

Sustaining And Developing Disciplinary Expertise In Supply Chain Management Project-Based Organizations Member

Robert Tua Siregar¹, Karona Cahya Susena², Nurhikmah³, Muhammad Salahuddin⁴, Tuti Agustin⁵, Aries Abbas⁶

¹*STIE Sultan Agung Pematangsiantar, Indonesia*

²*Department of Management Universitas Dehasen Bengkulu, Indonesia*

³*Universitas Muhammadiyah Luwuk, Indonesia*

⁴*Universitas Muhammadiyah Luwuk, Indonesia*

⁵*Department of Civil Engineering, Faculty of Engineering, Sebelas Maret University, Indonesia*

⁶*Faculty of Mechanical Engineering, Universitas Krisnadwipayana, Indonesia*

Abstract—

This paper presents sustaining and developing disciplinary expertise in supply chain management project-based organizations member. In both project and supply chain management the major objective is to develop skills, abilities and knowledge using dynamic and important disciplines in present corporations. The coordinating procurement and project delivery systems and development of new project included in skills of project management. to create the value-creating supply chain networks the Supply chain management based on logistics, purchasing, integration of service operations and manufacturing, and distribution that enable organizations.

Keywords- *Supply chain management; project based; networks; organizations.*

I. INTRODUCTION

For a company to create one specific product the collection of suppliers is known as supply chain. as the name impels the chain is comprised of hubs or "connections". The chain include different makers, at that point the finished process, it stored in warehouses, then it come to the centers for distributions and at last it go to the places where the customer can purchase that item [3]. In the concept of chain every link is connected in particular order and direction, and without going through the previous link the following connection cannot be come. Every link associated with transportation, labor and parts and it includes costs and time with each link. Companies that carry the product have its own supply chain through which for several products it can use certain providers [4].

For getting the benefits of economies of scale buying large quantities of products, transferring products makers to stores directly, and then deliver the product to the place which store the large quantity of products can decrease the number of links of supply chain and it also reduce the cost of per item so user can get the product on a lower rate.



Figure 1: Supply Chain of Big Box



Figure 2: Supply chain based on ecommerce platform

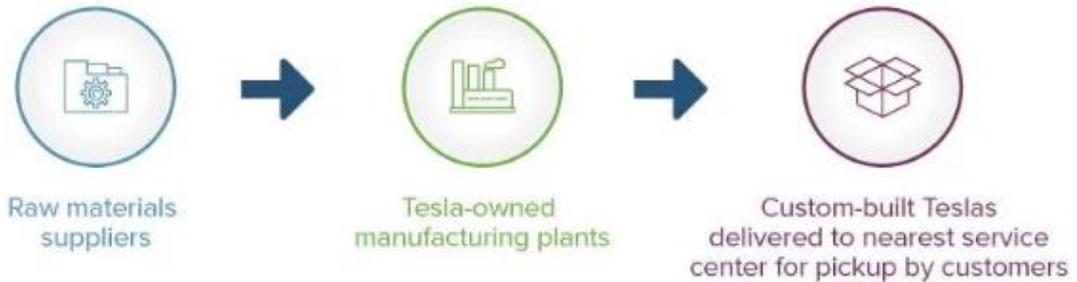


Figure 3: Specialized own supply chain

II. SUPPLY CHAIN MANAGEMENT

All the complicated factors like services and goods of supply chain are managed through supply chain management (SCM). It is a very complicated task to transfer the product from manufacturer to shipper to supplier to shipper to buyer. It is a very challenging task to make this process cost effective [5].

In a networked global economy due to existence of modern commerce Supply chain management is very important. When cost of communication and supply chain management tools is very high then the value of vertical integration is hard to justify. It is very important to deal with that to make the product cost effective [6].



Figure 4: Supply chain management

III. SUPPLY-CHAIN IMPROVEMENT PROJECT MANAGEMENT KNOWLEDGE AREAS

Because of unguided strategy applied for projects many scientists and senior managers conflicts over the relative value of strategy and tactics that are not implemented sometimes. To improve the Supply chain project management has the competence. Because of lack of focus, planning, skills and money many organization find difficulty in implementing initiatives [7]. So it is necessary to take the benefits from the project management.

1) Integration Management of Project

For the completion of the projects the project integration management includes tasks, methods, strategies and tools. And it follows particular plans.

2) Scope Management of Project

The Project Scope Management includes social needs, technology advancement, market demand or environmental compliance. If on the basis of requirement of a customer there need to develop a new plan then the system should be upgradable according to the modern and latest techniques.

3) Time Management of Project

Many time management task include in supply chain management are as follows:

1. Activity Resources estimation
2. Development of schedule
3. Activities defining
4. Schedule controlling
5. Making activities sequence
6. Activity duration estimation

4) Cost Management of Project

In a supply-chain project the project cost management system works not on a traditional way. It provide activity-based cost tracking, long-term contracting, balancing up-front partner capital investments, commitment to suppliers or customer and fixed prices for certain products.

5) Quality Management of Project

The result of supply chain is not in the form of physical products, they are mostly based on services. So it is not an easy task to maintain the quality of the supply chain management products. So it is necessary to make the plans that are relevant to project and incorporates standards of quality.

6) Human Resources Management of Project

To spread the product around the world a team is required in supply chain management. shared resources and their respective team required by Multi-company supply chain.

7) Procurement Management of Project

For financial stability to providing new ideas Supply chain efforts would need a partnership with multi-company.

8) Communications Management of Project

The expertise team comes from trading partner organizations so multiple company participation has become the basic reason.

9) Risk Management of Project

It is well known that risk is always associated with the project. There are two types of risk in supply-chain project management. 1. Supply chain design 2. Project itself [8].

IV. PROJECT MANAGEMENT PRACTICE BASED ON INFORMATION TECHNOLOGY

For moving the organizations to the higher level several project shortcomings can address, but there is necessary to keep the knowledge of awareness, it is absent in many systems. In a dynamic business environment structuring the project phases will increase the agility [9]

1) Analysis of Enterprise

The enterprise analysis include defines business issues, conducting an initial risk analysis, feasibility, scope of a project, referred to as investigative, business architecture.

2) Management and planning of Requirements

This step includes gathering of processes and requirement of plans. This phase also include the coordination with other activities, monitoring the progress of the effort and tracking the availability of resources.

3) Elicitation Requirements

This step includes the requirements gathering methods that consist of many processes. The task like document analysis, observation, interface analysis, workshops, observation, focus groups, prototyping, surveys, reverse engineering, observation are included in elicitation Requirements.

4) Communication Requirement

To keep the audience in mind the business analyst focuses on communication throughout the elicitation and enterprise analysis process. According to the particular situation it select the communication methods.

5) Documentation and Requirement Analysis

In process improvement methods there are many tasks included like:

1. In order to meet the requirement of partners validation, verifications and Documentation of the requirements.
2. Analysis of the individual or group user requirements, quality of service requirements, functional requirements.
3. For limiting the solution and affect the Determination of the requirement attributes, constraints and assumptions.
4. For matching the solutions to the identified issues Structure requirements packages

6) Validation and Solution Assessment

This phase include the focus of the structure of the path. To assessment post-implementation and review the path from design to implementation of the solution is analyzed [10].

V. IMPROVES BUSINESS PERFORMANCE

For effectiveness of their supply chain management strategies Several supply chain management techniques are review by Anaplan, Together with Supply Chain Management Review (SCMR) [11].

1. For enhancing the performance of supply chain providing Practical tips
2. Between business performance and supply chain insight on the important connection
3. in supply chain opportunities and challenges used survey data capturing trends

VI. DEVELOPMENT PROCESS OF SUPPLY CHAIN MANAGEMENT

The steps of supply chain management based on Global Supply Chain Forum (GSCF) [12] are given below:

1. Management of Customer Relationship: for making the strong relations during the lifecycle it develops the controls, assesses and plans of customer interaction and data.

2. Management of Customer Service: it is responsible for service contracts and administering product.
3. Management of Supplier Relationship: for making the good connection with the suppliers its works is to guide in a proper manner. According to the capabilities of suppliers like reliability, cost reductions, services and communication quality the supplier should choose.
4. Flow Management of Manufacturing: to get the flexibility in the process of manufacturing inside and outside the factories it control all activities associated with the movement of products.
5. Management of demands: to proper understand the requirement of customer it provides a comprehensive structure.
6. Fulfilment of Order: identify customer needs, fulfils orders and frames the logistics network encompasses in this step.
7. Commercialization and development of product: in to the market for introducing new products and for developing the product a framework is provided.
8. Management of Returns: reverse logistics is the functions associated with returns [15]. in both the upstream and downstream movement it required.



Figure 5: Supply chain management development process

VII. SUPPLY CHAIN MANAGEMENT ELEMENTS

The elements of supply chain management are shown in figure 6. The description is given below:

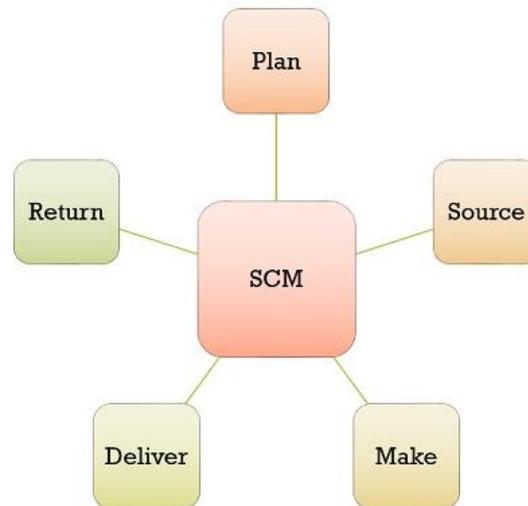


Figure 6: Elements of Supply chain management

1. Plan: for satisfying requirement of the customer it needs a strategy to manage resource utilization so this element represents a strategic segment of the supply chain management [13].
2. Source: for producing the product this element include the selection of suppliers for supplying raw material.
3. Make: all the necessary operations like testing, labelling, production, and packaging are included in this element.
4. Deliver: this element include the receiving of customer order, so it indicates logistics. For storing the product making of warehouse, to transfer the product to the customer and for receiving payments establishing a system included in this element.
5. Return: a network is build to take back the defective and excess products. For solving the problem related to product it provides a support system [16].

VIII. FOR GOOD SUPPLY CHAIN STRATEGY USED PRINCIPLES

Some principles for a good supply chain strategy are given below:

1. For Needs of customer Adapt Supply Chain
2. Logistics Network Customization
3. across Supply Chain Planning of Align Demand
4. Differentiate the Products that are Close to Customer
5. Outsource Strategically
6. For Support Decision Making of Multilevel creation of information technology
7. Financial Metrics and Service adoption



Figure 7: For a good supply chain planning used principles

IX. IN SUPPLY CHAIN MANAGEMENT PROJECT-BASED ORGANIZATIONS APPLIED APPROACH FOR DEVELOPING DISCIPLINARY EXPERTISE

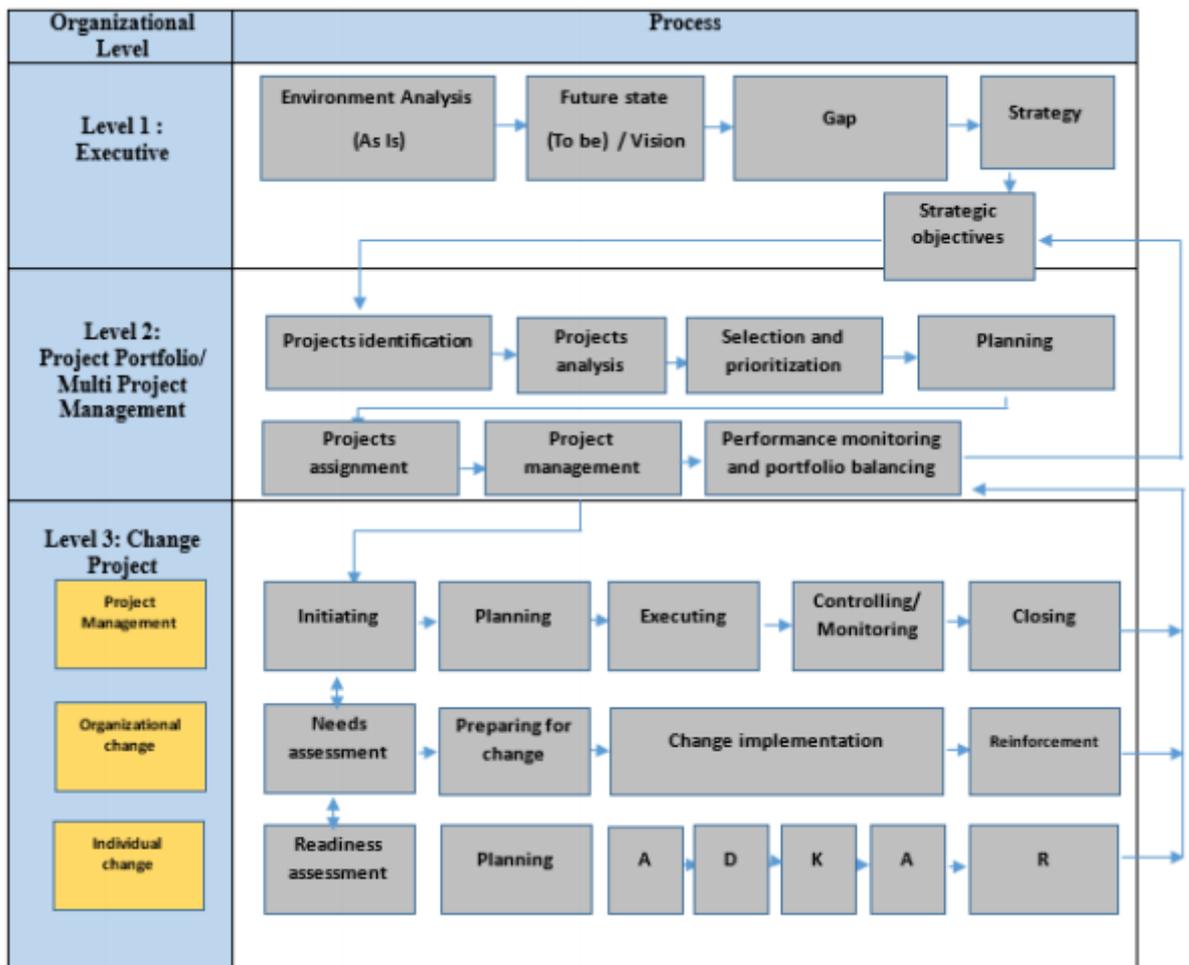


Figure 8: For managing many organizational changes applied approach [17]

X. CONCLUSION

All the entangled variables like administrations and products of store network are oversees through supply chain management (SCM). It is an exceptionally confounded errand to move the

item from maker to shipper to provider to shipper to purchaser. It is a moving assignment to make this procedure cost effective. In an organized worldwide economy because of presence of current business Supply chain the board is significant. At the point when cost of correspondence and inventory network the board instruments is extremely high then the estimation of vertical incorporation is difficult to justify. For getting the advantages of economies of scale purchasing huge amounts of items, moving items creators to stores legitimately, and afterward convey the item to the spot which store the enormous amount of items can diminish the quantity of connections of production network and it likewise decrease the expense of per thing so client can get the item on a lower rate

REFERENCES

- [1] Agapiou, A., Clausen, L.E., Flanagan, R., Norman, D., and Notman, G. (1998) The role of logistics in the materials • ow control process. *Construction Management and Economics*, 16, 131–7
- [2] Eccles, R. (1981) The quasi rm in the construction industry. *Economic Behaviour and Organization*, 2(4), 335–57.
- [3] Christopher, M. (1992) *Logistics and Supply Chain Manage- ment Strategies for Reducing Costs and Improving Services*, Pitman, London.
- [4] Richardson, G.B. (1996) The organisation of industry. In Buckley, P. and Michie, J. (eds), *Firms, Organisations and Contracts: A Reader in Industrial Organisation*, Oxford University Press.
- [5] Hong-Minh, S. M., Barker, R. and Naim, M. (1999) Construction supply chain trend analysis. In *Proceedings of IGLC 7th Annual Conference*, Berkeley, CA.
- [6] Taylor, J. and Bjornsson, H. (1999) Construction supply chain improvements through internet pooled procurement. In *Proceedings of IGLC 7th Annual Conference*, Berkeley, CA.
- [7] Koskela, L. (1993) Lean production in construction. In *Proceedings of IGLC 1st Annual Conference*, Espoo.
- [8] Green, S. and Lenard, D. (1999) Organising the project procurement process. In Rowlinson, S. and McDermott, P. (eds), *Procurement Systems : A Guide to Best Practice in Construction*, E.&F.N. Spon, London, pp. 57–82.
- [9] Mathieu, Richard & Pal, Raktim. (2011). The selection of supply chain management projects: A case study approach. *Operations Management Research*. 4. 10.1007/s12063-011-0058-2.
- [10] Stock, James & Boyer, Stefanie & Harmon-Kizer, Tracy. (2010). Research Opportunities in Supply Chain Management. *Journal of the Academy of Marketing Science*. 38. 32-41. 10.1007/s11747-009-0136-2.
- [11] Ibbs, C.W. and Kwak, Y.H. (2000), “Assessing project management maturity”, *Project Management Journal*, Vol. 31 No. 1, pp. 32-43.
- [12] Software Engineering Institute (2002), “The rational unified process and the capability maturity model”, Software Engineering Institute, Carnegie Mellon University, Pittsburgh, PA.
- [13] Maseleno, A., Huda, M., Jasmi, K. A., Basiron, B., Mustari, I., Don, A. G., & bin Ahmad, R. (2019). Hau-Kashyap approach for student’s level of expertise. *Egyptian Informatics Journal*, 20(1), 27-32.
- [14] Francisco J.Ferriols,JosefaMula, ManuelDíaz-Madroñero, "Supply Chain Management as the Company Engine in Automotive Manufacturing", *IFAC Proceedings Volumes*,Volume 46, Issue 9, 2013, Pages 682-687.
- [15] V. Chanal et al. « Vers une ingénierie de la recherche en sciences de gestion », *Revue française de gestion* 2015/8 (N° 253), p. 213-229.
- [16] W. Fernez, C. Triomphe, “ Le management multi projets : définitions et enjeux ”, *Faire de la recherche en management de projet*, Paris, Vuibert, FNEGE, pp. 189-207.
- [17] Abdelouahab Errida, Bouchra Lotfi , Elalami Semma, "Managing Multiple Change Projects in Supply Chains: A Case Study of a Moroccan MultiTechnical Services Company", *World Academy of Science, Engineering and Technology*,*International Journal of Mechanical and Industrial Engineering*, Vol:12, No:12, 2018.