

Proposal of New Inventory Model for Online Retailers to be both Seller and Buyer Oriented

Ajith Kumar A, Amrithasree A

Abstract - The world's most popular business today is online retailing. Online retail market's aim is to connect buyer and seller from different parts of the world and make product's available worldwide. They play the role of bridge between buyer and seller. On watching the current internet retailing plans of action we could find that either venture on stock is gigantic or nature of the item is undermined. Along these lines a solidness is required in order to limit the speculation on schedule and venture on distribution center and limit client objections. In our proposed model we advanced these issues, the principal finding is keeping up stock by without a moment to spare strategy for getting the item from purchaser, and the subsequent discovering is quality check of items before arriving at the client. These online retailers are either buyer oriented or seller oriented. Both the business model has it's own advantage and disadvantage. Inventory model of seller oriented business model is costly but quality check is strong. Buyer oriented business model spends on connecting the two parties rather than maintaining inventory So we developed a model that could stabilize both the business models without compromising on quality of the product being delivered and managing the inventory effectively is proposed in this paper.

Index Terms-Inventory, Null, Seller and Buyer, Mid - level.

I. INTRODUCTION

In the present computerized age, online stores are mainstream, helpful, and simple to explore both for clients and entrepreneurs, yet one part of this business never shows signs of change: appropriate stock administration.

Regardless of whether your store exists on the web or in the shopping center, you're continually working with a physical stock in some respect, either through a distribution center, stockroom, or another territory. Contingent upon the size of your business, dealing with the stock in these spaces can be anyplace from easy to precarious because of monitoring your items, knowing which items are sought after and need consistent renewing and which can hold up in the turn.

Electronic retailing (E-following) is the clearance of merchandise and enterprises through the Internet. E-following can incorporate business-to-business (B2B) and business-to-purchaser (B2C) offers of items and administrations. E-following expects organizations to tailor their plans of action to catch Internet deals, which can incorporate structure out dissemination channels, for example, stockrooms, Internet site pages, and item

dispatching focuses. Quite, solid dissemination channels are basic to electronic retailing as these are the roads that move

the item to the client.

Stock administration is the supervision of non-promoted resources (stock) and stock things. A part of store network the board, stock administration regulates the progression of merchandise from producers to distribution centers and from these offices to purpose of offer.

II. NORMAL PRACTICES

As an unadulterated play web retailer, Amazon.com has zero retail outlets. All business are produced through the virtual stores made by the Amazon.com site and subsidiary sites. Amazon.com doesn't need to bring about the steady cost of opening another physical retail location to pull in new clients. The Amazon.com innovation foundation and site usefulness makes a customized retail facade for every client. This specialized foundation requires a noteworthy capital speculation, however the minimal expense of showing a retail facade to another client is little. Furthermore, there are production network advantages to a web retailing model without retail locations. So as to guarantee item accessibility, physical retailers need to convey stock in each store area just as in circulation focuses. By uniting stock at appropriation focuses and other stock areas worked by accomplices and wholesalers, Amazon.com is capable to convey an a lot more extensive choice of stock while keeping up an upper hand over retailers in stock turnover.

Amazon.com works eight rented dispersion focuses all through the United States. These eight offices represent an aggregate of 4,465,000 square feet (Amazon.com 2004 10-K Structure). These offices are enormous with an area for the most part falling in the scope of 500,000 to 600,000 square feet for every office. Area choices are made dependent on vicinity to client concentrated regions and assessment suggestions. Note that Amazon.com has three offices in Nevada what's more, Delaware, which both have no state personal duty. Amazon.com has additionally exploited special chances to develop its dispersion arrange, for example, the relinquishment of an enormous office in Kentucky by another retailer that allowed Amazon.com the chance to rent at a good rate.

Amazon.com's underlying model depended intensely on few accomplices. A HBS case takes note of that in Amazon.com's unique store network model, 60% of Amazon.com's requests were sourced from Ingram Book Distributors and the other 40% were sourced from different merchants what's more, distributors (Leschly, Roberts, and Sahlman 2003). Amazon.com's unique dispersion focus in Seattle, WA just loaded smash hits (Spector, 2002). Amazon.com started growing its dissemination arrange in

Manuscript received December 09, 2019.

Ajith kumar A, PGDM, YUKTHI FOUNDATION, Dindigul
Amrithasree A, PGDM, YUKTHI FOUNDATION, Dindigul

anticipation of the 1999 Christmas season, opening five new circulation focuses, notwithstanding the two existing offices in Seattle and Delaware. The explanations behind interior conveyance were to diminish the reliance on book merchants, all the more proactively oversee coordinations execution and client care, and improve edges. Procedures in Amazon.com's appropriation focuses change by the item blend in the office. Items that are effectively sortable and conveyable are put away in profoundly robotized offices. Most of the things in the media item class fall into the sortable, conveyable classification as items are generally little, have a little variety in measurements, and can without much of a stretch be shipped on transports and arranged by individuals or gear. Items that are enormous or have unpredictable measurements are put away in less computerized offices. Certain things in the toy product offering have unpredictable measurements and along these lines are hard to deal with in a mechanized manner. Likewise, huge customer gadgets, for example, plasma TVs are a case of an item type that isn't helpful for computerized transport and sortation frameworks. Amazon.com gets items from its wholesalers, accomplices, makers, and distributors. Getting is ordinarily at the bed or case level. Now and again, Amazon.com gets blended cases that incorporate numerous SKUs. Item is gotten and directed for putaway to a area type dependent on its SKU action profile (see Item Activity and Order Profiling). Things are gotten and steered legitimately to prime stockpiling areas or sent to hold stockpiling. Thing types are likewise considered at accepting. In the event that a thing is "sortable", it arrives in a blended case in with other things and should be arranged into extraordinary SKUs before putaway. "Full Case" things land as a instance of homogeneous items and can be putaway all things considered. "Non-conveyable" items are as well huge or clumsy to stream easily on computerized transports and subsequently are directed to interesting areas (Zeppieri, 2004). The outline beneath shows the inbound dissemination forms for Amazon.com including the contributions to the capacity type choice and the distinctive putaway forms. Note that prime stockpiling areas are scaled to demonstrate their relative size when contrasted with save stockpiling areas.

III. PROPOSED MODEL

E-COMMERCE ONLINE RETAILERS: FLOW DIAGRAM:

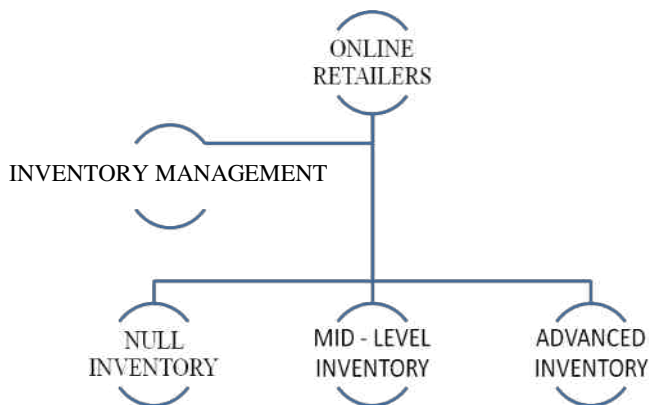


Fig.no.5.1.Propsed Model

PATH DIAGRAM : (Advanced and Mid Level)

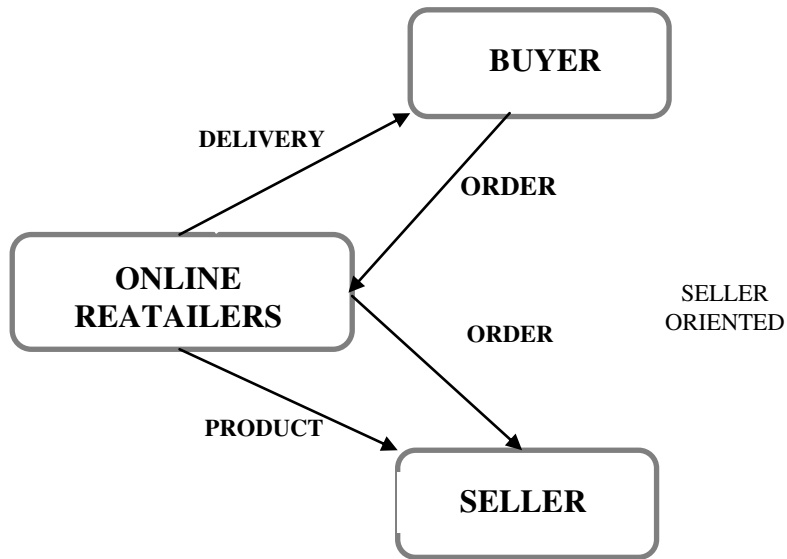


Fig.no.5.2. PATH DIAGRAM : (Advanced and Mid Level)

PATH DIAGRAM : (NULL)

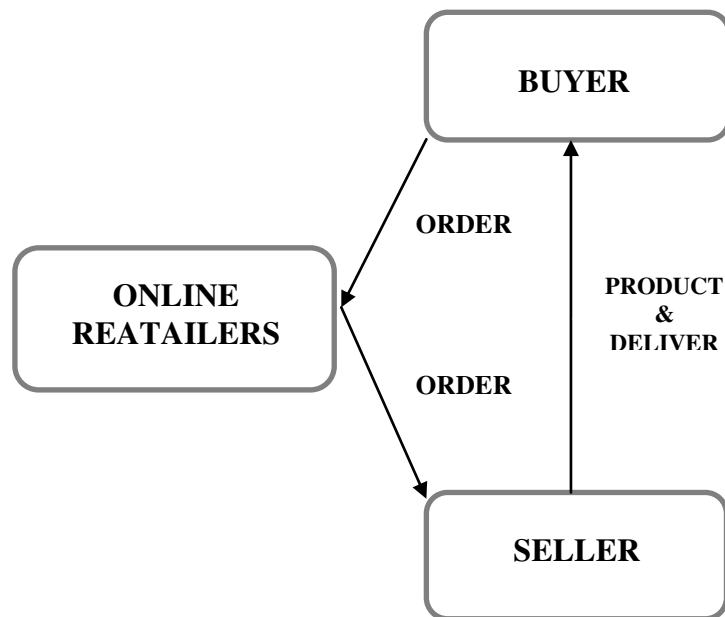


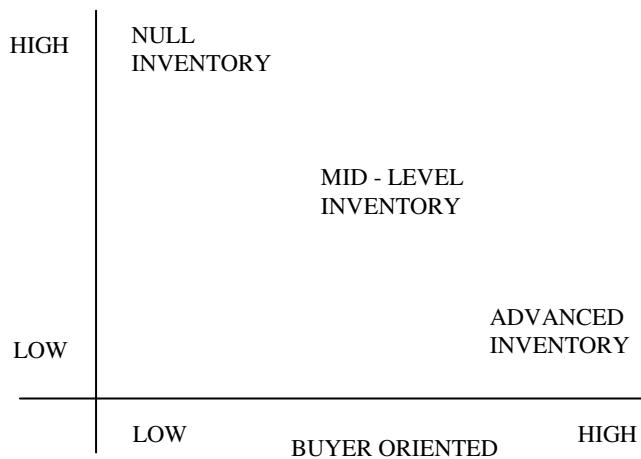
Fig.no.5.3. PATH DIAGRAM : (NULL)

TABLE:

INVENTORY PARAMETERS	Null Inventory	Mid - Level Inventory	Advanced Inventory
Time	0	40% - 50%	30% - 40%
Investment	0	10% - 15%	35% - 50%
Problem on sorting	38 - 55%	15% - 35%	03% - 08%
Benefit	50%	70%	90%
Oriented	SELLER	BUYER AND SELLER	BUYER

Table.no.5.1. Comparison table

GRAPH:



PARAMETS:

TIME : Once the order is place by the buyer , the count down starts . The total time till delivery is made has many process time in between . When inventory is maintained the time is consumed in picking the product , sorting them and packaging In null inventory time is not consumed more unless the buyer delays the delivery . But in our proposed model, time consumption is only in the quality check system. Once the quality of the product is checked the product is delivered.

INTEGRATED PARAMETERS (Investment, Problem and Benefits) : In inventory oriented business model investment is huge .Internal problems lies in the labour hours and other process time in picking the product. Being buyer oriented , they take quick action on replacement . In zero inventory ,the investment is comparatively less .But the quality of the product is not verified .So they have to face the consequences of customer complaints in more numbers . In our proposed model, investment is moderate and customer complaints are minimized as we perform quality check before it reaches the customer. In our proposed model , we are stabilizing the time , customer feedback , investment in order to satisfy both the parties that we are connecting .

IV. CONCLUSION

On observing the existing online retailing business models we could find that either investment on inventory is huge or quality of the product is compromised. Thus a stability is required so as to minimize the investment on time and investment on warehouse and minimize customer complaints. In our proposed model we optimized these issues, the first finding is maintaining inventory by just in time method of receiving the product from buyer, and the second finding is quality check of products before reaching the customer.

REFERENCES

[1] <https://www.thebalancesmb.com/how-amazon-is-changing-supply-chain-management-4155324>
 [2] <https://dspace.mit.edu/handle/1721.1/33314>
 [3] https://www.researchgate.net/publication/314480267_A_Comparative_Analysis_of_eBay_and_Amazon/link/5553c5df08ae6943a86f2f64/download

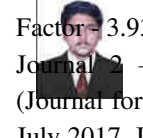
[4] <https://techboomers.com/amazon-alternatives>
 [5] <https://www.investopedia.com/articles/markets/042815/how-ebay-makes-its-money-ebay.asp>

AUTHOR’S PROFILE



Ajith Kumar A. DME, B.E. PGDM,

Journal 3 – Published an Article in IJM (International Journal for Management and Humanities) on November 2019, Impact Factor – 3.93. Reference No. ISSN: 2394-0913



Journal 2 – Published an Article in IAETSD - JARAS (Journal for Advanced Research in Applied Science) during July 2017, Impact Factor - 5.2. Reference No. ISBN 2394 – 8442.

Journal 1 - Published an Article titled in IJARMET (International Journal of Advanced Research Methodology in Engineering and Technology) during March 2017, ISBN 978 - 1 - 63535 - 889 – 6,

PATENT APPLIED – Application No. 201741034959

ALL INDIA CONTEST

i) Secured Silver Award from NDRF (National Design and Research Forum) in an All India Contest Conducted On August 2017.

ii) Secured Best Project Award in an All India Contest conducted by Indian Society of Scientific Research and Development – IISRD (ESIC 17) under “Excellence in Social Impact” on January 2017.

Published a Paper in An International Abstract book Published by National Physics Laboratory, NEW DELHI in association with Ministry of Earth Science and Technology, December 2016.

Awarded the Certificate of Achievement in an International Institute for Research and Development in Engineering and Management IIRDEM, New Delhi Organized an International Conference on Developments in Engineering Research, (ICDER 2017) on 30 July 2017, Chennai. ISBN: 978 – 1974041251.

Secured Best Paper Award, In an International Conference on Recent Advancements in Engineering and Technology Organized by Institute of Engineering Research - IER in the month of January 17, Bangalore.



Amrithasree A. B.E., PGDM.

