

## **Effects of Voluntary Disclosure on Investments Decisions: An Empirical Examination of Kurdistan’s Real Estate Companies**

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### **ABSTRACT**

The study examines the effects of voluntary disclosure on investment decisions. The study applies a linear regression model to analyse 197 responses collected from employees of 5 medium and 5 large real estate companies in Erbil, Kurdistan Region using International Financial Reporting Standard 7 and Accounting Standard 1 on the disclosure of information. The study findings do in an interesting manner reveal that financial, non-financial and strategic forms of disclosures have different positive effects on companies’ investment decisions. The study findings also revealed that the type of investment decisions made in companies increases as the companies grow in size. The study’s practical implications demand an increased application and improvements in accounting standards to uphold acceptable disclosure practices and enhance companies’ investment decisions. Of practical importance is the call for increased focus by managers to attach significant value and contributions to non-financial matters in investment decision-making.

## **1. Introduction**

The Financial Accounting Standards Board (FASB) regards voluntary disclosure as the disclosure of any financial and non-financial information by management beyond mandatory financial reports (Li & Yang, 2016). Subsequently, Li and Yang (2016) and Rezaee and Tuo (2017) opine that information classified as voluntary disclosed comprises non-financial information (governance, social and environmental

sustainability), financial information (share prices, earnings forecasts) and strategic information such as customers, competition and product information. The benefits of voluntary disclosure are of profound importance and are well documented in academic studies. For instance, Yang (2012) contends that voluntary disclosure enhances earnings quality, while Healy, Hutton and Palepu's (1999) prior examination relates the benefits of voluntary disclosure to an increase in information intermediation. Additional evidence links voluntary disclosure to a reduction in the cost of capital (Francis, Nanda & Olson, 2008) and improvements in stock liquidity (Botosan & Plumlee, 2002).

Observed activities made by the researcher in Kurdistan's real estate industries show that real estate companies are being incentivized to voluntarily disclose information they are not obligated by law to disclose just to lure investments. But these observations are still yet to be validated as studies addressing related subject matters, especially in Kurdistan are limited and attention is widely given to countries such as Australia (Leung & Philomena, 2013), India (Hossain & Reza, 2007), Bangladesh (Qamruzzaman, Jahan & Karim, 2021). As a result, the study contributes to the development of an empirical model that can be applied to analyse voluntary disclosure activities in real estate companies in Kurdistan. The study also provides a new method of measuring investment decision-making constructs and improves existing ways of measuring voluntary disclosure constructs. Furthermore, the study also results in the development of additional theoretical linkages linking corporate social responsibility, corporate governance, voluntary disclosure and investment decision-making. Besides, testing such theoretical linkages between voluntary disclosure and investment decision-making constructs has not been previously tested.

Nonetheless, the influence of investment decisions on disclosure has not attracted so much attention in academic studies. For instance, studies hint that the type and extent of voluntary disclosure are influenced by sustainable performance (Khan, Serafeim & Yoon, 2016), executives' personal backgrounds (Bamber, Jiang & Wang, 2010), corporate governance (Ho & Wong, 2001), disclosure-related costs (Zhang,

2001). Thus, this study extends this literature by determining and analysing voluntary disclosure's effects on investment decisions by incorporating financial activities observed in Kurdistan's real estate industry. Specifically, this study seeks to satisfy research inquiries about (1) how voluntary disclosure activities influence real estate companies' investment decisions and (2) what probable accounting strategies are required in upholding acceptable disclosure practices and enhancing companies' investment decisions.

By drawing motivation from prior examinations, this study formulates an integrated multivariate regression analysis model that analyses a newly constructed measure of investment decisions and relates it to the newly incorporated forms of voluntary disclosure. The study validates uncovered arguments and ideas denoting that financial, non-financial and strategic forms of disclosures have different implications on companies' investment decisions. Additionally, the study's practical implications demand an increased application and improvements in accounting standards to uphold acceptable disclosure practices and enhance companies' investment decisions. Of practical importance is the call for increased focus by managers to attach significant value and contributions to non-financial matters in investment decision-making.

## **2. Literature review**

### **2.1 Theoretical framework**

Based on Jensen and Meckling's (1976) agency theory propositions, managers are under contractual obligations not only to manage the business acceptably and ethically but also to disclose all the pertinent information to the business. Subsequently, the principal owners of the business will monitor managers' activities to ensure that they do not engage in aberrant activities and incur monitoring costs in the event of doing (Shehata, 2014). Thus, voluntary disclosure becomes the mechanism through which principals deal with the principal-agent problem and safeguard their interests. Along similar lines, Ramadhan, Wijaya and Ruslan (2022) emphasise the importance of maximising the value of the business. Thus, by

implication, the agency theory safeguards investors' funds and ensures high returns on investments in the foreseeable future. Therefore, it becomes apparent that the agency theory considers voluntary disclosure as a way of controlling managers' activities and safeguarding their investments. However, Shehata (2014) argues that the agency theory does not signal both managers and principals into making certain decisions. This sidelines the fact that disclosure is essential for collecting information essential for making rational decisions. Consequently, this study incorporates the signal theory in analysing interactive connections linking voluntary disclosure and investment decisions. With its original inception by Spence (1976), the signalling theory posits that there is information asymmetry that hinders effective signalling of courses of action in decision-making (Brown-Liburd, Cohen & Zamora, 2018). As such, it has been applied in explaining voluntary disclosure in corporate reporting (Shehata, 2014). Due to complexities posed by information asymmetry challenges, companies signal certain information to investors to show that they are better than other companies in the market to attract investments and enhance a favourable reputation (Rokhayati, Nahartyo & Haryono, 2019). Voluntary disclosure is one of the signalling means, where companies would disclose more information than the mandatory ones required by laws and regulations to signal that they are better (Brown-Liburd, Cohen & Zamora, 2018). Amid such observations, this study applies the agency theory to highlight the monitoring and controlling aspects of voluntary disclosure and the signalling theory to denote the role of voluntary disclosure in attracting investments and enhancing companies' favourable reputations.

## **2.2 Voluntary disclosure**

As noted earlier on, voluntary disclosure is not mandatory and allows companies to disclose information which they feel comfortable disclosing without facing legal consequences (FASB, 2014). A vast line of studies hinted at the role and significance of voluntary disclosure. For instance, Yang (2012) underscores the importance of voluntary disclosure citing that it helps to enhance both the amount and quality of information available. Yang (2012) contends that voluntary disclosure enhances

earnings quality, while Healy, Hutton and Palepu's (1999) prior examination relates the benefits of voluntary disclosure to an increase in information intermediation. Additional evidence links voluntary disclosure to a reduction in the cost of capital (Francis, Nanda & Olson, 2008) and improvements in stock liquidity (Botosan & Plumlee, 2002). Others contend that it reinforces the effectiveness of mandatory disclosure (Akharuddin, 2005; Popova et al., 2013). With its distinct forms, voluntary disclosure can deal with agency problems together with other information asymmetry issues undermining corporate activities. Hence, the need to explore further concepts, issues and solutions surrounding the application, role and implication of the existing forms of voluntary disclosure, especially in the context of investment decisions as studies are widely concentrated on areas such as corporate social responsibility (Rokhayati, Nahartyo & Haryono, 2019), financial management (Rathbone & Van Rooyen, 2020) and profitability (Samarau, 2019).

Unlike mandatory disclosure, which is obligatory, voluntary disclosure is influenced by incentives (Rokhayati, Nahartyo & Haryono, 2019). This entails that there must be incentives for companies to disclose additional information they are not naturally obligated by law to disclose. Thus, by tapping into such benefits, this study contends that companies will be able to enhance the quality of their investment decisions. However, the challenge is that limited studies are exploring further such interactive connections. Hence, such propositions demand further examinations aimed at validating the validity of such ideas in various sectors such as the real estate industry as numerous studies are widely concentrated in areas such as banking institutions (Burks et al., 2018), manufacturing companies (Qamruzzaman, Jahan & Karim, 2021) and petroleum companies (Cannizzaro & Weiner, 2015). It is in this regard that this study explores the effects of voluntary disclosure with specific regard to financial, non-financial and strategic forms of disclosure on investment decisions. Therefore, the next section sets up a solid base of analysis voids in investment decision literature.

### **2.3 Investment decision**

Investment decisions refer to the nature of decisions regarding a company's investment in itself, another company or in other projects. The importance of investment decisions is well documented in academic studies. For instance, Chadhary (2013) contends that investment decisions are vital for expanding a company's operations. Okunevičiūtė et al. (2022) see investment decisions as the key through which shareholders obtain control of an institution. In another related instance, Shroff, Verdi and Yu (2014) contend that investment decisions are of paramount importance to a company's growth and development. Others connect investment decisions to activities such as innovation (Bozic & Bozic, 2017) and research and development (Kotlar et al., 2014). Despite all these highlighted benefits of investment decisions, the quality of investment decisions made by a company is of huge essence as they determine whether the company will succeed or fail in its initiatives. Hence, the role and importance of disclosure serve to ensure that companies make high-quality investment decisions (Brown-Liburd, Cohen & Zamora, 2018; Shehata, 2014). Most importantly, the rationality of such decisions allows companies to generate more returns from such decisions as the information signals shareholders which areas, activities and/or companies to invest in (Brown-Liburd, Cohen & Zamora, 2018). Hence, disclosure in this context serves the key purpose of ensuring that companies make vital and high-quality investment decisions. This is feasible through the controlling aspect emanating from the fact that disclosure helps to curb corporate misconduct as suggested by the agency theory (Shehata, 2014).

### **2.4 Related studies**

Issues on corporate disclosure have been dominating academic headlines with some studies leaving empirical traces in 2005 (Akhtaruddin, 2005) and are still a major force to reckon with as contemporary studies are still observing issues (Brown-Liburd, Cohen & Zamora, 2018; Rokhayati, Nahartyo & Haryono, 2019; Qamruzzaman, Jahan & Karim, 2021).

Dwelling on Cannizzaro and Weiner's (2015) project-level study on multinational investment and voluntary disclosure in the petroleum industry, voluntary disclosure is viewed as supplementing existing sources of information. However, Cannizzaro and Weiner noted that improvements in investments observed following the disclosure were subjective and conditional that certain type of information is disclosed. Though not specific, the importance of financial and strategic disclosure in this context is vital. This aligns with Dang et al.'s (2019) discoveries asserting that companies can effectively the quality of decisions and strategies made by providing additional financial and strategic information. Hence, this justifies the distinguishing of voluntary disclosure into financial, non-financial and strategic disclosure and incorporating them in analysing their effects on investment decisions.

Li and Yang (2016) conducted a study that analyses the effect of mandatory IFRS adoption on management forecasts using a comparative analysis of mandatory financial reporting and voluntary disclosure. In their findings, they highlighted that voluntary disclosure plays a complementary role in management forecasts by enhancing the effectiveness of information supplied using mandatory financial reporting initiatives. Hence, by implication, the quality of investment analysis and forecast by the same principle can be effectively enhanced by incorporating additional information using voluntary disclosure initiatives and methods. This evidently shows the vital roles of financial, non-financial and strategic disclosure in achieving such initiatives.

In a study by Rezaee and Tuo (2017), voluntary disclosure of non-financial information is regarded as being associated with sustainability performance. However, one of the key channels as suggested in by most studies as being linked to disclosure is investment (Andriani, Nurnajamuddin & Rosyadah, 2021; Bozic & Botric, 2017; Cannizzaro & Weiner, 2015; Chaudhary, 2013) and Andriani, Nurnajamuddin and Rosyadah (2021) underscore the importance of exploring matters involving factors and issues undermining investment decisions. For such cases, this study extends Andriani, Nurnajamuddin and Rosyadah's voluntary disclosure discussions to investment decisions.

Burks et al. (2018) examined the interactive connection between competition and voluntary disclosure using evidence from deregulation in the banking industry. Their findings uphold that deregulations promote an increase in voluntary disclosure responsible for assisting banks to competitively operate in an intensively competitive market surrounded by information asymmetry problems. At this juncture, it becomes apparent that voluntary disclosure serves an essential purpose in dealing with information asymmetry problems. Therefore, voluntary disclosure can enhance the quality of information needed to signal stakeholders into making rational investment decisions as postulated by the signalling theory (Brown-Liburd, Cohen & Zamora, 2018). It is amid such observations that this study emphasises exploring further ways through which voluntary disclosure enhances the quality of investment decisions made by companies.

Rokhayati, Nahartyo and Haryono (2019) conducted an experimental study that analyses the effect of financial information and corporate social responsibility disclosure on investment decisions. Their findings reinforce this study's reiterated arguments that voluntary financial disclosure is instrumental in investment decision-making. Nonetheless, investment decision-making studies linked to voluntary financial disclosure are limited and as shown in the introductory section, the focus is placed on other countries such as Australia (Leung & Philomena, 2013), India (Hossain & Reza, 2007), Bangladesh (Qamruzzaman, Jahan & Karim, 2021). Therefore, this study seeks to fill these empirical gaps by extending voluntary financial disclosure and investment decision-making studies to Kurdistan.

A study by Qamruzzaman, Jahan and Karim (2021) investigated the impact of voluntary disclosure on a firm's value using evidence from manufacturing firms in Bangladesh, disclosing all the pertinent information is seen as instrumental in boosting the image, reputation and value of manufacturing firms. By the same principle, this study, therefore contends that voluntarily disclosing all the financial, non-financial and strategic disclosure boosts the image, reputation and value of real estate companies. For such reasons, this study will explore interactive effects

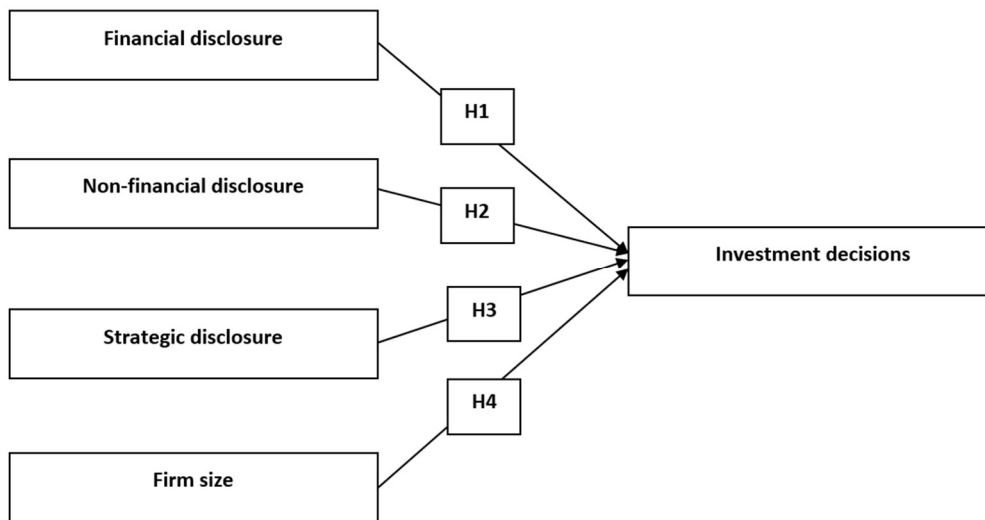


between voluntary financial, non-financial and strategic disclosure, and investment decisions.

Besides, the subject of investment decisions itself has been subjected to numerous contradictions lacking consensus. For instance, Chaudhary (2013) asserts that investment decisions and strategies are significantly driven by the Impact of behavioural finance. But Rathbone and Van Rooyen's (2020) contemporary examinations uncover the role of dialogue, accountability and context in investment decisions. This mirrors propositions denoting that investment decisions are driven by mechanisms capable of enforcing accountability and enhancing the quality of decisions made. Brown-Liburd, Cohen and Zamora (2018) established Corporate Social Responsibility (CSR) disclosure items are essential and serve as fairness heuristics in the investment decision. Ultimately, this aligns with the agency theory and the signalling theory's approach to accountability through enforcing control and signalling effective and rational courses of action (Brown-Liburd, Cohen & Zamora, 2018; Shehata, 2014). Subsequently, this introduces the notion of voluntary disclosure but has not been the subject matter of such studies, especially when the financial, non-financial and strategic forms of disclosure are brought into perspective. It is through these insights that loopholes concerning the inability of studies to extend further voluntary disclosure subject matters are narrowed to each form of voluntary disclosure. This, therefore, shows this study's novelty and contributions as it narrows voluntary disclosure discussions to the three distinct forms of disclosure and relates them to investment decisions made by real estate companies. Given these insights, it, therefore, becomes apparent that voluntary disclosure works towards enhancing the quality of investment decisions made by companies. However, there are no studies as far as the author is concerned that decompose and analyse the three distinct forms of voluntary discloses concerning financial, non-financial and strategic forms disclosures. Hence, with these ideas in mind, it, therefore, becomes apparent that each distinct form of disclosure is positively connected with the quality and rationality of decisions made by companies. As a result, this study intends to test the validity of such propositions by formulating the following hypotheses;

- **Hypothesis 1:** Financial voluntary disclosure has a significant influence on investment decisions made by companies.
- **Hypothesis 2:** Non-financial voluntary disclosure has a significant influence on investment decisions made by companies.
- **Hypothesis 3:** Strategic voluntary disclosure has a significant influence on investment decisions made by companies.

Despite contentions arguing that disclosure has to be either mandatory or voluntary (Brown-Liburd, Cohen & Zamora, 2018; Yang, 2012), the level and amount of disclosure by companies are subject to vary according to the size of the companies. This is because large companies have various numerous transactions and financial activities whose complexity and nature are more or less significant. However, such has not been the subject of related studies (Akharuddin, 2005; Popova et al., 2013). The formulated hypotheses were integrated to graphically illustrate their underlying connections using a conceptual framework provided in Figure 1.



**Figure 1:** Conceptual framework

### **3. Research methodology**

The study centres its examination on real estate companies that are widely neglected from subject matters, especially those involving the disclosure of information as the focus is widely concentrated on banking institutions (Burks et al., 2018), manufacturing companies (Qamruzzaman, Jahan & Karim, 2021) and petroleum companies (Cannizzaro & Weiner, 2015). Besides, studies addressing related subject matters, especially in Kurdistan are limited and attention is widely given to countries such as Australia (Leung & Philomena, 2013), India (Hossain & Reza, 2007), Bangladesh (Qamruzzaman, Jahan & Karim, 2021).

The study applies a quantitative approach, which by definition involves numerical analysis where data is collected, classified and then computed for specific findings using a set of statistical methods applied in attaining the stated study objectives (Allwood, 2012). This was accomplished through the collection of primary data from 5 medium and 5 large real estate companies in Erbil, Kurdistan using a questionnaire and subjected to analysis using regression analysis, correlation coefficient, descriptive analysis and Cronbach's alpha test.

#### **3.1 Data analysis procedures**

Given the availability of unvalidated theoretical precepts on voluntary disclosure (Shehata, 2014) and a lack of sound and robust models analysing the interactive connections linking voluntary disclosure to investment decisions as the application of independent t-test in the norm (Dang et al., 2019), the study applied a multivariate analysis method in analysing the effects of voluntary disclosure on investment decisions. Besides, the application of a multivariate model, in this case, is empirically supported because of reasons linked to the determination of the nature and size of effects between model variables (Chatterjee & Simonoff, 2013; Sarstedt & Mooi, 2019), thus representing the study's novelty. Using the developed conceptual model, the study asserts that Investment Decisions (ID) are a function of Financial Disclosure (FD), Non-Financial Disclosure (NFD) and Strategic Disclosure (SD). This was expressed in the form of a functional form as follows;

$$ID = [FD; NFD, SD] \quad (1).$$

A control variable, firm size (FS) with was incorporated into expression 1 as a control variable. As such, a value of 1 was assigned to reflect a medium company and 2 to represent a large company. Subsequently, regression analysis precepts involving a constant  $\alpha$ , parameters  $\beta_1$  to  $\beta_2$  and an error term  $\mu$  were introduced into expression (1) and used in estimating a multivariate regression model specified as follows;

$$ID = \alpha + \beta_1 FDN + \beta_2 FD + \beta_3 SD + \beta_4 FS + \mu \quad (2).$$

The collected data were analysed using Statistical Package for Social Sciences (SPSS) version 24. Additionally, the correlation between the variables was analysed using the Pearson correlation coefficient test. Meanwhile, Cronbach's alpha test was used in determining the reliability of the constructed model variables.

### **3.2 Data collection**

A questionnaire was deployed as part of the data collection process. The questionnaire was developed using Dang et al.'s (2019) provided constructs on voluntary disclosure. As a result, 35 voluntary disclosure constructs were measured on a 5-point Likert scale with values ranging from 1 (strongly disagree) to 5 (strongly agree). Given that construct measures of investment decisions are still nascent, the study developed new constructs guided by the reviewed empirical studies. Consequently, 15 constructs were taken to measure the variable investment decisions and were measured using a 5-point Likert scale.

A focus group comprising 3 employees was used as part of the validity test carried out in assessing the developed questionnaire prior to distributing the questionnaire. Satisfactory responses were obtained and questionnaires were distributed to participants from the 1<sup>st</sup> of September to the 28<sup>th</sup> of September 2022.

Factor analysis was applied to determine constructs that are related under the guideline that variables with factor loadings of at least 0.60 are reliable (Afthanorhan, Awang & Aimran, 2020). As a result, 23 voluntary disclosure constructs and 9

investment decision variable constructs were selected because their factor loadings were higher than the suggested factor loading benchmark of 0.60 (Afthanorhan, Awang & Aimran, 2020) which is also higher than 0.50 recommended by other studies (Peterson, 2000). This implies that 12 voluntary disclosure constructs and 6 investment decision variable constructs were dropped from the study. As a result, data analysis was conducted using the selected variable constructs as indicated by the factor loading results presented in Table 1.

Furthermore, the selected constructs had alpha values of at least 0.70, which indicates high internal consistency (reliability), (Tang, Cui & Babenko, 2014). This, therefore, indicates that these constructs are related to each other and are in a position to offer valid and reliable explanations about the effects of voluntary disclosure on investment decisions in the real estate industry.

**Table 1.** Factor analysis results

No.	Construct	Factor loadings	Cronbach's alpha
1	Breakdown of financial and extraordinary expenses.	0.610	0.708
3	Research and development expenditures for 5 years	0.733	0.794
4	Income tax expense.	0.719	0.752
7	Basic earnings per share.	0.722	0.760
12	Diluted earnings per share.	0.684	0.705
13	Detail of treasury stocks: purchase price, market price.	0.640	0.704
15	Details of the amount and book value of stocks (common stocks and preferred stocks).	0.700	0.701
16	Detail of investment property at fair value.	0.701	0.704
17	Detail of capital/financial leases.	0.700	0.704
18	Total intangible assets and breakdown at cost	0.668	0.700
19	Total fixed assets and breakdown at cost.	0.701	0.704
20	Stock option plan	0.794	0.855
21	Profit analysis	0.735	0.800
22	Sales analysis.	0.726	0.833
23	Stockholders' analysis	0.640	0.704
24	Assets analysis	0.620	0.701

25	Events after the Balance sheet date	0.602	0.700
26	Assets analysis	0.710	0.710
27	Information on the production and business plans for the next year.	0.705	0.708
29	Details of the amount and book value of stocks (common stocks and preferred stocks).	0.715	0.729
30	Strategic human resources management.	0.745	0.852
31	Market and industry analysis.	0.713	0.827
33	Competitive analysis.	0.726	0.833
	<b>Investment decision</b>		
2	The amount of projects listed for investment has increased over the past 5 years.	0.718	0.810
4	The amount of money invested in projects has increased over the past 5 years.	0.714	0.800
5	The company plans to increase its investment budget next year.	0.738	0.801
6	The company plans to increase its investment in other sectors.	0.725	0.823
8	The company plans to increase its investment in other cities.	0.720	0.815
9	The company plans to increase its return on investment offered to its shareholders.	0.714	0.800
10	There is a new line of investors that the company targets to bring on board into investing in the company.	0.726	0.786
13	Various investment schemes and programs will be launched next year.	0.744	0.800
14	The disclosed financial information is important for determining the company's investment objectives and risk profile.	0.796	0.829

### 3.3 Population and sampling procedures

The study dwells on medium and large real estate companies in Erbil, Kurdistan that were selected according to their ability to implement accounting standards, especially those linked to disclosure. Using the IMF's definition of medium and large companies, the study selected real estate companies with 50 to 249 employees and categorised them as medium enterprises. Another group of real estate companies with at least 250 employees was also selected and categorised as large as per the International Monetary Fund's definition of large companies<sup>1</sup>. As a result, a judgemental sample of

<sup>1</sup> The Trade Facilitation Implementation Guide. (n.d ). Definition of an SME. Retrieved from <https://tfig.unece.org/contents/definition-statistics->

5 medium companies with a total number of 273 employees and 5 large companies with a total number of 295 employees using International Financial Reporting Standard (IFRS) 7 on financial instruments on disclosure of information about the significance of financial instruments to an entity (IAS Plus, n.d) and Accounting Standard (AS) 1, which refers to the disclosure of accounting policies (Quick Books, 2019). Thus, the total population was 568 employees comprising bookkeepers, accounts payable specialists, accounts officers, tax accountants, forensic accountants, public accountants, budget analysts, junior and senior accountants, internal auditors, financial managers and other employees and managers who knew about voluntary disclosure practices. Yamane's sample size determination formula was applied to determine the sample as follows;

$$n = \frac{N}{1+N(e)^2} \quad (3).$$

Where n is the sample size, N is the total population (568) and e = 0.05 margin of error. Inputting these values into expression 1 results in a figure of 234.71. Thus, 235 questionnaires were distributed to medium and large real estate companies in Erbil, Kurdistan.

## **4. Results**

### **4.1 Demographic analysis**

197 questionnaires were retrieved from 95 medium and 102 large real estate company employees in Erbil Kurdistan providing study details concerning voluntary disclosure and investment decisions. Male employees accounted for 62.94% while female employees represented 37.06% of the total examined real estate company employee responses as shown in Table 2. 3.55% of the employees held diplomas, while 23.35% had bachelor's degrees, 68.53% had master's degrees and 4.57% had PhD degrees. This indicates possibly highly educated professionals comprising employees with a possible understanding of the implications of voluntary disclosure

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[SMEs.html#:~:text=A%20majority%20of%20governments%2C%20namely,50%2D249%20employees%20enterprises. on 13 September 2022.](#)

on investment decisions. Hence, the collected findings will have a profound practical contribution to the study of accounting standards and their applications in the real estate industry.

**Table 2:** Demographic analysis results

Variable	Description	Frequency	Percentage
Gender	Male	124	62.94
	Female	73	37.06
	<b>Total</b>	<b>197</b>	<b>100</b>
	Diploma	7	3.55
	Bachelor’s degree	46	23.35
	Master’s degree	135	68.53
	PhD degree	9	4.57
	<b>Total</b>	<b>197</b>	<b>100</b>
Number of employees	Medium	95	48.22
	Large	102	51.78
	<b>Total</b>	<b>197</b>	<b>100</b>

**4.2 Descriptive analysis of voluntary disclosure and investment**

Descriptive statistics were computed for the variables investment decision, financial disclosure, non-financial disclosure, strategic disclosure and firm size. The key feature of the presented Table 3 descriptive statistics results is that it shows that the employees highly agree about matters involving the effects of voluntary disclosure on investment decisions. This is because high mean values exceeding 4 were obtained (investment decision = 4.108, financial disclosure = 4.144, non-financial disclosure = 4.112, strategic disclosure = 4.087, and firm size = 4.063).

The findings show that the potential capacity to cause significant improvements in investment decisions was connected to financial disclosure as evidenced by a high standard deviation of 1.044 followed by strategic disclosure with a standard deviation of 1.019. Low variations were linked to the variable firm size, which had a standard deviation of 0.487. This means that changes in firm size are less responsive and will take more time to influence changes in investment decisions. Amid such



observations, the study proceeded in determining the correlations between the variables in the next section.

**Table 3:** Descriptive analysis

	Mean	Standard deviation
<b>Investment decision</b>	4.108	0.913
<b>Financial disclosure</b>	4.144	1.044
<b>Non-financial disclosure</b>	4.112	0.651
<b>Strategic disclosure</b>	4.087	1.019
<b>Firm size</b>	4.063	0.487

### 4.3 Correlation coefficient test

The computed Pearson correlation coefficient test results of all three distinct forms of disclosure (FD, NFD and SD) are positively and significantly correlated with each as denoted in Table 4. This denotes that improvements in any form of the disclosure may require other forms of disclosure to enhance investment decision making as portrayed by the signalling theory (Brown-Libur, Cohen & Zamora, 2018) as well as for control and monitoring purposes as suggested by the agency theory (Shehata, 2014). This can be reinforced by the same findings denoting that improvements in all three forms of disclosure are linked with improvements in investment decision-making as denoted by respective correlations of 0.491, 0.566 and 0.328.

**Table 4:** Correlation coefficient test

	ID	FD	NFD	SD	FS
<b>ID</b>	<b>1</b>				
<b>FD</b>	0.491*	<b>1</b>			
<b>NFD</b>	0.566*	0.635*	<b>1</b>		
<b>SD</b>	0.328*	0.022*	0.072*	<b>1</b>	
<b>FS</b>	0.445*	0.472*	0.099*	0.326*	<b>1</b>

\* ID = investment Disclosure; FD = Financial Disclosure, NFD = Non Financial Disclosure; SD = Strategic Disclosure and FS = Firm size.

\* Denote correlation is significant at 1% level.

Table 4 reveals that the real estate companies' investment decisions are positively linked to changes in firm size by 0.445. This corroborates with study suggestions that link firm size to various organisational outcomes such as operational capacity (Besako & Doraszelski, 2004), research and development (Connolly & Hirschey, 2005; Muhammad, Migliori & Consorti, 2022), and performance (Younis & Sundarakani, 2019). Along similar lines, improvements in firm size also positively correlate significantly with financial, non-financial and strategic disclosures by 0.472, 0.099 and 0.326, respectively. This is possible because there is increased pressure that results from increasing in size as well as accountability for huge financial resources injected into the company. As a result, principals will demand significant disclosure ethics for monitoring and signalling purposes as suggested by the agency and signalling theories (Brown-Liburd, Cohen & Zamora, 2018; Shehata, 2014).

#### **4.4 Regression analysis**

Having determined the correlations between the model variables, the study proceeded to ascertain the integrated effective linking of financial, non-financial and strategic forms of disclosure, and firm size to investment decisions. The findings uphold that financial disclosure contributes to improvements in investment decisions by 0.464. Unlike prior studies that consider voluntary disclosure (Burks et al., 2018; Cannizzaro & Weiner, 2015), this study's findings do not only uncover the distinct forms of voluntary disclosure but also reveal that they have significant and distinct effects on investment decisions. This aligns with the agency theory highlighting the importance of monitoring managers' activities to ensure that they do not engage in aberrant activities that compromise the principals' return on investment (Shehata, 2014). Furthermore, this also mirrors Shehata's (2018) propositions about financial disclosure serving a vital signalling role in investment decision-making purposes. Rokhayati, Nahartyo and Haryono (2019) established that disclosure helps decision-makers deal with complexities posed like information asymmetry challenges affecting the quality of decisions made. Brown-Liburd, Cohen and Zamora's (2018) study outlines that disclosure items are essential for promoting CSR practices and serve as fairness heuristics in the investment decision.

To further support the study's contributions about voluntary disclosure having distinct types, Table 5 results show that improvements in non-financial disclosures have a positive and significant influence on investment decisions by 0.335. This has not been the case with prior studies as the relationship between non-financial disclosure and investment decision-making had been empirically sidelined (Muhammad, Migliori & Consorti, 2022; Qamruzzaman, Jahan & Karim, 2021). These findings support Shehata's (2014) viewed disclosure as enhancing the quality of information used in making decisions, Rokhayati, Nahartyo and Haryono (2019) cited that disclosure deal with complexities affecting the quality of decisions made and Brown-Libur, Cohen and Zamora (2018) established that disclosure items are essential for promoting CSR practices and serve as fairness heuristics in the investment decisions. As a result, this study's findings go a long way in encouraging the integration of non-financial matters in disclosure theories such as the agency theory (Shehata, 2014) as well as the signalling theory (Brown-Libur, Cohen & Zamora, 2018). Additionally, this also calls for increased focus by managers to attach significant value and contributions to non-financial matters in investment decision-making. In another latest development, Table 5 shows that strategic disclosure is responsible for 0.118 improvements in investment decisions following an improvement of 1 unit. Such denotes the signalling aspect of disclosure and its contributions to enhancing the ability of companies to make rational decisions as suggested by the signalling theory (Brown-Libur, Cohen & Zamora, 2018). Therefore, it can be inferred at this juncture that voluntary disclosure is essential for improving the quality of investment decisions made in companies. Therefore, the study demands an increased application and improvements in accounting standards to uphold acceptable disclosure practices and enhance companies' investment decisions.

Turning attention to firm size, the findings make it clear as has been highlighted in a study by Anam (2018) and Andriani, Nurnajamuddin and Rosyadah (2021), which indicate that the level and nature of investment decisions made in companies increases as the companies grow in size. This follows the establishment of a positive

interaction of 0.300 between firm size and investment decision as shown in Table 5. This is also evident in other studies that relate firm size to various organisational activities and outcomes and contend it to be a major determinant whose influence on any organisational activity is hard to ignore (Besako & Doraszelski, 2004; Connolly & Hirschey, 2005; Muhammad, Migliori & Consorti, 2022; Younis & Sundarakani, 2019). Similarly, Bozic and Botric (2017) outlined that there are strong interactive connections linking firms' size, innovation and investment decisions. This entails that firm size influences other activities and decisions that are positively connected to investments.

**Table 5:** Regression analysis results

	<b>B</b>	<b>Std. Error</b>	<b>Beta</b>	<b>t</b>	<b>Sig.</b>	<b>VIF</b>
<b>Constant</b>	0.486	0.148		3.278	0.001	-
<b>Financial disclosure</b>	0.464	0.084	0.441	5.552	0.000	1.203
<b>Non-financial disclosure</b>	0.335	0.073	0.347	4.607	0.000	1.798
<b>Strategic disclosure</b>	0.118	0.032	0.252	3.667	0.000	1.144
<b>Firm size</b>	0.300	0.141	0.318	2.129	0.043	1.387
<i>Dependent Variable: Financial reporting quality</i>						
<b>Model summary:</b>						
<i>R<sup>2</sup> = 0.8323      adjusted R<sup>2</sup> = 0.8274      ANOVA F-stat. = 14.318      F-stat. prob. = 0.000</i>						
<b>Durbin Watson:</b> 1.967						

Table 5 shows that 83.23% of the changes in the real estate companies' investment decisions are explained by financial disclosure, non-financial disclosure, strategic disclosure and firm size. The model is correctly specified as validated by an ANOVA F-statistic value of 14.318 and an F-statistic probability value of 0.000. The VIF values are less than 3 and this indicates that there were no multicollinearity issues affecting the model (Shieh, 2011). Furthermore, the obtained Durbin Watson value of 1.967 exceeds both the lower and upper Durbin Watson values of 1.633 and 1.715, which indicates the presence of non-autocorrelated errors (Meuleman, Loosveldt & Emonds, 2015).

To buttress the regression results, the study further applied an independent t-test to test the formulated hypotheses and the results are presented in Table 6. As a result, the hypotheses results reinforce the established regression analysis. Therefore, the study proceeded to infer conclusions, recommendations and suggestions in the next section.

**Table 6:** Hypotheses analysis results

No.	Hypothesis	t.stat. (prob)	Decision
1	Financial voluntary disclosure*Investment decision	7.302 (0.018)	Accept
2	Non-financial voluntary disclosure*Investment decision	9.428 (0.000)	Accept
3	Strategic disclosure*Investment decision	5.707 (0.000)	Accept

*\* Significant at 5%*

## Conclusion

The prime focus of this study was to ascertain how voluntary disclosure activities drive real estate companies' investment decisions and determine probable accounting strategies required in upholding acceptable disclosure practices and enhancing companies' investment decisions. By applying a multiple regression analysis method, the study portrays all the forms of disclosure as essential for monitoring managers' activities to ensure that they do not engage in aberrant activities that compromise the principals' return on investment as suggested by the agency theory. The findings also mirror the signalling theory's propositions about financial disclosure serving a vital signalling role in investment decision-making purposes.

Foremost, the findings uphold that financial disclosure contributes to improvements in investment decisions as evidenced by the accepted hypothesis 2. This aligns with the agency theory highlighting the importance of monitoring managers' activities to ensure that they do not engage in aberrant activities that compromise the principals' return on investment. Besides, this mirrors prior established propositions about financial disclosure serving a vital signalling role in investment decision-making

purposes. Therefore, the theoretical implications of this study emphasise the importance of monitoring and signalling roles of disclosure and their increased role in investment decision-making.

A key finding of the study is that financial, non-financial, and strategic forms of voluntary disclosure have a distinct impact on investment decisions, especially accepting hypothesis 2 about the positive interaction between non-financial disclosure and investment decisions. Therefore, company managers are encouraged to attach significant value and contributions to non-financial matters in investment decision-making. Similarly, in line with accepted hypothesis 3, the study infers that strategic disclosure is vital for improving investment decisions and this reflects the signalling aspect of the disclosure. Furthermore, this aligns with prior studies' propositions about the contributions of strategic disclosure to enhancing the ability of companies to make rational decisions as suggested by signalling theory. As a result, this study suggests that voluntary disclosure is essential for improving the quality of investment decisions made by companies. Therefore, the study's practical implications demand an increased application and improvements in accounting standards to uphold acceptable disclosure practices and enhance companies' investment decisions. Lastly, it can be concluded in line with hypothesis 4 that the level and nature of investment decisions made in companies increase as the companies grow in size.

Nevertheless, the study was limited to the examination of the effects of voluntary disclosure on real estate companies' investment decisions. Consequently, the findings are not generalisable to other companies such as banks, manufacturing companies and governmental institutions. Additionally, the findings are limited to real estate companies in Erbil, Kurdistan, hence future studies should cover other countries and regions to test and validate this study's established inferences and whether they hold valid ground when related to different circumstances and contextual situations.

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## کاریگه‌ری ناشکراکردنی خوڤه‌خشانه له‌سه‌ر بریاره‌کانی وه‌به‌ره‌ینان: پشکنینی ئه‌زموونی کۆمپانیاکانی خانوو‌به‌ره‌ی کوردستان

پوخته:

توێژینه‌وه‌که لیکۆلینه‌وه له کاریگه‌رییه‌کانی ناشکراکردنی خوڤه‌خشانه له‌سه‌ر بریاره‌کانی وه‌به‌ره‌ینان ده‌کات. توێژینه‌وه‌که مۆدیولی پاشه‌کشه‌ی هیلی به‌کارده‌هینیت بۆ شیکردنه‌وه‌ی 197 وه‌لام که له کارمه‌ندانی 5 کۆمپانیا‌ی خانوو‌به‌ره‌ی مامناوه‌ند و 5 کۆمپانیا‌ی گه‌وره‌ی خانوو‌به‌ره له هه‌ریمی کوردستان - هه‌ولێر کۆکراونه‌ته‌وه به به‌کاره‌ینانی IFRS 7 و ستانداردی ژمیریاری 1 سه‌باره‌ت به ناشکراکردنی زانیاری. ئه‌نجامی توێژینه‌وه‌که به شیوه‌یه‌کی سه‌رنج‌پراکێش ناشکرای ده‌کات که فۆرمه‌کانی ناشکراکردنی دارایی و نادارایی و ستراتیژی کاریگه‌ری ئه‌رینی جیاوازیان له‌سه‌ر بریاره‌کانی وه‌به‌ره‌ینانی کۆمپانیاکان هه‌یه. هه‌روه‌ها له ئه‌نجامی توێژینه‌وه‌که‌دا ده‌رکه‌وتوو که جۆری ئه‌و بریارانه‌ی وه‌به‌ره‌ینان که له کۆمپانیاکان ده‌درین له‌گه‌ڵ گه‌شه‌ی قه‌باره‌ی کۆمپانیاکان زیاد ده‌کات. کاریگه‌رییه‌ کردارییه‌کانی توێژینه‌وه‌که پێویستی به زیادکردنی به‌کاره‌ینان و باشتکردنی ستاندارده‌کانی ژمیریاری هه‌یه بۆ پشتگیریکردن له پراکتیکه‌کانی ناشکراکردنی قبولکراو و به‌رزکردنه‌وه‌ی بریاره‌کانی کۆمپانیاکانی وه‌به‌ره‌ینان. گرنگی پراکتیکی پێویستی بۆ به‌رپوه‌به‌ران هه‌یه که سه‌رنجیان زیاد بکه‌ن بۆ ئه‌وه‌ی به‌ها و به‌شداریه‌کی به‌رچاو بده‌ن به‌ بابه‌ته ناداراییه‌کان له بریاردانی وه‌به‌ره‌یناندا

## آثار الإفصاح التطوعي على قرارات الاستثمار: فحص تجريبي لشركات عقارات كردستان

الملخص:

تبحث الدراسة في آثار الإفصاح التطوعي على قرارات الاستثمار. و تطبيق الدراسة نموذج الانحدار الخطي لتحليل 197 إجابة تم جمعها من موظفي 5 شركات عقارية متوسطة و 5 شركات عقارية كبيرة في إقليم كردستان - أربيل باستخدام معيار التقارير المالية الدولية 7 والمعيار المحاسبي 1 بشأن الإفصاح عن



المعلومات. وتكشف نتائج الدراسة بطريقة مثيرة للاهتمام أن أشكال الإفصاح المالية وغير المالية والاستراتيجية لها تأثيرات إيجابية مختلفة على قرارات الشركات الاستثمارية. و كما كشفت نتائج الدراسة أن نوع القرارات الاستثمارية التي يتم اتخاذها في الشركات يزداد مع نمو حجم الشركات. تتطلب الآثار العملية للدراسة تطبيقاً متزايداً وتحسينات في معايير المحاسبة لدعم ممارسات الإفصاح المقبولة وتعزيز قرارات الشركات الاستثمارية. من الأهمية العملية يتطلب من المديرين الزيادة في تركيز إعطاء قيمة كبيرة ومساهمات للمسائل غير المالية في صنع القرار الاستثماري.