The Application of Management Information System of Education and Training to Improve the Quality of Education and Training in the Religious Education and Training Center in Manado

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Abstract. This research aimed to: 1) investigate the implementation procedure of management information system of the education and training in the Religious Education and Training Center in Manado; 2) examine the quality of management information system service in the Religious Education and Training Center in Manado. The research method used was qualitative descriptive approach including data collection, data reduction, data display, and conclusion. The findings indicates that the implementation of the management information system of education and training in the Religious Education and Training Center in Manado consisted of: a) inviting the participants; b) publishing the education and training schedule; c) registering via administration staff in each district or city; d) preparing the participants' administration, such as curriculum vitae, official letter, health certificate, and transportation receipt; e) arranging the participants' room based on their gender, creating participants' nametag and attendance list; f) deciding and announcing the participants who successfully passed the education and training. The results also showed that the service quality of the tangible, reliability, responsiveness; and assurance aspects satisfied the good criteria while it was adequate for the empathy aspect. The increasing quality of the facilities for the management information system of the education and training in the Religious Education and Training Center in Manado also impacted on its service quality improvement. The fast response service also influenced the service quality improvement of the management information system of the education and training in the Religious Education and Training Center in Manado.

Keywords: Management Information System of the Education and Training Quality, Training Organizing

Introduction

Information is essential in humans' life because it is one of their primary needs. It may be challenging for managers to make some decisions in their company without having both internal and external information. The internal information should be prepared by the company's employees and the external information obtained from modern communication media. The technology development in the third-millennium era enables people to gain information from any source for many purposes, including decision making in a company. Therefore, integrating information management seems to be one of the essential elements of every company or organization. The main focus of the management information system is managing the information properly to help the manager in making decisions.

The management information system has existed before computer-based information technology. The presence of a computer becomes one of the revolutions in information technology. It can process the data rapidly and accurately in a very short time. The management information system is more helpful for big companies than small or middle ones because they need to collect numerous data and information in a short time. Thus, a company needs to consider the importance of the information system based on the scale of a company, the number of employees, the way of communication and the office network in upgrading the service quality of education and training center.

Based on the explanation, some government agencies have not applied the Management Information System. The Religious Education and Training Center in Manado implemented in the form of the management information system of the education and training. The researcher was interested in conducting a study on this issue because it seem to be a new combination. The researcher examined the quality of services provided by the religious education and training center. It is assumed that the quality is getting better, worse, or stagnant.

The research formulation was whether the management information system of the education and training positively or negatively influence the service quality in Religious Education and Training Center in Manado. The analysis in this research included the managerial function of information system management of education and training, the committee, the lecturers, or participants to achieve the effectiveness of Management Information System of the education and training in the Manado Religious Education and Training Center.

Literature Review

Management Information System (MIS) is a practice of information system in an organization to support information needed by all level of management level.can be defined as a group of information system interactions, responsible for data collection and processing, to provide beneficial information to all level of management in planning and controlling activities. Theoretically, computers are not compulsory in the management information system; however, its complex function can be originated from computer elements involvement. MIS always correlates to computer-based information processing. Management Information System (MIS) means a collection of information systems. Based on the organization scale, it can be divided as follows:

1. Accounting information system providing financial transaction information.
2. Marketing information system providing the sales information, marketing activities, marketing studies, and other activities related to marketing
3. Inventory management information system
4. Personnel information system
5. Distribution information system
6. Purchasing information system
7. Treasury information system
8. Credit analysis of information system
9. Research and development information system
10. Engineering information system

The purpose of the information systems is to accommodate information to all levels of management, namely lower-level, middle-level, and top-level management.

Education and Training Concept: Education and training is a process of teaching and learning activities in a certain room or a field. Education and training have a closed correlation to learning and teaching process because education and training contribute to transferring knowledge, skills, and attitudes to other people (Atmodiwirio, 1993: 2). Training can involve all relevant skills, including teaching basic skills and advanced training to the employees, starting from reading to executive leadership (Robbins, 2006: 676). Education and training contribute to upgrading humans' resources, in particular, their intelligence and personality (Mustopadidjaja *et al*., 2003: 93). Based on the government regulation number 101 the Year 2000, education and training are the learning process of improving the civil servant competences. Besides, a presidential instruction Number 15 the Year 1974 consisting of coaching implementation principles of education and training explained that civil servants' education and training are the education conducted for the civil servants to enhance their characters, intelligence, and skills per their jobs' terms and conditions. The education and

training are expected to change people capabilities to acquire great achievement in their works. According to the Minister of Religious Affairs Regulation, Number 75 the Year 2015, education and training are implemented to develop civil servants' proficiency based on their positions in the Ministry of Religious Affairs. It consists of at least 40 learning sessions with 45 minutes for each session (Minister Religious Regulation Number 75 the Year 2015: 4-5).

Service Satisfaction

Stemvelt (2004) stated that a service quality concept is a perception of a whole quality revolution planning that changes into an idea to be formulated. Subsequently, its implementation can be evaluated to become a dynamic process for fulfilling the customers' satisfaction. The quality concept is a quality standard that should be understood in offering service because the quality correlates to its marketing process. Kotler (2005) added that customer satisfaction is someone's pleased or disappointed feeling as a result of comparing the product to its expectation. This definition can be applied in examining satisfaction or dissatisfaction to a certain company because they are related to the customers quality concepts. Douglas (2006) mentioned several factors influencing the customers' satisfaction as follows:

1. Value

Value can be defined as an overall investigation of advantages from a product based on the customers' perception as they received from it.

2. Competitiveness

Services or products should have competitiveness to attract customers as the business cannot work without them.

3. Perception

The customers' perception is a process of selecting, organizing, and interpreting the stimulus received from their senses into a meaning.

4. Price

A low price can result in an assumption that the product quality is bad and a very low price can eliminate a buyer trust to the seller. However, the high price can make a buyer perception that the product is good and a very high price can eliminate a seller trust to the buyer.

5. Image

A bad image can impact on a perception that the product has bad quality; the customers might easily complain over small problems. A good image is the result of good quality product perception. Therefore the customer can ignore a mistake.

Customer analysis consists of several main elements (David, 2006), namely:

1. Investigation and evaluation needs, aspiration, and customer desire involving customers survey administration.
2. Customers information analysis
3. Marketing position strategy evaluation
4. Improving customers' profile
5. Deciding an optimal market segmentation strategy.

The information obtained from the customers' analysis is essential in developing the mission effectively. The customers' profiles describe the demographic characteristics of the customers' organization. Purchasers, sellers, distributors, sale assistants, wholesalers, suppliers, and creditors can participate in collecting information to identify the customers' needs and desires. A successful company always monitors the customers' purchase patterns (current and potential customers).

According to Lovelock (2008), the customers have some characteristics which are similar to some satisfying customers' services; the characteristics are as follows:

1. Reliability is the ability to provide service accurately as promised.　Accuracy in collecting data is important in research as it influences the research findings.
2. Responsiveness is the employees' ability to help customers in providing services rapidly as customers' expectation.
3. Assurance is the employees' knowledge and skills to confidently serve the customers.
4. Empathy is the individual care provided for the customers, including their personal needs.
5. Tangible is the performance of infrastructure, devices, personnel, and communication tools of the organization unit.

Methods

The Approach and Type of Research

This study was conducted as the paradigm in viewing a reality or phenomenon has changed. Social reality is seen as an integrated, complex, dynamic, and meaningful process in this paradigm (Sugiyono, 2008: 1). Qualitative research was a research method employed to investigate natural object conditions. The researcher was a key instrument in this study. The data collection was carried out inductively, and the qualitative research findings focused on meaning instead of generalization (Sugiyono, 2008: 61). The object in this study was the application of management information system of the education and training to improve the quality of education and training in the religious education and training center in Manado. The research location was the Religious Education and Training Center in Manado at Mr. A. A. Maramis street Km. 09 Paniki Bawah Manado.The main instrument in this qualitative research was the researcher. It was improved into modest instrument research that was expected to complete and compare the data acquired from the observation and interview (Sugiyono, 2008: 61). The researcher has an important role in collecting data in this study. She/he should be able to analyze essential parts of the research data to gain the relevant ones. Interview, observation, and documentation related to the application of the management information system of the education and training to improve the quality of education and training in the religious education and training center in Manado was also conducted.

Data and Sources of Data

1. Primary Data

The primary data is the data collected by the researcher from the research objects. The primary data means data obtained and processed by the publishing organization (Pasolong, 2012: 70). Interview and direct observation were the primary data to acquire information about the application of management information system of the education and training to improve the quality of education and training in the religious education and training center in Manado.

2. Secondary Data

The secondary data is not directly acquired from the researcher objects. The data collected or used by other organization. The secondary data gained from other researchers, agency documents, or other sources (Pasolong, 2012: 70). Supporting data was collected in this study to strengthen its findings.

Technique and Procedure of Collecting Data

1. Interview

An interview is a process of obtaining information or data for research purposes by asking questions face to face between the interviewer and the respondent using the interview guideline (Syofian, 2012: 130).

2. Observation

Observation is an activity of data collection by conducting a direct study on the objects that support the research activities to gain a clear description of the study objects (Syofian, 2012: 134).

3. Document

The document is a piece of written or filmed material as a source of data to examine, interpret, and make a hypothesis (Lexy, 2008: 216).

Qualitative data analysis is an activity of working, organizing, and sorting data into units to be processed, synthesized, classified based on pattern; finding the necessary parts and deciding some points to share with other people (Lexy, 2008: 248). According to Janice Mc Drury Qualitative data analysis stages are as follows:

1. Reading or learning the data, highlighting the keywords and the ideas.
2. Learning the keywords; finding the themes.
3. Writing the "model" found in the data
4. Coding

The religious center duty is organizing education and training to the administration and education/religion staff.

In conducting the duty, as mentioned in verse 2, the religious center implements several functions, namely:

1. Arranging the plans and programs of education and training
2. Organizing education and training to the administration and education/religion staff.
3. Evaluating and reporting the result of the religious center duties.
4. Conducting the administration and the household of Religious Education And Training Centre Manado

Management Information System of the education and training in the Religious Education and Training Center in Manado was gradually improved as indicated by:

1. Providing internet facility; the internet facility was provided in 2007, and it is being used now (2019).
2. Supplying Management Information System of the education and training rooms; the rooms were designed excellently to create convenience to the training participants/committee.
3. Managing Management Information System of the education and training several employees of the religious center were appointed to manage Management Information System of the education and training to provide services to the stakeholder using the facilities.

The Application Procedure of Management Information System of the Education and Training in the Religious Education and Training Center in Manado

The database is elementary that logically related to the structured presentation of phenomena/facts in certain domains to support the applications on particular systems. The database is a set of interconnected data reflecting on the facts in the organization or system. The database describes the organization or system statement. Database design is the primary point of the development of the management information system database application.

The objectives of the Management Information System of the education and training database design are as follows:

1. To fulfill all requirements related to the content of data and information required by the user. The data in the Manado Religious Training and Education Center includes education and training programs, training schedules, participant data for three working areas, namely: North Sulawesi Province, Gorontalo, and Central Sulawesi.
2. To provide the representation of data structure that is effective, efficient, and user-friendly. The data structure in the Manado Religious Training and Education Center are managed based on the stakeholder needs, including training programs, training schedules, and

participants data. The committee, lecturer and administration staff of the district or city can access each data if they have a username and password.

3. To avoid data redundancy and inconsistency. The Management Information System of the education and training allows no data redundancy so that no participant join the repeated education and training.

4. To support each requirement closely related to data processing and the speed of system performance; and to update data concerning the participants and programs developed by the Manado Religious Training and Education Center (Jogiyanto, 2006).

Referring to the development research of Eko Nugroho (2007), this research formulates five steps of information system development, including:

1. Planning the information system including identifying the institution objectives and information needs;

2. Analyzing the institution, focusing on the detailed analysis of the institution and administration activities of the educators and educational staff;

3. Designing the system related to the specification of the system and subsystem including their elements and components;

4. Constructing the design (program); and

5. The product trial (testing the application program)

Therefore, clear objectives are required to develop the information system, in this case, to provide quick and accurate service for the stakeholders. The implementation of the event should be conducted in detail, so it will ease the participants to obtain the service from the Manado Religious Training and Education Center (McLeod, 2000).

The development stages are as follows:

1. Planning stage: Planning the information system including identifying the objectives and information needs;

2. Analyzing stage: Analyzing the profile of the institution and administration activities including planning and analyzing the institution profile and administration;

3. Designing stage: Designing the model of information system structure;

4. Constructing stage: Constructing the design/ programming;

5. Product trial stage.

The information system management and training in the Manado Religious Training and Education Center enable some preparation aspects of the training and education, including:

1. The Manado Religious Training and Education Center invites the participants from three working areas, including the province of North Sulawesi, Gorontalo, and Middle Sulawesi.

2. The Manado Religious Training and Education Center publishes the schedule of the training and education on the website.

3. The participants can read the schedule on the website and register through the administrator in each district or city.

4. The participants submit the administration requirements such as curriculum vitae, letter of assignment, health certificate, and transport evidence.

5. Before the training, the training institution will determine the bedroom for the participants based on their gender and prepare the name tags and training attendance list.

6. The training institution determines the participant's completion (who successfully pass) and then announces it.

The Service Quality of the Manado Religious Training and Education Center

The service quality concept is the primary assessment to reflect the customer perspectives on five physical and service performance dimensions. Zeithaml, Bitner and Gremler (2009) proposing five dimensions to use for measuring the service performance, namely:

1. Direct evidence (Tangible)

The indicators of tangible aspect are the physical facilities, tools, staff, and materials employed. It describes the physical objects and services to be received by the customer, such as the building, cafeteria facilities, cafeteria design, and the staff grooming.
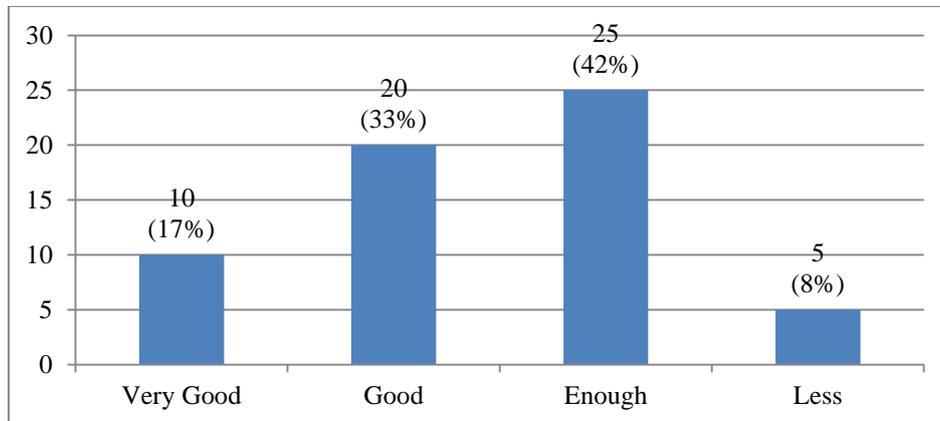

Figure 1. The service satisfaction of the tangible aspect of the Management Information System of the education and training in the Manado Religious Training and Education Center

Figure 1 shows that the service satisfaction of the tangible aspect of the Management Information System of the education and training in the Manado Religious Training and Education Center was classified as Excellent (17%), Good (33%), adequate (42%) and inadequate (8%). The figure indicates that the majority of the participants perceive the tangible aspects as a good category.

The good category can be seen in the physical room of Management Information System of the education and training that is comfortable where both the participants and the committee feels comfortable to visit. Besides, the staff also provide the best service for the participants

2. Reliability

The indicator of the reliability aspect is the ability to deliver the promised service reliably and accurately. A reliable service is delivered when the staff can fulfill the service as promised and help to solve the problem encountered by the participants quickly.
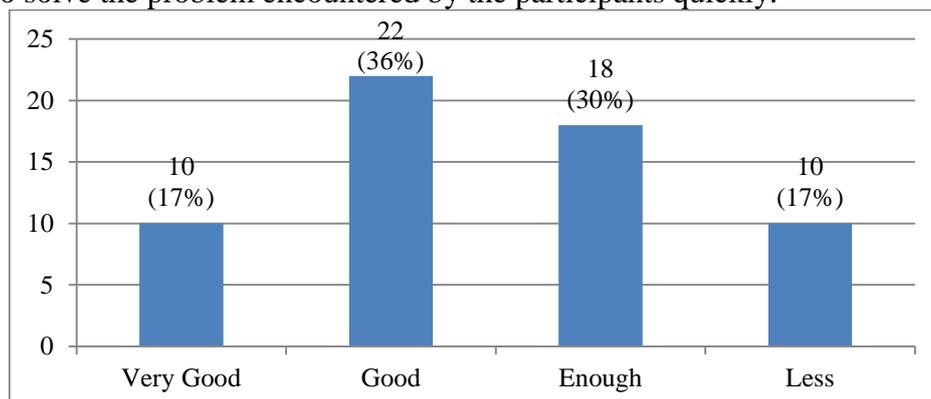

Figure 2. The service satisfaction of the reliability aspect of the Management Information System of the education and training in the Manado Religious Training and Education Center

Figure 2 presents the service satisfaction of the reliability aspect of the Management Information System of the education and training in the Manado Religious Training and Education Center. Ten participants (17%) rated the reliability aspect as excellent, 22 said the service was good (36%), 18 agreed the service was adequate (30%), while the remaining 10

thought that the service was inadequate (17%). The data on Figure 2 indicates that generally, the reliability aspect falls into the good category.

The good category is evidenced in the service provided by the committee, including the service related to the learning, administration, and accommodation while the participants stay in the Manado Religious Training and Education Center.

3. Responsiveness

The indicator of responsiveness is the willingness to assist the customer and provide the service promptly. The prompt service in term of the training and education service was evidenced by the staff's ability to serve the customer and respond to their complaint quickly.
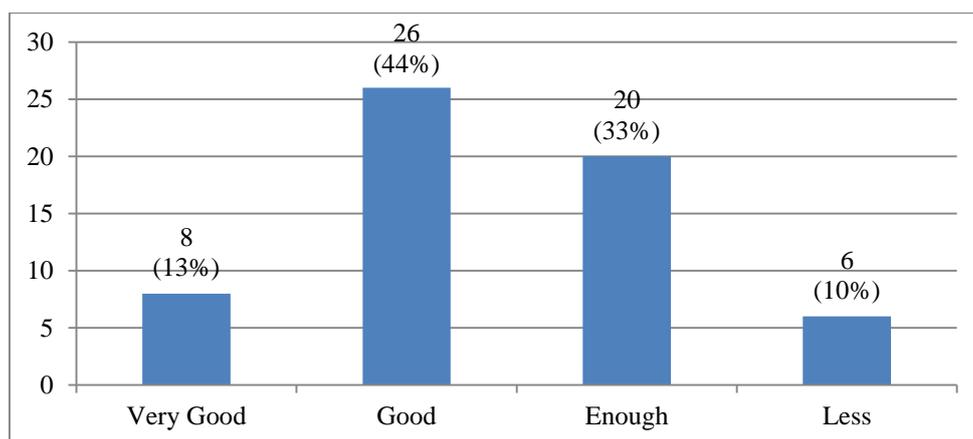

Figure 3. The service satisfaction of the responsiveness aspect of the Management Information System of the education and training in the Manado Religious Training and Education Center

Based on Figure 3, the service satisfaction of the responsiveness aspect of the Management Information System of the education and training in the Manado Religious Training and Education Center was classified as excellent by 8 participants (13%). Besides, 26 (44%), 20 (33%) and 6 (10%) participants rated the service as good, adequate and inadequate respectively. This finding indicates that the responsiveness aspect generally meets the good criteria. It is indicated by the committee who respond to the participants' needs and the lecturers who provide the materials needs by the participants in the Manado Religious Training and Education Center.

4. Assurance

The indicators of assurance are the knowledge, politeness, and ability of the committee to convince people and obtain their trust. The assurance service is important for the training and education participants such as security and safety assurance to obtain good service.

Figure 4 illustrates that the service satisfaction of the assurance aspect of the Management Information System of the education and training in the Manado Religious Training and Education Center. The majority of the participants classified the service as good (43%), while a quarter of them rated the service as adequate (25%). Ten participants (17%) categorized that the service as excellent, and the remaining 15% thought that service was inadequate. The data indicate that the assurance aspect is mainly classified as a good category. The good criteria were shown by the committee and who assured the participants by delivering the best service in the Manado Religious Training and Education Center. For example, when they leave the training and education center, they need to report to the security and the committee. This shows that the participants feel secure in getting the service in the Manado Religious Training and Education Center.
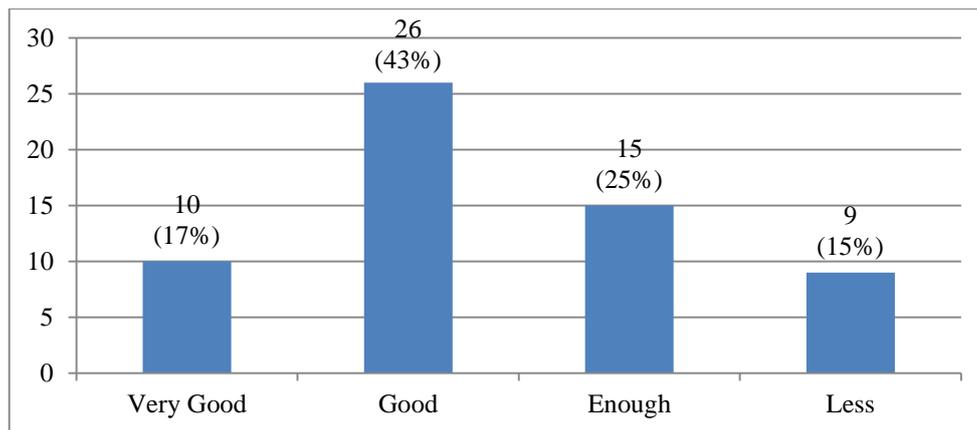
Figure 4. The service satisfaction of the assurance aspect of the Management Information System of the education and training in the Manado Religious Training and Education Center

5. Empathy

The indicators of Empathy is the personal care and attention provided to the participants. The staff should show their care when serving the participants in education and training.
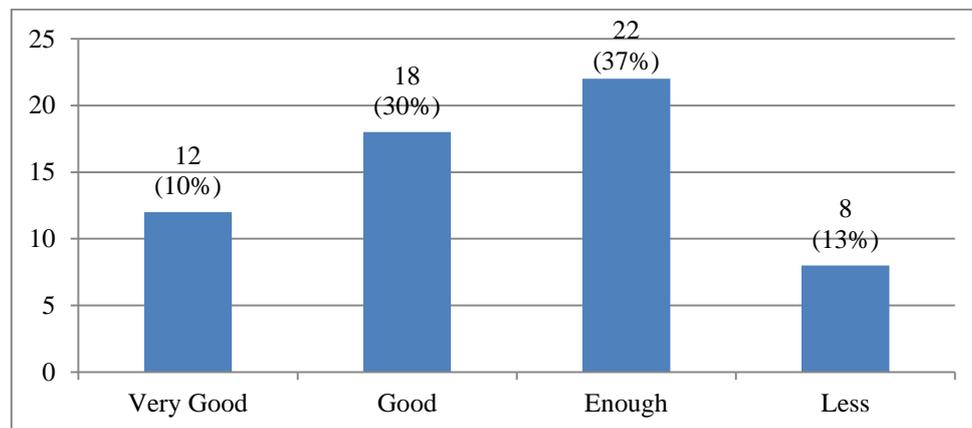

Figure 5. The service satisfaction of the empathy aspect of the Management Information System of the education and training in the Manado Religious Training and Education Center

Figure 5 presents information related to the service satisfaction of the empathy aspect of the Management Information System of the education and training in the Manado Religious Training and Education Center. Most of the participants (37%) rated the service as adequate, while only 10% agreed that the service was excellent. The data in Figure 5 also shows that 30% of the participants said the service was good, and the remaining 13% believed that the service is inadequate. This means that overall, the empathy aspect falls into the adequate category. The adequate criteria are indicated by the committee caring for the participants. For example, when one of the participants experienced health problems, the committee sent him to see a doctor.

Conclusion

The Management Information System of the education and training implementation in the Manado Religious Training and Education Center includes: a) the institution invite /request the participants; b) the institution publishes the training and education schedule; c) the participant register via the administrators in each district or city; d) the participants register by submitting the curriculum vitae, letter of assignment, health certificate and accommodation evidence; e) at the beginning of training and education, the institution conducts the sleeping arrangement according to gender for the participants, creates nametag and training attendance

list; f) the institution determines the completion/graduation of the participants and announce it. It can be concluded that the quality of the service is dominantly good for direct evidence (tangible), reliability, responsiveness, and assurance aspects. While it is adequate for the empathy aspect.

This research has some implication, namely: 1) the increasing quality of the Management Information System of the education and training facilities lead to the improved service quality of the Management Information System of the education and training in the Manado Religious Training and Education Center, and 2) the prompt responses from the committee result in the increasing service quality of the Management Information System of the education and training in the Manado Religious Training and Education Center. It is recommended to improve the internet quality by increasing the network bandwidth capacity in the Manado Religious Training and Education Center. In addition, the data collection should be up-to-date so that the real data are used.

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