

Relationship between Speed, Visibility, Responsiveness, Learning Orientation, Supply Chain Agility, Environmental Dynamic, Competitive Agility and Covid-19 Pandemic (Case Study in UKM Labusel Region)

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Abstract

The concept of supply chain agility is not very old, and a lot of research has been done to understand the constituents that build agility in operations and supply chains. As a continuation of that, this research contributes to the body of knowledge in many ways. First, make a theoretical contribution by exploring and explaining the factors that contribute to any supply chain agility especially in the context of the service industry in a volatile market. Second, in this study a framework is developed based on the dynamics of capability theory which is a big supporter of competitive agility by creating a value for H1: The results obtained with a value of Tcount 0.550 Ttable 0.098 at a significant level of 0.084 0.05. This means that the hypothesis can be accepted. H2: The results obtained with the value of Tcount 0.705 Ttable 0.098 at a significant level of 0.196 0.05. This means that the hypothesis can be accepted. H3: The results obtained with the value of Tcount 0.704 Ttable 0.098 at a significant level of 0.918 0.05. This means that the hypothesis can be accepted. H4: The results obtained with the value of Tcount 0.386 T table 0.098 at a significant level of 0.093 0.05. This means that the hypothesis can be accepted. H5: The results obtained with a Tcount value of 0.550 Ttable 0.098 at a significant level of 0.084 0.05. This means that the hypothesis can be accepted. H6: The results obtained with the value of Tcount 0.705 Ttable 0.098 at a significant level of 0.196 0.05. This means that the hypothesis can be accepted. Customers are uncommon and difficult to imitate and require effective organizational skills to be utilized efficiently and effectively. Third, by using SPSS 23, this study supports a causal relationship of factors that reduce agility as one of the abilities that organizations want to have. In addition, this study assigns weights among the factors that decrease agility where learning orientation explains agility the most, followed by speed, visibility, responsiveness, learning orientation and supply chain agility accordingly. Where speed has the highest explanation followed by appropriate visibility, responsiveness, orientation learning. However; more variables can be added to better understand supply chain agility and competitive agility.

Keywords

Speed; visibility;
responsiveness;
learning orientation;
supply chain agility



I. Introduction

UKM in the Labusel Region have also been proven to be able to survive when the economic crisis occurs. Its ability to survive when many large businesses have gone bankrupt has made the Labusel region UKM the backbone of the economy that is able to support the welfare of the community. The large number of business units and their ability

to absorb labor shows the strategic role of UKM in alleviating poverty and promoting community welfare. The problem faced is low productivity which creates inequality between UKM and large companies. This low productivity is related to the relationship of speed, visibility, responsiveness, learning orientation, supply chain agility, environmental dynamism and competitive agility that affect performance during the covid 19 pandemic. Viable supply chain agility model is the concept of handling logistics within a business unit, starting from the upstream supplier to the most downstream level.

The agility of the performance of UKM employees can be maintained by maintaining and adapting the types offered to meet customer demands by adapting to market changes in the restaurant business environment and utilizing available human resources. Seeing the problems that exist in UKM also requires integrating agility or integrating agility to develop and attract consumers' interest in visiting building materials stores, requiring an effective and fast response in any market situation. In addition to integrating agility or integrating agility, speed or speed is needed, where the concept of speed level is used as a suitable measure to determine the level of market performance. This speed is intended to train the employees of this building material store to act quickly in providing services so that consumers feel satisfied.

The visibility of the organization's supply chain can be seen and observed, especially in the condition of building materials and the condition of their objects, the competitiveness of fellow stores, which has resulted in many similar types of building material shops doing several things for the success and success of their business. UKM in the Labusel area should also have responsiveness or responsiveness that has agile abilities, may be better prepared and have better resources to cope with changes and work better while reacting to unexpected conditions so that market performance is much better in marketing in this Labusel environment.

As the coronavirus spreads, businesses must quickly adapt to changing consumer and supplier needs while solving operational and financial challenges that arise due to the overwhelming pressure of panic. More than ever, a proactive attitude is a requirement for survival for all building materials entrepreneurs so that environmental dynamism or environmental suitability is needed. However, there is a lack of empirical research on the role of the seven variables above because competitive agility is still needed. The competition for the agility of UKM in the Labusel area is more dominant with customer service and adapting to changes. The method used by the Labusel Region UKM is to improve everything in order to create good market performance during the COVID-19 pandemic. Therefore, the article that the author made because of the problems above is entitled the relationship of speed, visibility, responsiveness, learning orientation, supply chain agility, environmental dynamism and competitive agility that affect performance during the covid 19 pandemic (Case Study on UKM in the Labusel area).

Table 1. UKM Development Data in South Labuhanbatu Region

Scale enterprises	Lots of Effort	Lots of Labor	Percentage TK (%)
Micro	21,478	41,578	75.19
Small	1,737	7,910	14.30
Medium	172	2,234	4.04
Large	24	3,578	6.47
Total	23,411	55,300	100.00

Data source from the Central Bureau of Statistics 2018

UKM activities contribute to providing employment, and play an important role in the economy of South Labuhanbatu. The number of businesses in South Labuhanbatu in 2016 amounted to 23,400 companies or around 1.99% of the total businesses in North Sumatra Province. The number of businesses compared to the number of businesses in 2006 (about 20,100 business units) increased by 16.71%.

Therefore, although different business strategies may require different priorities of the manufacturing function, there is still a common approach among them to build a sustainable and stable performance of the building materials business. The researcher formulated the following questions:

1. Is there empirical evidence of a direct relationship between speed, visibility, responsiveness, and learning orientation with viable supply agility emphasizing the role of environmental dynamics and competitive agility intermediaries in the business performance of UKM in the Labusel region during the COVID-19 pandemic?
2. Are speed, visibility, responsiveness, and learning orientation with viable supply agility important for business performance? If so, what are the direct and indirect effects on environmental dynamism and competitive agility in business performance during the COVID-19 pandemic?
3. Does the process of obtaining competitive agility follow cumulatively under market effects in the Labusel region UKM?

II. Review of Literature

2.1 Speed and Supply Chain Agility

According to Sajoto (2016), speed is a person's ability to carry out continuous movements in the shortest possible time, while speed according to Suharno (2016), includes sprint speed, reaction speed, and moving speed. (Zedadra et al., 2019). Moeloek (2016), speed is defined as the rate of motion, can apply to the body as a whole or body parts (Zedadra et al., 2019). Empirical indicators obtained from this speed are:

1. Kinds of muscle fibrils that are brought from birth (innate), white fibrils (phasic) good for speed movement.
2. Setting nervous system.
3. Muscle strength.
4. The ability of elasticity and relaxation of a muscle.
5. Individual will and discipline. (Zedadra et al., 2019)

Ferrer and Santa (2017) realize that for an agile company, speed is an important element. In addition, the ability to perform actions and tasks in a short time. However, Christopher (2016) clearly explains that there is a difference between speed and agility, where speed refers to meeting customer requirements within a minimum timeframe and supply chain agility means responding quickly, when changes occur in demand in terms of variety and/or volume. . (Ahmed et al., 2019)

Therefore, to achieve agility, it is important for organizations to build up more information regarding speed (Attia and Salama, 2018). Chan et al. (2017), Gligor et al. (2016) describe agility as fast moving and Calatayud (2017) recognizes it as quickness, which is a key factor of an agile firm. (Ahmed et al., 2019) Therefore, it has been hypothesized that:

H1. Speed has a positive effect on increasing Supply Chain Agility

2.2 Visibility and Supply Chain Agility

Supply chain visibility is needed in managing upstream and downstream relationships to increase product value in the market at less overall cost. This research is strengthened by the research conducted by Deni Saptra, the Petra Christian University business management study program entitled the effect of supply chain visibility, supply chain flexibility, supplier development, and inventory control on supply chain effectiveness with risk management culture as a moderating variable at PT Sulindo which states that the effect of supply chain visibility, supply chain flexibility, supplier development, inventory control on supply chain effectiveness. (Sanjaya et al., 2016)

The visibility of an organization in processing information input can help improve the performance of institutional knowledge and forms of intellectual capital (Giannakis and Louis, 2016; Krebs, 2016). (Ahmed et al., 2019). Therefore, visibility is an antecedent of higher discipline functions such as agility (Braunscheidel and Suresh, 2018; Krebs, 2016). Visibility capabilities enable different organizations to carry out their procedures, actions and practices towards common goals (Christopher, 2016; Ahmed and Omar, 2017) and create value-added relationships between supply chain partners (Hohenstein et al., 2016). (Ahmed et al., 2019) Therefore, it has been hypothesized that:

H2. There is a positive influence between visibility on supply chain agility.

2.3 Responsiveness and Supply Chain Agility

Responsiveness is the supply chain's willingness to provide products for consumers. With an average indicator of the actual cycle that is consistently accepted to fulfill customer orders. (II & Libraries, 2017). Research on measuring supply chain performance with the SCOR approach was also carried out by Wahyuniardi et al (2017). In this study, the percentage value of the performance indicators was obtained on the attributes of reliability, responsiveness, agility, and assets.

Responsiveness of public services is needed, because as evidence of the ability of public organizations to provide what is demanded by all people in a country. In this case responsiveness is an efficient way of regulating affairs at both the central and regional or local levels in providing services to the community, therefore both central and local governments are said to be responsive to community needs if the community's needs are identified by policy makers with the knowledge they have, accurately and can answer what is in the public interest (Widodo in Arfan, 2021).

The main goals of supply chain agility are customer service and responsiveness to customer demands or needs (Braunscheidel and Suresh, 2018; Eckstein et al., 2016). (Ahmed et al., 2019) Researchers also recommend that the integration of supply chain partners along with IT with inter-organizational divisions, increases the company's competitive advantage in market conditions (Chan et al., 2017; Ishtiaque et al., 2018; Irfan et al., 2019). (Ahmed et al., 2019) However, Al-Shboul (2017) discusses that continuous and unpredictable environmental changes make companies accelerate their response to changes and responsiveness to customers. Responsiveness is an important skill of firms in the global economy. (Ahmed et al., 2019) Therefore, it has been hypothesized that:

H3. Responsiveness has a positive effect on supply chain agility.

2.4 Learning Orientation and Supply Chain Agility

A good learning orientation will be more resistant to crises (Starbuck, 2017). Dimensions such as desirability, discipline, decision making, and alignment are presented as important elements of organizational learning (Wetzel & Tint, 2019; Urban & Gaffurini, 2018). (Goestjahjanti et al., 2020). Based on the understanding put forward by Calantone et

al. (2017) in Mahmoud and Yusif (2016) it can be interpreted that Learning Orientation is the extent to which an organization obtains and shares information about customer needs, market changes, and competitors' actions, as well as the development of new technologies to create new products or services that are superior to competitors. (Goestjahjanti et al., 2020). According to Mahmoud and Yusif (2016) there are four indicators of Learning Orientation, namely:

- a. Commitment to learning
- b. Share vision
- c. Open mind
- d. Intra-organizational knowledge sharing (Goestjahjanti et al., 2020)

Learning orientation increases understanding, meets the needs of those who are not active, helps bring about innovation in new products and services and encourages a collaborative work environment (Tse et al., 2016). (Ahmed et al., 2019). Learning orientation consists of three things: first is a commitment to learning related to the learning set; second is open-mindedness related to the desire to analytically assess supply chain procedures and acknowledge new thinking; and the third is sharing a vision related to agreement on the direction and concentration of learning together with company employees (Braunscheidel and Suresh, 2018; Fayezi et al., 2017). (Ahmed et al., 2019)

Organizational learning builds companies with up-to-date information on systems, measurements, technological advances, and benchmarks to use the ups and downs of the market in a fast and cost-effective way. So this study recommends that learning orientation increases dexterity (Ahmed et al., 2019). Therefore, it has been hypothesized that:

H4. Learning orientation has a positive effect on supply chain agility

2.5 Supply Chain Agility and Environmental Dynamism

The notion of environmental dynamics supply chain is a concept or method that integrates environmental thinking into supply chain management, which is product design, procurement and selection of raw materials, manufacturing processes, delivery of final products to consumers and even product flow management after use by consumers. All of these activities must be managed while taking into account the environmental friendliness factor (Dawei et al, 2016) (Oil, 2019).

Sustainability indicators are markers used to evaluate, analyze and plan sustainable supply chain activities. Sustainable supply chain management must be able to accommodate these three pillars so that the main goal of a company to earn profits is still fulfilled without damaging the environment and maintaining social harmony around it (Hadiguna, 2016). (Oil, 2019). Based on the above hypothesis, the following hypothesis is drawn:

H5. Supply chain agility has a positive effect on environmental dynamics

2.6 Environmental Dynamism, Competitive Agility

The external environment of an organization is seen as a trend of change that can create opportunities and challenges for the organization (Swamidass and Newell, 2016) (Anatan, 2016). Environmental dynamism measures the level of products and services in the process, and the rate of change in consumer tastes and preferences. Environmental complexity represents heterogeneity in organizational activities (Bourgeois, 2016). Based on this hypothesis, the following hypothesis is obtained:

H6. Environmental dynamism has a positive effect on competitive agility.

2.7 Covid 19 and Comvetitive Agility

Competitive hostility includes a focus on decreasing demand in both local and foreign markets and a focus on low profit margins and demand quality standards. It is undeniable that covid 19 plays an important role in increasing market share, increasing customer satisfaction and market demand, and ultimately leading to the acquisition of competitive advantage (Wu et al., 2017). (Ahmed et al., 2019)

Agile operations create responsive, reliable and consistent supply chain processes that help grow market opportunities and ultimately translate into developing the company's competitive capabilities (Chiadamrong and Sophonsaritsook, 2015; Ju et al., 2016) (Ahmed et al., 2019). Therefore, it is hypothesized that:

H7. Covid 19 has a positive influence on the company's competitive ability (Comvetitive Agility).

As shown in Figure 1, the conceptual framework of this study outlines four different aspects of supply chain operations namely speed, visibility, responsiveness and learning orientation, all of which affect viable supply chain agility, which further explains environmental dynamics affecting viable supply agility. And competitive agility is influenced by the growth of the company's environmental dynamics, then the covid 19 pandemic has an effect on competitive agility.

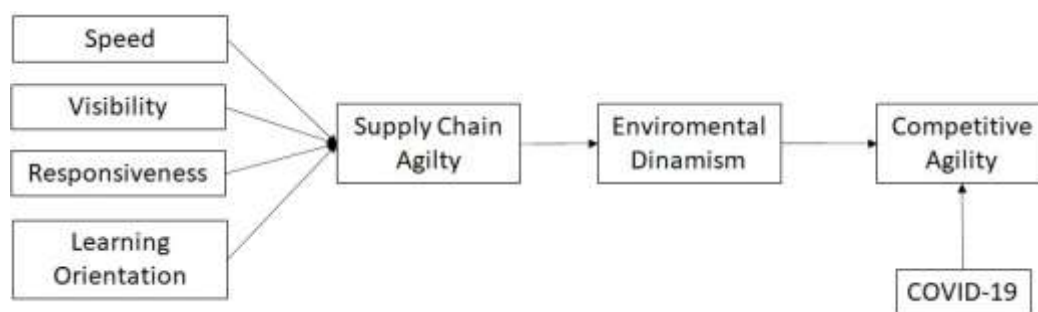


Figure 1. The conceptual framework

III. Research Methods

This study is based on a quantitative research approach because it aims to understand marketing performance in relation to speed, visibility, responsiveness, learning orientation, supply chain agility, environmental dynamism and comvetitive agility that affect performance during the covid 19 pandemic (Case Study on UKM in the Labusel Region) .

This study aims to collect data from senior managers, managers, supervisors, and experienced executives to understand the importance of the relationship of speed, visibility, responsiveness, learning orientation, supply chain agility, environmental dynamism and competitive agility on performance during the COVID-19 pandemic (Case Study). in the Labusel Region UKM).

Population is a combination of all elements in the form of events, things or people who have similar characteristics that become the center of attention of a researcher because it is seen as a research universe. While the sample is a subset of the population, consisting of several members of the population. (Ferdinand, 2014: 171). The population in February 2021 for UKM in the Labusel region was 23,411 – 24 large businesses became 23387. This means that the large sample for SMEs in the Labusel region is 393 UKM.

Collecting data in this study using a questionnaire method. The questionnaire is located on a website and the link to the questionnaire is distributed via email to all respondents and the period for filling out the questionnaire is two weeks. The results of the

questionnaire that have been obtained will be tested for validity and reliability. Decision making in the validity test is if rcount is greater than rtable then the questionnaire is declared valid and if rcount is less than rtable then the questionnaire is invalid.

Test the validity using SPSS 23, by comparing the data for each variable with the total value. Reliability test using Cronbach's Alpha method. The decision making on the reliability test is if the Alpha value is greater than rtable then the questionnaire items used are declared reliable or consistent, on the contrary if the Alpha value is less than rtable then the questionnaire items used are declared unreliable or inconsistent. The data that will be tested is how much the relationship between speed, visibility, responsiveness, learning orientation, supply chain agility, environmental dynamism and competitive agility has an effect on performance during the covid 19 pandemic (Case Study on UKM in the Labusel Region).

IV. Results and Discussion

4.1 Assessment of Measurement Model

a. Construction Validity

The construct of validity is "the degree to which a test measures what it claims, or purports, to measure". Modern validity theory defines construct validity as the overarching concern of validity research, including all other types of validity evidence. In Table 4.1, it has been clearly shown that all items have loadings greater than 0.60, as suggested by Hair et al. (2010), Hair et al. (2012) and Tabachnick et al. (2001). Therefore, it has been determined that all items have been properly loaded with sufficient loading values.

Table 2. Reliability Test Results

Variables	Cronbach Alpha	N of Items	Value Limit	Information
Speed	0,839	5	0,60	Reliable
Visibility	0,423	4	0,60	Reliable
Resvonsiveness	0,258	4	0,60	Reliable
Learning Orientation	0,569	3	0,60	Reliable
Supply Chain Agility	0,696	4	0,60	Reliable
Eviromental Dinamism	0,725	4	0,60	Reliable
Comvetitive Agility	0,696	4	0,60	Reliable

Source of SPSS 23 UKM data processing for Labusel Region, 2021

The reliability test on the research variables can be seen in the table above, it appears that the Cronbach Alpha value of each variable shows a number that exceeds 0.60. This means that all variables in this study are reliable with varying levels of reliability.

b. Convergent Validity

After that, it is important to assess the convergence between items for a particular construct. It is basically the degree of correlation between items to represent a particular variable. Convergent validity is the range over which a cluster of items overlays to measure the same thought (Hair et al., 2016). The mean value of the extracted variance (AVE) if it is greater than 0.50, is considered an acceptable threshold for convergent validity (Hair et al., 2012). Composite reliability (CR) was taken to be greater than 0.70 (Hair et al., 2013). Table 4.2 describes the values that confirm convergent validity.

c. Discriminant Validity

With regard to discriminant validity, it refers to discrimination and differences among constructs to maintain their distinct characteristics and influence their role in the structural model. Table 4.2 shows the discriminant validity results for all study constructs. The heterotrait-monotrait ratio (HTMT) provides the criteria for discriminant validity and postulates that all values in the HTMT ratio should be less than 1.00, (Clark and Watson, 1995; Henseler et al., 2015; Klin, 2015). Therefore, the results of the HTMT ratio in Table 4.2 show that all constructs have met the HTMT criteria for discriminant validity.

4.2 Structural Model and Hypothesis Testing

After analyzing and establishing the validity and reliability of the constructs, the next step is to find hypotheses projected through SPSS. 23 For proper management of complex models and quantifiable constructs, as used in this study, SPSS 23 provides better estimates than other covariance-based approaches. (Figure 4.1).

a. Hypothesis Test Results

Hypothesis testing results. The results of this study indicate, as in Table 4.3, where the values are Speed Tcount 0.550 Ttable 0.098, visibility Tcount 0.705 Ttable 0.098, responsiveness Tcount 0.704 Ttable 0.098, learning orientation Tcount 0.386 Ttable 0.098, supply chain agility Tcount 0.386 Ttable 0.098, environmental dynamics Tcount 0.550 Ttable 0.098 and competitive agility Tcount 0.705 Ttable 0.098. Therefore, these values confirm that the model is of decent quality and fitness.

Table 3. Validitas Test Results

Variables	T _{count}					T _{table}	Information
	H ₁	H ₂	H ₃	H ₄	H ₅		
Speed	0,458	0,764	0,723	0,594	0,702	0,098	Valid
Visibility	0,479	0,351	0,392	0,143	-	0,098	Valid
Responsiveness	0,309	0,338	0,199	0,221	-	0,098	Valid
Learning Orientation	0,306	0,553	0,303	-	-	0,098	Valid
Supply Chain Agility	0,427	0,609	0,335	0,575	-	0,098	Valid
Environmental Dynamism	0,380	0,632	0,640	0,423	-	0,098	Valid
Competitive Agility	0,380	0,632	0,640	0,423	-	0,098	Valid

Source of SPSS 23 UKM data processing for Labusel Region, 2021

The validity test can be seen above, it appears that the tcount value of each statement item shows a number that exceeds the rtable of 0.098. This means that each statement item can be said to be valid, namely being able to measure the competitive agility variable.

The calculation of item reliability in this study uses the facilities provided by SPSS 23 to measure reliability with 393 Cronbach Alpha tests, namely a construct or variable is said to be reliable if it gives a Cronbach Alpha value of 0.60.

Table 4. Test Results Coefficients^a

		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	13,114	2,990		4,386	,000
	Speed	,280	,160	,296	,550	,084
	Visibility	,225	,172	,219	,705	,196
	Resvonsiveness	,012	,115	,011	,704	,918
	Learning Orientation	,114	,990	,091	,386	,093
	Supply Chain Agility	,280	,160	,296	,550	,084
	Enviromental Dinamism	,225	,172	,219	,705	,196

a. Dependent Variable: Convettitive Agility

Source of SPSS 23 UKM data processing for Labusel Region, 2021

Based on table 4. it can be seen that:

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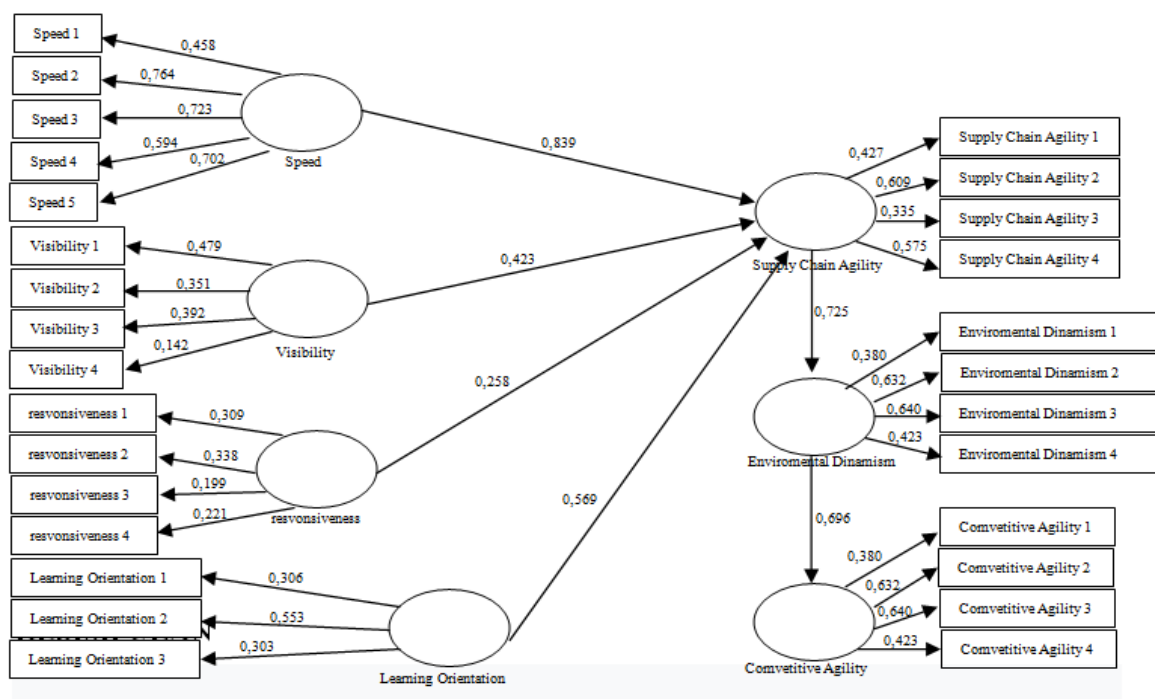


Figure 2. Structural Model for Labusel Region SMEs 2021

4.4 Discussion

Supply chain agility capabilities equip organizations to deal with unexpected events that may occur on the demand side, supply side or even in organizational processes. This research helps strategists and policy makers to understand empirically how this capability can be better built to take maximum advantage of it. The results of this study reveal that companies that have better speed, i.e. they have the skills to record past events, visibility and responsiveness to analyze them and then use them during their decision making, have increased learning orientation. The more we gain knowledge and understanding of various relevant phenomena, the more we can understand similar situations that may arise in the future. The findings also show that supply chain agility is one of the main criteria for generating environmental dynamism. Environmental dynamism usually refers to additional resources that may be available in a crisis situation. But modern supply chain agility strategists develop environmental dynamism in their systems in more efficient ways such as quick changes in production, resource and multi-tasking machines.

V. Conclusion

In addition, this study concludes that speed has a significant effect on supply chain agility. Process speed means that organizational processes are quickly executed without any errors, shorter lead times, reduced time to market, etc. which contributes greatly to supply chain enterprises and being agile. Speed helps in creating the ability to respond quickly whatever the situation. Speed should be built across all members of the supply chain to avoid bottle necks and improve synchronization.

The concept of supply chain agility is not very old, and a lot of research has been done to understand the constituents that build agility in operations and supply chains. As a continuation of that, this research contributes to the body of knowledge in many ways. First, make a theoretical contribution by exploring and explaining the factors that contribute to any supply chain agility especially in the context of the service industry in a volatile market. Second, in this research a framework is developed based on the dynamics of capability theory which is a big supporter of competitive agility by creating value for

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Customers are uncommon and difficult to imitate and require effective organizational skills to be utilized efficiently and effectively. Third, by using SPSS 23, this study supports a causal relationship of factors that reduce agility as one of the abilities that organizations want to have. In addition, this study assigns weights among the factors that decrease agility where learning orientation explains agility the most, followed by speed, visibility, responsiveness, learning orientation and supply chain agility accordingly. Where speed has the highest explanation followed by appropriate visibility, responsiveness, orientation

learning. However; more variables can be added to better understand supply chain agility and competitive agility.

This research provides managers and policymakers with unique insights, particularly for businesses dealing with services, in a volatile market context. Agile capabilities are equally important for service-based businesses. To make their operations agile, this study provides a framework for strategists. First, this study recommends supply chain agility managers to focus on: increasing learning orientation among supply chain agility members, if they want the supply chain to be agile. The speed at which supply chains operate varies widely especially in services where they may not have the inventory to meet changes. To cope with such rapidly changing speeds, supply chain agility managers need to focus on: learning and development. Learning orientation means that companies must ensure long-term collaboration among each supply chain agility partner and focus heavily on learning new things on a regular basis such as processes, advanced technologies, advanced techniques, training and development activities among supply chain members and suppliers.

They should consider learning, training and development as a short-term investment rather than a cost that will ultimately increase the competitiveness and profitability of the company. They have to learn from experience their own and that of others. This activity pays off in the long run. Second, this study suggests that supply chain agility managers build visibility, responsiveness in their systems. Visibility, responsiveness means that their supply chain agility system must be able to introduce new products, handle a large product base, change customer orders, change product lines quickly, etc. While this is a long-term goal, managers need to plan resources in such a way that they can absorb any variation in demand or disruption without sacrificing efficiency.

Technology plays an important role in creating visibility, responsiveness. Therefore, choosing the right technology is an important role for managers who reap the benefits in the long run. Third, this study suggests supply chain agility makers to focus on maintaining and improving the fast operation of their systems. Improved and reliable operation speed on both supply side, internal processes, and demand side operations are required to build a supply chain that is responsive to change. Managers must critically monitor lead times at every stage of their supply chain agility network. Companies that maintain high speed in their operations and among their partners can also make money by reducing waste and inventory levels; thus making the company lean and agile at the same time. Fourth, this study emphasizes on increasing the visibility of the operation. Tracking and tracing not only provides real time information on the progress of any event but also helps managers to measure the performance of their operations. Coordination and integration with supply chain partners also improves information exchange. In addition, building long-term trust and fairness in relationships with partners facilitates reliable and timely exchange of information which is a valuable asset for building agility capabilities. Technology is one of the main exponents that allow managers to see ahead to make timely decisions. Fifth, this research also indicates that responsiveness in supply chain agility is needed to meet customer demand, which is one of the factors that contribute to agility in service, finally this research can be useful for strategists to formulate their strategies effectively on their service agility.

This research is an attempt to explain and understand the inherited factors of agility. But the concept of agility needs to be explored in more detail and explained in future studies. Future studies in the same direction may add some more variables such as technology orientation and integration. In addition, the moderating role of environmental uncertainty might also provide useful insights into the behavior of factors that contribute to agile operations. However, similar research in different geographic settings can also help in understanding agility in operations and supply chain agility.

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