

Increasing Sales Online Through Integration Of Dropshipping System And Social Media

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Abstract

Dropshipping is an order fulfillment method that does not need a business to keep products in stock. Dropshipping is mostly done in the fashion industry, ready-to-eat food, handicrafts, and so on. Dropshipping makes it easy for beginner entrepreneurs to start their business activities without having inventory costs first. The hallmark of drop shipping is running its activities online, so the logical consequence is that a well-computerized system is needed. Many previous studies have discussed this dropshipping system. Still, most of them limit their case studies to specific products in certain areas and do not handle dropshipping business promotion technology. This research produces a mobile-based dropshipping system that can be used freely and integrated with other social media platforms to expand the drop shipping brand name's promotional reach. An evaluation of the dropshipping system built showed that integration with other social media platforms increased the total sales figures of the dropshipping businesses studied, with an average of nearly 20% of evaluations carried out over one month. The application of blockchain technology to this system is one of the next leading suggestions for improving existing transactions' security.

Keyword

Dropshipping System, Integration, Social Media Marketing

1. Introduction

Dropshipping is a useful instrument used to process online orders for retailers (Li, Zhang, & Liu, 2019). The agency can save holding, processing, and obsolescence costs for the retailer (Li, Zhang, & Liu, 2019). Although they may have their warehouses and distribution centers, many online retailers also benefit from drop-shipping because the instrument allows them to expand their product lines considerably without increasing inventory or warehouse costs (Li, Zhang, & Liu, 2019). With the development of e-commerce, financial constraints are the main problem for online retailers, and limited working capital often constrains online retailers' procurement decisions. As a new order fulfillment method, dropshipping benefits the whole supply chain due to risk-pooling effects when a wholesaler supplies multiple retailers (Zeng, Gong, & Xu, 2019). The dropship system, which the perpetrator is often called a drop shipper, is an online buying and selling system where running an online business with this system does not require capital because running this system does not provide a stock of goods (Deddy Prihadi, 2018). Unlike resellers, drop shippers only sell information on these products without buying goods like a reseller. Dropshipping is mostly done in the fashion industry, ready-to-eat food, crafts, books, office equipment, and so on. One of the most prominent advantages of a drop ship is the lack of capital or even not spending money at all. Still, because the dropship does not buy the goods first, the drop shipper does not control the goods, which causes dependence on suppliers. Overriding the shortcomings of the dropship is a way to market products with minimal capital (Triyanto, 2017). Online marketing is an alternative to expand market share so that the sales process does not only occur in a specific place and time. Many large and small companies have used a website-based or mobile sales system. They are utilizing technology to expand product marketing.

There are many ways to do product marketing, one of which is social media marketing. Social media is online media, where users can easily participate, share, and create content without limited space. With the increasing popularity of computer equipment for mobile communications, consumer online shopping behaviors have gradually transitioned from computers to mobile terminals, such as smartphones (Li, Zhao, Xu, & Pu, 2020). Many social media have been installed in mobile applications, using social media users to interact with each other and share insights between users worldwide (Deddy Prihadi, 2018). Some examples of social networks that are most popular with people include Facebook, Twitter, Line, and Youtube. One social media benefit is product promotion by planning, pricing, and advertising goods to existing and potential buyers. One social media in online shopping is Facebook social media (Ramadhani, Sukotjo, Juharsah, Sinarwaty, & Nur, 2020). Facebook has more than 1.7 billion daily active users accounting for 37% of global internet users. It is also a popular medium among marketers, with more than 86% of marketers in the US using Facebook for advertising in 2019 (Bhattacharyya & Bose, 2020). They are comfortable engaging via social media platforms. A majority of the business customers participating in an industry survey indicated that social media content had influenced their purchasing journey (Agnihotri, 2020)s

In recent years, social media users are increasing. Makes social media one of the most effective marketing media for introducing products besides content when making posts is one thing that must be considered, making persuasive and consistent captions interspersed with promotions for the products to be sold (Mas'ud, 2017). Many previous studies have discussed the dropship system to increase product sales, but most of them limit their case studies to certain areas. They do not deal with the promotional technology of the drop ship business. This study combines one of the Facebook social media platforms with the dropship system so that its promotion will be more widely affordable. This study attempts to answer the gaps in previous research and create a mobile-based drop-ship system that functions as a product marketing medium and directly connected to Facebook.

2. Research Method

This study aims to build a dropshipping system that can expand marketing products' reach to increase sales figures by integrating the system with Facebook's social media platforms. This research object is one of the small and medium enterprise (SME) who conducts dropship business. This research is engaged in the shoe trading industry (Irmayanti, 2017). The system used before has not integrated into social media. Marketing is carried out only on the platform itself. The promoted shoes are shoes provided by several suppliers who are willing to cooperate to receive their products. In terms of implementing the system, the supplier will provide data on the shoes that will be promoted by the drop shipper. Then the drop shipper will post on his online shop. At the same time, the drop shipper will also post on social media. The researcher will research for three months. The researcher will use the first two months to build the software. The following month, the researcher will carry out the implementation and evaluation of the system.

To design and analyze a reliable system, we need a method that is often use. The data collection method is the most critical part of a study. In this study, the method used is the waterfall method (Ridho Rifaldi, 2018). The waterfall method also called linear sequential, is a sequential or sequential software development method, starting from the needs requirement analysis, system design, system coding, testing, and maintenance stages (Taufik Hidayat, 2020).

- 1) Software Requirements Analysis At this stage, it explains how the dropshipping business process works. From the needs of making applications that combined into Functional (Atletiko, 2017). This research uses the informants' direct interview method, namely dropship business actors, to collect the dropship system's needs. Interviews are making questions related to business processes in the dropship system.
- 2) System Design Software design is converting previously acquired software requirements into a software system design. (Taufik Hidayat, 2020). This study's system design is to identify all actors involved in the business process and define the functions that the system can perform.
- 3) Construction, this stage changes the software design into program code, according to what has been designed previously. (Taufik Hidayat, 2020). In this study, building a mobile-based system on the Android platform. The system design in the previous stage. The system implementation uses the Java programming language and MySQL database.
- 4) Testing, the purpose of this stage is to ensure that the program output follows the system design (Taufik Hidayat, 2020).
- 5) Maintenance, sometimes the program has problems after being accepted by the user or not detected during testing. That is why there are maintenance stages. The goal is to fix if an error occurs when the user accepts the software (Taufik Hidayat, 2020).

2.1 Data Collection and Analysis

Researchers have carried out data to determine system requirements by observing and recording existing business processes and data collection techniques by communicating directly with dropship business actors (Irawan, 2017). After collecting data and then performing data analysis, Researchers conducted data analysis after collecting all data sources. Researchers used data analysis to answer the problem formulation in the study (Ramadhan, 2017). The data is analyzed so that the researcher can formulate actors' data and functional requirements.

2.1.1 Actor Identification

Actor identification, an actor is someone or something that interacts with the system. This system has three actors, as in Table 1.

Table 1. Actors in the System

No	Actor	Description
1	Customers	Customers can search for goods, order goods, and make payments according to interests available on the system.
2	Dropshipper	A drop shipper is a person who enters goods data into the system. Then, the customer can see the available goods
3	Supplier	A supplier is a person who can add goods, change, delete goods, and send goods according to the drop shipper's request through the system.

2.1.2 Identification of Functional Requirements

Functional Requirements contain the system's processes or services, including how they react to specific inputs and how they behave in certain situations (Sutrisno, 2019). Here are the modules included in this system depicted in Table 2.

Table 2. Functional Requirements

No	Function	Description
1	Manage Product Data	Drop shipper uses this function to manage product data
2	Manage Category Data	Each product will have a category. Drop shipper uses this function to create, modify or remove types on the Product
3	Manage User Data	The administrator uses this function to manage system user data, customer data, drop shipper data, and supplier data
4	Manage Sales Data	Drop shipper uses this function in transactions on systems that manage goods sales data, sales reports, and goods order data

2.2 System Development

In this research, we build the system entirely on the android platform. The researcher used the android studio to develop the application with the java programming language. The database used is MySQL as a web server. The system's development is made based on the needs that have been determined by researchers at the previous stage.

2.3 Integration System

System integration is a system concept in which each system connected in the parent system is interconnected with each other according to needs. The system already built will use API technology as a medium to connect the system with Facebook. The study linked the drop shipper system to Facebook social media using the Graf API. The Graf API is a fire made by Facebook that is used by developers. In addition to connecting the drop shipper system and Facebook, the system architecture is shown below in Figure 1.

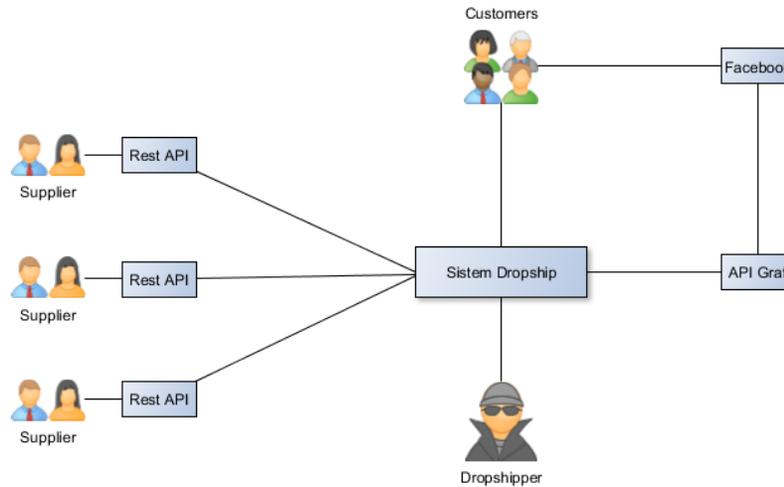


Figure 1. System Architecture

3. Result And Discussions

After building the system, this research carried out the implementation and monitoring phase of the system that has been integrated with Facebook for 30 days. This system integration's technicality is that when a drop shipper makes a product addition or a change to the product, the system can simultaneously post about the work on the Facebook page.

This study will use five shoe product data as a sample to be promoted to Facebook using an integrated system. Each product will have a category. That category serves to identify what product category the customer likes. Three types of posts created are as follows:

- New Product Posts. A class for posts with new product content or new variants on the product.
- Hot promo Posts. A category for products that receive discounts on a specific period.
- Recommended product, the class for the most sales in a given week or month, is subject to change.

This system makes a daily post on the Facebook page for each product sampled, while the list of shoe products tested is as seen in Table 3.

Table 3. Product Sample

No	Product Name	Category
1	Heels	New Product
2	Flat Shoes	Hot Promo
3	Sneakers	Hot Promo
4	Boots	Hot Promo
5	Vans	Product Recommended

This study does not describe the product sample specifically but will be represented by the shoe product type. There are five products in the table above, where one category of new development, three varieties of hot promo, and one class of product Recommended. Each product will be promoted daily through the Facebook page during our research time.

3.1. Implementing The Result

This system is implemented for 30 days by promoting each product through an integrated approach to Facebook social media every day. In other words, the system will post five times a day. Besides, this study considers three variables: the number of posts, the number of clicks on these posts, and the number of transactions. Each variable will be calculated every day during the system's implementation. The following Table 4 shows the result of implementing the plan of week number one.

Table 4. Week-1

No	1	2	3	4	5	6	7	Total
Number of Posts	5	5	5	5	5	5	5	35
Number of Clicks	8	10	12	9	7	8	11	65
Number of Transactions	1	4	3	0	0	2	1	11

In the first week of system implementation, the number of posts done is 35 times, the number of clicks that occur is 65 times, and the successful transaction is 11 times, as shown in Table 5. The number of feeds remains the same because each product will only be posted one time a day. This week, The number of clicks almost double the number of posts, and the number of transactions is still relatively low because the new system is implemented. We continue to the activities of week number 2, as shown in Table 5.

Table 5. Week-2

No	1	2	3	4	5	6	7	Total
Number of Posts	5	5	5	5	5	5	5	35
Number of Clicks	12	15	11	19	17	20	13	107
Number of Transactions	2	5	1	1	3	2	7	21

In the second week of system implementation, the number of posts made is 35 times, the number of clicks is 107 times, and the successful transaction is 21 times. There is a considerable increase in the number of clicks, which is about three times the number of posts made. For the number of transactions, there is a 2-fold increase from the previous week. Furthermore, we proceed with activities in week three. The summary of the third week's actions can be seen in Table 6.

Table 6. Week-3

No	1	2	3	4	5	6	7	Total
Number of Posts	5	5	5	5	5	5	5	35
Number of Clicks	14	12	15	21	16	19	14	111
Number of Transactions	2	7	2	5	1	4	3	24

As we can see, the number of posts made is 35 times, the number of clicks is 111 times, and the successful transaction is 24 times. The number of clicks this week is not very different from the previous week, and for the number of transactions, there is an increase, although not very large. Lastly, Table 7 showed the social media marketing activities in the fourth week of system implementation.

Table 7. Week-4

No	1	2	3	4	5	6	7	8	9	Total
Number of Posts	5	5	5	5	5	5	5	5	5	45
Number of Clicks	19	16	18	24	20	21	19	17	13	167
Number of Transactions	6	5	4	8	3	6	9	11	5	57

The last week of system implementation is ten days. There are two days added because the total commission of the system is 30 days. The number of posts done is 45 times, the number of clicks that occur is 167 times, and the successful transaction is 57 times. The number of clicks increased by ten from the previous three weeks. It is mainly due to the addition of 2 days. The number of clicks increased 50% from a week earlier, and the number of transactions increased two times from the prior week.

We have below depicted in Table 8 the summary of social media marketing results conducted in 30 days period.

Table 8. Result Sales

No	Week	Number of Posts	Number of Clicks	Number of Transactions
1	Week 1	35	65	11
2	Week 2	35	107	21
3	Week 3	35	111	24
4	Week 4	45	167	57
Total		150	450	113

After implementing the system for 30 days, the number of posts made is 150 times, the number of clicks that occur is 450 times, and the successful transaction is 113 times, can be seen from the sales result for 30 days, each week there is an increase in the number of clicks and the number of transactions.

3.2 The Evaluation

The system's implementation for 30 days has carried out promotions through an integrated approach with Facebook social media. The number of posts made is 150 times for all products; the number of clicks for all positions is 450 times. The total number of successful sales transactions was 113 transactions. The total increase in sales of shoe products every week can be seen in Table 9.

Table 9. Total Transactions

No	Product Name	Category	Number of Transaction
1	Heels	New Product	18
2	Flat Shoes	Hot Promo	19
3	Sneakers	Hot Promo	26
4	Boots	Hot Promo	14
5	Vans	Recommended Product	36
Total			113

Based on the table above, the transactions that occurred were 113 times for all products, where each product has its category, namely new products, hot promotions, and recommended products. In addition to hot promos, each class only contains one work, then the transaction results for each category can be obtained, depicted in Figure 2.

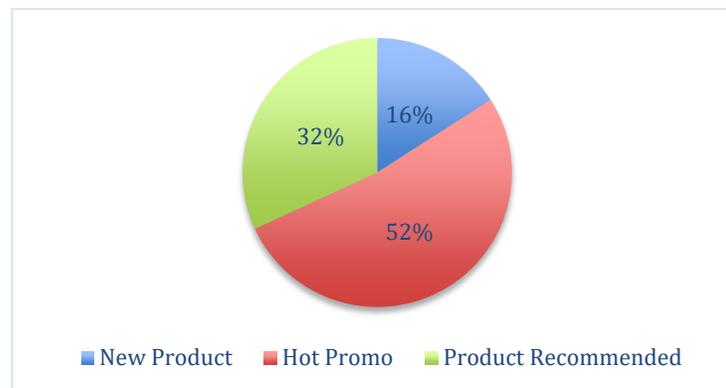


Figure 2. Product Category

We also summarized the 30-day sales data on the previous dropship system. Furthermore, we compared them with the sales data on the dropship system that has been integrated on social media so that the sales increase will be seen in the system that has been built. The previous system had total sales of 90 transactions over the last 30 days. After 30 days of implementation, total sales for all categories were 113 transactions in an integrated system. The sales figure on a system integrated with social media increased by 20% in 30 days, which means that this dropship system can increase sales figures by integrating with the Facebook social media. The visualization can be seen in Figure 3 below.

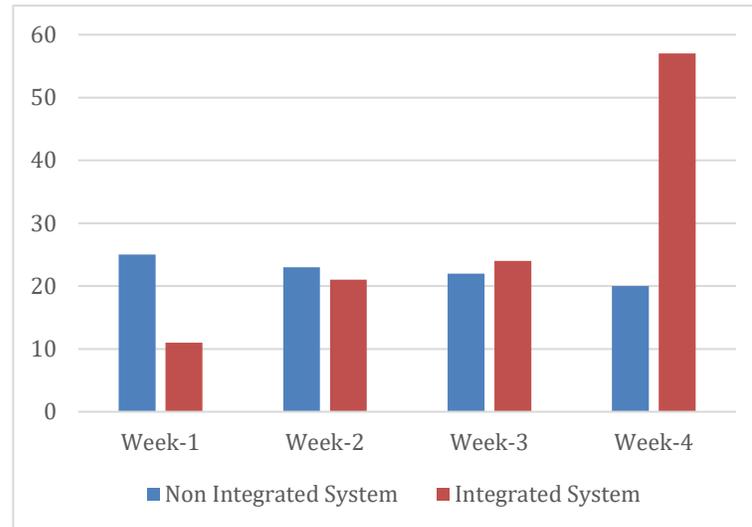


Figure 3. Comparison of Sales Integrated System with Social Media and Non-Integrated System

With the increasing number of sales transactions, sales turnover will also increase, were before using an integrated system, sales turnover within 30 days reached Rp. 1.350,000, after implementing an integrated approach, the turnover obtained reached Rp. 1.620,000 in the same period. The reason for this increase is the expansion of the marketing area. The integrated system is not limited to the dropship system. Using a Facebook page as a promotional medium allows potential new customers from Facebook users.

4. Conclusion

This study evaluates the system for 30 days. Before the integrated system, the sales turnover is Rp.13,500,000. After using the integrated system, social media, Facebook, the turnover achieved in the same period, Rp.16,200,000. From the results of the evaluation, there was an increase in sales turnover by 20%. The increase occurred because the platform users themselves could only see product promotions in the previous system. After incorporating on the Facebook social media, the upgrades carried out can be seen by more people.

Based on the research conducted, the drop shipper system integrated with social media can increase sales figures by creating posts on dropship online stores. Those are directly connected to Facebook social media so that users on the dropship system alone can see the latest posts. This research hopes that the integrated system can expand the product marketing area compared to the market planned to increase sales figures. The application of blockchain technology to this system is one of the next leading suggestions for improving existing transactions' security.

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