Analysis of the Implementation of the Dealer Management System at PT X

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Abstract

Dealer Management System (DMS) is a management information system that is very useful for increasing the efficiency and productivity of automotive company administration. In current technological developments in the automotive industry, efforts to implement digitalization systems in a business industry continue to be carried out and developed. The implementation of the Dealer Management System (DMS) illustrates changes to modern work processes by utilizing technological developments. This research was conducted to determine the implementation of the Dealer Management System (DMS) at PT X. This research is qualitative research with descriptive methods. The data collection techniques used were observation, interviews, documentation and literature study. During its use, the Dealer Management System (DMS) at PT X has been quite effective in supporting planning, decision making and control functions. The implementation of the Dealer Management System (DMS) at PT X has provided benefits from various operational aspects, thereby increasing efficiency and productivity.

Keyword: dealer management system; administration; digitalization

1. Introduction

In current technological developments, efforts to implement digitalization systems in a business industry continue to be carried out and developed. The digitalization system is implemented by a business industry, among other things, to increase the efficiency and effectiveness of work as well as optimize the time and resources available to gain greater profits. Therefore, influenced by current technological developments, the business industry relies heavily on digitalization systems to manage each of their business operations. According to Sukmana in Erwin (2020), digitalization is the process of media from print, audio and video to digital form. Therefore, digitalization requires devices such as computers and supporting software as a form of digitalization in managing a company's business operations.

Currently, many industrial companies have managed their business operations, one of which is administrative management activities by utilizing advances in information technology. One industry that also requires digitalization in managing their business operations is the automotive industry. In the automotive industry, routine work that involves digitalization includes vehicle inventory management, managing customer and vehicle sales data, and creating reports. To manage every administrative activity that occurs in the

automotive industry, software is needed to manage administrative activities so that they can be more efficient. As an effort to improve the quality of administration and facilitate data collection from each official dealer of an automotive company, several automotive companies in Indonesia are implementing standardization in the use of information systems in each dealer in Indonesia. This system is called the Dealer Management System (DMS).

Dealer Management System (DMS) is a system with the ERP (Enterprise Resource Planning) concept, so that with this information system the entire process of the company's operational activities from start to finish can be well integrated because it has eliminated the use of more than one information system which can generate information or inaccurate data. The effectiveness of information systems can increase work productivity and achieve quality and quantity targets (Apriansyah et al., 2018).

One of the automotive companies that also implements a Dealer Management System (DMS) system in managing their administrative activities is PT X. The Dealer Management System (DMS) system at Dealer Management System (DMS) was first used by PT KTB to change the manual data management system into an integrated system. After Dealer Management System (DMS) is implemented in this company, reports and data that occur will be integrated in Dealer Management System (DMS), so that employees at PT X who have access to the system can easily view reports and data. Apart from that, by using Dealer Management System (DMS), this system can directly analyze the data and it is easier to create data visualizations. The level of validity of reports in Dealer Management System (DMS) is greater than reports sent manually. However, in its application, this system cannot be said to be completely perfect, because there are still several obstacles that are felt. Therefore, although sometimes this system has been considered quite effective in changing data management activities from manual to systemized, there is still a need for system development for the Dealer Management System (DMS).

2. Literature Review

2.1 Dealer Managament System

Dealer Management System (DMS) is a management information system (SIM) used by several sole agents automotive companies as well as official dealers from these sole agents automotive companies to manage their business operations. Dealer Management System (DMS) can manage sales data, vehicle inventory management, customer management, after-sales service, and even create analytical reports to optimize and identify company business profits. All these details are stored in one software which can enable companies to maintain and develop proper systems (Rahman, Newaz, Ahamed, & Aenney, 2019). Dealer Management System (DMS) is a management information system designed with a modern design to improve performance within automotive companies in completing their work. Dealer Management System (DMS) is simply a platform that can help carry out all daily functions easily and efficiently (Murmur, V, 2023).

It can concluded that Dealer Management System (DMS) can help increase the efficiency of a company's business operations through the function of the system which aims to reduce manual activities. With this system, sales strategy analysis can be carried out to increase the company's business growth.

2.2 Management Information System

Management information system is a business system that consists of the use of documents, people, technology, and procedures in accounting (Nasution, Nasution, & Sundari, 2022). A management information system is a management process in which there is a system with capabilities like a computer brain to guarantee the availability of information data for user needs, where in this information there are services that explain something that has been, is being, or is likely to happen in the future (Raymond McLeod, 1996). Management information systems are information systems used to provide information used for decision making and supporting management operations within an organization (Suri & Puspaningrum, 2020).

It can be conluded that management information system is a computer-based information system implemented in a company for both internal and external activities which is used to store, process and retrieve information or data as well as to support business operations in the decision-making process.

2.2.1 Management Information System Functions

According to Helmawati (2015), there are several management information system functions that are able to support every company business activity. These functions are:

1. Planning
2. Decision Making
3. Controlling

2.2.2 Management Information System Benefits

According to Rusdiana & Irfan (2014), there are several benefits from managament information system. These benefits are:

1. Data accessibility is presented timely and accurate in real time
2. Available quality and skills in utilizing information system
3. The planning process in a company becomes effective
4. Analyze information system support skills
5. Determine the purposes that will be directed at the information system
6. Used in anticipating and understanding the economic consequences of information systems and new technological developments
7. Used to improve productivity and system maintenance
8. Used to process transactions and generate income as a product or service

3. Material and Method

This research was carried out on June until December at PT X. This research used a type of descriptive qualitative research with the selection of participants using a non-probability sampling technique, purposive sampling type, where the sample is determined based on the researcher's decision by selecting participants who have met certain criteria in accordance with the research topic. These source person were chosen because they had mastered the Dealer Management System (DMS) system, which was appropriate to the topic of this research, so that researchers were able to obtain complete, clear and accurate information.

This research used several techniques in collecting data for this research. The data collection techniques used are:

a. Observation

According to Sugiyono (2018), observation is a data collection technique that has specific characteristics when compared with other techniques. Observation does not only carry out limited research on a person, but also other objects needed for research. Through observation, researchers can observe actual conditions and obtain a direct picture of the research object which can then be carried out systematically on visible research objects.

b. Interview

According to Esterberg in Sugiyono (2020), an interview is a meeting between two people to exchange information and ideas through questions and answers, so that a meaning can be obtained for a particular topic. In qualitative research, the researcher acts as a questioner and the source person acts as someone who is interviewed. Information obtained from interviews can later be described and reprocessed as material for preparing research.

c. Documentation

According to Mardawani (2020), documentation is a method of collecting data by examining and analyzing documents from both one's own subject and other people's subjects for research. Documentation is a data collection technique by processing and storing data that has been obtained based on the results of interviews and observations. In this research, documentation has been stored in the form of photos and notes on research results.

d. Literature Study

According to Sujarweni (2022), document or text study is the study of documentary material written in books, newspapers, magazines, letters, films, diaries, articles, manuscripts, and can also come from the thoughts of a writer or author. contained in a published manuscript or book.Literature study is a process of collecting data by searching for various research results or studies that will be related to the research being carried out. Data sources from literature studies usually come from scientific journals, books, papers and scientific works.

3.1 Design Study

This research is research conducted using a qualitative descriptive approach using interview and observation methods involving several participants from where the research was conducted. This approach and method is carried out directly through interviews and observation methods to obtain information in accordance with the research objectives, namely to find out the application of the Dealer Management System (DMS) and the solutions that can be made to problems that occur in the system.

3.2 Data Validity Technique

Data validity is carried out to test the data obtained and prove that the research carried out is an original research. The validity test carried out by researchers was triangulation, where this technique is the collection of data combined from various existing data or sources.

In this research, researchers used source triangulation, which includes interviews, observation, and documentation to check the validity of the data.

3.3 Data Analysis Technique

Data analysis techniques is a process for analyzing and compiling data systematically. Data was obtained from observations, interviews, literature studies and documentation which were then described and selected according to the research topic to draw a conclusion. Data analysis is needed as a process of compiling data so that it can be interpreted. Miles and Hubermen in Rodsyada (2020) stated that the data collection process was carried out through 3 (three) important activities, there are data reduction, data display, and verification.

1. Data Collection

   At the data collection, researchers made observations by observing activities when the DMS at PT X was used. Then, researchers also conducted interviews employees at PT X regarding the DMS system to obtain more accurate data and information. Furthermore, researchers also conducted literature studies to strengthen research data.

2. Data Reduction

   Data reduction is a process for selecting and simplifying rough data based on the results of observations and interviews. The main points obtained need to be recorded carefully and in detail. Next, the information obtained from observations and interviews will be reduced or summarized with a focus on the research topic raised.

3. Data Presentation

   Data presentation is a process for presenting data that comes from the results of data reduction. In this qualitative research stage, data presentation is arranged in an organized narrative form, so that researchers can understand the problems that occur and can plan the next actions to be taken.

4. Verification/Conclusion Drawing

   Verification or drawing conclusions is the final stage in qualitative research data analysis. Drawing conclusions carried out by researchers is comparing and combining several information and sources obtained during research, so that they can answer the problem formulation that was formulated at the beginning.

4. Result

In conducting interviews, participants were asked that have been prepared according to the research topic. Next, participants provided responses based on their views regarding the implementation and utilization of the Dealer Management System (DMS) at PT X.

According to participants about the implementation of DMS, they said that the use of DMS is in 2019, apart from being an administrative process between dealers and PT X as well as an analytical tool whose data source comes from dealer input data. This analysis really helps us and the company in making future business decisions. Through DMS, the users can see in real time data on incoming vehicle service transactions based on order type such as general maintenance services, free services and periodic maintenance. Then, Through DMS, the users can analyze data such as knowing which consumers can be given special discounts based on the consumer's purchasing history. Through DMS, we can easily analyze which dealers have ideal financial conditions, so that if there are dealers whose financial

conditions based on analysis data are not in accordance with the standards they should be, we can take action so that the dealer's finances can be stable again. Apart from that, DMS can also be used to help employees plan, make decisions and control work processes.

According to participants about the utilization of DMS, The Dealer Management System (DMS) at PT X has many advantages in helping employees in analyzing business data and reporting. The presence of a Dealer Management System (DMS) at PT X has succeeded in optimizing the company's administrative processes and has really helped employees. DMS presents data in real time so that analysis and reporting can be easily carried out. Then, DMS also provides powerful data analysis, allowing us to understand sales trends and adjust our marketing strategies. The users can manage stock well and efficiently, ensuring the availability of spare parts when needed, this helped them optimize stock to avoid wastage. Overall, DMS has helped us improve operational efficiency. The Dealer Management System (DMS) has provided positive benefits in various aspects.

From the resulting data, it can be concluded that the Dealer Management System (DMS) is a system used to help employees plan business strategies, make the right decisions, and control company operations more efficiently. Implementing DMS in this company can quickly meet employee needs and ensure sustainable business growth. Then, Participants mentioned various benefits obtained from using a Dealer Management System (DMS) in increasing work efficiency. However, there are still several features that are still considered to have shortcomings, but this system has proven its benefits in optimizing employee needs.

5. Discussion

The Dealer Management System (DMS) has been implemented at PT X since 2019 to increase the efficiency of work processes, especially in terms of digitalization. With the implementation of the Dealer Management System (DMS) in this company, employees feel that this system has helped them in analyzing the data they need in real time, such as sales transactions, recording vehicle and spare parts inventory stock, analyzing the performance of both PT vehicle servicing that occurs, knowing and analyzing consumer history, as well as creating analysis and reporting for company needs. This is in accordance with the opinion expressed by Rahman, Newaz, Ahamed, & Aenney (2019) that the Dealer Management System (DMS) can store details for managing sales data, vehicle inventory management, customer management, after-sales service, up to creating analytical reports for optimize and identify company business profits.

The participants also expressed their views or opinions regarding the application of the Dealer Management System (DMS) to carry out work in the planning, decision making and control functions. According to Helmawati (2015), the three functions of management information systems can effectively and efficiently help every goal desired by the company.

1) Planning

   By planning, companies can provide clear direction in terms of providing information that utilizes management information systems. In the context of the planning function in the Dealer Management System (DMS), this system helps employees in planning good business strategies so that identification can then be carried out based on available data, such as strategic planning to analyze special attention that must be paid to dealers, conducting visits at various areas, employee training, and spare part stock allocation

planning. In this case, the implementation of a Dealer Management System (DMS) really allows the planning process to be simpler and faster.

2) Decision Making

Decision making is an action that can be taken to overcome a problem or consider a solution to a problem that is currently occurring. In the context of the decision making function of the Dealer Management System (DMS), this system has an important role in providing in-depth information regarding business performance and employee needs in requiring data. This allows employees to make decisions that are more precise and responsive to existing conditions.

3) Controlling

The control function in the management information system acts as a monitoring and evaluation function. This function can be used as a tool to monitor and evaluate work in a company, so that problems can be minimized in the future so that they do not occur. In the context of the control function in the Dealer Management System (DMS), this system can help employees manage and control various operational aspects starting from sales, service and spare parts more efficiently. Data control, sales control, inventory management control become more organized thanks to the use of a Dealer Management System (DMS).

The Dealer Management System (DMS) provides various significant benefits in assisting employee work processes in managing various operational aspects starting from sales, service and spare parts. The participants as a whole expressed their views or opinions regarding the use of the Dealer Management System (DMS) which has had a positive impact in increasing efficiency and effectiveness in managing data and decision making in work processes at PT X. This is also in accordance with Nasution, Nasution, & Sundari (2022) which says that management information systems really support company management activities, so that it will be easier to manage data, transactions, and decision making.

1) Accessibility of data that is presented in a timely, accurate and accessible manner in real time

In terms of data accessibility, the Dealer Management System (DMS) allows employees to analyze data in real time and accurately. Apart from that, employees' needs for reporting or providing information to management or superiors can be done easily and quickly. Dealer Management System (DMS) employees experience significant benefits when using it, because the system is considered an important system to use in the current era of digitalization.

2) Available quality and skills in utilizing information systems

In this aspect, the Dealer Management System (DMS) was designed by the system developer to be easy to understand and use by users or employees at PT X without requiring in-depth technical computer knowledge. Apart from that, PT X also holds training for employees so they can understand and master the use of the Dealer Management System (DMS).

3) Planning in a company becomes effective

For the planning process, the Dealer Management System (DMS) has helped companies design more effective business strategies with the availability of timely and accurate analytical data. Apart from that, the existence of the Dealer Management System

(DMS) has changed the manual system that was once implemented into a digitized one, so that the planning process can be carried out more easily and quickly. However, when the Dealer Management System (DMS) is inactive or temporarily unavailable, this can cause obstacles in the planning process. To overcome this problem, the company can actively coordinate with the system developer to always carry out maintenance to keep the Dealer Management System (DMS) in good condition. This is in accordance with Pranowo (2019) who said that maintenance is a form of activity carried out to maintain or restore the condition of the system so that it can always function.

4) Information system support skills

In developing a system, the Dealer Management System (DMS) requires support from quality and responsive system developers to ensure the function of the system can run well. In this case, the system developer and PT X always coordinate regarding the Dealer Management System (DMS) in order to achieve goals more efficiently.

5) Determination of provisions that will be directed at the information system

Determining the provisions on the information system, in this case the provisions stipulated in the Dealer Management System (DMS), is on its features. Features have been determined to make it easier for users to use the Dealer Management System (DMS). Employees feel satisfied with the existing features, because the features provided are very helpful in analyzing the required data. However, there are features that can be added to this system in further development, such as a predictive feature which functions to predict future sales trends based on the company's historical sales trends in the past few years.

6) Used in anticipating and understanding the economic consequences of information systems

Dealer Management System (DMS) brings the advantage of reducing the time required for administrative processes. This means employees can complete tasks more quickly and efficiently, which also directly reduces labor costs. However, as a web-based system, this system requires costs for maintenance support, which of course affects the company's operational costs. Therefore, PT X must anticipate and manage the economic consequences that arise, such as implementation costs, data security risks, and maintenance in order to maximize the benefits of the Dealer Management System (DMS) while also minimizing potential losses.

7) Can improve productivity and maintenance

Dealer Management System (DMS) has increased the efficiency and effectiveness of company operations by making it easier for employees to carry out work processes by presenting data in real time and accurately, such as Dealer Management System (DMS) helps employees take business actions and decisions based on sales and profit data from various areas. Overall, employees are satisfied with the Dealer Management System (DMS), because it has increased their work productivity.

8) As a transaction processor and generates income as a product or service

Dealer Management System (DMS) is also used to process transactions and generate revenue. Therefore, this system can process transactions precisely and accurately, and makes it easier for employees to make more precise and faster decisions. However,

behind this there are also risks that can arise due to dependence on this system, where if technical problems occur, it can hamper the transaction process.

6. Conclusion, Implication, and Recommendation

6.1 Conclusion

1. Implementation of the Dealer Management System (DMS) has supported planning, decision making and control functions. The Dealer Management System (DMS) at PT X has been implemented since 2019. This system has an important role in the efficiency of work processes, especially in administrative digitization starting from analyzing data to creating reports for company needs. In planning, the Dealer Management System (DMS) facilitates the need to identify business strategies, including stock allocation and employee training. In making decisions, the Dealer Management System (DMS) provides information that can make it easier for employees to make decisions correctly and quickly. Finally, in control, the Dealer Management System (DMS) is a system that can be used for monitoring and evaluation, as well as inventory management more efficiently and organized.
2. The implementation of the Dealer Management System (DMS) at PT X has provided benefits from various operational aspects starting from sales, service and spare parts. Dealer Management System (DMS) can increase employee efficiency, productivity and skills. However, dependence on this system also creates risks if technical problems occur, so maintenance and support from the system developer is very important to maintain the optimization of this system. PT X must continue to manage and understand the economic consequences and risks that may occur to maximize the Dealer Management System (DMS).

6.2 Implication

A. Theoretical Implications

The research results obtained support previous research conducted by (Fauzia, Hanifatul, & Witjaksono, 2019), (Kojongian, Tumbuan, & Ogi, 2022), (Mahardika, Fitriani, & Al 'Amin, 2023), (Malfiany, 2018) , (Murmur, 2023), (Muzakiroh, 2023), (R. & J., 2018), (Zalmi, 2021), (Aziz, 2018), (Sewa, Manaroinsong, & Kambey, 2021), (Beken, Temel , Abduloglu, & Bilgin, 2024), (Rahman, Newaz, Ahamed, & Aenney, 2019), (Shashank , Kumar, & Singh, 2019). The results of the research show that the implementation of the Dealer Management System (DMS) in PT X provides various positive impacts, so that in its future implementation the Dealer Management System (DMS) must be developed so that it can work optimally in carrying out the company administration process, this is in accordance with Aziz (2018). Apart from that, the Dealer Management System (DMS) must also be maintained regularly by users always coordinating with the system manufacturer so that the system can survive according to its work function, this is in accordance with Pranowo (2019).

B. Practical Implications

The results of this research state that the implementation of the Dealer Management System (DMS) in PT X has positive benefits, so that users are no longer dependent on manual systems even though there are still things that need to be improved so that the

Dealer Management System (DMS) in PT X can be more effective and efficient. The statement above is supported by the statement of the research participant who said that the implementation of the Dealer Management System (DMS) has made the administrative process easier in reporting analysis and in analyzing the required data.

6.3 Recommendation

1. Companies can carry out Dealer Management System (DMS) maintenance and development always in coordination with the system development team.
2. PT X can optimize analytical features to monitor performance, trends and create regular reports. Then, PT X can also collect feedback from DMS users periodically to find out the needs and problems they face.

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