Application of Qualified Accounting Information System in Higher Education viewed from the Finance Section Perspective to anticipate Environmental Uncertainty

Christine Dwi Karya Susilawati

Accounting Department

Maranatha Christian University

Bandung

Christine.dwi.karya.s@gmail.com

Abstract— The finance department in Higher Education becomes the main source of financial information in Higher Education. Users of accounting information systems in the central Higher Education, one of which is the Finance section. This Finance Section becomes a revenue-earning part and a source of fees expenditures incurred in all departments and faculties in Higher Education. Innovation for problem solving on the quality of accounting information systems in higher education by looking at the financial point of view can anticipate the uncertain external environment factors that affect the quality of accounting information systems in higher education. Environmental uncertainty influence to the quality of the accounting information system of 56.4%. Environmental uncertainty Factors are most noted by respondents with Higher Education financial section is in terms of the effect of environmental uncertainty. Accounting information systems quality Factor is most noted by respondents with Higher Education financial section is in terms of the integration of accounting information systems. Influence of dimensions of environmental uncertainty against the dimensions of the quality of accounting information systems, large influence shown by the highest value highest contingency coefficient of 0.865 i.e. influence state environmental uncertainty flexibility to

wards accounting information system quality. And the smallest influence shown by the effect the environmental uncertainty towards accessibility accounting information system quality of 0.613.

Keywords-component; higher education; finance section; accounting information system; environmental uncertainty

INTRODUCTION

The phenomenon as an individual perspective on the environmental uncertainty that affects the implementation of the system becomes inflexible proposed Minister of Research and Technology M.Nasir (2015)[1] which states that the financial system in PTN-BH constraint is less flexible, such as difficulties in managing the budget given Kemendikbud, so that the absorption of the budget to be low and the financial reporting system applied by the Ministry of Finance (MoF) is quite complicated and not in accordance with dynamic academic activities, meaning that factors that have not been able to anticipate this dynamic academic activity cause the financial system in PTN-BH less flexible.

The finance department in Higher Education becomes the main source of financial information in Higher Education. Users of accounting information systems in the central Higher Education, one of which is the Finance section. This Finance Section becomes a revenue-earning part and a source of fees expenditures incurred in all departments and faculties in Higher Education. Innovation for problem solving on the quality of accounting information systems in higher education by looking at the financial point of view can anticipate the uncertain external environment factors that affect the quality of accounting information systems in higher education.

The Influence of Environmental Uncertainty on Accounting Information System Quality

Year and Author	The Result of Environmental Uncertainty Research on Quality of Accounting Information System
Hammad et.al (2012) [2]	environmental uncertainty becomes an important factor in designing an effective and efficient accounting system, and from the results of the research shows the uncertainty of the environment affecting accounting systems that result in information for management
Gilbert & Singer (2011) [3]	environmental uncertainty shows a significant impact on information systems designed as a strategy.
Gull et.al. (1993)[4]	conditions of perception of high environmental uncertainty improve the quality of information generated by information systems to produce decision-making that improves company performance.
Wang dan Huynh (2013)[5]	Environmental uncertainties affect the accounting system and company performance as a moderating variable.

So it can be said from the results of previous research formulated hypotheses:

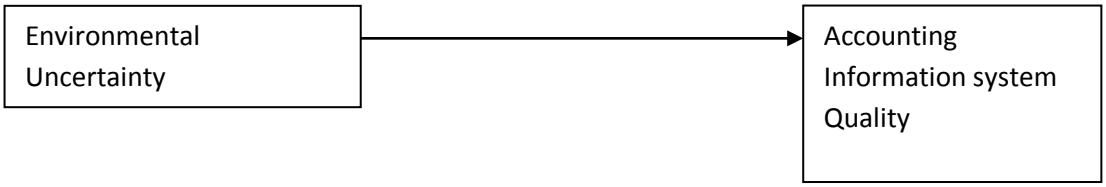
H1: environmental uncertainty influences accounting information system quality

MATERIAL AND METHODS

METHODS

The study was conducted on 79 respondents of finance department at 30 higher education in Indonesia.

The research model used is described as follows:



State Uncertainty	Integrated
Effect Uncertainty	Flexible
Response Uncertainty	Accessible

So it can be said formulated hypotheses in detailed dimension as follows:

H1a: State uncertainty influences integrated in accounting information system quality

H1b: State uncertainty influences flexibility in accounting information system quality

H1c: State uncertainty influences accessibility in accounting information system quality

H1d: Effect uncertainty influences integrated in accounting information system quality

H1e: Effect uncertainty influences flexibility in accounting information system quality

H1f: Effect uncertainty influences accessibility in accounting information system quality

H1g: Response uncertainty influences integrated in accounting information system quality

H1h: Response uncertainty influences flexibility in accounting information system quality

H1i:Response uncertainty influences accessibility in accounting information system quality

To test the hypotheses, researcher use chi-square analysis and regression analysis but to support detailed analysis using descriptive analysis and validity and realibility analysis (Hair et.al., 2010)

MATERIALS (LITERATURE)

Environmental Uncertainty

Environmental uncertainty is the individual's inability to accurately predict environmental conditions affecting the company. (Luhman & Cunliffe, 2012: 57)[6]. Hatch and Cunliffe, Robins & Coulter (2011: 38) [7] defines environmental uncertainty as uncertainty caused by changes in the environment that are affected by the management process. The best work environment is stable and predictable, although in reality the environment is changing rapidly and unpredictably. a rapidly changing and unpredictable environment "). Similarly, Konig (2009: 27) [8] defines environmental uncertainty as the predictability of

environmental conditions of the organization ("perceived environmental uncertainty as" the predictability of conditions in the organization's environment. ") Furthermore, environmental uncertainty is represented by variable X1.

In order for this concept to be operationalized, the following dimensions and indicators are defined:

1) State uncertainty,

the lack of information about the nature of the external environment leads to the uncertainty of perception so that members of the organization do not understand how things change or how things interconnect ("State uncertainty - where a lack of information on the nature of the external environment leads to the perception unpredictability so that organization members do not understand how things are changing or how things interrelate ") (Konig, 2009: 31-35)

a) **Source of change**: source of external environmental factor changes from price & demand, technology & sociological environment (Konig: 2009, 32;).

(First, changes in the firm's environment constitute the adaptation requirements for firms.

b) **Level of predictability:** assumption divergent assumptions for rational management decision making (Konig: 2008, 32).

(built on the assumption that managerial decision-making can be at most limitedly rational, i.e., managers try to make farsighted decisions, but still, many elements in the environment are not fully predictable and allow at most a subjective, individual evaluation.)

2) Effects of uncertainty

is the influence of knowledge on environmental influences on the organization means that members can not predict its impact and provide confidence to reward causal environmental factors ("The influence of uncertainty - where the lack of knowledge about environmental influences on the organization means that members can not predict the impact of external changes and lack of trust about causal statement ") (Luhman & Cunliffe, 2012: 57; Konig, 2009: 31-35)

a) down / reverse risk: high risk at the lower (execution) and above (design / planning) levels that are harmful or beneficial. (Konig: 2009, 32). (it is generally acknowledged that the consequences of an uncertain operation can have a positive side and a negative side)

b) Organization Performance Measures (misaligned) can not meet environmental requirements and thus require additional costs for adjustments (additional costs). Konig: 2009, 32). ("Misaligned" forms of government will not adequately meet environmental requirements, leading to additional costs for adaptation, such as transaction costs, search fees)

3) Response uncertainty

lack of knowledge about the value or usefulness of any action leads to the inability to predict the consequences ("Response uncertainty-when a lack of knowledge of the value or utility of any course of action leads to an inability to predict consequences"). (Konig, 2009: 31-35)

a) Endogenous uncertainty: the act of overcoming the inner uncertainty by proactively providing insetives (Konig, 2009: 34). (endogenous uncertainty is always coupled with an incentive to invest in order to resolve it proactively)

b) Exogenous uncertainty: the organization has no direct influence, the organization can adopt an adaptive strategy (Konig, 2009: 34). (if uncertainty is exogenous to the firm's actions, the firm may not be able to influence the adaptation strategies).

Quality of accounting information system

The quality of accounting information systems can be said to be a set of subsystems of human resources, tools that work harmoniously to process financial data into useful financial information in decision making (Romney et.al., 2015: 363)[9]. Accounting information system can be defined as a collection (integration) of sub-systems / components both or non-physical are interconnected and cooperate with each other in harmony to process data transactions yan related to financial problems into financial information (Azhar Susanto, 2013: 72)[10]. Richardson et al (2014: 4)[11] further defines the accounting information system as a system that records, processes and reports transactions of financial and nonfinancial information at the internal control level (for data security protection) ("Accounting information system (AIS), defined as a system that "Hurt (2008: 3)[12] defines the accounting information system is a series of activities related to documents and technology that designs for data collection and processes and reports information for decision making by external and internal actors of

the organization ("Accounting information system is a set of interrelated activities, documents, and technologies designed to collect data, process it, and report information to a diverse group of internal and external decision makers in organizations ").Furthermore the quality of accounting information system represented by variable Y.

Heidmann (2008: 87-91)[13] states that quality accounting information systems have characteristics

1. integrate, measure the extent to which the system can facilitate information from multiple sources to support business decision management so that this accounting system can produce information integration from different functional areas ("Integration measures" sources to support business decisions Management accounting systems can facilitate the integration of information from different functional areas ").

2. flexible, the extent to which the system can adapt to the various needs of users and changing conditions. The accounting system may limit the manager's attention to the area covered by the system ("Flexibility measures" of the degree to which a system can adapt to a variety of user needs and to changing conditions. " the system ").

3. accessibility, the extent to which the system and the information it contains can be accessed with relatively low effort.

("Accessibility measures", "Accessibility information", "access to information can be seen as necessary condition to system quality").

4. procedural system (formalization), the extent to which the system contains rules or procedures in order to coordinate activities. ("Formalization measures the degree to which a system contains rules or procedures." In order to coordinate activities,

5. used through various media (media richness), the extent to which the system uses channels that allow high-level personal interaction. Strategic issues are difficult to quantify and require different perspectives in order to create common interpretations. Face-to-face meetings and other rich media are best suited for exchanging interpretations of strategic issues in order to reduce uncertainty.

("Media richness measures the degree to which a system uses channels that enable a high level of personal interaction." Face-to-face meetings and other rich media are best suited to exchange

interpretations of strategic issues in order to reduce equivocality associated with them.550 A management accounting system ")

Then Stair and Reynolds (2010: 57) [14] states the quality of accounting information systems are generally flexible, efficient, akesbilitas and timely. ("A quality of information system is usually flexible, efficient, accessible and timely"). Furthermore Davis et al (1989: 320)[15] revealed that accounting information systems can be said to be qualified if a. perceive usefulness, as the extent to which people using a particular system will improve their job performance. ("Perceived usefulness as' the degree to which a person that uses a particular system would enhance his or her job performance"). b. Perceive ease of use can be perceived, different degrees for people who believe that using a particular system will be free from business. ("Perceive ease of use, in contrast 'degree to which a person believes that using a particular system would be free of effort").

The same thing is expressed by Bocij (2014: 392-393)[16], an accounting information system that meets the criteria of a quality accounting information system if: 1. Easy to use (easy to use); 2. Present the correct function for the user (provide the correct function for end-users); 3. Appropriate data display among various screen media features (rapid in-retrieving data and moving between different screen views of data); 4. Reliable (reliable); 5. Safe (secure); 6. Well integrated with other systems (well integrated with other systems)

So from the description above the quality of information systems can be said to have characteristics (dimensions)and indicators:

1) integration, measuring the extent to which the system can facilitate information from multiple sources to support business decision management so that this accounting system can produce information integration from different functional areas (Bocij, 2014: 392-393). With indicators as follows:

a) the system can facilitate information from multiple sources to support business decision management (Bocij, 2014: 392-393)

b) this accounting system can produce information integration from different functional areas (:Bocij, 2014: 392-393)

2) flexible, the extent to which the system can adapt to various user needs and changing conditions. The accounting system may limit the manager's attention to the area covered by the system ("Flexibility measures" of the degree to which a system can adapt to a variety of user needs and to changing conditions. " the system ") (Davis et al., 1989: 320). With indicators as follows:

a) the system can adapt to various user needs (Davis et al., 1989: 320)

b) the system can adapt to changing conditions (Davis et al., 1989: 320)

3) accessibility (accessibility), the extent to which the system and the information it contains can be accessed with relatively low effort.(Davis et al., 1989: 320).

With the accessibility indicator is:

a) the system is easily accessible (Davis et al., 1989: 320)

b) information generated by the system can be accessed easily (Davis et al., 1989: 320

RESULT AND DISCUSSION

Descriptive Analysis of Environmental Uncertainty

Tabel

Descriptive Statistics for Variables and Dimensions of Environmental Uncertainty

		Statistik		Frekuensi Relatif					
		Mean	STDEV	(0-1)	(1-2)	(2-3)	(3-4)	(4-5)	5
Variabel	KL	3.3	0.8	0.0	5.1	21.5	54.4	17.7	1.3
Dimensi	State	3.3	0.9	0.0	5.1	11.4	46.8	30.4	2.5
	Effect	3.4	0.7	0.0	3.8	8.9	57.0	27.8	2.5
	Response	3.3	0.9	0.0	6.3	16.5	39.2	34.2	3.8

Based on the above table can be analyzed that the higher education response to the sample of research on the variables of environmental uncertainty are as follows:

a) The average higher education response which is the sample of the research on the environmental variables of 3.3 is quite high. It can be interpreted that in general the accounting information system applied has adopted employee knowledge in the face of environmental uncertainty well. With the

majority replied in the range 3-4 answers. The right is interpreted to the employee's ability to face high environmental uncertainty.

b) Based on the calculation of the relative frequency of the environmental uncertainty variable, it can be seen that there are 5.1% of the sample research, answer on the range of answers 1-2. It can be interpreted that there is still an accounting information system applied to the higher education that became the sample of research has adopted the ability of employees, especially the financial section to anticipate the environmental uncertainty.

c) State Dimensions

The average value of unit analysis answer above State dimension is 3.3 with high enough category. This can be interpreted that generally the accounting information system applied to the higher education that became the research sample has adopted the ability to anticipate the environmental uncertainty that is reflected with the information that the basis of the ability of employees understand and understand how things change and interconnected to determine the source of uncertainty environment and its predictibility level.

Effect Dimension

The average value of unit analysis answer above Effect dimension is 3.4 with high enough category. This can be interpreted that generally accounting information system applied at higher education which become sample of research have adopt employee ability to anticipate environmental uncertainty by knowing impact of changing environmental condition and interrelated.

e) Response Dimension

The average value of the unit analysis answer above the Response dimension is 3.3 with high enough category. This can be interpreted that generally accounting information system applied at higher education which become sample of research have adopted ability of employees to anticipate environmental uncertainty which is reflected by knowledge about action consequence that must be done from condition of external environment that change and interrelated

Descriptive Analysis of Quality Accounting Information System

Tabel									
Descriptive Statistics for Variable and Quality Accounting Information Systems									
		Statistik		Frekuensi Relatif					
		Mean	STDEV	(0-1)	(1-2)	(2-3)	(3-4)	(4-5)	5
Variabel	KSIA	3.6	0.6			11.4	49.4	36.7	2.5
Dimensi	Integration	3.6	0.7			10.1	41.8	45.6	2.5
	Fleksible	3.6	0.8		2.5	10.1	39.2	43.0	5.1
	Accesible	3.7	0.6			1.3	44.3	50.6	5.1

Based on the above table can be analyzed that higher education responses to the sample research on the variable quality accounting information system is as follows: (Hair et.al., 2010) [17]

a) The average higher education response which is the sample of research on the variable quality of accounting information system of 3.6 is in either group. It can be interpreted that the majority of accounting information system applied is good quality in producing quality accounting information.

b) Based on the calculation of the relative frequency of accounting information system quality variables by 11.4% of higher education who answered in the range of answers 2-3. It can be interpreted that there is still an accounting information system applied by higher education that are not good quality research sample in producing quality accounting information.

c) Dimension Integration

The average value of the answer is 3.6 with good category. This can be interpreted that in general accounting information system applied by the higher education who became a research sample has good quality which is reflected by the integration of financial information systems to produce accounting information.

Flexibility Dimension

The average value of the answer is 3.6 with good category. It can be interpreted that generally accounting information system applied by higher education which become sample of research have good quality which is reflected by from flexible financial information system in yielding quality accounting information.

e) Dimension of Accessibility

The average value of the answer is 3.7 with good category. It can be interpreted that generally accounting information system applied by higher education which become sample of research have good quality which is reflected by Accessibility in financial information system in yielding quality accounting information.

Results and Discussion The Influence of Environmental Uncertainty on Quality of Accounting Information System

Table of Contingency Coefficients with Chi Square

	Integration	**Flexible**	**Accesible**
State	0.823	**0.865**	0.715
Effect	0.751	0.836	**0.613**

With Analysis Chi-Square (Hair et.al.) to test relation among dimension of variables (3x3). From the above data that shows the relationship between the dimensions of environmental uncertainty that is state uncertainty, uncertainty effect and response uncertainty and dimension of quality of accounting information system that is integration, flexible and accessible. The results showed all hypotheses of H1a-H1i supported:

1. State uncertainty effect on integration of accounting information system quality with contingency coefficient of 0.823 at 0.000 significance level.
2. State uncertainty affect the flexibility of the quality of accounting information system with a contingency coefficient of 0.865 at the level of significance 0.000.
3. State uncertainty effect on the accessibility of the quality of accounting information system with a contingency coefficient of 0.823 at the level of significance 0.000.

4. Effect uncertainty effect on integration of accounting information system quality with contingency coefficient of 0.751 at the level of significance 0.000.
5. Effect uncertainty affect the flexibility of the quality of accounting information system with a contingency coefficient of 0.836 at the level of significance 0.000.
6. Effect uncertainty effect on the accessibility of the quality of accounting information system with contingency coefficient of 0.613 at the level of significance 0.000.
7. Response uncertainty effect on integration of accounting information system quality with contingency coefficient of 0.805 at the level of significance 0.000.
8. Response uncertainty affect the flexibility of the quality of accounting information system with a contingency coefficient of 0.797 at the level of significance 0.000.
9. Response uncertainty affect the accessibility of the quality of accounting information system with a contingency coefficient of 0.732 at the level of significance 0.000.

The highest value is indicated by the linkage of the state with a flexible 0.865 means the determination of external environmental factors that affect the quality of accounting information system flexibility becomes the most dominant factor in higher education in Indonesia which responded by the finance department in higher education. And the smallest is the relationship between the effect and accessible means that least attention is the impact of external environmental factors that affect the quality of accounting information system accessibility. Overall the value of the linkage between the dimensions of environmental uncertainty and the quality dimensions of the accounting information system is quite high with values above 0.6 and signifies the significance level of 0.000. So it means every dimension of state environmental uncertainty, effect and response influence dimension of quality of accounting information system that is integration, flexible and accessible. If viewed from the point of view of the uncertainty of the environment as a whole, the highest contingency coefficient value is on the line of state dimension means that Higher Education is most concerned with the determination of external environmental factors that affect the quality of accounting information system in Higher Education with a value of 0.823; 0.865 and 0.715 for the relevance of the dimensions of quality of accounting information system that is integration, flexible and accessible. And if seen from the point of view of

quality of the overall accounting information system, the highest contingency coefficient value in the dimension of flexible column means that Higher Education is most concerned about the quality of higher education flexibility that is influenced by the dimension of state environmental uncertainty, effect and response of 0.865; 0.836; 0.797.

Validity and Realibility Test Results per dimension

Tabel Loading Faktor Reduction

Rotated Component Matrix[a]

	Component	
	1	2
State	.876	
Effect	**.879**	
Response	.711	
Integration		.839
Flexible		.564
Accessible		**.939**

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

Test validity and reliability with Factor Reduction (Hair et.al., 2010) in Component 1 shows the highest value on the effect dimension of the environmental uncertainty variable with the loading factor value of 0.879 means that the impact of the uncertain environmental factors anticipated by the financial section becomes the most dominant factor. While the lowest value in Component 1 is the response dimension of the environmental uncertainty variable of 0.711 means the response of action as a consequence of the impact of external

environmental factors that are uncertain by the financial section is less attention.

In Component 2 shows the highest value on the accessible dimension of accounting quality variable information in Higher Education of 0.939. This means that the finance department in the university most attention to the accessibility of information systems in higher education in all parts in the higher education related to finance. While the lowest value in Component 2 is flexible with the loading factor value of 0.564. This means that the financial section in Higher Education less attention to the flexibility of accounting information systems in Higher Education. This shows the reversal of the value of the interrelationship between the dimensions of the previous Chi Square test, this is because the value of the accessible factor loading dimension is very high at 0.939 above the value of all dimensions of the environmental uncertainty variable is state, effect and response (0,876; 0,879; 0,711). While the value factor dimension loading from other accounting system quality variables such as integration of 0.836 is smaller than the state and effect dimensions. And the flexible dimension is lower than all dimensions of environmental uncertainty is state, effect and response.

Tabel

No.	Konstruk	Dimensi	R^2	Dimensi		AVE	CR	Konstruk	
				Validitas	Realibilitas			Validitas	Realibilitas
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	EU	State	0.81	Valid	Realibel	0.795	0.921	Valid	Realibel
2		Effect	**0.84**	Valid	Realibel				
3		Respons	0.77	Valid	Realibel				
4	AIS	Integra	**0.89**	Valid	Realibel	0.812	0.928	Valid	Realibel
5		Flexsible	0.79	Valid	Realibel				
6		Accessible	0.84	Valid	Realibel				

From the results of validity and reliability test shows the value of AVE and Composite reliability variable of environmental uncertainty and accounting information system quality above 0.6. This means that all dimensions of the variables studied have met the validity and reliability test.

The highest value of R square reflectively from the environmental uncertainty variable is the effect dimension of 0.84, meaning the effect dimension becomes the strongest factor that make the environment uncertainty variable, and the lowest in the response dimension is 0.77 which means the response dimension becomes the most factor weak forming variable of environmental uncertainty. And the highest

value of R square reflectively on the variable quality of accounting information system is the integration dimension of 0.89 means the integration dimension becomes the most powerful factor that helps the quality variable of the accounting information system, and the lowest in the flexible dimension means the flexible dimension becomes the weakest factor which form the quality of accounting information systems.

Regression Analysis

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.751[a]	.564	.559	.42712	.564	99.672	1	77	.000

a. Predictors: (Constant), EU

b. Dependent Variable: AISQ

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	18.183	1	18.183	99.672	.000[b]
	Residual	14.047	77	.182		
	Total	32.231	78			

a. Dependent Variable: AISQ

b. Predictors: (Constant), EU

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	1.479	.220		6.737	.000	1.042	1.916
	EU	.643	.064	.751	9.984	.000	.515	.771

a. Dependent Variable: AISQ

From result of regression analysis (Hair et.al., 2010) show big influence of environmental uncertainty factor to high quality of accountancy information system is high 56,4% (from R square) with significance level 0,000. With the value of regression coefficient of environmental uncertainty on the quality of accounting information system is high enough for 0.643. This means that environmental uncertainty becomes a factor that plays an important role to improve the quality of accounting information systems. In order for the quality of accounting information system in higher education, it is expected that higher education will pay more attention to the response dimension of environmental uncertainty variable in Higher Education which is still not paid attention means the consequence of action must be considered by users of accounting information system. And it can be maintained the dimension value of the state and

effect of the variable of environmental uncertainty in order to remain high and become the attention of Higher Education in facing the competition and the needs of the University's graduate users.

Conclusion

So from the above discussion and analysis results can be concluded that:

1. Environmental uncertainty influence to the quality of the accounting information system of 56.4%.
2. Environmental uncertainty Factors are most noted by respondents with Higher Education financial section is in terms of the effect of environmental uncertainty.
3. Accounting information systems quality Factor is most noted by respondents with Higher Education financial section is in terms of the integration of accounting information systems.
4.Influence of dimensions of environmental uncertainty against the dimensions of the quality of accounting information systems, large influence shown by the highest value highest contingency coefficient of 0.865 i.e. influence state environmental uncertainty flexibility to wards accounting information system quality. And the smallest influence shown by the effect the environmental uncertainty towards accessibility accounting information system quality of 0.613.
5. So it can be said that the focus of the finance section anticipates an external environmental factors are viewed in terms of the state of environmental uncertainty towards flexibility information system quality. Flexibility of accounting information systems become the most important part of the proper functioning of an accounting information system that is affected by the determination of state-changing external environment. And accessibility became a top priority and should be and system to use, it makes accessibility accounting information system is influenced by the effect the environmental uncertainty has the most influence is small, because it was be common and routine.

Acknowledgement

I give a big thank you to the Ministry of ristekdikti Indoneisia and LPPM Maranatha Christian University that paid grants this research so that this article can be compiled.

Reference

[1] M. NASIR. 2015. MENRISTEKDIKTI: KEUANGAN PTN-BH KURANG FLEKSIBEL. MELALUI HTTP://WWW.ANTARANEWS.COM/BERITA/517386/MENRISTEKDIKTI-KEUANGAN-PTN-BH-KURANG-FLEKSIBEL

[2] Hammad , Salah A., Ruzita Jusoh, Imam Ghozali..2012. *Decentralization, perceived environmental uncertainty, managerial performance and management accounting system information in Egyptian hospitals*. IJAIM, p.314-330

[3] Gilbert, Arthur H. and Joseph F.Singer. The strategic impact of Environmental Uncertainty and Information System Design. *The Review of Accounting Information System Vol.3 number 3*, 2011

[4] Gull, Ferdinand A., William Glen, Alan Ruguang Hung.1993. The Effect of Environmental uncertainty , computer usage and Management accounting system in the Small Business. *The Journal of Entrepreneurial Finance*, 1993, p.251-271

[5] Wang, David Han-Min, and Quang Linh Huynh. 2013. Effects of Environmental Uncertainty on Computerized Accounting System Adoption and Firm Performance International Journal of Humanities and Applied Sciences (IJHAS) Vol. 2, No. 1, 2013 , ISSN 2277 – 4386, p.13-21

[6] Luhman , John T, Ann L.Cunliffe. *Key Concept in Organization Theory*. Sage, 2012, p. 57

[7] Hatch, Mary Jo & Cunliffe, Mary Jo. *Organization Theory*. Third Edition Oxford University Press, 2013,p. 38

[8] Konig, Franziska. *The Uncertainty-Governance Choice Puzzled Revisited*. Gabler, 2009, p.27-35

[9] Romney, Marshall B.., and Paul John. Steinbart. *Accounting Information Systems*. Thirteenth Edition.. Pearson Education, 2015, p.363

[10] Azhar Susanto. *Sistem Informasi Akuntansi Struktur Pengendalian Resiko Pengembangan*. Lingga Jaya, 2008, p.72

[11] Richardson, Vern, Janie Chang and Rod Smith. *Accounting and Information Systems*. Mcgraw Hill Education, 2014, p.4

[12] Hurt, Robert L. *Accounting Information Systems Basic Concept and Current Issues*. Mcgraw-Hill Education, 2008,p.3

[13] Heidmann, Marcus. *The Role of Management Accounting Systems in Strategic Sensemaking*. Springer Science Business and Media, 2008,p.87-91

[14] Stair, Ralph M. and George W. Reynolds. *Principles of Information System Ninth Edition Management Approach*. Cengage Learning, 2010,p.57

[15] Davis , Charles K. *Technologies & Methodologies for Evaluating Information Technology in Business* IRM Press Publisher, 1989,p.320

[16] Bocij, Paul.. *Business Information System: Technology, Development and Management for the E-Business*. Fifth Edition. Pearson, 2014,p.392-393

[17] Hair, Joseph F, William C. Black, Barry J. Babin and Rolph E. Anderson. Multivariate Data Analysis. Seventh Edition . Prentice Hall,2010