

MANAGING DEMAND FLUCTUATIONS IN THE SUPPLY CHAIN WITH SOCIAL MEDIA

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Abstract: Management of the flow of information, goods, and finance is the key in Supply Chain Management (SCM). The impact of technological developments requires companies to use social media as a form of technological development. This study aims to determine how to manage demand fluctuations in the supply chain using social media. With a qualitative descriptive research method, conducting a literature study on articles that meet predetermined criteria. The result of this research is that a company needs to have a social media account, especially in delivering information to consumers. In addition, the will of consumers can be monitored and adjusted by taking into account the existing trend conditions. Social media is very useful for SCM, providing accurate information is a good reason to use social media. Against fluctuations in demand, social media can pay attention to information on the condition of customer requests and communication between the two parties. That way, you can manage fluctuations in demand and supply of goods to remain stable.

Keywords: Supply Chain, Social media, Demand Fluctuations, Trend.

1. Introduction

Currently, social media is a very important platform in the 20th century, because with this social media we can all access or search for information from business problems or others. The history of social media itself is in the 18th century, namely the telegraph. Many people do not agree that the telegraph is not a social media because in that year the internet was not yet invented. While social media itself was discovered, namely in 1970 because in that year the internet was found. After the release of the internet media, several social media were created such as BBS (Bulletin Board System), after that came to the popular social media Facebook created by Mark Zuckerberg (Wulan & Rahayu, 2016).

An agency or company must have a plan in making the agency or company run according to the specified goals. Various ways are done for the development of the company. One application in the company is Supply Chain Management (SCM). SCM is a mechanism that connects all parties concerned and the process of turning raw materials into a product (Ghozali, 2020).

Management of the flow of information, goods, and finance is the key in Supply Chain Management (SCM). The management of these three components is faced with uncertainties in information, demand, currency exchange rates, politics, and others. One of the uncertainties faced in information uncertainty. This condition can cause an organization or company to make wrong decisions, such as decisions to procure raw materials or finished products. In the supply chain, there is a phenomenon of demand fluctuations from downstream to upstream. Demand

at the retailer level tends to be constant or uniform and for each day there is no sharp increase or decrease.

However, demand from distributors to factories fluctuated more than retailers' requests to wholesalers. Likewise, the distributor's demand for factories will be more varied. The increasing variation in demand for each stage in the increasing variation in the supply chain is called the bullwhip effect (Lee et al. 1977). This condition can occur in a company's supply chain. The increasing variation in demand for each stage in the increasing variation in the supply chain is called the bullwhip effect (Lee et al. 1977). This condition can occur in a company's supply chain.

The influence of social media on the company itself is very important. That is how we manage our company on social media. Besides this, we must be able to use social media to communicate with each other between employees so that there is no miscommunication. The vast, distributed, and dynamic social media data makes it easy to collect, explore, and obtain information. This provides a great opportunity for companies to explore the potential of social media in business activities (Swain & Cao, 2014). Especially in the utilization of supply chain management.

Managing fluctuations in demand from a company is certainly not easy. There must always be an influencing factor. Fluctuation is an up and down change of a state. Demand from consumers varies depending on several things. Trends also affect consumer demand. The use of social media in managing demand fluctuations in the company, will it have a good impact on the next company. This study aims to determine how to effectively use social media to manage fluctuations in customer demand in supply chain management.

2. Literature Review

Operational Management

Operational management is an activity related to coordinating the production process of an item or service following to achieve maximum goals. Operations management is a field of management that focuses on the production of goods, uses specialized tools and techniques to solve production problems (Daft, 2008). The operation management in a company is an effort to regulate all production processes from an item from the beginning to the consumer.

The quality of a product is determined by how the company manages the production process as well as possible. Quality is one of the factors in a product. Along with the development of the times following the development of product design, operations management plays a very important role in improving the quality of goods production.

Supply Chain Management

Supply chain management is a mechanism that links several parties concerned and the process of changing from raw material to a product. Supply chain management generally aims to balance all demand and supply of goods to be more effective and efficient (Management et al., no date). The strategic goal in achieving a company is to win the competition that is around or at least be able to survive during intense market competition. Therefore, in-market competition, the company must be able to provide products at low prices, quality, on time, and also more varied.

In implementing SCM effectively, companies need to provide and manage the relevant databases accurately and establish good partnership relationships with suppliers or distributors who have collaborated (Widyarto, 2012). The company will be better at managing existing resources as well as possible and efficiently.

With the opportunity to improve supply chain performance through breakthrough technical improvements in times of downturn, focus on improving supply chain performance by

improving relationships between supply chain partners (Swain & Cao, 2014). Therefore, exploring the relationship between social media and various supply chain functions is an area of research, and potential studies on the impact of social media on supply chain performance, in particular, can explore some of the interesting benefits of using social media in a supply-chain context.

Demand Fluctuation

Fluctuation is where a word that indicates a condition or condition that is unstable or changing, usually fluctuations occur in several kinds of data. Such as data from the economy, the price of an item, etc.

Fluctuating supply and demand, currencies, or other investments can trigger the dynamics of ups and downs in prices. Supply and demand have an important role, especially changing prices and interest rates over time. It can be assumed, if supply and demand decrease, the price will increase. When supply increases more than demand, prices fall. However, if supply tends to be stable, then prices can fluctuate either up or down along with changes in market demand.

Social Media

Social media or what we call social media is online media (in a network) that is commonly used to communicate with one another. Social media is a web-based service with social networking sites in which a person or user can create public or semi-public profiles in a restricted system, with other users by a system (Serepine, 2020). Social media is used as a means of exchanging information and communication between users. Social media is also a place for the promotion of an industry or company.

Social media sites can play a role in helping users exchange ideas and knowledge independently with other users effectively and efficiently. From the data obtained, active users on social media reached 3.4 billion (45% of the global population) in 2019, up 9.1 percent from the previous year. With an average of 8.9 social media pages, and spending approximately 16 minutes to 2 hours a day. 24% of users, allocate social media for work purposes (Ghozali, 2020).

By utilizing social media, especially business people, organizations, governments, they can achieve greater things with efficient spending. The use of social media is considered the most effective form of marketing by building relationships with consumers, building good relationships with consumers (Adhawiyah & Anshori, 2019). The types of social media can be in the form of print media and electronic media. Currently, the dominant community receives information faster only through social media. Several applications are often used such as Facebook, Instagram, WhatsApp, Twitter, etc. In this social media, users can share photos, videos, or promotional content related to business within the company.

The potential use of social media applications and their strong influence on individual and community performance has a positive impact on the interaction of producers and consumers in the corporate sector. This opens up great opportunities for the application of social media in the supply chain with all its potential benefits (Swain & Cao, 2014).

3. Method

This research uses a descriptive qualitative approach. Qualitative descriptive research is a description of the object of research based on facts that exist without engineering. This research does not manipulate or change the independent variables but describes the conditions as they are.

This study uses secondary data as the selected data. Secondary data is related to agencies or institutions whose data is used as a result of research with temporary data. Secondary data is obtained from journals or documents related to the supply chain.

Researchers obtain data used in this study from journals or documents, internet references that examine the research topic. The author uses data analysis techniques through qualitative data analysis. In selecting a journal or document, the researcher applies several criteria that are used to meet the prerequisite specifications related to research analysis. The following criteria are met:

Table 1. Journal Criteria

No.	Criteria	Decision
1	Predefined keywords exist as a whole or at least a part of the title, keywords, or abstract part of the paper	Including
2	Published in scientific journals, peer-reviewed	Including
3	Written in English	Including
4	Concerning fluctuations in the context of the supply chain	Including
5	The application of social media in the production of goods or products	Including
6	Full text available in a digital database	Not included
7	Duplicates in the document you are looking for	Not included
8	Not primary/original research	Not included

Articles are selected based on predetermined criteria. The review makes it clear that this area of research has attracted many authors, regarding various aspects of SCM depending on the interests of the author and the field of research. The ScienceDirect, Google Scholar, Semantic Scholar, ResearchGate, and Academia databases were used to search for articles based on key terms for the research topic.

4. Result and Discussion

Utilization of Social Media on the Supply Chain in the Company

The application of information technology in replacing the human role has become a natural thing, especially in the industrial or corporate field. The use of social media makes it easier for people to dig up information (Catur & Wicaksono, 2013). In the supply chain, organizing, managing, and conveying information to the distribution parties of goods or products from the company is something that needs to be considered. With social media applied in the supply chain, a company has several benefits. Here are the benefits that social media has on the supply chain:

- **Creating a Knowledge Network**
Organizations of all sizes are increasingly using Facebook and Twitter to quickly capture and respond to customer feedback. It is, of course, possible to use social media to get real-time feedback from the supply chain, both internally (inventory, warehousing, and procurement departments) and externally (suppliers and contractors). (Media & Chain, 2013).
- **Balancing Speed and Contemplation**
Effective decision-making usually requires a balance between speed and contemplation. The speed at which multiple social media platforms can provide video, audio, and written communications across a vast supplier network, in real-time, will accelerate decision-making in the supply chain. This will ensure that pertinent information is considered regardless of how quickly a decision has to be made.
- **Portable Information Warehouse**

The continuing increase in demand for information portability (i.e., availability via mobile devices) requires the ability to access information instantly. Social media is well-positioned to offer the necessary platform.

- **Replacing Collaboration with Community**
 Given the risks inherent in global sourcing and the need for continuous innovation to maintain a competitive advantage, supplier relationships must move beyond collaboration. The demands of transparency in a business that is still growing demand ever-closer relationships with key suppliers. Building a supplier community where critical business information, opportunities, and thoughts can be shared and built-in real-time will be at the forefront of many organizations. Social media platforms are poised to become the foundation for such a community.
- **Building a Platform for Innovation**
 Creativity and innovation are at the core of every leading organization. Engaging suppliers, such as through social media, is a great way to stimulate supply chain innovation.

Demand Fluctuation Management with Social Media

Fluctuations in customer demand for goods or products are sometimes unavoidable and almost always exist in a company. Several factors such as prices, trends, and stock are the things that make changes or fluctuations in customers. These fluctuations can still be avoided by applying certain methods. There are several ways to deal with fluctuations including:

- **Macroeconomic Policy**
 Macroeconomic Policy is a policy put forward by the government in a country to stabilize the economy and create economic growth in a positive direction. In its application, the government concerned provides a science related to economic growth. This policy must be decided properly to maintain economic growth and be able to cope with fluctuations.
- **Planning Amount of Demand and Supply**
 Changes in product prices will always occur. Companies are required to plan as well as possible the amount of supply and demand. The control of supply and demand in the company will keep the price of goods stable. Companies must always check and control the procurement of goods so that the prices of these goods do not change significantly which can affect fluctuations in demand.
- **Keeping Currency Value**
 The currency of a country needs to be maintained, the currency of course is usually used in the purchase or payment of goods. The decline in the exchange rate of the rupiah can cause public interest in the currency to decline, increasing the international currency. Uncertain exchange rate fluctuations have an impact on state financial risk. It is necessary to establish a policy for controlling the exchange rate of the currency so that exchange rate fluctuations can be predicted and the economy runs stable.

Social media, which has become part of the general public's lifestyle, has its advantages, especially in managing fluctuations in demand (Swain & Cao, 2014). A company requires the application of existing technological developments. Social media itself can also play a role in regulating information and trends that can influence customer interest. The application of social media in managing demand fluctuations can be carried out in several stages as follows:

- **Have a Social Media Account**
 Companies or agencies must have all social media accounts (Instagram, Facebook, Twitter), as a means of conveying information to consumers. The account also provides the product or item that was launched, as well as the advantages of the product or item.
- **Paying Attention to Trends**

Every year there must be a trend or something that goes viral and causes fluctuations in the community or one of the customers of a company. By applying social media in the company, the parties concerned must understand the needs or desires of consumers and customers. That way, in the procurement of goods, theta pays attention to the existing conditions through social networks.

- **Communication With Customers**

Through social media, companies can inform a product or item that the brand has, indirectly the general public will understand. In this way, communication will be established between consumers and existing customers. By providing the latest information through social media, and maintaining communication with consumers, by providing important and interesting information to maintain the relationship between the two parties (Setiadi, 2014).

- **Following Request**

Customers or consumers are sometimes a little complicated, sometimes from companies following their requests. Because by following the demand they expect, the procurement of goods can automatically remain stable. Requests can be in the form of comments or contact the company directly through the official account of the company, but the company also continues to see the condition of other consumers and provide the best decision. That way, fluctuations in demand can still be reduced and procurement of goods remains stable.

- **Give Promos or Discounts**

Consumers are no stranger to this, companies need to provide attractive promos that are distributed through their official accounts. With the promo given, it will make consumers continue to make purchases and maintain fluctuations in demand before the decline occurred. This decision can also increase consumer demand significantly, therefore the procurement of goods is still adjusted so that there is no consumer disappointment.

All of these stages or methods can be applied in existing companies. By using social media optimally, you can manage requests from consumers and can always maintain communication with customers and consumers. Management of demand fluctuations can be done through a communication or the conditions of the customers involved while still paying attention to social media from customers or consumers who have followed the company's official account.

5. Conclusions

With social media applied in the supply chain, a company has many benefits. One of them is the delivery of information to customers so it is easier and communication between the two parties can be maintained. Social media can also be useful for fluctuating customer demand. With several stages including, having a social media account, paying attention to trends, communication, following requests, and promos.

Fluctuations can be avoided by still paying attention to customer desires through existing social media. That way the management of fluctuations in demand from the company can be reduced and customer demand becomes stable.

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