THE ROLE OF SUPPLY CHAIN MANAGEMENT IN THE PRODUCTION SYSTEM COMPANY AND OPERATIONS

Ferro Aji[1]
[1]Politeknik Energi dan Mineral Akamigas (PEM Akamigas)
Kementerian Energi dan Sumber Daya Mineral
email: ajifero6@gmail.com

ABSTRACT

Supply Chain Management is a set of forms for the effective integration of suppliers, manufacturers, warehouses and warehouses, so that goods are produced and distributed in the right quantity, in the right position, at the right time, to minimize costs and provide services to client satisfaction. Currently, many companies are implementing Supply Chain Management to increase the competitiveness of companies with one another. Supply Chain Management is a strategic competitive tool for companies that make competing logical problems a strategy to win the competition. The purpose of making this paper is to explore the budget chain management section in terms of systems and operations within the company that enable it to provide value to consumers in terms of vacuum and speed of service. So that consumers will feel the superiority of the product even though it is physically somewhat similar to other products

Keywords : Supply Chain Management, System Production, The Company's Operations.

1. INTRODUCTION

In principle, consumers anticipate to be able to obtain products that have benefits at an acceptable price position. In order to realize the invitation of these consumers, each company tries its best to use all the means and capabilities it has to provide value to prospective consumers. This behavior of the problem clearly has different cost consequences for each company, including the challenger[1]. In order to be suitable to offer lucrative products at competitive prices, every company must strive to reduce or reduce all costs without compromising product quality or prescribed norms. One of the efforts to reduce these costs is through optimizing the distribution of accounts from suppliers, entering accounts in the product process to product distribution to consumers[2]. Optimal distribution in this case can be achieved through the operation of the concept of force Chain Management. Supply Chain Management is actually not a new concept. This conception emphasizes an interrelated pattern involving the entry process of products from suppliers, producers, retailers to consumers[3]. Since then, the conditions between suppliers and end consumers have been in one unit without big walls, so that the media of information between colorful rudiments takes place in a transparent manner[4]. Supply Chain Management is a conception of a suitable product distribution pattern to replace the optimal product distribution pattern. This new pattern of conditioning company distribution, product scheduling and logistics, the implementation of this Supply Chain Management will contribute to reducing labor costs which include storage, ordering and stockout costs[5]. Whereas for companies that use the concept of just in time or JIT (operating in Indonesia in general with cluster systems), the concept of Supply Chain Management absolutely needs to be implemented[6]. In addition to being suitable for excluding warehouse costs, it can also reduce the quality costs caused by product defects and process defects[7]. From the background above, the purpose of this paper is to find out which part of the Chain Management budget for products and operating systems within the company is useful for providing value to consumers in terms of vacuum and speed of service. So that consumers will feel the superiority of these products, even though physically they are almost the same as other products

2. RESEARCH METHODS

The conception of product and operating systems applied by manufacturing and service companies moment, it's time to pay attention to rudiments outside the company concerned. That is, managing input rudiments, metamorphosis processes, and an affair alone won't be enough to give value to consumers. thus the rudiments of suppliers and consumers (both distributors and final consumers) are also corridors that must be managed by the company. Supply Chain Management as an intertwined approach that covers all material operation processes, provides exposure to the processes for furnishing,

producing, and distributing products to consumers. The material environment in the sense of Supply Chain Management clearly doesn't only cover raw accounts and affairs (finished goods), but also includes supplementary accounts , factors, spare corridor, work in process(semi-finished goods) as well as colorful types of inventories (inventories) that are used to support the functional conditioning of the company as a whole. For companies that still pay attention to the significance of force. This scientific work was collected using the library exploration system. That's an exploration system that seeks sources from several books and papers that formerly live.

3. RESULTS AND DISCUSSION

Industrial Environment Development. The development of a dynamic artificial terrain in the current global period has come a undefined for beaucoup marketable associations to explore their eventuality, as well as identify critical success factors to exceed in crescively competitive competition. Technology which is also developing briskly becomes a force to be applied in a competitive climate. The sweats made are finally directed at furnishing the au courant products to consumers. The terrain of the products offered by the company to consumers in terms of product and operations operation is a combination of goods and services. The manufacturing backing will not be suitable to compete if the products offered are pure goods, while service companies cannot compete if the only thing offered is service. The company's success in furnishing the voguish products to consumers includes a combination of the two, divided goods and services in their separate portions which are ideal according to the company. Presenting a product in this broad sense is a challenge as well as an occasion for the operating product system that must be run by the company. Starting from relating consumer tastes to seeking all input needs from suppliers to produce and distribute these products according to the tastes of the targeted consumers. altogether, consumers anticipate to be suitable to gain products that have benefits at an respectable price position. To realize these consumer conjurations, each company tries optimally to use all of its means and capabilities to provide value to consumer prospects. The performance of this trouble fluently creates different cost consequences for each company, including its contenders. To be suitable to offer appealing products at competitive prices, every company must try to reduce or reduce all costs without reducing product quality or morals that have been set. One of the sweats to reduce these costs is through optimizing the distribution of accounts from suppliers, the flux of accounts in the product process to the distribution of products to consumers. Optimal distribution in this case can be achieved through the operation of the generality of Supply Chain Management. Supply Chain Management is actually not a new generality.

According to Widyarto, (2013) there are 3 types of force chain factors, videlicet.

a. Upstream force chain

The upstream(upstream) force chain includes the exertion of a manufacturing company with its distributors(which can be manufactures, assemblers, or both) and their connections to their suppliers(alternate suppliers). Dealer connections can be expanded to several strata, all the way from material origins (eg ore mining, manufacturing growth). In the upstream force chain, the main exertion is procurement.

b. Internal force chain operations

Part of the internal force chain includes all the processes of getting goods into the depot that are used in converting input from suppliers into the affairs of the association. This extends from the time input enters the association. Within the internal force chain, the primary concern is product operation, manufacturing, and force control.

c. Downstream Supply Chain Segment(Downstream force chain corridor)

Downstream(creek) force chain includes all exertion that involves delivering products to final guests. In the downstream force chain, attention is directed to distribution, warehousing, transportation, and after-deals-service. According [9]Supply Chain Management is a farther development of product distribution operations to meet consumer demand. This generality emphasizes an intertwined pattern that concerns the product flux process from suppliers, tab manufacturers, retailers to consumers[10]. From also on, exertion between suppliers and final consumers is in one unit without large walls, so that the information medium between the colorful rudiments takes place in a transparent manner. Supply Chain Management is a generality concerning product distribution patterns that are suitable to replace

product distribution patterns optimally. This new pattern of enterprise distribution exertion, product schedules, and logistics.

Integrated Supply Chain. All companies need commodities veritably provident in order to carry out product conditioning for profit. To achieve this desire, the smooth inflow of the necessary accounts must involve further than one force chain. The critical factor in an effective force chain is coping, because coping tasks to elect suppliers (and accounts) and also make mutually salutary connections.

Without advantageous suppliers and without adequate purchasing, the fund chain will not cherish a part to bet on now's demand circumscriptions. Supply Chain Management is demanded by companies that cherish guided operations with a just in time system, because the just in time generality emphasizes the promptness of the appearance of grounds from suppliers to consumers awarding to what has beted quested. This means that the continence and commitment of the entire band must be properly applied, because the system just in time does not emphasize force or zero force. So that if there is a divagation in just one link in the chain, it will disrupt the overall force of accounts and cramp the smooth care of tasks from the other links, due to a lack of forces. For conditions in Indonesia, the system will boom just in time if the linked links are in one cluster. For companies that are still concerned with force due to material characteristics (eg seasonal factors) or as an expectant measure to deal with an unstable artificial terrain, Supply Chain Management is also demanded. The part of Supply Chain Management for this type of company is to reduce force costs, because forces that are not optimal will impact storage costs, ordering costs, and backorder costs (in the event of a stockout).

Both companies administering a just-in-time system and those that still prioritize force, the enforced force Chain Management will be more optimal if it's executed in an integrated manner by all related force chains. administering the generality of Supply Chain Management in a comprehensive and integrated manner is easily not an easy thing for companies to do. multitudinous difficulties will be endured in relation to the external terrain, videlicet relations with suppliers and distributors as well as end consumers. This can be because the external terrain is fairly beyond the commitment to come a chain that coordinates with each other to distribute all the material needs as demanded. At first regard, the generality of Supply Chain Management has parallels with logistics operations, because both manage the flux of goods and services through purchasing, moving, storing, administering, and distributing In addition, both Supply Chain Management and logistics operations also have parallels in terms of adding effectiveness and effectiveness in managing goods. The difference between Supply Chain Management and logistics operations lies in its exposure[11]. Supply Chain Management seeks relations and collaboration between processes of other companies in the channel business, from suppliers to guests and also prioritizes the flux of goods between companies, from the most upstream to the most downstream. Meanwhile, logistics operations are familiar towards planning and a frame that produces a single plan for the flux of goods and information throughout the company, so it's more focused on managing including the flux of goods within the company. In its development, Supply Chain Management has endured multitudinous progressions which can be described in 4(four) stages as follows[12]

Stage 1, In stage 1 there is a kind of solitude and independence of product and logistics functions. They run their own programs which are independent of each other (in-complete sequestration). An illustration is the product department that only thinks about how to make goods according to the quality and morals that have been set and doesn't want to suppose about stockpiling force and using storage space which causes force costs, videlicet holding costs.[13,14]

Stage 2, In stage 2 the company has begun to realize the significance of planning integration indeed in a limited area, divided among the closest internal functions, for illustration of the company's control, so it needs the sweats of both parts to achieve with force control and other functional integration.[15]

Stage 3 In stage 3, integration of planning and supervision of all combined functions within one company (internal integration).

Stage 4, Stage 4 describes the factual stage of force chain integration, videlicet aggregate integration in the generality of planning, performance, and supervision (operation) which has been achieved in stage 3 and encouraged to upstream, Lower costs. Integrating the flux of products from the company to the final consumer also means reducing costs in the distribution

Asset operations are getting advanced. The main asset, especially the mortal factor, will be less trained and professional both in terms of knowledge and chops. mortal resources will be suitable to

empower the use of high technology as demanded in the performance of Supply Chain Management. Increased earnings. With the addition of a number of pious consumers who come videlicet suppliers and down streams to guests. product medicines, this will in turn increase the elaboration of Supply Chain Management, which has reached the fourth stage, showing a comprehensive integration among all associated factors, thus demanding translucence in the flux of information. The cooperation strategy can be capitalized to realize a smooth flux of material forces from suppliers to distributors to consumers. With a cooperation strategy, it's necessary to develop communication between all affiliated parties, so that communication of the inflow of information and data demanded will be smoother. Benefits of Supply Chain Management. In general, the operation of the SCM conception in companies will give benefits, videlicet (Jebarus, 2001) client satisfaction, increased profit, reduced costs, advanced asset application, increased gains, and larger companies. client satisfaction. Consumers or product drugs are the main target of the product process conditioning for each product produced by the company. The consumers or druggies appeared to in this environment are clearly pious consumers in the long term. To make consumers pious, consumers must first be satisfied with the services provided by the company. Increase profit. further and further pious consumers and getting mates with the company means that it'll also increase the company's income, so that the products produced by the company won't be wasted, because consumers are in demand. company's gains. The company is getting bigger. Companies that profit from the distribution process of their products will gradually come bigger, and grow stronger.[16]

The six benefits described over are circular benefits. In general, the direct benefits of enforcing Supply Chain Management for companies are 1. Supply Chain Management can physically convert raw accounts into finished products and deliver them to end consumers. This benefit emphasizes the product and operations functions within a company[17]. In this function, the use of all available coffers is carried out in a controlled metamorphosis process, to give value to the products produced in agreement with company programs and distribute them to targeted consumers. Supply Chain Management functions as request agreement, videlicet icing what's supplied by the force chain reflects the bournes of the end client or consumer. In this case the marketing function will play a part. Through the perpetration of Supply Chain Management, marketing can identify products with characteristics that consumers are interested in. likewise, this function must be suitable to identify all the product attributes anticipated by the consumer and communicate this to the product designer[18]. However, also products can be produced, If the product design selection has been carried out and testing is carried out. So that force Chain Management will play a part in furnishing benefits similar to point 1.

Force Chain employment accomplishment Conditions. As a generality that involves numerous parties as a link, Supply Chain Management demands several conditions that aren't only associated to accounts, but also information. The main demand for administering Supply Chain Management is, of course, operation support. operation at all echelons from strategic to functional must give support starting from the process of planning, organizing, coordinating, administering, to controlling. piecemeal from operation support, other conditions are conditions that involve external factors, videlicet suppliers and distributors. Before erecting commitments and administering work contracts with suppliers, the company must first carry out supplier evaluations. [19]

For the record, carrying out supplier evaluations for suppliers who play in a monopoly request is of course delicate and cannot be carried out, so what needs to be done in this condition is to make alliances in an agreement. Supplier evaluation is carried out if for the same material further than one necessary supplier can be attained. There are at least three criteria in assessing suppliers, videlicet the general conditions of the suppliers, the conditions of the service, and the conditions of the materials. Some samples of pointers from each supplier evaluation criteria are as follows. [20]

a. General conditions of the supplier - Size or product capacity - fiscal condition - functional Condition Research and design installations Geographical position Trade relations between assistance

b. Service conditions - Material delivery times - Material appearance conditions - Rejected order amounts Complaint running from buyers Specialized backing handed - Pricing information handed Material condition - Material quality - Material uniformity - Guarantee from supplier - Packing condition(packaging) Of the three criteria, the top most weight(rested on the position of significance) is given to the criteria for material conditions, because material conditions will affect the performance of the product and operations functions, especially product quality. Also, an assessment is carried out for each index and the total score is calculated. The coming demand is the selection of distributors as interposers for the company's products to reach the final consumers.

The intensity of the ideal distribution channel for a company is how to present a wide variety of products in satisfying consumer conditions. Using too multitudinous distributors can limit the distribution of product types in marketing exertion. Again, the use of too numerous distributors can disrupt the brand image in its competitive position[21]. An important key in managing distribution channels is determining how numerous distribution channels to develop and form a cooperation pattern that supports the marketing of a product in a particular marketing area. One more important demand in the performance of Supply Chain Management is the transparency of the flux of information. To be suitable to support a transparent flux of information from all links involved in Supply Chain Management requires commitment (can be achieved through alliances and agreements) accompanied by the vacuity of a database. The generality database appears to in this case isn't just a collection of data that's managed and controlled centrally, but the data must meet the following five criteria. Vacuity, whenever requested must be available accompanied by easy access. The capability to be used to participate in affiliated conditions. [22]

The capability of data to always develop in an effective terrain the quantum of data doesn't depend on the physical condition of the data store (the data store must acclimate the quantum of data) Data viscosity and validity Challenges of administering Supply Chain Management. Although Supply Chain Management has multitudinous benefits in running a product and operation system in a company, there are several challenges that must be faced and addressed by companies if they're going to apply it. The first challenge comes from the macro terrain and the external terrain. For illustration, global profitable trends indicate a tendency for affection, especially in Indonesia. This is because competition at the global position is truly adding. In addition, there's also the tendency of consumers to show consumer gestures that are too complicated and demanding. Another external factor is the development of technology. [23]Technological developments related to information technology should be shaped as much as possible by companies administering Supply Chain Management so that they can manage information that moves truly snappily in response to product movements. So it's truly necessary for companies administering Supply Chain Management to have a functional outfit similar to as.

a. Demand operation/ soothing say
b. Advanced planning and scheduling
c. Transportation operations
d. Distribution and deployment
e. product planning
f. Available to pledge
g. Supply Chain Modeler
h. Optimizer

Linear programming, non-linear programming, heuristics, and inheritable algorithms is not well defined. Each channel uses its own criteria, and there's no concern for establishing a liaison in the matrix model that measures the performance of the chain as a whole. Related to force operation, occasionally force programs are too simple, uncertain factors are taken into account in making these programs, occasionally they're too stationary. In addition, occasionally the understanding of the conception of Supply Chain Management is deficient, the focus is frequently acquainted to internal operations only, unfit to distinguish between services for intermediate consumers and end consumers. To overcome these challenges, the company must first make advancements and make commitments in the company's internal terrain, also make hookups and commitments with other links in the external terrain. One thing that's also important in prostrating challenges for the perpetration of Supply Chain Management is managing information in a system that must support the decision-making process in the area of perpetration of Supply Chain Management.

4. CONCLUSION

In general, the benefits of Supply Chain Management for companies are first, Supply Chain Management can physically convert raw accounts into finished products and deliver them to end consumers. In addition to these challenges, challenges that are also frequently faced, especially developing countries, are structure problems including complicated bureaucracy. This problem will have a significant impact on another Supply Chain Management challenge, videlicet information technology. On the other hand, there are also challenges that can be classified in the micro terrain or within the company's terrain including the stake holders. For illustration, measuring IT performance.

Second, Supply Chain Management functions as a request agreement, videlicet icing what's supplied by the force chain reflects the bournes of the end client or consumer. To be suitable to apply Supply Chain Management effectively, companies must be suitable to provide and manage acceptable (complete and accurate) related databases and make hookups with named suppliers and distributors. In the end, Supply Chain Management as a total can produce synchronization and collaboration of conditioning related to the inflow of accounts both inside and outside the company.

REFERENCES

[1] Manambing MF, Tumade P, Sumarauw JSB. Analisis Perencanaan Supply Chain Management (Scm) Pada Pt. Sinar Galesong Pratama. Jurnal Emba: Jurnal Riset Ekonomi, Manajemen, Bisnis Dan Akuntansi 2014;2.

[2] Rohman RS, Wahyudin Y, Oktapiani R, Firmansah DA. RANCANG BANGUN WEBSITE DESAIN SERTIFIKAT ELEKTRONIK MENGGUNAKAN METODE USER CENTERED DESIGN. Jurnal Responsif: Riset Sains Dan Informatika 2023;5:70–9.

[3] Yusuf A, Soediantono D. Supply chain management and recommendations for implementation in the defense industry: a literature review. International Journal of Social and Management Studies 2022;3:63–77.

[4] Putri IWK, Surjasa D. Pengukuran Kinerja Supply Chain Management Menggunakan Metode SCOR (Supply Chain Operation Reference), AHP (Analytical Hierarchy Process) dan OMAX (Objective Matrix) di PT. X. Jurnal Teknik Industri 2018;8:37–46.

[5] Budiman EV. Evaluasi Kinerja Supply Chain pada UD. Maju Jaya di Desa Tiwoho Kabupaten Minahasa Utara. Jurnal EMBA: Jurnal Riset Ekonomi, Manajemen, Bisnis Dan Akuntansi 2013;1.

[6] Zulkarnaen W, Fitriani ID, Yuningsih N. Pengembangan Supply Chain Management Dalam Pengelolaan Distribusi Logistik Pemilu Yang Lebih Tepat Jenis, Tepat Jumlah Dan Tepat Waktu Berbasis Human Resources Competency Development Di KPU Jawa Barat. Jurnal Ilmiah MEA (Manajemen, Ekonomi, & Akuntansi) 2020;4:222–43.

[7] Tute KJ. Perancangan Sistem Informasi Perpustakaan Berbasis Web Menggunakkan Metode Waterfall. SATESI: Jurnal Sains Teknologi Dan Sistem Informasi 2022;2:47–51.

[8] Widyarto A. Peran supply chain management dalam sistem produksi dan operasi perusahaan. Benefit: Jurnal Manajemen Dan Bisnis 2013;16:91–8.

[9] Probowati A. Strategi pemilihan supplier dalam Supply Chain Management pada bisnis ritel. SEGMEN: Jurnal Manajemen Dan Bisnis 2011;7.

[10] Abedi M, Rawai NM, Fathi MS, Mirasa AK. Cloud computing as a construction collaboration tool for precast supply chain management. J Teknol 2014;70.

[11] Monalisa S, Apsyarin D. Rancang Bangun Sistem Informasi Supply Chain Management Distribusi Barang Dan Jasa Berbasis Web. Jurnal Ilmiah Rekayasa Dan Manajemen Sistem Informasi 2021;7:139–44.

[12] Juzer J, Darma GS. Strategic Supply Chain Management in the Era of Industry Revolution 4.0: A Study of Textile Industry in Bali. Jurnal Manajemen Bisnis 2019;16:1–16.

[13] Sari RN, Al Azhar L. Pengaruh Supply Chain Management Terhadap Kinerja Perusahaan Melalui Keunggulan Bersaing. Jurnal Ekonomi 2016;21:462–79.

[14] Sumangkut AA. Kinerja Supply Chain Management Dan Strategi Informasi Pada Pt. Multi Food Manado. Jurnal EMBA: Jurnal Riset Ekonomi, Manajemen, Bisnis Dan Akuntansi 2013;1.

[15] Juzer J, Darma GS. Strategic Supply Chain Management in the Era of Industry Revolution 4.0: A Study of Textile Industry in Bali. Jurnal Manajemen Bisnis 2019;16:1–16.

[16] Widyarto A. Peran supply chain management dalam sistem produksi dan operasi perusahaan. Benefit: Jurnal Manajemen Dan Bisnis 2013;16:91–8.

[17] Sumangkut AA. Kinerja Supply Chain Management Dan Strategi Informasi Pada Pt. Multi Food Manado. Jurnal EMBA: Jurnal Riset Ekonomi, Manajemen, Bisnis Dan Akuntansi 2013;1.

[18] Antoni D, Akbar M. E-supply chain management value concept for the palm oil industry. Jurnal Sistem Informasi 2019;15:15–29.

[19] Rohman RS, Wahyudin Y, Oktapiani R, Firmansah DA. RANCANG BANGUN WEBSITE DESAIN SERTIFIKAT ELEKTRONIK MENGGUNAKAN METODE USER CENTERED DESIGN. Jurnal Responsif: Riset Sains Dan Informatika 2023;5:70–9.

[20] Abedi M, Rawai NM, Fathi MS, Mirasa AK. Cloud computing as a construction collaboration

tool for precast supply chain management. J Teknol 2014;70.
[21] Tute KJ. Perancangan Sistem Informasi Perpustakaan Berbasis Web Menggunakkan Metode Waterfall. SATESI: Jurnal Sains Teknologi Dan Sistem Informasi 2022;2:47–51.
[22] Sari RN, Al Azhar L. Pengaruh Supply Chain Management Terhadap Kinerja Perusahaan Melalui Keunggulan Bersaing. Jurnal Ekonomi 2016;21:462–79.
[23] Yusuf A, Soediantono D. Supply chain management and recommendations for implementation in the defense industry: a literature review. International Journal of Social and Management Studies 2022;3:63–77.