The Implementation of Delone & Mclean'S Model to Increase Company's Satisfaction and Profit

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Abstract. The aim of this study is to empirically test the effect of information quality and system quality on the successful implementation of banking information systems to increase company satisfaction and profit in PT Bank Mandiri (Persero) Tbk. This study uses online survey methods. By using SmartPLS software, the results of hypothesis testing show that information quality has a positive effect on user satisfaction, system quality has a positive effect on user satisfaction, and user satisfaction has a positive effect on net benefit.

Keywords: Information systems, DeLone and McLean's Model, Information Quality, System Quality.

1 Introduction

The development of information technology is very rapid, making it easy for all walks of life to facilitate their lives, both the lives of people in private or the lives of professional societies. Information technology can be accessed or can be used for basic or higher-level interests. The information has always been an important element in human activity. From time to time, information is always collected, analyzed, and distributed into several class differentiation and guides human activities. Traditional information, which was only used as basic data for later processing. The optimization of information function can be done if the company develops information with computer technology. The application of computerization in the company supports the company's structure to develop better because it has a comprehensive function. The computer is a tool to process or find accounting information that is relevant and reliable at the same time[1].

Bank Mandiri and BCA have similar characteristics where the two banks are principled in providing services to customers which include business segments *corporate, commercial, micro-retail, consumer finance, treasury international banking,* and *electronic banking*. From the above phenomenon can be it appears that the information system used by Bank Mandiri does currently not reach the point that meets the quality standards of accounting information systems. System information is needed in every organizational activity and factors that can influence is organizational culture and organizational structure[2].

The dimension of the organizational structure of BCA has its advantages which must be consistently developed internally in BCA, namely the strategy, in which BCA in developing its organization, has several strategies. In addition to the strategy in managing the CRM system,

the company must also pay attention to the ERP that is run at the company. *Most Competitive Price*, supported by a funding structure with competitive interest rates. Operational *Excellence*, ensuring cost efficiency with high productivity and effectiveness. *Reliable Resources*, synergizes a variety of quality resources. *Prudent Acquisition*, a sharp analysis of prospective consumers from two *channels* reliable sales. *Mutual Relationship*, relying on all parties to ensure growth endurance. BCA in this case is included in the *Functional Structure* where the functional structure is formed based on the functions of each department. The highest position in the hierarchy is headed by a President Director. All business processes and strategy making will be determined by the President Director. Then in the BCA hierarchy above, the division of departments is focused on their respective functions. In other words that the division of organizational structure according to this function is easier to direct each part what will be achieved by each part.

While at PT Bank Mandiri (Persero) Tbk. Process of Organizational Culture Change carried out by Establishing a clear vision and strategic direction. Develop clear performance measurements. Follow-up towards achieving goals. Appreciate performance based on fairness. Creating a more open and transparent work environment. Eliminating politics in the company. Develop a strong team spirit through several *core values* so that the process of organizational culture changes can run well. To achieve its goals, PT Mandiri (Persero) Tbk. has transformed in various aspects so that it requires management, organization, and work procedures that support the achievement of these goals because of PT Bank Mandiri (Persero) Tbk. has the purpose of looking for profit, it is categorized as a commercial organization.

The conditions described above illustrate that the application of a quality accounting information system has not yet been created, which is marked by the achievement of company goals that are still far from the maximum compared to competitor banks (BCA) where[3] state that the information system is a matter of what is important in carrying out the organization's operations and the quality of information is a guarantee of the company's survival. Quality information is information that is delivered on target, detailed and clear. If the information conveyed is not quality, it will cause harm to the company itself.

Information systems that are not well integrated will have implications for things that are not following the objectives. As information obtained by researchers that the financial statements of the National Banking in recent years are generally very good, which is reported by each bank in its annual financial statements. Focus on PT Bank Mandiri Persero Tbk. stated that the opinion given by KAP from 2010-2018 was fair according to Financial Accounting Standards in Indonesia. However, since 2012 the BPK in its audit report for PT Bank Mandiri Persero Tbk. have found irregularities especially in the provision of credit resulting in non-performing loans which cost the country up to around Rp 1.8 trillion, where the same findings continue until 2017.

The conditions described above illustrate that the application of the accounting information system has not been created yet. quality, which is marked by the achievement of company goals that are still far from maximum compared to competing banks. Loudon [3] suggest that information systems are important in carrying out organizational operations and the quality of information is a guarantee of the company's survival. Quality information is information that is delivered on target, detailed and clear. If the information conveyed is not quality, it will cause harm to the company itself. This research will examine the effect of information quality and system quality on the successful implementation of banking information systems to increase company satisfaction and net benefit.

2 Research Methodology

Independent variables consist of information quality and system quality, variables *intervening* include user satisfaction, while the dependent variable is a net benefit. The object of research used is PT Bank Mandiri Persero Tbk, which will be examined regarding the successful model of banking information system implementation to increase company satisfaction and net benefit. Data collection techniques in this study were carried out through surveys using a questionnaire distributed to specified samples. The survey was conducted online using the Google Form tool. The sample in this study was part of the employees of PT Bank Mandiri Persero Tbk. throughout Indonesia who has experience in using information systems at PT Bank Mandiri Persero Tbk. and occupy related positions or positions. Respondents were selected using the method *simple random sampling*, the size of the sample was determined using the Slovin formula with an error level of 5% *(level of significance)*, the number of samples in this study was 369 samples. The research model can be seen in the folowing figure:
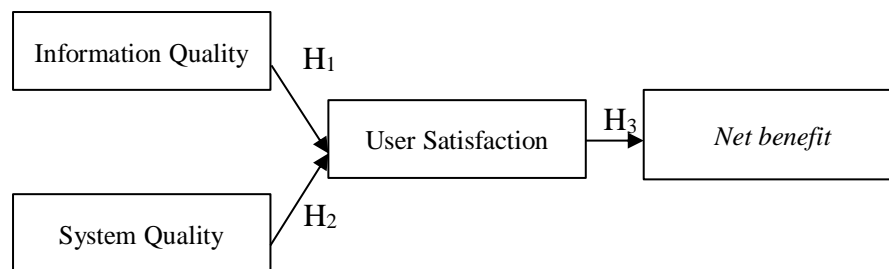

Fig.1. Delone and Mclean'S Information Model System

Refer to Fig.1, based on research by DeLone, McLean, Livary, Tam, Olieveira, Hobbs, Klobas and Mulyono [4][5][6] [7][8][9][10] as well as Jaafreh [11] who studied the model of the successful implementation of information systems using *DeLone and McLean Model of information systems success (D and M IS success)* then formulated the following hypotheses:
H_1: Quality information positive effect on User Satisfaction
H_2: System Quality has a positive effect on user Satisfaction
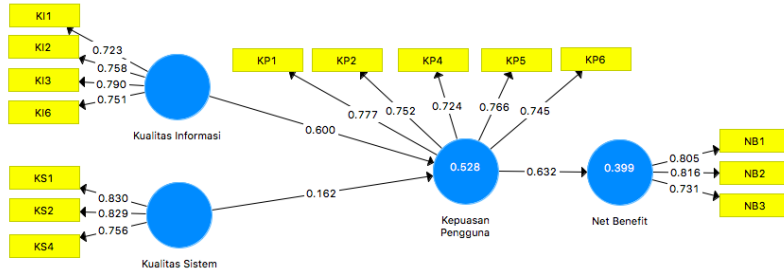H3: User Satisfaction has a positive effect on *Net Benefit*

3 Results and Discussion

Fig. 2. *Path Model PLS Algorithm*

Table 1. *Average Variance Extracted (AVE) and Fornell-Larcker Criterion*

	Average Variance Extracted (AVE)		*Fornell-Larcker Criterion*			
	Value	*Information*	User Satisfaction	Informa tion	Quality System Quality	Net Benefit
User Satisfaction	0.567	Valid	0.753			
Information Quality	0.571	Valid	0.718	0.756		
System Quality	0.649	Valid	0.597	0.724	0.806	
Net Benefit	0.617	Valid	0.632	0.550	0.470	0.785

Table 2. *Cross Loading*

	User Satisfaction	Quality Information	System Quality	Net Benefit
KP1	0,777	0,526	0,441	0,560
KP2	0,517	0,405	0,519	0,752
KP4	0,724	0,498	0,389	0,399
KP5	0,579	0,537	0,452	0,766
KP6	0,745	0,580	0,470	0,437
KI1	0,531	0,723	0,574	0,357
ki2	0,558	0,758	0,504	0,473
KI3	0,531	0,790	0,556	0,500
KI6	0,547	0,751	0,555	0,329
KS1	0,474	0,575	0,830	0,396
KS2	0,579	0,829	0,365	0,518
KS4	0,448	0,600	0,756	0,377
NB1	0,509	0,476	0,420	0,805
NB2	0,548	0,497	0,440	0,816
NB3	0,418	0,297	0,218	0,731

Table 3. *Composite Reliability and Cronbach's Alpha*

	Composite Reliability	*Cronbach's Alpha*	Description

User Satisfaction	0,868	0,809	Reliable
Quality Information	0,842	0,749	Reliable
System Quality	0,847	0,729	Reliable
Net Benefit	0,828	0,705	Reliable
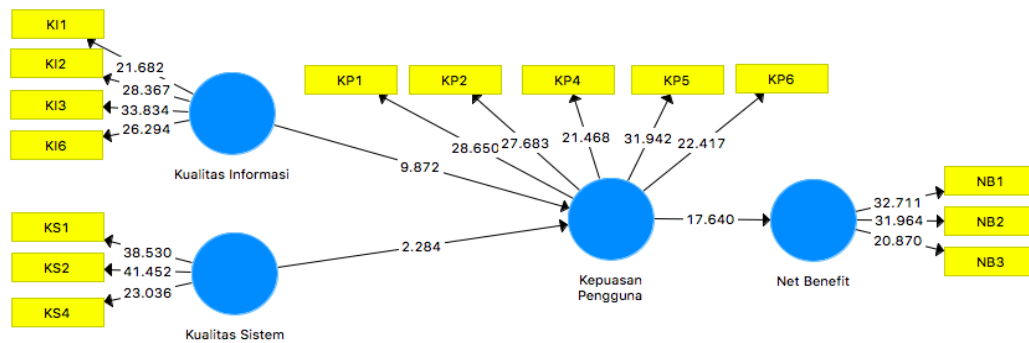
Fig.3. *Path Model PLS Bootstrapping*

Table 4. Coefficient of determination (R2)

	R Square	Adjusted R Square
User Satisfaction	0.528	0.525
Net Benefit	0.399	0.397

Table 5. *Path coefficient (β)*

	User Satisfaction	Quality Information	System Quality	Net Benefit
SatisfactionUsers				0.632
Information Quality	0.600			
System Quality	0.162			
Net Benefit				

Table 6. Test *Original Sample*, **T-Statistics, and P-Values**

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (| O / STDEV |)	P Values
User Satisfaction ->*Net Benefit*	0.632	0.631	0.036	17.640	0.000
Information Quality -> User Satisfaction	0.600	0.600	0.061	9.872	0.000
System Quality -> User Satisfaction	0.162	0.166	0.071	2.284	0.023

Table 6. Hypothesis Testing Results Hypothesis

Hypothesis	Results
H1: Information Quality Influences Positive on User Satisfaction	Supported
H2: System Quality Positive Influence on User Satisfaction	Supported
H3: User Satisfaction has a Positive Influence on *Net Benefit*	Supported

3.1 Information Quality Has a Positive Influence to User Satisfaction

Based on the results of hypothesis testing, the path coefficient of Information Quality to User Satisfaction has a value *original sample* of 0.600 and a *P-Value* of 0,000, thenit was concluded that Hypothesis 1 was supported. This means that there is a positive influence between Information Quality on User Satisfaction, the better the Quality of Information the User Satisfaction will increase. Hypothesis testing results indicate that respondents were satisfied with the implementation of the banking information system to improve company satisfaction and profit (*net benefit*) seen from several indicators such as, ease in obtaining the latest financial information, availability of relevant, useful, and significant financial information, ease in obtaining concise and concise financial information, and the availability of financial information that can be accounted for and logical. Thus, Information Quality at PT Bank Mandiri (Persero) Tbk. which includes, external information and internal information. The results of this study are also consistent with the study of [7][12] and [9] which proves that Information Quality has a positive effect on User Satisfaction.

3.2 System Quality Has Positive Impact to User Satisfaction

Based on the results of hypothesis testing, the path coefficient of the System Quality on User Satisfaction has value *original sample* of 0.162 and a *P-Value* of 0.023, thenit was concluded that Hypothesis 2 was supported. This means that there is a positive influence between System Quality on User Satisfaction, the better the Quality of the System the User Satisfaction will increase. Hypothesis testing results indicate that respondents acknowledged the successful implementation of the banking information system to increase company satisfaction and profit (*net benefit*) seen from several indicators such as ease, comfort, and speed in accessing financial information, as well as getting benefits from the presence of new or additional financial information which is available. Thus, the *Transaction Processing System (TPS) Function*, *Management Support System (MIS) Function*, and *Fixed Asset Information System*, *Core Banking System (CBS)* have a positive effect on the satisfaction of information system users at PT Bank Mandiri (Persero) Tbk. The results of this study are also consistent with the study of [7][12][9] which proves that System Quality has a positive effect on User Satisfaction.

3.3 User Satisfaction has a Positive *Impact to Net Benefit*

Based on the results of hypothesis testing, the path coefficient of User Satisfaction towards *Net Benefit* has value *original sample* of 0.632and a *P-Value* of 0,000, then it was concluded that Hypothesis 3 was supported. This means that there is a positive influence between User Satisfaction on *Net Benefit*, the higher the User Satisfaction, the *Net Benefit* will increase. Hypothesis testing results show that User Satisfaction has a positive effect on the successful implementation of banking information systems based on the level of respondents' satisfaction with available financial information, conditions of information systems that meet expectations,

the benefits of information in choosing alternative actions taken, the availability of clear financial information, and pride in using financial information from the system. The higher the level of satisfaction of respondents and the increasing sense of pride in using financial information will increase the *net benefit* company because it reflects the good loyalty of system users. In addition, the bett Besidesition of the information system, the more useful information available to choose alternative actions to be taken, and the better availability of clear financial information will increase the *net benefits* company's reflected by reliable and valid information that can be used as a material for company consideration. Thus, the satisfaction of information system users who served in related positions has a positive effect on *net benefits* at PT Bank Mandiri (Persero)Tbk. The results of this study are also consistent with the study of [7][12][9] which proves that User Satisfaction has a positive effect on *Net Benefit*.

4 Conclusion

The first hypothesis states that Information Quality has a positive effect on Supported User Satisfaction. This means that there is a positive influence between Information Quality on User Satisfaction, the better the Quality of Information the User Satisfaction will increase. The second hypothesis states that System Quality has a positive effect on Supported User Satisfaction. This means that there is a positive influence between System Quality on User Satisfaction, the better the Quality of the System the User Satisfaction will increase. The third hypothesis states that User Satisfaction has a positive effect on *Net Benefit* supported. This means that there is a positive influence between User Satisfaction on *Net Benefit*, the higher the User Satisfaction, the *Net Benefit* will increase.

5 Implications / Limitations and Suggestions

The implications of the results of the study indicate conformity with the DeLone and McLean Information System Success Model Theory that there is a positive influence of Information Quality on User Satisfaction, System Quality on User Satisfaction, and User Satisfaction with *Net Benefit*. This research is only able to explain some of the phenomena that exist because it only uses samples from the existing population. This research only uses the survey method with online questionnaire media *(Google Form)* so that it lacks information from other media. Future studies are expected to be able to add research media other than questionnaires, for example, *interviews* or *Focus Group Discussions* (FGD) to get clearer and more detailed information related to the problem under study, broaden the scope of research such as adding other banks to be studied so that research results can better represent the population bigger and more reliable.

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