### **CHAPTER II**

### REVIEW OF RELATED LITERATURE

#### 2.1. Literature Review

## 2.1.1. Accounting Information System Implementation

Information system is a set of interrelated subsystems that work together to collect, process, store, transform, and distribute information for planning, decisions making and controlling (Pol & Lim, 2013). The use of computer in information systems can improve the efficiency of information collection, process, store, transform and distribute. In addition, accounting information system (AIS) is a tool which was incorporated in the field of Information and Technology systems.

Accounting information system is very important for business entities. This is the one responsible in generating reliable financial information needed for decision making. Various designs of system must consider the factors that influence information that is gathered and reported. It will still depend on the anticipated users of the information and the types of decisions they are expected to make. The design of the system may also depend on the size of the firm, volume of transaction data, nature of operations, organizational structure and business form.

# 2.1.2. Technology Utilization

Information technology is the study or use of electronic equipment, overcoming the computer, for storing, analyzing, and any information, including key words and images (Ramadhan, Nurhayati, & Halimatusadiah, 2016.)

Information technology includes hardware and software to perform one or more data processing tasks such as capturing, transmitting, storing, retrieving, manipulate, or displaying data. dimensions of information technology is the intensity of utilization, the frequency of utilization and the number of applications or software used.

The usage of computers and other advanced technology have increasingly been adopted in most practices including accounting (Taiwo, 2016). Accountants were vigorously involved in all accounting activities as the traditional methods were in place. Daily records had to be kept by humans, preparation of financial statements such as the statement of financial position and statement of comprehensive income were done manually by the accountant (Linus, 2012). The implication of technology has indeed caused obvious changes in organizations relating to their accounting systems and organisational performance, which has been of great concern and interest (Taiwo, 2016). Accounting decisions and plans have to be made in order for companies to stay relevant and competitive. It is necessary to acknowledge that computerized systems, have improved the functionality of accounting departments in organizations (Taiwo, 2016).

# 2.1.3 User Training

Training is the process whereby people acquire the capability to assist in the achievement of organizational goals. Training is organized activities to enhance the knowledge and skills of the people to achieve certain goals (Fitrios, 2016). Training means giving employees new skills or ongoing required for the performance of their

work. The user training is to get the most of the accounting information system. Training is not only related to activities such as data entry, but also involves all aspects of the use of new information systems (Fitrios, 2016). So that the users should be educated how new technologies affect the company's operations and business management.

Users of accounting information systems are mostly people who are simply going to use information systems that have been developed, such as operators and managers. Training needs arising due to gap between the knowledge, skills and experience of the individual with the necessary to carry out their work (Fitrios, 2016). If company management understands how to use the system properly, that is implemented through a good process, the application system owned by the company will provide more benefits to the company.

The training has a significant influence toward the successful implementation of information systems. Revealed that the availability of training, management support and involvement of users contribute to improving the use of information system, if the system is considered useful and easy to use (Rouibah & Caskey, 2003). The primary objective of financial accounting information system is to provide relevant financial information to the individual or group outside of an organization such as investors, government, state agencies and creditors.

# 2.1.4 User Expertise

User skills are actions and actions performed through a predetermined target or capability. User expertise is associated with the knowledge and skills possessed

by the user in operating the computer by using the accounting information system (Vathanophas, Vichita; Thai-ngam, 2007). The measure of user expertise can be seen from the average education, training and level of experience (Hackbarth, Dow, & Janvrin, 2010).

## 2.1.5 Agency Theory

Agency theory offers unique insight into information systems, outcome uncertainty, incentives, and risk and is an empirically valid perspective, particularly when coupled with complementary perspectives (Eisenhardt, 2017). The principal recommendation is to in- corporate an agency perspective in studies of the many problems having a cooperative structure.

Most frequently, agency theory has been applied to organizational phenomena positivist and principal-agent (Jensen, 1983 cited in Eisenhardt, 2017). Agency theory has developed along two lines, positivist and principal-agent. Positivist agency theory has focused on identifying situations in which the principal and agent are likely to have conflicting goals and then describing the governance mechanisms that limit the agent's self-serving behavior. Positivist agency theory is less mathematical than principal agent research. Also, positivist agency theory has focused almost exclusively on the special case of the principal agent relationship between owners and managers of large, public corporations. It has focused on identifying situations in which the principal and agent are likely to have conflicting goals and then describing the governance mechanisms that limit the agent's self-serving behavior (Berle & Means, 1932 cited in Eisenhardt, 2017).

Meanwhile, Harris & Raviv (1978) as cited in Eisenhardt (2017) stated that principal-agent researchers are concerned with a general theory of the principal-agent relationship, a theory that can be applied to employer-employee, lawyer-client, buyer-supplier, and other agency relationships. The principal-agent paradigm involves careful specification of assumptions, which are followed by logical deduction and mathematical proof.

McColgan (2001) cited in Khan (2011) gave a very broader view of agency theory and corporate governance. The major interest of his research was to cover the area where the interests of managers diverge from those of the interests of shareholders. He extended the work of Jensen and Meckling (1976) who defined the agency relationship as a type of contract in which the principal keeps the agent to carry out the services of the firm on his behalf. The agency problem arises due to the different interest and the conflict between the ownership and control as principal delegate some decision making authority to the agent.

## **2.1.6 Motivation Theory**

Motivation is a suggestion or encouragement that comes as a given by one person to another or themselves, the encouragement is intended for that person to be a better person than before (Sari, 2015). Motivation can also be interpreted as an act of a person. There are various terms used to refer to the word motivation, such as need, urge, wish and drive. The researcher will use the term of motivation that is defined as a condition of someone who encourages the

desire of individual to engage in certain activities in order to achieve the goal. Thus, we can conclude that motivation is the driving force within the individual that drove them to perform an action.

According to Sari (2015), this theory is very relevant to explain the behavior of the financial manager, for each financial managers have a special motivation in meeting its responsibilities in its duty to give a decision later in his business.

If it is connected with the theory of motivation, every financial manager will conduct its own assessment of the motivation of the current accounting information system. If they feel the use of information technology is still low, then they will conduct training to its users. Motivation finance manager in utilizing information technology will increase due to their ease of use of Information technology.

### 2.2. Previous Research

Several previous studies have conducted the issue of accounting information system. In outside Indonesia, similar research were conducted by Taiwo (2016); Ramli (2013); Journal & Scientific, (2015); Hossein et al., (2013); Pol & Lim (2013). Meanwhile, the research from Indonesia were conducted by Fitrios (2016); Rivaningrum & Mahmud (2015); Sularto & Yunitasari, (2015); Putra (2012); Ramadhan et al., (2016.). In general, these studies show accounting information system is affected by several factors. Related to the result of those previous studies, it can be identified the

factors that can influence the occurrence of accounting information system are technology utilization, user training, and user expertise.

# 2.2.1 Ramadhan, Nurhayati & Halimatusadiah

They conducted the research about accounting information system implementation using variable the use of information technology, user competence and implementation of internal control. The Object of their research is 30 employees Koperasi Peternak Sapi Bandung Utara (KPSBU) Lembang. The research was done by using the descriptive and verification approaches using Partial Least Square analysis and quantitative methods. Source data used is primary data and data was also collected through questionnaires to be tested for validity and reliability. The utilization of technology information has significant positive effect toward the accounting information systems implementation at KPSBU Lembang to 19,48%. User competence has significant positive effect on the accounting information systems implementation at the koperasi peternak sapi bandung utara lembang to 21,7%. The implementation of internal controls has a significant positive effect on the accounting information systems implementation at KPSBU Lembang.

# **2.2.2 Ramli**

Ramli conducted the research about external factors of training, experience and internal expertise of Accounting Information Systems (AIS) in three, four, and five star rated hotels. The data from the survey were collected through a postal questionnaire to senior accounting managers in three, four, and five star rated

hotels. The data were analyzed using Partial Least Squares (PLS), which is the PLS-Graph Beta version 3.0. It was found that experience and internal expertise influenced the usage of the AIS, however, training was not significant to AIS users in the hotel industry in Malaysia. Using an extension of Technology Acceptance Model (TAM), this study revealed the wide use of computerized accounting systems.

#### 2.2.3 Nova

Nova conducted the research about the effect of information technology use, user expertise, and intensity of usage affecting the accounting information system implementation. Populations in this study is a subsection of finance, treasurer, manager of the accounting department, and finance staff who is work in the unit of work in the SKPD Kab. Indragiri Hulu. The sampling technique is using purpose sampling. Total respondents in this research are 60 respondents. The data of this research is using primary data directly through a questionnaire and it is analyzed using SPSS 17. The data were analyzed to test the hypothesis using multiple linear regression analysis approach. This study indicated that information technology and user expertise has a significant to accounting information system implementation.

# 2.2.4 Taiwo & Agwu

They conducted the research about the impact of information technology toward accounting systems and organizational performance. Their study utilized

secondary data and Pearson's correlation was used for analysis using SPSS for a sample of 20 staffs in financial services and other related accounting departments in Covenant University. The results of the empirical findings showed that there is a significant positive relationship between ICT system and accounting system and a significant positive relationship between ICT and organizational performance.

#### **2.2.5 Fitrios**

Fitrios conducted research aims to determine the effect of top management commitment and user training on the implementation of accounting information systems. This study was conducted at hospitals type A, B and C in the region of Riau Province, Indonesia. The number of hospitals that fulfill the criteria to have the accounting information system are 42 hospitals. Totally 34 questionnaires are returned by respondents and can be processed. Data obtained are processed using SPSS version 21. The result showed that the top management commitment and user training affect the accounting information system implementation at hospitals type A, B, and C in the province of Riau. The results also showed that the implementation of accounting information system affect the accounting information quality.

## 2.2.6 Hossein, Najaf, Kermani, & Zoqian

They conducted the research about the evaluation of the information technology influence on the accounting information systems implementation. The statistical population of this research included all the Iranian hotels, in which 37 three-star four-star and five-star ones are located in Tehran, After distributing the

questionnaires for data collection, the total number of 69 questionnaires were accepted. The average comparison of test (t-test) and correlation Solidarity tests were applied to test the theories. The results of this study revealed that the hotels utilized effective and high-tech accounting information systems and applying advanced technologies increases the efficiency of the accounting information systems.

## 2.3. Hypothesis Formulation

The dependent variable is implementation of accounting information system, which is the variable of primary interest, in which the variance is attempted to be explained by three independent variables, they are (1) technology utilization, (2)user training, and (3) user expertise.

# 2.3.1 Technology Utilization and Accounting Information System Implementation

Agency theory is the theory which examines the contracts between a party who delegates work to another. Agency relations become problematic when the principal and agent have conflicting goals and when it is difficult or costly for the principal to monitor the performance of the agent. When goals are incongruent, the agent is assumed to have a different set of incentive structures from the principal; the agent will consume perquisites out of the principal's resources and make suboptimal decisions.

These activities produce efficiency losses to the principal. To counter these losses, the principal designs contracts to align the goals at the lowest possible costs. Costs can arise from providing incentives and from monitoring to insure that the agent is acting for the principal's interests. Agency theory can offer insights for information systems.

First, principals can design information systems to monitor the actions of agents. Electronic communication systems, electronic feedback systems, and electronic monitoring systems are examples of monitoring devices that can be implemented to insure that agent behaviors are aligned with principal interests. Secondly, information systems professionals themselves often enter into agency relationships with other stakeholders in organizations and agency problems can arise.

From the explanation above, it means that the higher information technology utilization, the more financial manager will increase due to their ease implementation of accounting information systems of their company, conversely, the lower information technology utilization, the less financial manager will increase due to their ease implementation of accounting information system, so the first hypothesis is:

 $H_1$ : Technology Utilization positively influence accounting information system implementation.

## 2.3.2 User Training and Accounting Information System Implementation

If it is connected with the motivation theory, every financial manager will conduct its own assessment of the motivation of the current accounting information system. If they feel the use of information technology is still low,

then they will conduct training to its users. Motivation finance manager in utilizing information technology will increase due to their ease of use of Information technology and desire for progress of the company.

According to Fitrios (2016) stated that user training have positive influence on accounting information system implementation. The availability of training, management support and involvement of users contribute to improve the use of information system, if the system is considered useful and easy to use. From the explanation above, it means that the higher user training, the more effective accounting information system implementation of the company, conversely, the lower user training, the less effective accounting information system implementation, so the second hypothesis is:

 $m{H_2}$  : User Training positively influence accounting information system implementation.

## 2.3.3. User Expertise and Accounting Information System Implementation

Related to the motivation theory, this theory is relevant to explain the behavior of financial manager, because each financial manager have motivation in fulfilling their obligations. Motivation finance manager in user expertise will increase due to their ease of use of Information technology and desire for progress of the company.

The result of study is stated that user expertise have positive influence on accounting information system implementation.

According to Evania (2016), when running and using information systems, an understanding of information technology is also important. Users need to know and understand the information technology the company uses in its information systems, with a good understanding of the users of IT is expected to improve the quality of information generated from the information system. If the user has the expertise and understanding of the system used then the user will feel more have the system used it, so they can use the system well. With a good understanding of the user, the flow of information will be conveyed and can be interpreted well, and expected quality of information produced is also good.

From the explain above, it means that the higher user expertise, the more financial manager will increase due to their ease implementation of accounting information systems of their company, conversely, the lower user expertise, the less financial manager will increase due to their ease implementation of accounting information system, so the third hypothesis is:

 $H_3$ : User Expertise positively influence accounting information system implementation.

### 2.4. Research Model

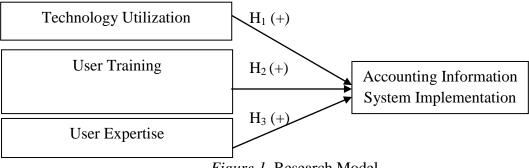


Figure 1. Research Model