizes profit increasing managerial efficiency.

3. Significance of Study:

Inventory or stock management system plays an important role in a business in decreasing cost and increasing profits, and meets customers demand with a right quantity, quality and at the right time and at the right place, when customers order for it. Inventory management is a technique of optimizing inventory to achieve good performance of a firm. Poor management of inventory will result either shortage or surplus of inventory, which indirectly affects adversely on the performance of a firm (Ooi, C.W., Idrus, R., & Abdullah, N. L, 2017). To be effective to inventory management, it is to determine the inventory demands of the business. Inventory, which is seasonal, should be limited and dormant or slow-moving inventory should be reduced keeping in view the demand of customers. Overall, it is important for the managers to avoid over or under stocking of inventory considering various levels of inventory (Gordon S. & Gupte, 2016).

4. Theoretical Framework of Study:

A theory is a structured system of agreed knowledge that applies in a variety of situations to explain specific set of phenomenon (Wauna, S. & Obwogi, J, 2015). Such popular techniques of inventory management include:

- **Just in Time (JIT) Inventory:** "JIT is complementing receipts of materials tightly with usage so that unprocessed materials inventory is reduced to close to zero level. It ends in enormous savings in various costs for storage, obsolescence, material handling, spoilage etc." (Arora, 2019). The JIT system was developed in Japan and is considered as one of the main contributions to Japanese industrial success (Ahmed, 2016).
- **ABC Analysis:** It provides a mechanism for recognizing items that have substantial impact on overall inventory costs while also

providing a mechanism for recognizing diverse categories of stocks that necessitates different management and control [Alex K. 2015]. Where inventories are categorized based on the cost of the supply, more devotion should be paid to the A class that absorbs a high portion of the budget (70%) but accounts for a small percentage of the entire items (10%). Around 20% of items fall in-group B, which consumes 20% of the budget. The residual 70% of items are Group C and they absorb 10% of the budget (Gupta R., Gupta K., Jain B., & Garg, R, 2007).

- **Economic Lot Size Model with No Shortages:** It is a model used to find an optimal economic lot size that minimizes the total inventory cost. In this inventory model, it is assumed that the demand is continuous and consumed at constant rate, orders are placed at periodical intervals of equal size, replenishment rate is sudden, costs are invariants and shortages are not allowed [Barik S., 2016].
- **Replenishment Principle:** It refers to process of inventory moving through the supply chain at an optimum rate by upholding efficient order and line items fill rates. This procedure helps to avoid costly inventory overstocking for lengthy period.
- **Materials Requirement Planning (MRP):** It helps business determine when and how much material needs to be purchased. The main aim of MRP system is facilitating calculations of required materials by converting inputs which are bill of material, inventory data and the master production timetable into two main outputs which are prearranged order release and reschedule notices (Muchaendepi, W., Mbohwa, C., Hamandishe, T. & Kanyepe, J , 2019).

5. Review of Literature

Muchaendepi, Mbohwa, C., Hamandishe, T. & Kanyepe, J. (2019): This paper assessed the inventory management (IM) policies used by SME's in the production sector of Harare. Since companies incorporate JIT method, SME's encounter challenges in the supply chain because they always have to ensure for having constant contact with their suppliers and lessen the time in which they receive materials.

Golas (2020): This study established that the day's sales of inventory for total stock clearly tend to become shorter due to a reduction in the days in inventory ratio for materials and finished goods. Based on panel regression models, this study demonstrated that an improvement in inventory management efficiency is correlated positively with financial performance, measured as the return of operating assets.

Basha J. & Mgmt. R (2020): This research emphasized various methodologies, i.e. ABC, VED, EOQ, JIT, etc. of Pharmaceutical Inventory Management that have been independently analyzed and the outcomes suggested that, for optimal inventory management, if the above-mentioned procedural principles are implemented together in an automatic atmosphere such as Virtual Hospital Pharmacy (VHP), which can help to keep stocks at an optimum level. While minimizing losses due to expired drugs and delays in ordering new stocks, we can reduce costs due to the low inventories (JIT)

concept and the high accessibility of drugs based on their dangerous factor.

Khalid A, & Lim S.R (2018): This paper found that applying the inventory management strategy enables the company to have a better performance compared to the previous traditional strategy that is used. From the interview, the common answer when asked to identify the most significant inventory management strategy is that there is no single strategy, which is most contributable to organizational performance.

Opoku R.K., Fiati H.M. & Kaku G. (2020): The study initiated that the Strategic Supplier Partnership (SSP) and Activity Based Costing (ABC) practices are most preferred inventory management practices and the Just In Time (JIT) practice was rarely used and least chosen inventory management system accepted by industrial firms in the country. As such, the SSP and ABC practices have high probability to minimize the firms' inventory management costs, while refining firm's product quality, production promptness, production charge, reliability and flexibility.

Wauna, S. & Obwogi, J. (2015): This study reveals that the business world has become more competitive. Therefore, business firms have to produce good quality products at low cost to retain its clients. To achieve this, business firms have to procure excellence raw materials through materials codification, storage methods, materials inspection and classification.

Eligah (2019): This paper examines make sure that there is sufficient stock of materials to meet uninterrupted production flow, which reduces stoppage of production.

Gordon S. & Gupte J. (2016): A suitable inventory management system is strictly related to storage cost, materials cost and carrying cost and delivery of requisite goods , materials and services to customers and stakeholders in time which enhances desired probability, competitive ability and increased market diversification prospects.

Mohammed (2020): The study asserted that to have a steady stock level, rate of usage, storage and levels of stock mainly safety stock should always be checked. The result of pharmaceutical inventories in Dessie Referral Hospital indicated that only few items of inventory i.e. only 17 % utilize the majority i.e. 75.86% of pharmacy.

Mulindabigwi & Mulyungi (2017): This study opined that cost reduction, in respect of inventory holding cost and ordering cost, is necessary to increase performance of the organization, which will ultimately affects profitability. Therefore, the study concluded that firms would have to adopt new techniques and technologies to save costs and thus improves performance of the firms. The study further believed that inventory management is a competitive tool in the organization to achieve its competitive approach, which affects the performance of the organization, and enhance productivity.

Adegboyega (2017): This research found that there is positive relationship between inventory management and organization growth and profitability. Profitability of a firm increases when effective inventory management is carried out, as inventory consists of major current assets of the firm.

Ahmed (2016): The study discovered that inventory management of conglomerates companies are related positively to financial performance. It entails that effective management of inventory will augment the profitability of a company and vice versa.

Lwiki (2013): According to this study, the practice of lean inventory system with a general mean of 3.075 implies that the sugar-manufacturing firms in Kenya have embraced Lean inventory systems to some

extent. The MRP system is the major element in Lean inventory system. The informants indicated moderate use of Strategic supplier Partnerships, with a mean of 2.75. The sugar firms have employed the exercise of strategic supplier partnerships.

6. Objectives of Study:

- To study the existing literature regarding the use of IMP
- To identify the effective inventory management system adopted by Wholesale Drug Dealers
- To justify how inventory management system impacts the performance of Wholesale Drug Dealers

7. Materials and Methods

7.1 Methodology

The study has been conducted in Kamrup District of Assam, India during January to April, 2021. The respondents targeted for the study are 1952 licensed wholesale drug dealers of Kamrup District of Assam (India). 325 dealers are selected using $sample\ size = \frac{384}{1+\frac{z^2\hat{p}(1-\hat{p})}{\varepsilon^2 N}}$ at 5% level of significance with $z = 1.96, \hat{p} = 0.5, \varepsilon = 0.05, N = 1952$. Respondents are selected with the help of simple random sampling method. To collect the primary data, a structured schedule has been designed to meet the relevant questions regarding inventory management practices. Each of the questions has been framed by using 5-point Likert scale (1 for Strongly Disagree, 2 for Disagree, 3 for Neutral, 4 for Agree and 5 for Strongly Agree). Though the language of the schedule is English, still during the process of data collection the respondents have been asked in Assamese without breaching the originality of the questions.

7.2 Hypotheses

H_{01}: The dealers have no significant differences in the choice of IMP in placing inventory orders.

H_{02}: The dealers face same kind of challenges in the implementation of IMP.

H_{03}: The dealers do not have significant differences against the use of IMP.

H_{04}: The dealers have similar attitude towards the use of warehouse for storage of inventory.

H_{05}: The dealers do not have significant differences against the use of warehouse for storage of inventory.

H_{06}: The dealers have no significantly different attitude towards having dedicated inventory management staff.

H_{07}: The dealers have no significantly different attitude towards not having dedicated inventory management staff.

7.3 Variables Included: Business period, educational qualification, Order inventory in bulk to take advantage of trade discounts(bulk purchase)(A1), order only when stock reaches certain level(Reorder level)(A2), Order inventory of that item when it is needed(JIT)(A3), Pay attention to those inventory whose value is higher(ABC analysis)(A4), Pay attention to minimize ordering and carrying cost of inventory(EOQ)(A5), Challenges faced before introducing IMP - because of shortage of stock(understocking)(A6), because of surplus of stock(overstocking)(A7), because of damages/loss of stock(A8), because of Over carrying and ordering cost(A9) and because of Other reasons(A10), Order a fixed quantity of inventory periodically(B1), Order inventory when receive an enquiry from our customers(B2), Receive inventory automatically from their suppliers without

even placing order(B3), Own their warehouse(C1), insure all their inventory in the warehouse(C2), Do not need warehouse because they buy from suppliers and deliver straightway to customers(C3), Do not need warehouse because they only order an item when customers order from them(C4), their business is very small and they store all their inventory within their premises(C5), Warehouse staff verify delivery receipt and storage of stock(D1), Warehouse staff have access to their accounting records(D2), Warehouse staff use computers to record inventory received(D3), Warehouse staff use computers to record inventory issued(D4), Warehouse staff use computers for tracking level of inventory(D5), Warehouse staff use barcoding system to monitor movement of inventory(D6), Need dedicated staff but cannot afford(D7), Need no staff because they do not deal goods which are required to be stored in the warehouse(D8) and Need no staff because they buy from suppliers and deliver straightway to customers(D9).

Factor Analysis: It is a technique incorporated statistically for recognizing the basic factors which are assessed by a many observed variables. Such type of factors are those variables which are extremely hard to assess. The SPSS software is applied for the principal component analysis.

8. Results and Discussion

During the data collection process 226 respondents were found to follow inventory control system (ICS) whereas 99 respondents were found not to follow the ICS. 252 drug dealers use warehouse for storage of inventory, 73 dealers did not use warehouse for storage. 246 dealers have dedicated staff to manage inventory in the warehouse and 79 dealers did not have dedicated staff to manage inventory in the warehouse.

It was observed that 0.6% dealers are in the field for less than 1 year, 6.5% are in the field from 1 to 5 years, 37.8% are in the business for 5 to 10 years, 55.1% are in the business for above 10 years.

14.2% dealers are intermediate, 48% dealers are of Batchelors degree, 18.2% dealers of Masters' degree, 19.7% dealers are of different educational qualifications.

- **Results of the Hypotheses**

H_{01}: The Pearson's Chi Square value at 5% level having p-value almost 0.000 which is less than 0.05. Hence the null hypothesis has been rejected at 5% level of significance and it may be concluded that the choices of the dealers regarding the use ICS while placing orders are significantly different.

H_{02}: Pearson's Chi-Square value at 5% level having p-value 0.002 which is less than 0.05. Hence the null hypothesis has been rejected and it may be concluded that the dealers face significantly different challenges in placing inventory management practices.

H_{03}: Pearson's Chi-Square value has p-value 0.000 which is less than 0.05. Hence the null hypothesis has been rejected and it may be concluded that the dealers have significant differences against the use of inventory management practices.

H_{04}: Pearson's Chi-Square value has p-value 0.0002 which is less than 0.05. Hence the null hypothesis has been rejected and it may be concluded that the dealers have variance in attitude towards the use of warehouse for storage of inventory.

H_{05}: Pearson's Chi-Square value has p-value 0.000 which is less than 0.05. Hence the null hypothesis has been rejected and it may be concluded that the dealers have significant

differences against the use of warehouse for storage of inventory.

H_{06}: Pearson's Chi-Square has p-value 0.000 which is less than 0.05. Hence the null hypothesis has been rejected and it may be concluded that the dealers have significantly different attitude towards having dedicated inventory management staff.

H_{07}: Pearson's Chi-Square has p-value 0.000 which is less than 0.05. Hence the null hypothesis has been rejected and it may be concluded that the dealers have significantly different attitude towards challenges faced before the use of IMP.

- **Factor analysis**

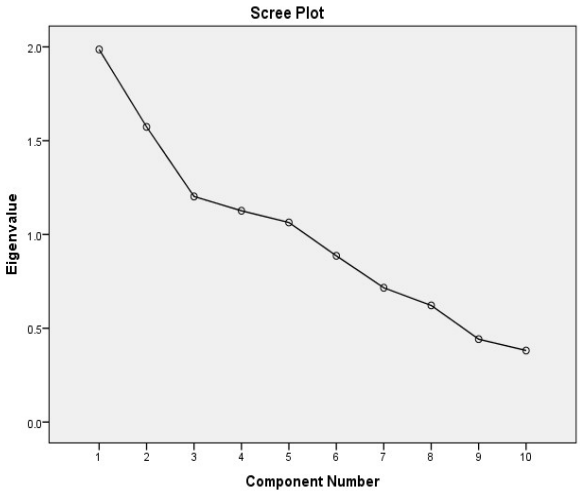
An exploratory factor analysis (EFA) has been done to the categorical variables.

The EFA for the first 10 components pertaining to IMP while placing orders for inventory purchase declares that 5 components (shown with scree plot in figure 1) are important for inventory control system where eigenvalues are greater than 1 with factor loading ranging from 18.131 to 69.528. Communality matrix says that A1 has 78.2% contribution to the inventory control system, A2 has 78.9%, A3 has 76.8%, A4 has 78.1%, A5 has 78%, A6 has 75.8%, A7 has 42.7%, A8 has 83.6%, A9 has 39.5% and A10 has 63.7% contribution to inventory control system.

A1 and A2 have 50.4% correlation, A2 and A4 have 66.4% correlation, A3 has 52.1% correlation with A5, A4 has 55% correlation with A2, A5 has 69.1% correlation with A2, A6 has 66.7% correlation with A1, A7 has 55.5% with A1, A10 has 69.3% correlation with A1.

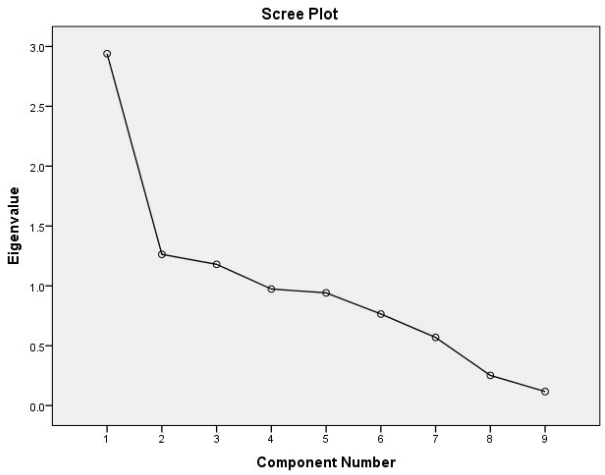
Component matrix says that increase of A1 increases 0.424 times of A2, 0.182 times of A3, 0.281 times of A4 and 0.198 times of A5. On the other hand, increase of A2 decreases 0.503 time of A2, increases 0.468 times of A3, decreases 0.041 times of A4, increases 0.246 times of A5. Increase of A3 decreases A1 by 0.114 times, A2 by 0.184 times, increases A4 by 0.669 times and decreases A5 by 0.524 times. Increase of A4 decreases A1 by 0.136 times, A2 by 0.421 times, increases 0.088 times of A3 and increases 0.789 times of A5. Increase of A5 decreases A1 by 0.215 times, increases 0.380 times of A2, decreases A3 by 0.714 times and increases 0.546 times of A4.

Figure 1. Scree plot showing the 10 components along with their eigenvalues



EFA towards the requirement of warehouse staff for inventory management reveals that out of 9 components, 3 components have eigenvalues more than 1 (shown with scree plot in figure 2) with factor loading 32.165, 46.173 and 59.805. It also suggests that the variable D1 has 52.4% contribution to the inventory management in the warehouse, D2 has 67.3% contribution, D3 has 80.8% contribution, D4 has 88.2% contribution, D5 has 82.5% contribution, D6 has 42.4% contribution, D7 has 59.7% contribution, D8 has 47.6% contribution, D9 has only 17.3% contribution towards the dedicated inventory management staff in the warehouse.

Figure 2. Scree plot showing the 10 components along with their eigenvalues



Total variance matrix and scree plot under principal component analysis extracted 3 components which has 32.165%, 46.173% and 59.805% loadings to the dedicated staff who manage inventory in the warehouse.

D2 has 79.0% correlation with D3, D3 has 89.4% correlation with D1, D4 has 93.8% correlation with D1, D5 has 90.3% correlation with D1, D6 has 60% correlation with the D3, D8 has 69% correlation with D2.

Component transformation matrix says that increase of D1 decreases D2 by 0.016 times, D3 by 0.159 times. Increase of D2 decreases D1 by 0.013 times, D3 by 0.181 times. Increase of D3 increases 0.159 times of D1, increases 0.181 times of D2.

- **Role of Educational Qualification towards IMP while Placing Orders of Inventory Purchase**

To study the role of various educational qualifications in placing order of inventory while following IMP, p-values of chi-square statistic for the 5 components drawn from the EFA have been obtained as shown in table 1.

Table 1. p-value of chi-square statistic of 5 components

Various educational qualifications have equal role in placing order of	p-value	Remarks
Bulk purchase	0.714	Insignificant
Reorder level	0.388	Insignificant
JIT	0.804	Insignificant
ABC analysis	0.484	Insignificant
EOQ	0.327	Insignificant

Interpretation: Table 1 shows that various educational qualifications have insignificant role in placing order of the 5 components.

- **Role of Educational Qualification towards Keeping Dedicated Staff for IMP in the Warehouse**

To study the role of various educational qualifications in keeping dedicated staff for inventory management in the warehouse, p-values of chi-square statistic for the 3 components drawn from the EFA have been obtained as shown in table 2.

Table 2. P-value of Chi-square statistic of three components

Various educational qualifications have equal role in keeping dedicated staff for inventory management in the warehouse as	p-value	Remarks
Warehouse staff verify delivery receipt and storage of stock	0.861	Insignificant
Warehouse staff have access to their accounting records	0.142	Insignificant
Warehouse staff use computers to record	0.159	Insignificant

inventory received		

Interpretation: Table 2 shows that various educational qualifications have insignificant role in keeping dedicated staff for inventory management in the warehouse with the 3 components.

Role of Business Period towards IMP while Placing Orders of Inventory Purchase

To study the role of various business periods in placing order of inventory while following IMP, p-values of chi-square statistic for the 3 components drawn from the EFA have been obtained as shown in table 3.

Table 3. p-value of chi-square statistic of 5 components

Various Business period have equal role in placing order of	p-value	Remarks
Bulk purchase	0.484	Insignificant
Reorder level	0.811	Insignificant
JIT	0.433	Insignificant
ABC analysis	0.032	Significant
EOQ	0.405	Insignificant

Interpretation: Table 3 shows that various business periods have insignificant role in placing order concerning Bulk purchase, Reorder level, JIT and EOQ but significant in case ABC analysis.

- **Role of Business Periods towards Keeping Dedicated Staff for IMP in the Warehouse**

To study the role of various businesses in keeping dedicated staff for inventory management in the warehouse, p-values of chi-square statistic for the 3 components drawn from the EFA have been obtained as shown in table 4.

Table 4. p-value of chi-square statistic of 3 components

Various educational qualifications have equal role in keeping dedicated staff for inventory management in the warehouse as	p-value	Remarks
Warehouse staff verify delivery receipt and storage of stock	0.189	Insignificant
Warehouse staff have access to their accounting records	0.213	Insignificant
Warehouse staff use computers to record inventory received	0.329	Insignificant

Interpretation: Table 4 shows that various business periods have insignificant role in keeping dedicated staff for inventory management in the warehouse with the 3 components.

- **Predictive Analysis**

Annual sales, annual stock-holding and annual profit of the dealers for 10 years are collected out of which some of the data are missing and those missing data are filled up by taking average values. Though the data are not exactly normal, still regression analysis is conducted to know the cause and effect relation between Stock holding and Sales as well as stock holding and profit. It is observed that $R^2 = 0.72$, a significant value with the regression equation as:

Sales= 2641.483576+1.419159 times of stock holding---(1)

with p-value of F as 0.000 which shows that there is linear relation between Stock holding and Sales and it can be concluded that there is an impact of stock holding on sales. One unit of increase of stock holding increases 1.419159 times of sales.

Again, in between Profit and Stock holding, it is observed that $R^2 = 0.697$ with the regression equation as:

Profit= 4702.71909+0.321798 times of stock holding---(2)

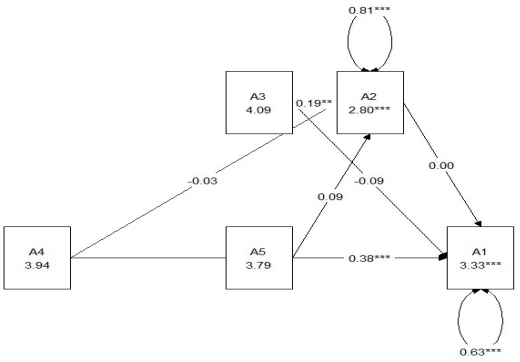
with p-value of F as 0.000 which shows that there was linear relation between Stock holding and Profit and it can be concluded that there was an impact of stock holding on profit. One unit of increase of stock holding has a positive impact of increase of 0.321798 times of the profit of the dealers.

- **Structural Equation Model**

Using R-software structural equation model has been developed.

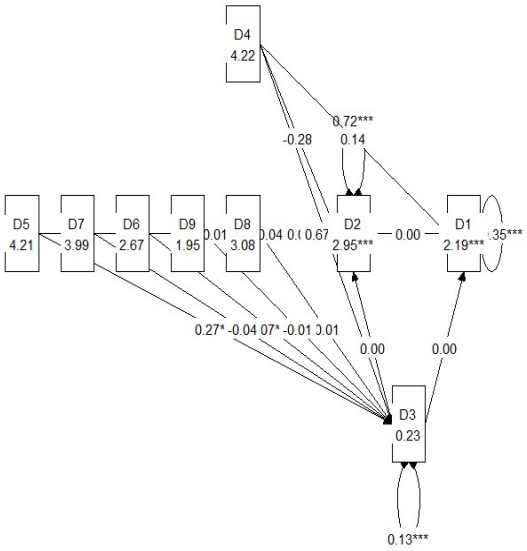
This model highlights that a one-unit increase of A3 declines A1 by 0.098 points, one-unit increase of A4 declines A1 by 0.136 points, one=unit increase of A5 declines A1 by 0.382 points. One-unit increase of A3 improves A2 by 0.198 points, one unit increase of A4 demotes A2 by 0.032 points, one unit increase of A5 improves A2 by 0.095 points. The intercept of A1 is found to be 3.335 and that of A2 is 2.760. The p-value of Chi-square is 0.002 (<0.05).

Figure 3. SEM of A1 and A2 on A3, A4 and A5



Another model describes that D4, D5, D6 increases D1 by 0.118, 0.411 and 0.035 point respectively, D7, D8 and D9 demotes D1 by 0.059, 0.012 and 0.008 points respectively. D4 demotes D2 by 0.328 points, D5, D6, D7, D8 and D9 improves D2 by 0.011, 0.026, 0.005 and 0.004 points respectively. D3 is improved by 0.670, 0.266 and 0.073 points respectively due to one-unit increase of D4, D5 and D6 and decreases by 0.040, 0.005 and 0.004 points respectively due to D7, D8 and D9 respectively. Intercepts of D1, D2 and D2 are 2.205, 3.090 and 0.231 respectively. The p-value of Chi-square is 0.000(<0.05).

Figure 4. SEM of D1, D2 and D3 on D4, D5, D6, D7, D8 and D9



8. Findings of Study

In this paper, an expounded analysis has been performed on the data collected from 325 dealers out of 1952 official dealers. It is observed that in placing order of the inventory purchase (i) dealers follow significantly different IMPs, (ii) dealers face significantly different challenges, (iii) dealers have significant differences against the use of IMP, (iv) dealers have variance in attitude towards the use of warehouse, (v) dealers have significant differences against the use of warehouse, (vi) dealers have significantly different attitude towards having dedicated warehouse staff and (vii) dealers have significantly different attitude

towards challenges faced before the use of IMPs. So, it can be opined that dealers use significantly different IMPs. Incorporation of chi-square pointed that various educational qualifications have insignificant role in placing order, in keeping dedicated staff for inventory management in the warehouse. Various business periods are found to have insignificant role in placing order except ABC Analysis, in keeping dedicated staff for inventory management in the warehouse. Equations (1) and (2) suggested that there is a positive impact of stock holding on sales and profit respectively. Structural equation model emphasised the significant effect of A3, A4 and A5 on A1 and A2 as well as D4, D5, D6, D7, D8 and D9 on D1 and D2. It can be suggested that the dealers should be trained up by competent authority to execute proper inventory management practices efficiently.

9. Scope and Limitations of the Study:

The present study focuses that effective implementation of IMP ensures regular supply of stock, which helps in increasing sales and profits of the dealers. But effectiveness of IMP doesn't focus on the extent of financial performance of the dealers. This can only be judged from the respective data. Therefore, there is further scope of studying this extent with the effective implementation of IMPs as regard to profits, sales and stockholding.

10. Conflict of Interest: Authors found no conflict of interest.

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