E-Commerce Logistic and Supply Chain Management: Evidence from Indonesian Perspectives

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Abstract——The web is essentially affecting how firms cooperate with one another and their clienteles. Past interruptions for supply chain incorporation, for example, high exchange prices between allies, weak info accessibility, with encounters of overseeing multifaceted borders between utilitarian affiliations have been on the whole dissolving on the web. In this study, it is examined how the web has been altering SCM. 100 Questionnaire has been used to acquire the response from the employees of Indonesia companies having E-Commerce business. Smart PLS software has been used to get data examination. ponder presented a study of developing on the consequence of e-business on SCM with descriptive frameworks, e-procurement, e-collaboration and e-commerce.

Keywords—— e-commerce, e-business, e-collaboration, e-procurement.

1. Introduction

Nobody has rocked the new field of SCM similar the appearance of the Internet. While the organization of data streams have reliably been an important feature of SCM [1], the fast development of web-based data transmission between firms, their dealers, and their clienteles has augmented the rank of data organization in making real supply chains. Certainly, the Internet obtains arose as a maximum down to earth resources of driving supply chain incorporation. It is clear e-commerce as the wedding in the network and chain of supply combination [1]. The wedding is altering numerous procedures in the supply chain is obtaining to client organization with item plan.

In this research, determining how e-business has been altering supply chains and inspect the fast-developing investigation in this part. Subsequent the outline [1], allocating the varied kinds of e-business requests into three groups: e-procurement, e-collaboration. e-Commerce assistances a system of supply chain associates classify with reply rapidly to altering client request took over the Internet. e-Procurement enables businesses to utilize the Internet in order to securing have straight or unintended materials, and furthermore dealing with value-added service area similar transport, warehousing, agreements, payment, value confirmation, and certification [2]. e-Collaboration cases organization of dissimilar choices and events beyond connections in the supply chain associates, the 2 dealers and clienteles, on the network for example, organization of manufacturing variations in the material bill for an article that is mass-produced by a farm out companion [2].

Research papers that have been openly linked to supply chain of internet requests. No doubt, there is ample pre-web—connected investigation on data knowhow and SCM. adding few studies to give consistency to past effort. It classifies the studies by both the kind of e-commerce and the investigation practice. Moreover, studying of teaching cases engrossed on supply chain and on e-business. The several teaching cases intent on the part keeps augmented basically in the preceding insufficient years. In case of the teaching, restrain evaluation to cases printed for the newest three years from 2000. This removes many cases absorbed on Business to Business connections and e-tailers is failed [3]. A few of the cases combining into evaluation openly inspect the disappointment of such businesses. It is considered the cases of teachings by e-business procedure and by part in SCM utilizing the framework established by [4].

International Journal of Supply Chain Management
IJSCM, ISSN: 2050-7399 (Online), 2051-3771 (Print)
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2. Literature Review

2.1 e-Commerce

e-Commerce is meaningfully pretentious the supply chains of numerous substances. Obviously, the information of supply chains substances has been observed the maximum change [5]. Producers of physical substances have similarly twisted to the network as a straight network of dispersion [4]. The straight channel postures a dissimilar set of choices and tests from the present "quadrangles and-mortar" merchandising network. These two networks vary in client types, processes of order contentment, cost assembly, benefit obligations, essential in allotting, intended requirement, prospects quality of services, grade of market division, admission to supply and demand data, and revenues strategies. A countless piece of initial effort on customer-connected e-business absorbed on the vicissitudes in channels and the descendant marketplace gravity on prices. Certainly, one of the initial such research [6] in the late 1990s created that prices for same items as CDs and books were 9–16% inferior in e-networks than in conservative openings. Though, for approximately items, test of the supply chain of continued price rivalry developed obvious by 2001 with the numerous unsuccessful commercial models. [7] define the problems of professionally execution e-fulfillment and grow an outline for gauging the tests of e-fulfillment for a precise item. [1] define important lessons positive companies is utilized and current an outline for creation e-fulfillment real. [8] scrutinizes the stimulating question around valuing and transport approaches. By means of dissimilar prices, an e-tailer can lure approximately clienteles to sit tight to make the command and thusly gain some progressive request information. By means of the stochastic model, he grows an ideal approximating preparation for an e-tailer. [9] grow stochastic models of associations systems utilized in e-fulfillment hubs.

Throughout the late-night 1990s, numerous cases of teaching have been established on retailers, for instance, e Toys and Rationalize. In this study, just comprises cases printed since two thousand century that have an enormous supply chain factor. Henceforth, approximately of the cases connection into the e-commerce group have been placed on unsuccessful trades. Certainly, the point of convergence of the cases has been supply chain tests that move to the affiliation's disappointment. The cases studied in this study, counting their e-business center and the areas confidential SCM that have been painted in the case. For instance, the Webvan case inspects the tests of fast structure a transportation system. Garden.com inspects subjects of dealer organization and contradictory inducements in a computer-generated supply chain. In the two cases, the supply chain tests move to the disappointment of these associations. As opposed to these cases,
Chempoint exemplifies a computer-generated supply chain for the delivery of little volume, field chemicals where the dealer inducements have been more carefully aligned—moving to a fruitful business model. Chempoint could shape a nice commercial by both increasing the worth of their clientele through item information and better order contentment alongside careful.

3. e-Procurement

Contemporary assembling needs flexibility due to hard-bitten rivalry, rapid altering client favorites, shortening item life cycle, and item diversity propagation. Together with sole limit title, efficient physical obtaining edges a column to assistance flexible assembling. The Internet again proposals a characteristic stage to ease efficient obtaining as many purchasers and vendors find each other and perform as designated by some pre-defined agreements (ruled by the market or dealers’ interior instructions). Though e-procurement is the undistinguishable picture of e-commerce, they possess various features. For instance, e-commerce often expressions numerous separate clients, while e-procurement as a law includes transactions with businesses. No, doubt, many e-procurement thoughts, for instance, lively markets and sale theory are for approximately time research parts in economics (e.g., barters). Novel exertion has started to travel how online interactions move the procurement procedure and the chain of supply of separate businesses. For instance, [10] [11] both grow outlines to comprehend what kinds of connections would seem for dissimilar kinds of items and inspected how connections can change. [12] travel why approximately organizations have been fruitful along with e-procurement plans though others have been most surely not. [1] the model why secondary connected markets move the chain of supply. [13] associate many e-procurements plans to conservative strategic associations.

This Unusual Subject keeps on e-procurement— "Here and now e-Procurement Policies Versus Long-Term Contracts", "Drivers of Internet Purchasing Success" [14]

H1: there is a significant association between e-commerce and supply chain management

2.2 e-Collaboration

Though e-commerce and e-procurement have took a great share of the corporate press titles over the preceding five years, the potential of e-collaboration can be far-off better. E-collaboration as B2B connections eased by the network. These connections go outside simple procurement/sell connections and can be better labelled as relations. These comprise such events as sharing information and incorporation, choice sharing, process, and supply sharing. [2] make available this technical classification of e-collaboration and linking the idea to previous study in SCM. Data sharing has perceived the most investigation. With extensive attention in the bullwhip effect [15], many investigators have driven to assess the result of the bullwhip [16] and inspect the welfares of distribution of data [17]. There is similarly notable work to comprehend the assistsances of Information Technology reserves inside an innovativeness.

Procedure distribution like cooperative progression and item enterprise is similarly another thrilling chance. Many investigators are speculating how the web would alteration progression among companies [18]. In a pair of studies, [19] [20] inspects web centric collaboration for article project in both the flow edge and attire businesses. He grows an outline for considerate the supply chain aids of plan collaboration. Furthermore, other issues also, for instance, nature of workers, time of distribution, imbursement system, data communication technology, traceability of goods and distribution channels are similarly affecting on supply chain activities [21] [22] [23] [24] [25]. As per these studies, supply chain management fundamentally based on mentioned factors. Information correspondence technology has key role in payment system additionally the traceability system. It has huge influence on supply chain customer fulfillment which ultimately effect on performance of supply chain companies. However, aside from these variables, enterprise chance management is moreover most essential [26].

Numerous novel cases that inspect dissimilar essentials of teamwork, from data sharing and incorporation to process and supply sharing. Numerous of these cases inspect novel web-native software businesses who have established novel requests for dissimilar types of collaboration. For instance, Nimble receipts a gander at the part of collaboratively supervision article design and business changes of the web; Extricity receipts a gander at software intended to aid in data addition between enterprise systems. Approximately of the cases have been absorbed on supervision supply while others have been more focused on the clientele. For instance, Similarly, the “Outsider Logistics Services” case inspects how businesses like transport worker Flying Cargo have been by means of data to improve their service assistances in a near item business. Formerly once more, cases like General Motors and Lufthansa exemplify how data
may be utilized to upsurge client reliability and achieve the prices. Hewlett-Packard inspects the opposite supply chain and the data addition subjects of supervision returns. Lastly, Marks and Spencer and Zara inspect rivalry between two attire businesses, with the role of combined design and assembling.

In previous three years, on e-procurement, there are numerous stimulating cases printed. 5 cases abridged here inspect the part of industry connections: Sci Quest has been absorbed on the workshop and science investigation network; Impart has been absorbed on the food facilities manufacturing; e-Networks and Pass Act in the electric mechanisms manufacturing; and e Skye has been absorbed on the alcohol drink business. In respectively case, the government's sole attentiveness has been that of an information intermediate—linking purchasers and vendors composed though not ever communicating the item. Though all encountered with approximately grade of achievement, they similarly exposed significant confrontation in the supply chain by means of they throw down the gauntlet the influence balance between clienteles, traders, and dealers. Nowadays, the 5 stayer (Instill, e Skye, and Sci Quest) have all re-oriented their commercial model to vending obtaining software, specifically focused on to their separate manufacturing. The Pass Act case inspects the glitches confronted by connections and how numerous are unsuccessful. The connected case, Important, inspects chain of the supply tests of an electronic storing expedient group and its response to the growth of an manufacturing group conversation (e HITEX, which advanced developed Converge). The I2 Trade Matrix case has been absorbed on plan of a chain of supply software creator to influence its knowhow in supply chain intending to be a notable designer of both open and private connections. 2 other cases inspect how electric influence and Internet exchanges have altered the process of procurement. The Home Depot case inspects why Home Depot put on an offering process and shrewd enhancement calculations to funding big transport agreements to cargo transporters. "Do I Hear 5 Million Euros?" details the use of reverse sales for procurement and the effect of such obtaining arrangements on the chain of supply of an organization like Scotts. This Unusual Subject has 3 studies on e-procurement—"Here and now e-Procurement Strategies Versus Long-Term Contracts", "Drivers of Internet Purchasing Success" [19], and "A Simple Heuristic for Dynamic Order Sizing and Supplier Selection with Time-Varying Data".

H2: there is a significant association between e-collaboration and supply chain management

2.3 e-Procurement

Though e-procurement and e-commerce are taking maximum by far-off of the commercial media titles on the preceding 5 years, the potential of e-collaboration can be far-off better. E-collaboration as B2B connections eased by the network. These connections go outside humble sell or purchase connections and can be better labelled as relations. These comprise such actions as data addition and sharing result sharing, procedure supply sharing. [2] provide this scientific categorization of e-collaboration and connection the impression to previous study in SCM. Of the 3 parts, data sharing is observed the maximum investigation. With extensive attention in the bullwhip result [15], numerous investigators did work to evaluate the bullwhip effect [16] and inspect the welfares of information sharing [17]. There is likewise noteworthy effort to comprehend the welfares of Information Technology reserves inside an initiative.

Sharing of process like cooperative development and item design has also been another thrilling opportunity. Numerous studies have been speculating how the web would alteration development inside and among companies [18]. In a couple of papers, [19] [20] inspects collaboration of web centric for item project in both the bleeding edge and clothing industries. He grows an outline for sympathetic the chain of supply welfares of plan teamwork. Moreover, other factors likewise, for example, nature of staff, time of delivery, payment system, information correspondence technology, traceability of items and conveyance channels are also affecting on supply chain activities [21][22][23][24][25]. As indicated by these studies, supply chain management essentially based on mentioned factors. Information correspondence technology has key role in payment system to the traceability system. It has noteworthy influence on supply chain customer fulfillment which ultimately effect on performance of supply chain companies. However, aside from these elements, enterprise risk management is moreover most urgent [26]-[31]

There have been many novel cases that inspect dissimilar essentials of teamwork, from data sharing and addition to procedure and reserve sharing reserve. Numerous of these cases inspect novel web-native software businesses who are established novel requests for dissimilar kinds of teamwork. For instance, Nimble takes a gander at the part of collaboratively supervision item project and
manufacturing deviations on the web; Extricity receipts a look at software intended to assistance in data addition between innovativeness systems; See Commerce exemplifies a use of data addition at Daimler Chrysler to ease supply chain metrics; Quad discovers the supply chain value perception to each supply chain companion on condition that by RFID final of materials roving a supply chain; and Synera focuses on cooperative predicting what’s more, replacement between a purchaser and vender. Numerous other cases have painted the result of data integration on some exact feature of the supply chain. Approximately of the cases have been absorbed on supervision supply though others have been additional absorbed on the clienteles. For instance, the Solectron case emphasizes on how the usage of data has changed Solectron from a humble agreement producer into a complete-service chain of supply together. Similarly, the "Outsider Logistics Services" case inspects why businesses similar transport worker Flying Cargo have been with data to improve their facility aids in a near item commercial. Formerly when more, cases like General Motors and Lufthansa exemplify how data may be utilized to surgoe client dependability and achieve the values. Hewlett-Packard inspects the opposite chain of supply and the data addition issues of supervision revenues. Lastly, Marks and Spencer and Zara inspect rivalry between 2 attire businesses, counting the part of combined project and collecting.

H3: there is a significant association between e-procurement and supply chain management

3. Methodology

This is an important part of the study. The appropriate technique for this study is necessary to analyze the data. Since, appropriate technique is the right solution of the study questions. This is a quantitative study. 5-point likert scale use in this study. Self-made questionnaire has been used in this study. Questionnaires has been distributed among web companies’ employees, interact with each other and their customers through web, internet. 100 questionnaires have been distributed. These questionnaires have been distributed through face to face. Smart partial least square (PLS) software has been applied in this study to analyze the data.

4. Data Analysis

SmartPLS 3 is applied to inspect the measuring the model of the study. AVE, Factor internal consistency process, Cronbach’s alpha with the Composite reliability are measured. The results of model assessment are described. Cronbach Alpha of E-Commerce is 0.812, E-Procurement is 0.76, E-Collaboration is 0.86 and Supply Chain management is 0.857.

Ave of E-Commerce is 0.741, Ave of E-Procurement is 0.713, Ave of E-Collaboration is 0.697 and Ave of Supply Chain Management is 0.751. Composite reliability of E-Commerce is 0.879, Composite reliability of E-Procurement is 0.912, Composite reliability of E-Collaboration is 0.881 and Composite reliability of supply chain management is 0.891 have been drawn.

The results exhibit that all the value of the items have a factor loading more than 0.70. No items have been found in the factor loading below 0.70 but above 0.60. Internal consistency is reached as the factor loading is more than 0.50 approved the convergent validity. AVE and Composite reliability are more than acceptable assortment of 0.70 and 0.50

<table>
<thead>
<tr>
<th></th>
<th>E-Commerce</th>
<th>E-Procurement</th>
<th>E-Collaboration</th>
<th>Supply Chain Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-Commerce</td>
<td>0.871</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>E-Procurement</td>
<td>0.680</td>
<td>0.859</td>
<td></td>
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<tr>
<td>E-Collaboration</td>
<td>0.712</td>
<td>0.784</td>
<td>0.831</td>
<td></td>
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<tr>
<td>Supply Chain Management</td>
<td>0.709</td>
<td>0.741</td>
<td>0.801</td>
<td>0.811</td>
</tr>
</tbody>
</table>
4.1 Structural Model Assessment

Table 3 exhibitions the direct effects. All the direct associations keep t-value more than 1.96 at 0.05 level of significance. So, all are significant relations. Also, $\beta$-value has a positive suggestion. So, all the hypotheses (H-1, H2, H 3) are accepted. Also, the size of effect ($f^2$). The references found that E-Commerce and supply chain management keep minor effect ($f^2$). E-procurement and supply chain management have sensible effect. Likewise, E-Collaboration and supply chain management possess strong effect.

Table 3: Direct Result

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>$\beta$-value</th>
<th>(STDEV)</th>
<th>T Statistics</th>
<th>P-Value</th>
<th>$f^2$</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1 EC→SCM</td>
<td>0.221</td>
<td>0.112</td>
<td>3.210</td>
<td>0.031</td>
<td>0.02</td>
<td>Accepted</td>
</tr>
<tr>
<td>H2 EP→SPM</td>
<td>0.161</td>
<td>0.051</td>
<td>3.321</td>
<td>0.000</td>
<td>0.15</td>
<td>Accepted</td>
</tr>
<tr>
<td>H3 EC→SP</td>
<td>0.169</td>
<td>0.071</td>
<td>10.110</td>
<td>0.017</td>
<td>0.23</td>
<td>Accepted</td>
</tr>
</tbody>
</table>

5. Discussion

The literature displays that many variables prompting supply chain management. The most important variables are e-commerce, e-procurement and e-collaboration. The t-value is greater than the standard value of 1.96 at 0.05 significant level is acceptable. Further, the path between RP and SSCM ($\beta$=0.210, t-value=1.99, p<0.05), shows a positive significant relationship. Therefore, the current research originated a significant positive relationship between RP and SSCM, supporting H1. It proves that increasing one variable would increase other variable towards the same direction.

H1 is acceptable since T value is greater than threshold value 1.96 at 0.05. Further ($\beta$=0.221, t-value=1.99, p<0.05), similarly, H2 H1 is acceptable since T value is greater than threshold value 1.96 at 0.05. further ($\beta$=0.161, t-value=1.99, p<0.05), similarly, H3 is acceptable since T value is greater than threshold value 1.96 at 0.05. further ($\beta$=0.169, t-value=1.99, p<0.05).

6. Conclusion

It has been said that software substances industrialized by novel trades have newly skilled a notable setback in Indonesia. Though, the Internet fizz can be annoying as a casual to form rapid cash, the effect of Internet on SCM is up 'til today active and well. Somewhat than vanishing, it has been increasing in extensiveness similar. Additional businesses have been inaugural Internet networks and additional purchasers have been ordering on the Internet. Similarly, requests have been obtaining more cultured. For instance, business exchanges do not just grip relations, up till now, make data. In this way makes a whole novel way of study and a novel type of "implementation" software items that allow a connotation to receipt real-time information and form dynamic choices. They accompaniment standard "conceiving" organizations, for instance, ERP. Certainly, SAP lately revealed strategies to improve making requests to improved cooperate with their establishing schemes with additional a cargo following plan to its transport administration scheme.

At the similar time, enormous quantity of information start from network connections moves to data "overload." This similarly makes an accidental to grow responses for collective, précis, and understand them in a friendly manager way. Certainly, software items and preparation workers are arising to speech the wants in dissimilar terms Assumed the many tests in worldwide SCM and the limitless originality in the commercial network, it is only a cliche’ to national that the novel influential machine named the Internet will learn its method to contract with additional and better requests for fairly a while. Consequently, also, will research, as a deduction.
References


