



Framework of the internal control under remote management: An empirical study

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ABSTRACT

As Covid-19 lockdown forced firms to organize work differently, for example, managing people remotely. Despite the benefits may a firm obtain in adopting new business tools like remote management, but providing assurance that internal control function in an efficient manner is important for a firm; that is because there is a growing interest in internal control issues. It is very important to determine how the remote working model, which emerged during the Covid 19 pandemic process, has changed the accounting processes of businesses. The aim of this study is to propose an internal control model under factors such as remote management, risk assessment, control activities, information and communication, and observation. The data in the research were obtained from the experts in our sample by using the survey method. Our sample consists of managers, supervisors, and academics. The data obtained were evaluated with the Smart-PLS version 3.2.9 program. Findings highlight a positive relationship between control activities and remote management.

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Introduction

Since the beginning of 2020, the importance of remote management gains momentum, this is especially in the current time due substantially to the lockdown (Covid-19). By adopting remote management as (Hiremath, 2018) indicated that firms can yield several benefits. First, solving problems faster. Second increase efficiency and productivity, when employees perform their duties with no physical location. Third it allows accessing global resources in a timely manner, and work with high skilled people wherever they are. Fourth, adapting remote working reduces costs such as cost of utilities (e.g. electricity, depreciation, shuttle transportation and commute). As a result, running the office from distance seems have a huge benefit for the individuals and organisations and subsequently the overall organisation goals.

Nevertheless, moving to managing organisation from distance may be impactful to business in adversely way. The negative impacts may appear in several ways. First, remote work can produce difficulties such as scale of control; reduce quality and frequency of communications between the site and the controller (Tatum, 2020) Second, it seems difficult to have a proper schedule for the meetings and discussion. Third, it is likely to hinder work of the teams in appropriate manner and it is argued that tracking task of team who work remotely is difficult. Fourth, privacy, security and confidentiality may be badly affected especially when a company works with sensitive issue and using serious and essential data (Hiremath, 2018). Thus, in order to overcome remote work problems, it is significant for the employers and organisations to manage remote work in a desired way.

By adopting remote management, the following best practices are recommended.

- i. It is essential to select right tools for employees' tasks such as tools for meeting or scrums, webinars;
- ii. Give a priority to clarify tasks in order to avoid delays;

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- iii. *Give flexibility to team and focus more on results and quality of the work rather than questioning how the work is done and focus on instil trust in their employees and teams*
- iv. *Hold a scrum meeting with the team member to obtain update about the business*
- v. *Develop proper tracking tools such as Jira, Trello or even Google sheet for tracking tasks and giving regular feedbacks from the teams and relevant people.*
- vi. *Think long term and design the process in a manner that ensure best use of its resources and avoid any internal dependencies that may delay the process.*

In short, it is doubtless, managing employees from distance may inherently face several problems that eventually affect the performance of a firm and its control system. However, taking abovementioned methods and techniques into account seriously may lead to overcome its drawbacks.

It is very important to determine how the remote working model, which emerged during the Covid 19 pandemic process, has changed in the accounting processes of businesses. The aim of this study is to propose an internal control model under factors such as remote management, risk assessment, control activities, information and communication and observation. The data in the research were obtained from the experts in our sample by using the survey method. Our sample consists of managers, supervisors and academics. The data obtained were evaluated with the Smart-PLS version 3.2.9 program.

Literature Review

Conceptual Background and Hypothesis Development

Remote Management

Management has been developed throughout the time, and literature highlights this progress and provided many definitions. Although differences of opinion still exist, there appears to be some agreement that management refers to “the process of dealing with or controlling things or people” (Dictionary., 2020). As it is indicted throughout this study, management traditionally means working in the office or in the place, which was near to their management. However, due to the development of technology, increase in the number of the multinational companies, increase of competition in market, increase of the uncertainties and the most importantly as a lived example global pandemic (Covid-19) lead companies to review its cost structure and hire high skilled people without taken to the account the geographical dimension of the employees. These facts have brought a new area to run people and things from distance. This is resulted in the concept of remote management.

It can be said that remote management can bring some concern to the business stakeholder; however, as indicated above, improving communication and providing sufficient information and guidelines probably help business to keep its performance and keep internal control system to function as well. In order to understand how internal control system functions under the remote management, a detailed analysis is given in the next section

Internal Control System

While a variety of definitions of the term internal control have been suggested, the definition first suggested by (AICPA., 2005) sees internal control as a plan and other supported means and methods used by the firm to protect its assets and guarantee reliability of data, to improve its effectiveness and confirm that management policies are adapted. This definition is close to those of (Anyim, 2020) who define internal control as mechanism that enable management to perform its functions effectively and overcoming significant problems such as overspending, operational failures, and breaking applicable rules.

No doubt that the establishment of an effective internal control system helps firms to obtain competitive advantages over other firms. Within the industry sector, the attitude against internal control changed due to the constant change in the market. For example, changes in perception about internal control from a financial aspect of the management to the internal control process.

Audit Net (AuditNet, 2016) points out that the internal control guarantee that employees are doing their best to reach effective and efficient operation in the work place according to law and regulation. Thus, according to Missouri University organizational design, written policies and procedures, operational practices, and physical barriers to protect assets are included in the internal control system (Missouri State, 2020). In short, internal control has been developed from the method of preventing accounting mistake to a system to increase the efficiency of a business, provision of reliable financial reporting, and compliance with applicable rule and policies.

Components of Internal Control

Many frameworks in relation to the internal control system are available in the literature in which the foundation of the system is explained. This section attempts to provide a brief summary of the literature relating to the main components of internal control as proposed by COSO are as follow (Applegate, D. and Wills, T., 1999):

Internal Control Environment

The internal control environment refers to the set of standards, processes, and structures that establish the groundwork for executing of the internal control within a firm. Accordingly, the control environment includes the integrity and ethical values of the firm;

parameters helping BODs to perform its oversight responsibilities. This can be done through the structure of the organization, and determination of authority and responsibility; the process of attracting, developing, and retaining skilled individuals, and the care about performance indicators, incentives, bonus to direct accountability for performance (Deloitte, 2020). On the basis of the above discussion, the first hypothesis can be developed as follow:

H1: Internal control environment enable remote team to use their authorities for implementing duties and take their responsibility for enquires.

Risk Assessment

All risks either they are internal or the management of the firm should consider external. Otherwise, that could mean that goals are not achieved (Fourie, H. and Ackermann, C., 2013). According to the IIA's international standards, risk is the probability of happening an event which will have consequences on the achieving of the predetermined objective of the firm (Tu., Chuc Anha, L. H. T. Thib, H. P. Quangc, and h. T. Thia., 2020). Risk might be financial, operational, legal/regulatory, or strategic in nature. Thus, risk management considered as a process developed to mitigate risks (Walker, 1999), because these processes enable management to reach its goals. According to this, management should recognize the importance of risk, identify the probability of its occurrence, and determine the impacts of the identified risks on the firm.

In short, firm are advised taking all risks whether they are financial, operational, legal, and strategic into account. In order management mitigate risk it is advised using risk assessment as it is important tool for internal control. Accordingly, the second hypothesis of the research can be developed as follow;

H2: Proper risk assessment contributes to adopt new business tools like remote management.

Control Activities

A control activity is defined as a set of actions developed in term of policies and procedures that provide assurance that management's directives to decrease risks during the achievement of goals are implemented. These include applicable rules and guidelines to manage daily operations or activities of the firm. Therefore, control activities are considered as criteria to confirm that practical support to the internal control are in place, and enable management to manage risk effectively (Matimba., Kelvin., Mweshi., , Geoffrey., and Sakyi., , Kwesi Atta, 2020). In the context of the technology environment, control activities are functioned at all levels of the firm, at various steps within the business processes. To keep internal control working appropriately and continue during the year, the board of director should guarantee they implement their monitoring functions in a proactive manner (Wakida, 2015).

To sum up, control activities contains development of policies and procedures which can give reasonable assurance that risks are mitigated during the achievement of the firm's objection, these activities should work at the different level of the firms and within different steps. Control activities can take the form of preventive or detective. Thus, the third hypothesis can be drive as follow;

H3: Control activities enable remote management mitigate risk during the achievement of goals.

Information and Communication

Communication which comprises of continual and frequent process of generation, obtaining, and sharing of information is essential. Sharma and Patterson (1999) go further and believe that effective communications contain sufficient explanations, empathy and listening skills, and motivate customer and employees to be more informed decisions (Sharma, N., and P. G. Patterson., 1999) . To that end, Sharma and Patterson (1999) and (Masrek, N., Shahriza., A. K. , and Hussein.,R., 2007) consider training on listening skills, empathy and politeness and using advanced technology are playing an effective factor for the employees and the organisation. .

In summary, information and communication are significant in improving internal control system, either it is with external parties or inside the firm. Thus, we can drive the fourth hypothesis as follow;

H4: Clear and accurate communication enables remote management to function effectively.

Monitoring

In an attempt to ensure that each component of internal control is available and work efficiently, management conduct on-going and separate evaluations or use them in combination. Continual evaluation will conduct throughout the business processes at various levels within the firm; this type of the evaluation provides timely information. Regarding separate evaluation, it will be conducted periodically; the scope and iteration of this kind of assessment depend on the risk assessment, effectiveness of on-going evaluation, and management concerns. Spencer (2005) argues that monitoring should be placed in the top of the components of the internal control (Spencer Pickett, 2005) .

In general, monitoring considered as an important foundation of the internal control, and this can be performed through on-going and separate assessment of the control performance within the organization and taking necessary actions to adapt with changes and perform corrective actions. Thus, the fifth hypothesis can be produced as follow;

H5: Monitoring helps remote management to keep internal control response to changes in the business environment.

Figure 1 shows the conceptual model of the research:

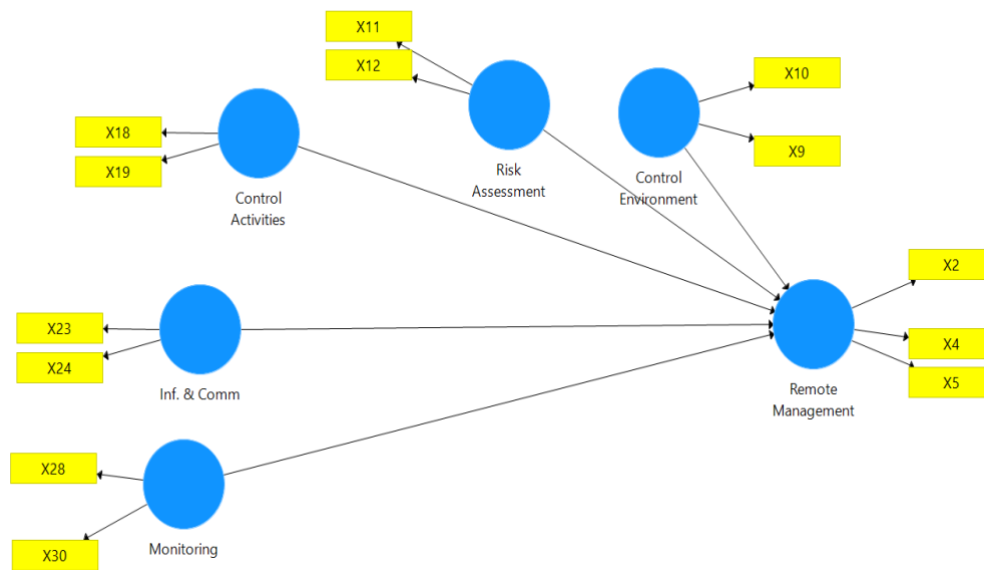


Figure 1: Conceptual Model of The Study

Methodology

Literature review was conducted, and then the critical factors affecting internal control in remote management are highlighted in table 1. The survey was contained two sections. The first section aimed to obtain demographic information about participants, whereas the second section included main part of the questionnaire. Part two was classified into six groups in accordance with the nature of the factor (see table 1).

Table 1: The Preliminary List of Factors Affecting Internal Control System in Remote Management

Code	Factors
Remote Management related factors (RM)	
X2	Save time and cost, increase recruitment assets
X4	Communication enable remote management to achieve goals
X5	Investment in software, and IT programs help remote team
Control Environment (Environ)	
X9	Ethic and value of a firm
X10	Planning
Risk Assessment (RA)	
X11	Planning help in identifying internal and external risk
X12	Risk Profile
Control Activities (CA)	
X18	Automotive procedure, use of IT and Software, and preventive control
X19	Internal Auditing, assessment of performance, and detective control
Information and Communication (Inf. & Commun)	
X23	Effects of remote management on communication with external parties
X24	Communication channel to employee to deliver message to management
Monitoring	
X28	Frequency of assessing the quality of control activities ensure that internal control is up to date
X30	Perform of the corrective actions on time

The survey method was used to examine the hypotheses suggested in the research. A preliminary list of factors that influenced the internal control in remote management was revealed in the initial research period, and list of questions was given to participants via email and phone calls. The questionnaires were self-administrated to get guidelines on the factors influencing internal control in remote management. In this step valued suggestions obtained from the experts, their propositions used, and the survey questionnaire was polished depending on the feedback retuned responses.

Empirical Data and Analysis

Participants and Data Collection

The researcher developed questionnaire and it distributed to 42 participants in and outside the country (Iraq). The respondents include; board members, management including; CEO, COO, CCO, CFO, internal auditors, external auditors, consultants, and academics. Due to Covid-19 and saving time and cost, the survey was circulated through email, social media (e.g. Facebook, LinkedIn) using Survey Monkey. The survey includes two main parts; the first part aimed at collecting demographic information. The second section used to illustrate information in relation to remote management (five questions), and internal control system (five questions).

Table 2: The Demographic Information

Gender	Number	%
Male	41	71.93%
Female	16	28.07%
Occupation	Number	%
Management Board member	5	8.77%
Management - Chief Executive Officer/ Managing Director	8	14.04%
Management - Chief Operation Officer/ Chief Commercial Officer	4	7.02%
Management - Chief Finance Officer/ Finance Manager/ Chief Accountant/ Accountant	14	24.56%
Management - Internal Audit Director/ Internal Audit Manager/ Senior Internal Auditor/ Internal Auditor	3	5.26%
External Auditor	3	5.26%
Consultant	5	8.77%
Educator - Professor/ Assistant Professor/ Lecturer	9	15.79%
Other (please specify)	6	10.53%
Age	Number	%
18-24	1	1.75%
25-34	31	54.39%
35-44	13	22.81%
45-54	10	17.54%
over 55	2	3.51%
Experience	Number	%
1-10	18	31.58%
11-20	23	40.35%
21-30	12	21.05%
31-40	3	5.26%
Over 41	1	1.75%
Educational Background	Number	%
PhD	10	17.54%
CPA/ ACCA	4	7.02%
Master/MBA	25	43.86%
Bachelor	17	29.82%
Diploma	1	1.75%
Country	Number	%
Iraq	53	92.98%
Other Country	4	7.02%

From the table above, it is clear that about 28% of the sample is female which reflect the actual situation of business environment in Iraq which means that the role of the female increases through the time. The table 2 highlight that 75% of the sample is directly related to business that means that the sample related to the content of the study. Furthermore, roughly 80% of the sample has experience more than 10 years this can be interpreted that the responses of the sample are reliable and they talk according to their experience. In addition, 95% of the responded has relevant educational background. This signals that the respondents are aware of the change in the business environment.

Data Analysis

Smart-PLS version 3.2.9 was sued for drawn the simulation for calculating the impact of the observed variables and their latent constructions on construction remote management. Generally, SEM allows several associations to be examined at once in a single model with different relationships instead of testing each relationship individually. The assumed structural model in Figure 1 was

analysed through employment of Smart-PLS version 3.2.9, because this has advantages over regression-based methods in examining several constructs with different manifest variables (Lin, C.L. and Jeng, C.H., 2017) .

Result and Discussion

This measurement model tried to calculate the reliability, internal consistency, and validity of the observed variables together with unobserved variables (Ho, 2013). This research, the cut-off value accepted for the outer loading was 0.7, see table 3. The outer loading mostly ranged between 0.8 and 0.9.

Cronbach’s alpha and composite reliability (CR) were employed for internal consistency assessment in the construct reliability. The analysis of the Cronbach’s alpha and CR vale was close to each other, table 3 highlights that the Cronbach’s alpha for most of the constructs except control activities are under 0.8 whereas CR of control environment and information and communication are under 0.8. Thus, the Cronbach’s alpha for remote management, control activities, and monitoring are reliable, and CR illustrated that the value of all of them reasonably reliable and highlighted that all the latent construct values exceed the minimum threshold level of 0.70. As shown in table 3, all of the AVE values were more than 0.5, therefore convergent validity was verified for this research model. Thus, results support the convergent validity and good of internal consistency of the measurement model.

The next step aimed the discriminant validity of the latent constructs. Table 4 highlights the (Fornell, C., and D. F. Larcker. , 1981) criterion examination of the model where the squared correlations were compared with the correlation from other latent constructs. According to the result of the table 4 all of the correlations were smaller relative to the squared root of average variance exerted along the diagonals, reflecting satisfactory discriminant validity. This verified that the observed variables in each construct highlighted the given latent variable supporting discriminant validity of the model. Meanwhile, table 5 illustrates that the cross-loading of all observed variables was more than the inter-correlations of the construct of all other observed variables in the model. So, these findings verified the cross-loading evaluation standards and present acceptable validation for the discriminant validity of the manifest model. Accordingly, the proposed conceptual model was assumed to be acceptable, through confirmation of adequate reliability, convergent validity, and discriminant validity and the confirmation of the study model.

Table 3: Construct Reliability and Validity

Main Constructs	Loadings	Cronbach’s Alpha	CR	AVE
Remote management		0.735	0.849	0.653
X2	0.857			
X4	0.835			
X5	0.727			
Control environment		0.612	0.789	0.663
X9	0.982			
X10	0.602			
Risk Assessment		0.535	0.810	0.681
X12	0.787			
X11	0.862			
Control Activities		0.863	0.936	0.879
X18	0.948			
X19	0.927			
Information and Communication		0.246	0.720	0.567
X23	0.846			
X24	0.647			
Monitoring		0.726	0.872	0.773
X28	0.943			
X30	0.811			

Table 3 highlight indicators enable evaluation of the reliability and validities of variables.

Table 4: Fornell–Larcker Criterion Test

	AC	CE	Info & Comm	Mon.	Risk Assessment	Remote Management
Control Activities	0.937					
Control Environment	0.559	0.815				
Information & Communication	0.353	0.531	0.752			
Monitoring	0.385	0.394	0.579	0.879		
Risk Assessment	0.346	0.209	0.519	0.419	0.826	
Remote Management	0.663	0.428	0.270	0.282	0.272	0.808

Table 4 illustrate indicators, which are help in evaluating discriminant validity of latent variables. Table 5 highlights cross loading of the variables.

Table 5: Cross-Loadings

	CA	CE	Info &Comm	Mon.	Risk assessment	Remote Management
X2	0.612	0.305	0.308	0.262	0.232	0.857
X4	0.480	0.523	0.307	0.195	0.251	0.835
X5	0.421	0.191	-0.013	0.228	0.168	0.727
X9	0.598	0.982	0.498	0.398	0.226	0.455
X10	0.131	0.602	0.420	0.192	0.039	0.108
X11	0.284	0.144	0.406	0.321	0.856	0.241
X12	0.289	0.207	0.458	0.377	0.794	0.205
X18	0.949	0.467	0.228	0.272	0.297	0.642
X19	0.926	0.594	0.454	0.468	0.357	0.538
X23	0.311	0.330	0.865	0.406	0.331	0.242
X24	0.209	0.531	0.619	0.506	0.506	0.155
X28	0.318	0.302	0.493	0.943	0.427	0.299
X30	0.391	0.442	0.562	0.811	0.284	0.170

Evaluation of the Inner Structural Model

The researcher proved that the measurement model was valid and reliable. Then the next stage of the research was to assess the Inner Structural Model outcomes. This can be done through observing the predictive relevancy of the model and association between the constructs. The coefficient of determination (R^2), path coefficient (β value) and T-statistic value, Effect size (f^2), the Predictive relevance of the model (Q^2), and Goodness-of-Fit (GOF) index are the main criteria for measuring the Inner structural model.

Measuring the Value of (R^2)

The coefficient of determination assesses the overall effect size and variance explained in the endogenous construct for the structural model. This means measuring the predictive accuracy of the model. In this study, the inner path model was 0.412 for the quality of endogenous latent construct. This mean the five independent constructs explains 41.2 % of the variance in the internal control in remote management, and this can be interpreted that about 41.2% of internal control can be functioned through the components of internal control that was proposed by COSO. According to the (Henseler, J., Hubona, G. and Ray, P.A., 2016) and (Hair, J.F., Ringle, C.M. and Sarstedt, M., , 2013) , a (R^2) value of 0.75 is mean substantial, 0.50 is moderate, and 0.26 is weak. Thus, R^2 value in this study was near to moderate.

Estimation of the Path Coefficient and T-Statics:

The T-Statics highlighted the expected variation in the dependent construct for the unit variation in the independent construct(s). The value of every path in the hypothesized model was computed, the higher value of the T-Statics, the more the significant impact on the endogenous latent variable. So, the bootstrapping procedure was used to assess the importance of the assumptions. In order testing the importance of the path coefficient and T-statics value, a bootstrapping procedure using 5000 subsamples with no sign changes was implemented for this study as highlighted in Table 6.

Table 6: Path Coefficient and T-Statics

Hypothesized path	STDEV	T-statics	P value
Control Environment-> Remote management	0.178	0.646	0.518
Risk Assessment-> Remote management	0.192	0.341	0.733
Control Activities-> Remote management	0.208	2.642	0.008
Information and communication-> Remote management	0.217	0.123	0.902
Monitoring-> Remote management	0.221	0.057	0.955

In H1, we predicted that the control environment helps remote team member to sue their authorities in carrying out a task and take responsibilities in any faults and enquiries. The finding in Table 6 did not support this assumption as a control environment related factors has not significant influence on remote management (T=0.646, P<0.518), therefore this hypothesis is rejected.

Moreover, H2 estimated that the proper risk assessment enable management to adopt remote management but the finding in Table 6 show that there is not significant impact of risk assessment on remote management (T=0.341, p<0.733). So, the hypothesis number 2 is rejected. While the control activities in the remote management has significant role in mitigating risk when business trying to achieve its objectives by (T=2.642, p<0.008) accordingly hypothesis (H3) was supported.

Furthermore, the role of information and communication in helping keeping control in remote management, the result in Table 6 shows that (T= 0.123, p<0.902) this means that the hypothesis number (H4) is refused. Lastly, and regarding the influence of monitoring on enabling remote management to response to the changes in the business environment, the result in the Table 6 is (T=0.057, P<0.955) this can be interpreted that assumption number (H5) is not supported.

Table 6 highlighted that the construction control activities related factor had the topmost path coefficient of T 2.642 when compared to other T values in the model, which presented that it had a higher value variance and greater effect on the internal control in remote management. While, the external associated factor had lower effect on the control in remote management is monitoring with the T value of 0.057.

Measuring the Effect Size (f^2):

The f^2 represent the scale of the influence of each exogenous latent construct on the endogenous latent construct. In case an independent latent construct removed from the path model, it changes the value of the coefficient of determination (R^2) and identifies whether the deleted latent exogenous construct has important impact on the value of the latent endogenous construct. The f^2 value were 0.35 (strong effect), 0.15 (moderate effect), and 0.02 (weak effect) (Cohen, 1988) . Table 7 highlights the f^2 from the SEM calculations. As illustrated in the Table 7 the effect size for control environment, risk assessment, information and communication, and monitoring is 0.012, 0.005, 0.001, and 0.000 respectively. Thus according to Cohen’s recommendation, the f^2 of all above mention four exogenous latent constructions of remote management had a weak effect on the value of (R^2). While the f^2 for control activities is 0.317, so according to Cohen’s recommendation this exogenous latent construction of remote management had more than moderate on the value of R^2 . Moreover, all the five independent latent construction in this research participated relatively to R^2 value (41.2%) in the dependent variable.

Table 7: Effect Size

Exogenous latent variables	Effect Size f^2	Total Effect
Control environment	0.012	Weak effect
Risk assessment	0.005	Weak effect
Control Activities	0.317	Strong effect
Information and communication	0.001	Weak effects
Monitoring	0.000	Weak effect

Predictive Relevance of the Model (Q^2)

Q^2 Statistics are used to measure the quality of the PLS path model, which can be obtained through blindfolding procedures (Tenenhaus, M., V. Esposito Vinzi, Y.-M. Chatelin, and C. Lauro., 2005) , and cross-validated redundancy was performed. The Q^2 criterion recommends that the conceptual model can predict the endogenous latent constructs. In the SEM, the Q^2 values measured have to be higher than zero for a special endogenous latent construct. The Q^2 value for remote management is 0.124 which was greater than the threshold limit, and supports the path model’s estimative relevance was adequate for the endogenous construct.

Goodness-of Fit Index

This indicator calculated through the employment of the geometric mean value of the average communality (AVE value) and the average R^2 values, and GOF is calculated by this equation $GoF = \sqrt{(AVE \times R^2)}$ from the Table 8 this indicator is 0.542 and it is clear that the GOF for this study work is implies that empirical data fits the model satisfactory and has important predictive power.

Table 8: Goodness-of-Fit Calculation

	AVE	R2
Control environment	0.663	
Risk Assessment	0.682	
Control Activities	0.879	
Information and communication	0.565	
Monitoring	0.773	
AVE	3.562	
Average AVE	0.712	0.412
GOF	0.542	

The Standardized Root Mean Square Residual (SRMR)

This indicator is an index of the average of standardized residuals between the observed and the hypothesized covariance matrices (Chen, 2007). The SRMR is a measure of predicted model fit. Table 9 illustrate that the SRMR is 0.118 which lower than the threshold this mean future research is needed in this regard.

Table 9: Model Fit Summary

	Estimated Model
SRMR	0.118
d_ ULS	1.269
d_ G	0.711
Chi-Square	162.991
NFI	0.399

Correlation Coefficient of Latent variable

Table 10 highlights the latent variable correlation coefficient. The results show that there was a strong correlation between the latent exogenous constructs and the latent endogenous construct.

Table 10: Latent Variable Correlation

	Control Activities	Control Environment	Information & Communication	Monitoring	Risk Assessment	Remote management
Control Activities	1.00					
Control Environment	0.559	1.00				
Information & Communication	0.353	0.531	1.00			
Monitoring	0.385	0.394	0.579	1.00		
Risk Assessment	0.346	0.29	0.519	0.419	1.00	
Remote Management	0.633	0.428	0.270	0.282	0.272	1.00

According to the complete analysis of the measurement models and structural model, it was highlighted that for both model control activities were confirmed. So, hypothesis number 1,2,4, and 5 were statistically not significant and thus all of them are rejected, while hypothesis number 3 was statistically significant, thus this hypothesis was accepted. Furthermore, the results of this study enhance a richer and accurate picture of the component of the internal control influencing the remote management and can support developing a set of strategies to sort out the barriers of the internal control in the remote management.

Discussion

The main contribution of this research was to empirically discover the constructs that effect and enable the internal control function within the remote management using the PLS-SEM tool and a closer test of the components of the internal control impacting constructs observed by private companies in Sulaimaniyah – Iraq. Descriptive statistics like mean value, standard deviation, Skewness, and kurtosis value were valuated. The results of the kurtosis value of the measurement model are between 2.237 and – 0.284 and Skewness value of the measurement model was between 1.295 and 0.166. The results show that there is some violation of the normality assumption of the collected data. The reason for this is that the sample is purposive and aimed mostly the business-related people. According to Velma (2011) the value of beta can be calculated through multiplying the value of standard deviation and t-value. Moreover, the outcomes of the study proposed a positive relationship between control activities related factors and remote management ($R^2 = 0.412$, $P=0.008$), predictive relevance ($Q^2 = 0.124$), and substantial FOG (FOG= 0.542). Moreover, SEM

outcomes discovered that control activities related factor had the path coefficient ($\beta=0.549$) with the remote management. Thus, the stakeholder and particularly management should pay more attention to control activities related factors to enhance the quality of internal control when they adopt remote management. Notwithstanding this, the control environment related factors considered to be the second utmost factor ($\beta=0.114$), risk assessment related factors is the third factor ($\beta=0.065$), information and communication related factors to be forth factor ($\beta=0.026$), and monitoring related factors become the last one with ($\beta=0.012$) but they did not pass other tests. The results of this research work highlighted that all suggested hypothesis except hypothesis number 3 were rejected, and under the remote management control activities enable management to keep the internal control within the organization. As illustrated in Table 6, although the path between all five exogenous latent constructs with an endogenous latent construction (remote management) has a positive relationship but only exogenous latent of control activities was statistically significant, therefore, only hypothesis number three in this study is suggested to be accepted. The association between controls activities influencing factors propose there was infective preventive and detective control in the remote management. Thus, adapting automated procedure, use of software programs, and intensive use of IT probably support preventive controls within a firm and enable management to achieve objectives of the firm in an efficient manner. Furthermore, in remote management increasing the number of the internal audit is needed in comparison to traditional style of the management in one side. On the other side, management including internal controller needs continually assess the performance of the firm through the use of different tool such as financial analysis, because conducting these assessments increase the detective control with the organization. As a result, stakeholder of the business should emphasis on the control activities related factors to keep internal control function in the firm when adapting remote management.

Conclusions

Understanding how internal control system functions in remote management is complex, and identifying which components of the internal control is more affecting the quality of the control within the remote management is important especially in the current business environment. This study aimed to highlight and identify a new methodology to analyse and test the impact of key constructs on the internal control under the remote management. A progressed multivariate analysis technique; PLS-SEM has been used to perform the analysis.

We predicted that the control environment helps remote team member to sue their authorities in carrying out a task and take responsibilities in any faults and enquiries. The finding did not support this assumption as a control environment related factors has not significant influence on remote management therefore this H1 is rejected (Table 6).

In addition, H2 estimated that appropriate risk assessment drives management to adopt remote management, but the finding shows that risk assessment does not have a significant impact on remote management. Thus, H2 was rejected (Table 6). While control activities in remote management have an important role in reducing risk when businesses trying to achieve their goals with H3 are supported accordingly (Table 6). Additionally, it was seen that information and communication did not play a role in helping maintain control in remote management and as a result H4 was rejected (Table 6). Finally, it can be interpreted that the H5 assumption regarding the effect of monitoring in enabling remote management to respond to changes in the business environment is not supported (Table 6).

The study found that control activities were the topmost factor that works in the remote management. This means that business related parties need special plans and methods to focus on issues of the control activities that work with the remote management. Weakness in the control activities probably decrease the scale of inefficiency, increase the waste of resources, and increase risk of reporting an accurate financial report. Mostly, the findings from this research highlighted that most of effective control activities are automation of the business process and the use of software programs and IT in one side. On the other, increase the number of internal auditing and assessing the performance of business.

This study supported the expansion of research in the area of internal control and enabled better understanding of internal control system in a business tool like remote management. The findings of this study can provide support to decision maker of the business by strengthening their knowledge of the denominate factors affecting internal control in a new business tool as remote management, confirming that proper plans, methods as well as appropriate control activities enable a firm to keep internal control function even when a company adopt the remote management. Although, the result of this research highlights the importance of control activities in the remote management, but it is recommended that more research to be conduct in the area of internal audit within the framework remote management.

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