

The Relationship and Impact of Electronic Operation on Improving Efficiency and Effectiveness of the Internal Control System

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Abstract: *Internal control is an independent, objective assurance and consulting activity designed to add value and improve and organization's operations. It helps an organization accomplish its objectives by bringing a systematic, disciplined approach to evaluating and improving the effectiveness of risk management, control and governance processes. In most business organisations nowadays, the internal control is not only functioned as internal control reviewer but also played an important role as business risk access. Meanwhile internal control system is a set of policies and procedures established by the function management to enable the organisation to achieve its objectives this procedure is followed by e-operations. e-operations is expected to assess risk and then setting up strategies to manage the risk through development of systematic and structured control procedures. Hence, the intention of this paper is to explore the effect of internal controlling towards internal control system effectiveness in higher relationship and impact of e-operation in improving efficiency and effectiveness of the internal control system. e-operation were looked from the perspectives of control environment, risk assessment, control activities, information and communication and monitoring in internal control systems. This paper is a descriptive paper and conducted by reviewing previous studies as research designs. This paper concludes that, e-operation may influence internal control system effectiveness of higher learning institutions and it needs to be proven empirically by field work study.*

Keywords: Internal control, internal control effectiveness, e-operation, efficiency.

1. Introduction

Internal control normally focuses on good internal e-operation and compliance towards policies and rules to ensure the organization is operated in effectively manner thus able to achieve its objectives. Theoretically, the internal control function exists to help members of an organization to improve the performance of their activities (Ali et al, 2012)¹. The main factor in the development of internal controlling was the wider span of e-operation faced by management in operations spread over different locations (Ferdinand & Mahzan, 2013)². Company's management may also depend on internal control function in detecting fraud. Moreover, the urge of applying good governance in organisation has promoting the importance of internal control function. The roles of internal control seem to be widened. Nowadays, internal control also plays an important role in assisting the control committee in fulfilling their jobs. Internal control is expected to have good skill in assessing risk (Ahmad, et.al. 2009; Dittenhofer, 2001)³ and develop an action plan how to mitigate those risks. Specifically, the role of internal control is assessing internal e-operation systems, which consists of rules and standards set up by the management. Other than that, internal control also responsible to provide advices on how to improve the e-operation systems and corrective action if needed. The advices and suggestions given are

normally based on the ability of the control to foresee the future uncertainty events that may happen due to current weaknesses or loopholes of the e-operation systems. Meanwhile, a set of internal e-operation system consist of policies and procedures basically developed by management to manage risk and provide reasonable assurance that the organization would achieve its objectives. The main objectives of internal e-operation system are to ensure reliability of financial reporting, efficiency and effectiveness of operations and compliance with law and regulations. Internal e-operation system consists of five important elements, which e-operation environment, risk assessment, e-operation activities, information and communication and monitoring (Arel, B. 2006)⁴. E-operation environment describe the tone at the top of organisation's management. It is very important because the attitude of top management towards good e-operation and risk management would influence the attitude the rest of the staffs. If top management believes that e-operation is important, others in organization will sense that and respond by concisely observing the e-operation established (Arens et.al. 2008)⁵. Meanwhile risk assessment is management's identification and analysis of risk. It also relates with the plan and action taken by management in mitigating and manages the risk. E-operation procedures are policies and procedures develop in addressing the risk. E-operation procedure might be divided into several types such as adequate separation of duties, adequate documents and records, physical e-operation over assets and records, proper authorization of transactions and independent checks on performance. The purpose of entity's

¹ Ali, Saidin, Sahdan, Rasit, Rahim & Gloeck, (2012), Internal Control in The Federal Government Organizations of Malaysia: The Good, The Bad and The Very Ugly?, Asian Journal of Business and Governance Business Administration Section.

² Ferdinand A.Gul, Mahzan N. Controlling: Theory and Practice in Malaysia.CCH, 2013.

³ Ahmad, H.N, Othman, R., Othman, R., Jusoff, K. (2009). The Effectiveness of Internal Control in Malaysian Public Sector. Journal of Modern Accounting and Controlling.

⁴ Arel, B. (2006). Two Studies on The Effect of Internal Control Source on Reliance.

⁵ Arens, A.A, Elder, J. R., Beasley, M.S., Amran, N.A., Fadzil, F.H., M.Yusof, N.Z., M.Nor, M.N., Shafie, R.(2008). Controlling and Assurance Services in Malaysia: An Integrated Approach.Second Edition. Prentice Hall.

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information and communication is to initiate, record, process and report every single transactions. This to ensure the accountability of every single amount disclose in the financial statements. Monitoring activities deals with ongoing or periodic assessment of the performance of internal e-operation systems by management. This activities is to ensure that the e-operation is operated as intended and any irrelevant e-operation may be modified and renew so that meet the current situation's problems. Internal e-operation systems are seen as one of important element in any organisation. The e-operation system normally embedded into structure, policies and procedures of organization. An organization without proper e-operation systems would normally suffer a lot of problems such as rise of cost and loss of cash. It is a responsibility of management to establish and maintaining reasonable internal e-operation systems. Management not only liable to design and develop internal e-operation system but also review the effectiveness of the e-operation. The purpose of the review is to ascertain whether the organisation's objectives and goals have been achieved. (Soh, D.S.B., & Martinov-Bennie, N. 2011)⁶.

2. Objective of the study

This paper is having two objective which are as follows:

- 1) To find the relationship between electronic operation efficiency and effectiveness of internal control system
- 2) To find the impact of electronic operation on improving deficiency and effectiveness of the internal control system

3. Methodology of the study

This paper is based on primary survey which is divided into two axis i.e relationship and impact of electronic operation efficiency and effectiveness of internal control system. This paper is conducted of 100 sample study based on responsible respondent.

4. Descriptive Statistics of Relationship between Electronic Operation Efficiency and Effectiveness of Internal Control System

Table 1

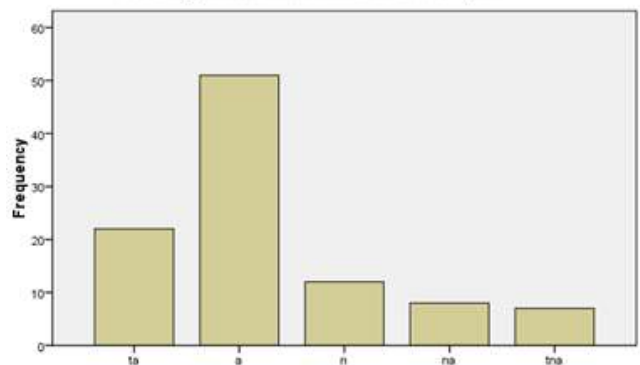
The Relationship of Electronic Processing Of Financial And Accounting Data Agreed With Quality Control And Internal Controlling is Closely Related To The Purpose Of Reducing Financial And Administrative Corruption

		Percent	Valid Percent	Cumulative Percent
Valid	Totally Agreed	22.0	22.0	22.0
	Agreed	51.0	51.0	73.0
	Neutral	12.0	12.0	85.0
	Not Agreed	8.0	8.0	93.0
	Totally Not Agreed	7.0	7.0	100.0
	Total	100.0	100.0	

⁶ Soh, D.S.B., & Martinov-Bennie, N. (2011), The Internal Control Function: Perceptions of Internal Control Roles, Effectiveness and Evaluation, Managerial Controlling Journal, Vol.26, No.7, pp:605-622.

Sources: complied from data collected through sample survey

The relationship of electronic processing of financial and accounting data with quality control and internal auditing is closely related to the purpose of reducing financial and administrative corruption



Graph 1

Sources: Complied from table 1

Table1 and Graph 1 shows that the relationship of electronic processing of financial and accounting data agreed with quality control and internal controlling is closely related to the purpose of reducing financial and administrative corruption under which 51% agreed with, 22% are with totally agreed, 12% are neutral, 8% are s are not agreed 7 % are not totally not agreed. Hence this shows positive The relationship of electronic operation on improving deficiency and effectiveness of the internal control system with higher degree

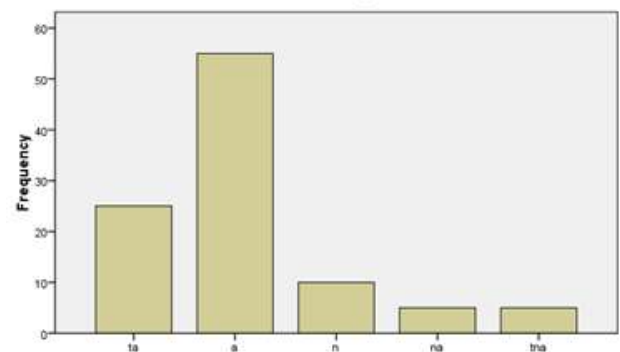
Table 2

The Parties Concerned Are Satisfied And Satisfied When There Is An Effective Internal Control System In The Units That Use Electronic Financial Statement And Accounting

		Percent	Valid Percent	Cumulative Percent
Valid	Totally Agreed	25.0	25.0	25.0
	Agreed	55.0	55.0	80.0
	Neutral	10.0	10.0	90.0
	Not Agreed	5.0	5.0	95.0
	Totally Not Agreed	5.0	5.0	100.0
	Total	100.0	100.0	

Sources: Complied from data collected through sample survey

The parties concerned are satisfied and satisfied when there is an effective internal control system in the units that use electronic financial statements and accounting



Graph 2

Sources: Complied from table 2

Table 2 and Graph 2 shows that the relationship of electronic processing of financial and accounting data agreed with quality control and internal controlling is closely related to the purpose of reducing financial and administrative corruption under which 55% agreed with, 5% are with totally agreed, 10 % are neutral, 5% are s are not agreed 7 % are not totally not agreed. Hence this shows positive the relationship of electronic operation on improving deficiency and effectiveness of the internal control system with higher degree.

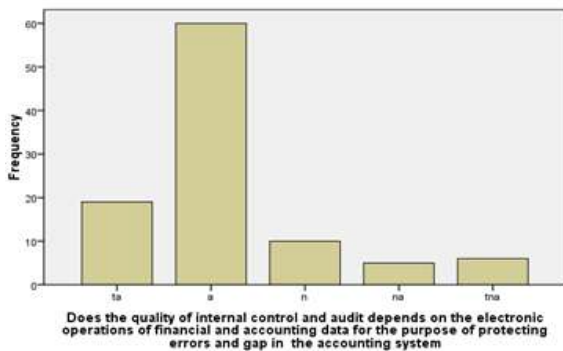
Table 3

Does the quality of internal control and control depends on the electronic operations of financial and accounting data for the purpose of protecting errors and gap in the accounting system

		Percent	Valid Percent	Cumulative Percent
Valid	Totally Agreed	19.0	19.0	19.0
	Agreed	60.0	60.0	79.0
	Neutral	10.0	10.0	89.0
	Not Agreed	5.0	5.0	94.0
	Totally Not Agreed	6.0	6.0	100.0
	Total	100.0	100.0	

Sources: Compiled from data collected through sample survey.

Does the quality of internal control and audit depends on the electronic operations of financial and accounting data for the purpose of protecting errors and gap in the accounting system



Graph 3

Sources: Compiled from table 3

Table 3 and Graph .3 shows that the relationship of electronic processing of financial and accounting data agreed with quality control and internal controlling is closely related to the purpose of reducing financial and administrative corruption under which 60% agreed with, 19% are with totally agreed, 10 % are neutral, 5% are s are not agreed 6 % are not totally not agreed. Hence this shows positive the relationship of electronic operation on improving deficiency and effectiveness of the internal control system with higher degree.

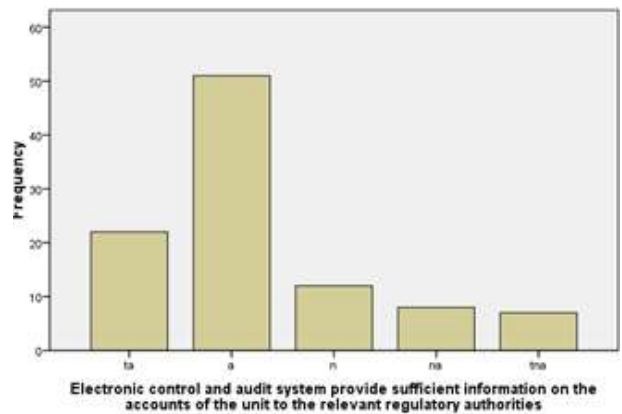
Table 4

Electronic control and control system provide sufficient information on the accounts of the unit to the relevant regulatory authorities

		Percent	Valid Percent	Cumulative Percent
Valid	Totally Agreed	22.0	22.0	22.0
	Agreed	51.0	51.0	73.0
	Neutral	12.0	12.0	85.0
	Not Agreed	8.0	8.0	93.0
	Totally Not Agreed	7.0	7.0	100.0
	Total	100.0	100.0	

Sources: Compiled from data collected through sample survey.

Electronic control and audit system provide sufficient information on the accounts of the unit to the relevant regulatory authorities



Graph 4

Sources: Compiled from table 4

Table 4 and Graph 4 shows that the relationship of electronic processing of financial and accounting data agreed with quality control and internal controlling is closely related to the purpose of reducing financial and administrative corruption under which 51% agreed with, 22 % are with totally agreed, 12 % are neutral, 8 % are s are not agreed 7 % are not totally not agreed. Hence this shows positive the relationship of electronic operation on improving deficiency and effectiveness of the internal control system with higher degree

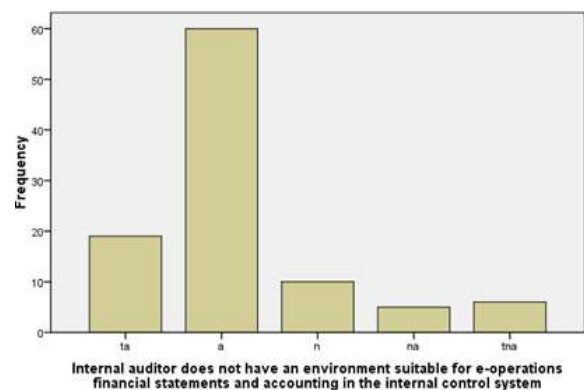
Table 5

Internal controller does not have an environment suitable for e-operations financial statement and accounting in the internal control system

		Percent	Valid Percent	Cumulative Percent
Valid	Totally Agreed	19.0	19.0	19.0
	Agreed	60.0	60.0	79.0
	Neutral	10.0	10.0	89.0
	Not Agreed	5.0	5.0	94.0
	Totally Not Agreed	6.0	6.0	100.0
	Total	100.0	100.0	

Sources: Compiled from data collected through sample survey.

Internal auditor does not have an environment suitable for e-operations financial statements and accounting in the internal control system



Graph 5

Sources: Compiled from table 5

Table 5 and Graph 5 shows that the relationship of electronic processing of financial and accounting data agreed with quality control and internal controlling is closely related to the purpose of reducing financial and administrative corruption under which 60 % agreed with, 19 % are with totally agreed, 10 % are neutral, 5 % are s are not agreed 6 % are not totally not agreed. Hence this shows positive the relationship of electronic operation on improving deficiency and effectiveness of the internal control system with higher degree.

	Neutral	7.0	7.0	83.0
	Not Agreed	9.0	9.0	92.0
	Totally Not Agreed	8.0	8.0	100.0
	Total	100.0	100.0	

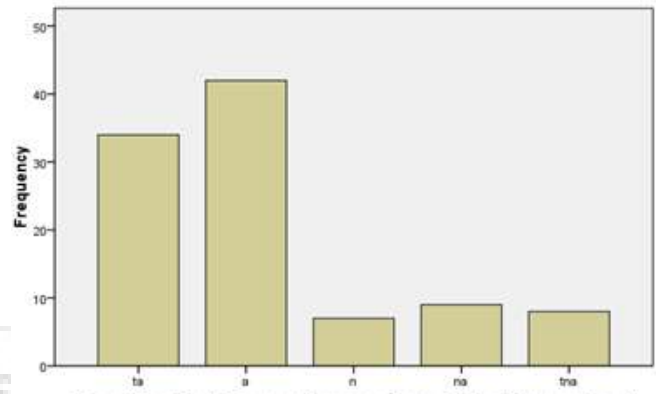
Sources: Complied from data collected through sample survey

Table 6
The use of the electronic Corporation method supports the internal control system for the accuracy of financial and accounting data

		Percent	Valid Percent	Cumulative Percent
Valid	Totally Agreed	28.0	28.0	28.0
	Agreed	48.0	48.0	76.0
	Neutral	6.0	6.0	82.0
	Not Agreed	7.0	7.0	89.0
	Totally Not Agreed	11.0	11.0	100.0
	Total	100.0	100.0	

Sources: Complied from data collected through sample survey

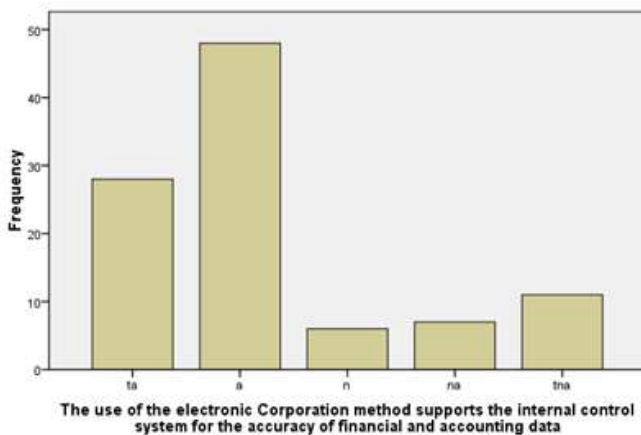
E operation helps to increase the scope of examination of documents and documents supporting financial transactions



Graph 7

Sources: Complied from table 7

The use of the electronic Corporation method supports the internal control system for the accuracy of financial and accounting data



Graph 6

Sources: Complied from table 6

Table 7 and Graph 7 shows that the relationship of electronic processing of financial and accounting data agreed with quality control and internal controlling is closely related to the purpose of reducing financial and administrative corruption under which 42 % agreed with, 34 % are with totally agreed, 7% are neutral, 9 % are s are not agreed 8 % are not totally not agreed. Hence this shows positive the relationship of electronic operation on improving deficiency and effectiveness of the internal control system with higher degree.

5. Descriptive Statistics of the Impact of Electronic Operation on Improving Deficiency and Effectiveness of the Internal Control System

Table1.6 and Graph 1.6 shows that the relationship of electronic processing of financial and accounting data agreed with quality control and internal controlling is closely related to the purpose of reducing financial and administrative corruption under which 48 % agreed with, 28 % are with totally agreed, 6 % are neutral, 7 % are s are not agreed 11 % are not totally not agreed. Hence this shows positive the relationship of electronic operation on improving deficiency and effectiveness of the internal control system with higher degree.

Table 7

E operation helps to increase the scope of examination of documents and documents supporting financial transactions

		Percent	Valid Percent	Cumulative Percent
Valid	Totally Agreed	34.0	34.0	34.0
	Agreed	42.0	42.0	76.0

Table 8

The information provided by the financial statements in the unit is transparent and fully disclosure the financial statements in the light of electronic operation which in turn has a positive effect on the work of the control or because the data is clear

		Percent	Valid Percent	Cumulative Percent
Valid	Totally Agreed	18.0	18.0	18.0
	Agreed	62.0	62.0	80.0
	Neutral	8.0	8.0	88.0
	Not Agreed	5.0	5.0	93.00
	Totally Not Agreed	7.0	7.0	100.0
	Total	100.0	100.0	

Sources: Complied from data collected through sample survey.

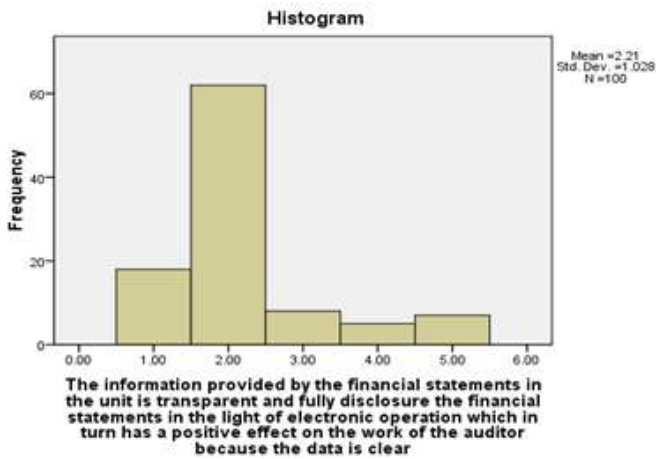


Table 8 and Graph 8 shows the impact of electronic operation on improving deficiency and effectiveness of the internal control system under which 62% agreed with, 18 % are with totally agreed, 8% are neutral, 7 % are s are not agreed 8 % are not totally not agreed. Hence this shows positive the impact of electronic operation on improving deficiency and effectiveness of the internal control system with higher degree.

Table 9

The possibilities of rapid re-vital of the information in the electronic operations of financial and accounting data and Thus reflect positively on the efficiency of the internal control system

		Percent	Valid Percent	Cumulative Percent
Valid	Totally Agreed	15.0	15.0	15.0
	Agreed	62.0	62.0	77.0
	Neutral	5.0	5.0	82.0
	Not Agreed	9.0	9.0	91.00
	Totally Not Agreed	9.0	9.0	100
	Total	100	100	

Sources: Compiled from data collected through sample survey

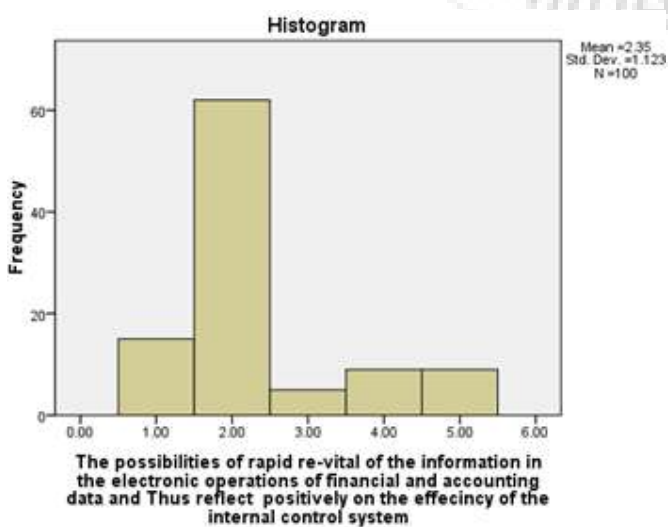


Table 9 and Graph 9 shows the impact of electronic operation on improving deficiency and effectiveness of the internal control system under which 62% agreed with, 15 % are with totally agreed, 5% are neutral, 9 % are s are not agreed 9 % are not totally not agreed. Hence this shows positive the impact of electronic operation on improving deficiency and effectiveness of the internal control system with higher degree.

Table 10

The department has have the professional competence of the employee working in the field of electronic operations and the preparation of the financial statement which leads to the objectivity and credibility of the information

		Percent	Valid Percent	Cumulative Percent
Valid	Totally Agreed	33.0	33.0	33.0
	Agreed	48.0	48.0	81.0
	Neutral	4.0	4.0	85.0
	Not Agreed	6.0	6.0	91.00
	Totally Not Agreed	9.0	9.0	100
	Total	100	100	

Sources: Compiled from data collected through sample survey

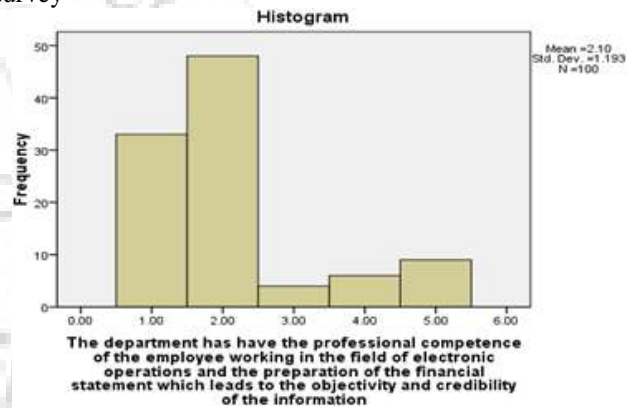


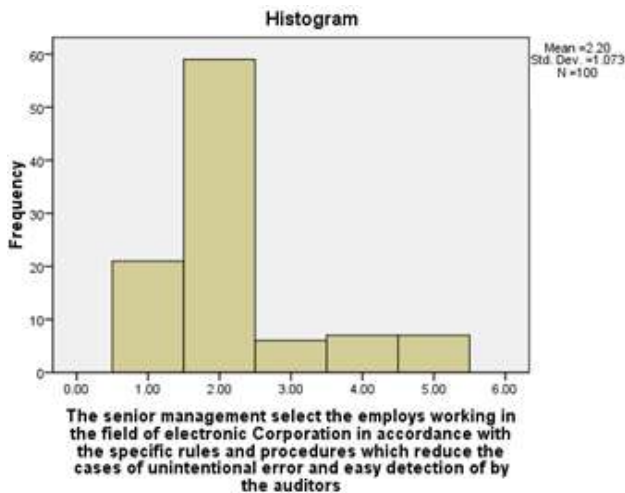
Table 10 and Graph 10 shows the impact of electronic operation on improving deficiency and effectiveness of the internal control system under which 48% agreed with, 33 % are with totally agreed, 4% are neutral, 6 % are s are not agreed 9 % are not totally not agreed. Hence this shows positive the impact of electronic operation on improving deficiency and effectiveness of the internal control system with higher degree.

Table 11

The Senior Management Select The Employs Working In The Field Of Electronic Corporation In Accordance With The Specific Rules And Procedures Which Reduce The Cases Of Unintentional Error And Easy Detection Of By The Controlors

		Percent	Valid Percent	Cumulative Percent
Valid	Totally Agreed	21.0	21.0	21.0
	Agreed	59.0	59.0	80.0
	Neutral	6.0	6.0	86.0
	Not Agreed	7.0	7.0	93.00
	Totally Not Agreed	7.0	7.0	100
	Total	100	100	

Sources: Complied from data collected through sample survey.



Graph 11

Sources: Complied from table 11

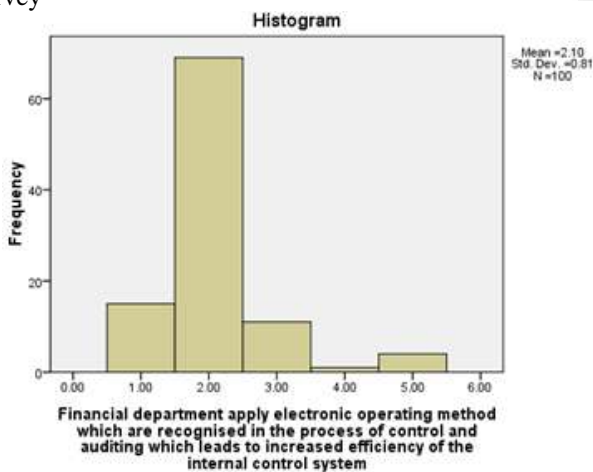
Table 11 and Graph 11 shows the impact of electronic operation on improving deficiency and effectiveness of the internal control system under which 59% agreed with, 21 % are with totally agreed, 6% are neutral, 7 % are s are not agreed 7 % are not totally not agreed. Hence this shows positive the impact of electronic operation on improving deficiency and effectiveness of the internal control system with higher degree.

Table 12

Financial department apply electronic operating method which are recognised in the process of control and controlling which leads to increased efficiency of the internal control system

		Percent	Valid Percent	Cumulative Percent
Valid	Totally Agreed	15.0	15.0	15.0
	Agreed	69.0	69.0	84.0
	Neutral	11.0	11.0	95.0
	Not Agreed	1.0	1.0	96.00
	Totally Not Agreed	4.0	4.0	100
	Total	100	100	

Sources: Complied from data collected through sample survey



Graph 12

Sources: Complied from table 12

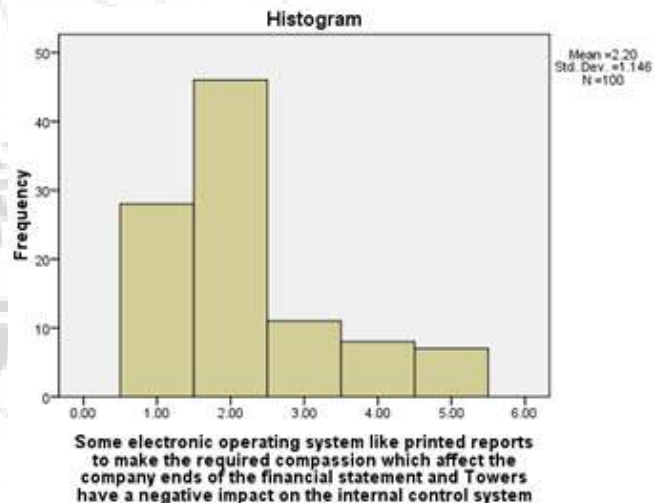
Table 12 and Graph 12 shows the impact of electronic operation on improving deficiency and effectiveness of the internal control system under which 69% agreed with, 15 % are with totally agreed, 11% are neutral, 1 % are s are not agreed 4 % are not totally not agreed. Hence this shows positive the impact of electronic operation on improving deficiency and effectiveness of the internal control system with higher degree.

Table 13

Some electronic operating system like printed reports to make the required compassion which affect the company ends of the financial statement and Towers have a negative impact on the internal control system

		Percent	Valid Percent	Cumulative Percent
Valid	Totally Agreed	28.0	28.0	28.0
	Agreed	46.0	46.0	74.0
	Neutral	11.0	11.0	85.0
	Not Agreed	8.0	8.0	93.00
	Totally Not Agreed	7.0	7.0	100
	Total	100	100	

Sources: Complied from data collected through sample survey



Graph 13

Sources: Complied from table 13

Table 13 and Graph 13 shows the impact of electronic operation on improving deficiency and effectiveness of the internal control system under which 46% agreed with, 28 % are with totally agreed, 11% are neutral, 8 % are s are not agreed 7 % are not totally not agreed. Hence this shows positive the impact of electronic operation on improving deficiency and effectiveness of the internal control system with higher degree.

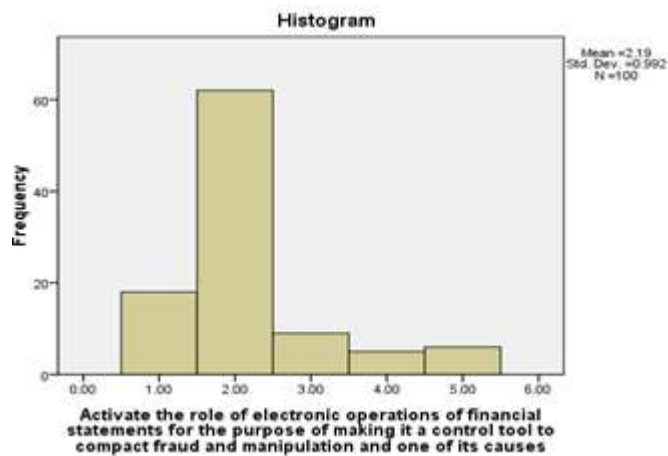
Table 14

		Percent	Valid Percent	Cumulative Percent
Valid	Totally Agreed	18	18	18
	Agreed	62	62	80
	Neutral	9	9	89
	Not Agreed	5	5	94
	Totally Not Agreed	6	6	100
	Total	100	100	

Activate the role of electronic operations of financial statements for the purpose of making it a control tool to compact fraud and manipulation and one of its causes

Sources: Compiled from data collected through sample survey

Table 14 and Graph 14 shows the impact of electronic operation on improving deficiency and effectiveness of the internal control system under which 62% agreed with, 18% are with totally agreed, 9% are neutral, 5% are not agreed 6% are not totally not agreed. Hence this shows positive the impact of electronic operation on improving deficiency and effectiveness of the internal control system with higher degree.



Graph 14

Sources: Compiled from table 14

Table 15: Composite table of the relationship between electronic operation efficiency and effectiveness of internal control system

Factors	Degree of Relationship
The Relationship Of Electronic Processing Of Financial And Accounting Data Agreed With Quality Control And Internal Controlling Is Closely Related To The Purpose Of Reducing Financial And Administrative Corruption.	High
The Parties Concerned Are Satisfied And Satisfied When There Is An Effective Internal Control System In The Units That Use Electronic Financial Statement And Accounting.	High
Does the quality of internal control and control depends on the electronic operations of financial and accounting data for the purpose of protecting errors and gap in the accounting system.	High
Electronic control and control system provide sufficient information on the accounts of the unit to the relevant regulatory authorities.	High
Internal control does not have an environment suitable for e-operations financial statement and accounting in the internal control system.	High
The use of the electronic Corporation method supports the internal control system for the accuracy of financial and accounting data.	High
E operation helps to increase the scope of examination of documents and documents supporting financial transactions.	High

Sources: Compiled from tables 1 to 7

Table 15 shows all relationship between electronic operation efficiency and effectiveness of internal control system through various factors as the relationship of electronic processing of financial and accounting data agreed with quality control and internal controlling is closely related to the purpose of reducing financial and administrative corruption, the parties concerned are satisfied and satisfied when there is an effective internal control system in the units that use electronic financial statement and accounting, does the quality of internal control and control depends on the electronic operations of financial and accounting data for the purpose of protecting errors and gap in the accounting

system., electronic control and control system provide sufficient information on the accounts of the unit to the relevant regulatory authorities. Internal control does not have an environment suitable for e-operations financial statement and accounting in the internal control system. the use of the electronic corporation method supports the internal control system for the accuracy of financial and accounting data and e operation helps to increase the scope of examination of documents and documents supporting financial transactions. Hence it is concluded that there is a high relationship between electronic operation efficiency and effectiveness of internal control system.

Table 16: Composite table of the impact of electronic operation on improving deficiency and effectiveness of the internal control system

Factors	Degree of Impact
The information provided by the financial statements in the unit is transparent and fully disclosure the financial statements in the light of electronic operation which in turn has a positive effect on the work of the control because the data is clear	High
The possibilities of rapid re-vital of the information in the electronic operations of financial and accounting data and Thus reflect positively on the efficiency of the internal control system	High

The department has have the professional competence of the employee working in the field of electronic operations and the preparation of the financial statement which leads to the objectivity and credibility of the information	High
The Senior Management Select The Employs Working In The Field Of Electronic Corporation In Accordance With The Specific Rules And Procedures Which Reduce The Cases Of Unintentional Error And Easy Detection Of By The Controlors	High
Financial department apply electronic operating method which are recognised in the process of control and controlling which leads to increased efficiency of the internal control system	High
Some electronic operating system like printed reports to make the required compassion which affect the company ends of the financial statement and Towers have a negative impact on the internal control system	High
Activate the role of electronic operations of financial statements for the purpose of making it a control tool to compact fraud and manipulation and one of its causes	High

Sources: Complied from tables 8 to 14

Table 16 shows the impact of electronic operation on improving deficiency and effectiveness of the internal control system through various variables as the information provided by the financial statements in the unit is transparent and fully disclosure the financial statements in the light of electronic operation which in turn has a positive effect on the work of the controlor because the data is clear, the possibilities of rapid re-vital of the information in the electronic operations of financial and accounting data and thus reflect positively on the efficiency of the internal control system, the department has have the professional competence of the employee working in the field of electronic operations and the preparation of the financial statement which leads to the objectivity and credibility of the information, the senior management select the employs working in the field of electronic corporation in accordance with the specific rules and procedures which reduce the cases of unintentional error and easy detection of by the controlors, financial department apply electronic operating method which are recognised in the process of control and controlling which leads to increased efficiency of the internal control system, some electronic operating system like printed reports to make the required compassion which affect the company ends of the financial statement and towers have a negative impact on the internal control system and activate the role of electronic operations of financial statements for the purpose of making it a control tool to compact fraud and manipulation and one of its causes. all variable having high degree of impact of electronic operation on improving deficiency and effectiveness of the internal control system

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