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THE ECONOMIC CONSEQUENCE OF EARNINGS PERSISTENCE, EVIDENCE FROM NEW ZEALAND AND IRAN

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ABSTRACT

Earnings growth sustainability is an important aspect of earnings quality that is very vital for users of financial statements in their financial analysis and decisions. This study aimed to investigate the earnings persistence and related economic consequences in the two economically different environments of Iran, a developing country, and New Zealand, a developed country. Earnings quality is affected by several factors, and identifying their effect on earnings quality would be useful in developing better models of earnings quality. In the current empirical research study, determinants of earnings quality have been investigated comprehensively from four dimensions, including firm characteristics, business characteristics, economic characteristics, and audit quality. To examine the economic consequence of earnings quality, three variables, including the industry-adjusted price-earnings ratio, industry-adjusted price-book ratio, and Tobin's Q ratio, have been used. This research recruited 135 companies listed on the Tehran Stock Exchange, and 38 companies listed on the New Zealand Stock Exchange the investigation period is considered 2006 to 2014. This study employs the exploratory approach to determine the significant impact of earnings quality determinants. The findings reveal the low earnings persistence of both Iranian and New Zealand companies. Among the earnings quality determinants, intangible intensity, leverage, and standard deviation of operating cash flow had a significant relationship with earnings persistence. The results on the economic consequence of earnings quality showed that earnings persistence is only significantly related to Tobin's Q ratio.

Keywords: Earnings persistence, Determinants of earnings quality, Economic consequences, New Zealand, Iran.

Introduction

Company earnings quality has diverse dimensions, and many studies have been done in the world in line with different dimensions of earnings quality so that the results of some of these researches reveal the important applications of earnings quality for the capital market (Sloan's, 1996). These results provide useful applications for the capital market. The importance of financial reporting quality during the global financial crisis has been confirmed by many research studies. According to Lee (2007), in New Zealand, financial crises have been observed in some years, including the fall of Renshaw Edwards in 1992 and the fall of Feltex in 2006.

Earnings quality is affected by numerous factors, and identifying and determining the impact of these factors on earnings quality by research studies can be useful in developing better models for earnings quality and better evaluation of earnings quality. In the current study, these factors are comprehensively examined at four levels,

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including firm characteristics, business characteristics, economic characteristics, and audit quality, and their impact is investigated on the earnings persistence in Iran as a developing country and New Zealand as a counterpart developed country which depicts the contribution of this research project to the literature of this field. Also in this research, the relationship between earnings quality and firm value has been investigated using three variables, including industry-adjusted PE, industry-adjusted PB, and Tobin's Q ratio.

Literature Review and Hypothesis

Earnings persistence (EP) is one of the qualitative features of accounting earnings, research studies such as Ebaid (2010), and Pimentel and Lima (2015) have advocated that EP is an important amount for predicting future earnings considering current earnings. The higher the EP is, the higher the earnings quality (EQ) will be. The high persistence of earnings has important benefits for capital market and academics including usefulness for evaluating investments, more useful measure for forecasting future performance, fewer evaluation errors from analyzing current earnings, and better inputs for equity valuation models (Ebaid, 2011; Hee, 2011; Pimentel & Lima, 2015; Kolozsvari & Macedo, 2016).

Methods Implemented for Measuring EP

The most repeated models recruited for measuring EP include cross-sectional and time series. This part reviews articles that recruited these models.

The cross-sectional models are used widely in the literature (Sloan, 1996; Chen, 2004; Richardson *et al*., 2005; Frankel & Litov, 2009; Ebaid, 2011; Hee, 2011; Kabir & Laswad, 2011; Dey & Lim, 2015). These models have advantages and disadvantages. The power and lack of survivorship bias are advantages of the cross-sectional model, and their disadvantages include the correlation of regression residuals (Hee, 2011), and also earnings trends in some companies' fluctuation; thus adopting these models for measuring EP is not suitable for such cases. Furthermore, EP may not be measured correctly if lagged independent variables are utilized just for one period (Cheng & Wu, 2013).

Table 1 presents a summary of discount rates used by previous studies in the selected countries.

Table 1. Discount rates implemented in the ARIMA Models

Author	Year	Country	Discount Rate
O'Hanlon *et al*.	1992	UK	The earnings capitalization rate
Lipe and Kormandi	1994	US	10%
Baginski *et al*.	1999	US	10%
Riahi-Belkaoui and Alnajjar	2002	US	10%
Ahrens	2010	US	10%
Pimentel and lima	2015	Brazil	The average annual interest rate

Determinants of EQ

Determinants of EQ have been considered in the econometric models included in the research of EQ provided by scholars such as Baginski *et al*. (1999), Kwon and Yin (2013), Riahi-Belkaoui and Alnajjar (2002), Chen (2004), Cohen (2004), and Martínez-Ferrero (2014). According to the above discussion, the first research hypothesis is:

H1: There is a statistically significant difference between the calculated EP in New Zealand and Iran's environment.

According to Ahrens (2010), determinants of EQ can be classified into four levels: firm characteristics, business characteristics, economic characteristics, and auditor quality.

The Economic Consequence of EQ

Earnings are the main aspect of valuation. Discussions in the early 1930s revealed the importance of the P/E multiple for firm valuation. These discussions are reasonable when considering one of the firm valuation models, including the dividend discount model, discounted cash flow model, or residual income model. Nevertheless, these models are

complex to be implemented. The basis of the formation of the residual income model arises from multiples such as P/E and the price to book value (P/B). Consequently, users can evaluate firms by reviewing these multiples. However, as recommended in the literature, surveying multiples is easier than analyzing complex models (Dechow & Schrand 2004; Schreiner 2009). According to the above explanations and considering that valuation models are related to earnings, EQ affects firm value. Therefore, many studies such as Ahrens (2010), Siegel and Shim (1981), and Gaio and Rapso (2011) considered firm value as the economic consequence of EQ. Thus, the second hypothesis of the study is:

H2: EP is significantly related to the firm value in the New Zealand and Iranian listed companies.

In this hypothesis, the firm value includes the industry-adjusted price-earnings- ratio, industry-adjusted price-book ratio, and Tobin's Q ratio.
The EQ literature in the field of the economic consequence of EQ includes the economic consequence of both EQ and determinants of EQ. Also, various studies have employed different proxies for the economic consequences of EQ.
According to the results, high-quality earnings have positive economic consequences for the firms including increasing firm value, decreasing the cost of equity capital, and increasing the forecast accuracy of analysts. Therefore, the last research hypothesis of the current study is:

H3: The effects of economic consequences of EQ are statistically different in the New Zealand and Iran environments.

Materials and Methods

Data and Sample

In the case of Iranian companies, the research variables were extracted and calculated from the software of Novin Rahavard, the companies' financial statements, the reports of the board of directors available on the Codal site, and the security & exchange organization site (seo.ir). The statistical population of the study is all companies listed on the Tehran Stock Exchange, except for companies in the financial sector, which include insurance, investment, leasing, holding, and banks, and companies that had the following characteristics were removed from the sample:

1. Their information is not available.
2. Not be active in the stock exchange and securities during the research period.
3. The end of the company's fiscal year is not March 19 because firms' data is more comparable, and March 19 is the end of the fiscal year for most Iranian firms.

The companies that had the necessary conditions were 135 companies that constitute the statistical sample of the research. The research period has been considered from 2006 to 2014. Due to the approval of the Securities Market Act 2005 and the revision of the Accounting Standards in 2006, the research period began in 2006. The industrial classification of Iranian companies is based on ISIC (International Standard Industrial Classification).
Information about New Zealand companies is collected from both the Bloomberg and NZX websites. Industry classification for New Zealand companies based on Bloomberg classification, the GICS (Global Industry Classification Standard) classification was used, and companies with the following characteristics were eliminated:

1. Financial, insurance, investment, and holding companies
2. Real estate companies were eliminated because they did not have the variables needed for research
3. Overseas companies

Of the 155 companies listed on the New Zealand Stock Exchange between 2006 and 2014, 61 companies had sample features while 38 of them had the required research information. The year of starting research has been selected as 2006 for New Zealand companies to match Iranian companies.

Models Development

Sustainable earnings due to reproducibility from analysts' ideas and users of financial statements are considered desirable. To measure the earnings persistence according to Francis *et al*. (2004), regression of earnings future values on its current values has been used as follows:

$$X_{t+1} = \alpha_t + \beta X_t + \varepsilon_t \quad (1)$$

In this model, β is earnings persistence. If β is close to one, the earnings will be more sustainable.

$$Per = \beta \quad (2)$$

To standardize, the variables of the model were divided at the beginning assets of the period. This model is a time series model that is estimated at the level of each company. Determinants of earnings quality in econometric models related to earnings quality research have been considered, which have been studied by researchers such as Beginski *et al*. (1999), Kwon and Yin (2015), Riahi Belkaoui and Al-Najjar (2002), Chen (2004), Cohen (2004), Ahrens (2010) and Martinez (2014). Determinants of earnings quality are variables that affect the quality of earnings of the company. According to Ahrens (2010), the determinants of earnings quality were classified into four levels: firm characteristics, business characteristics, economic characteristics, and audit quality.

Firm Characteristics

Variables related to firm characteristics include firm age, firm size, growth opportunities, capital structure, and diversity.

Age

The older the company, the more stable the earnings and therefore the better the quality of earnings. The proxy used for it (age) is equal to the number of years from the beginning of the establishment.

Size

The larger the company, the more influence it has on the market, and consequently the better its continuity and predictability. Two proxies are considered for measuring it.

$Size_1$ = Natural logarithm of total assets at the end of the year (3)

$Size_2$ = Natural logarithm of the market value of the company's capital at the end of the year (4)

Growth Opportunities

Growth makes the company's future performance more volatile and, as a result, decreases earnings sustainability. The proxy used for growth is demonstrated in Eq. 5, where REV is the company's sales revenue:

$$Gr = \frac{REV_t - REV_{t-1}}{REV_{t-1}} \quad (5)$$

Capital Structure

Higher debt ratios in the capital structure lead to more fluctuations in earnings, which leads to a reduction in real earnings quality. On the other hand, due to more debt in the capital structure, companies with high leverage have more demand for control; as a result, the quality of earnings increases. The proxy used for the leverage ratio is:

$$Le = debt/\ MV \quad (6)$$

In this relation, debt is the beneficial debt and MV is the market value of the company.

Variety

Companies have more stable earnings with more segments, thus increasing the quality of earnings. The proxy used for it is the dummy variable (Di). For companies with several subsidiaries operating in different industries, zero, and for companies without a subsidiary or a subsidiary or several subsidiaries operating in an industry number 1 is considered.

Business Characteristics

Variables related to business characteristics that are specific to the industry include product type, capital intensity, business variability, intangible intensity, and inventory level.

Product Type

Consumer goods and services rather than durable goods are in constant demand, so the sustainability of the earnings for companies with consumer goods and services is more stable and the quality of earnings is higher. The proxy used for this variable is the PT dummy variable when the company operates in consumer goods and service industries it is 1, otherwise zero.

Capital Intensity

There are two views about this variable. The first view is that companies with high capital intensity need to invest more in fixed assets that lead to high fixed costs and due to high fixed costs, in line with demand, cannot change their capacity quickly. Consequently, capital-intensity companies face higher volatility of earnings, which leads to a reduction in the sustainability of earnings. In the second view, capital-intensity industries have less competition, and rates of return in a non-competitive environment are more stable; thus, the quality of earnings increases. The proxy used for capital intensity is:

$$Cap = PPEN/TA \quad (7)$$

PPEN and TA stand for Net property, plant and equipment, and the sum of assets respectively.

Business Variability

Business variability is signified by the variability of cash flows and sales. The higher they are, the lower the operational stability of companies, thus leading to lower earnings quality. There are two proxies for *business variability*:

Sv: Net standard deviation of sales to assets (8)

Cv: Standard deviation of operating cash flow to assets (9)

The standard deviation is calculated for 7 years.

Intangible Intensity

Intangible intensity is directly related to product innovation and diversity. Consequently, companies with high intangible intensity face high barriers to entering the industry and have low competition, thus the earnings quality increases.

$$Int= (RD + ADV)/ REV \quad (10)$$

RD is the R&D cost, ADV is the cost of advertising and marketing, and REV is sales revenue.

Inventory Level

High inventory levels lead to smoother earnings, which ultimately leads to increased earnings sustainability. On the other hand, inventory levels may be unrealistically high due to obsolete items, so the company's continuity may be faced with problems, and earnings flow stability may be misleading. The proxy is as follows:

$$INV = \frac{(INV_t + INV_{t-1})/2}{REV_t} \quad (11)$$

In Eq. 11: REV is sales revenue and INV is inventory.

Economic Characteristics

Variables related to economic characteristics that relate to the company's operating environment include performance variability and loss reporting.

Performance Variability

The variability of past performance leads to the inability to predict future performance and a reduction in the earnings quality, the proxy of which is as follows:

$$EV = \text{Standard deviation of earnings that have been scaled to assets} \quad (12)$$

The standard deviation is calculated for 7 years.

Loss Report

To measure this variable, the Lo dummy variable is used, which is 1 if the company has a loss otherwise zero.

Audit Quality

Auditing with high quality prevents intentional manipulation and unintentional errors, thus increasing the quality of earnings. The proxy used for it is the Au dummy variable, which indicates the type of audit firm. In the case of Iranian companies, if the auditor is an audit organization, it is equal to one; otherwise, zero. For New Zealand companies, if the audit firm is a member of the BIG 4, it is equal to one; otherwise zero.

To determine the importance of determinants of earnings in the explanation of the characteristics of earnings, finally, the relationship between earnings persistence and determinants according to Ahrenz (2010) is determined based on the following regression:

$$Per = \alpha + \beta\ Det_{it} \quad (13)$$

Det_{it}: A vector of determinant values for each company *i* in the year *t*

The model is estimated using panel data. F-Limer and Hassmann tests were used to identify the type of regression model. Breusch–Pagan test was used to test the integrated data model against random effects. Likewise, the regression underlying assumptions were examined.

In this study, to examine which of the earnings quality determinants have a significant effect on earnings quality, the exploratory approach has been used, which means that to inspect each of the earnings quality determinants, the corresponding variable is kept in the model and other non-significant variables, due to the maximum p-value is removed from the model in order until the other variables remaining in the model are significant.

Models related to the relationship between firm value and earnings quality criteria based on Ahrens (2010):

$$IndPE_{it} = \alpha + \beta\ Per_{it} + y\ Det_{it} + £_{it} \quad (14)$$

$$IndPB_{it} = \alpha + \beta\ Per_{it} + y\ Det_{it} + £_{it} \quad (15)$$

$$\text{Tobin's } Q = \alpha + \beta\ Per_{it} + y\ Det_{it} + £_{it} \quad (16)$$

Where:

IndPE: The industry-adjusted price-earnings-ratio

$IndPB_{it}$: The industry-adjusted price- book-ratio

Det: Includes vector of the determinants for each firm i in year t.
Per: stands for earnings persistence
These regressions were also estimated using panel data.

Results and Discussion

Table 2 demonstrates the average, minimum, and maximum values for each of the variables determining the quality of earnings, earnings persistence, and value of the firm in Iran (IR) and New Zealand (NZ).

Table 2. Descriptive statistics

variable	Mean of IR	Mean of NZ	Min of IR	Min of NZ	Max of IR	Max of NZ
per	.201	.258	-.901	-.561	.906	1.473
Le	.609	.521	.000	.00	12.063	8.578
Cap	.229	.357	.019	.001	.825	.906
Sv	.188	.159	.034	.003	1.008	.723
Inv	.309	.1	.045	.00	1.465	1.164
Int	.006	.04	.000	.00	.078	1.931
Age	38.133	52.026	12	8	63	174
Ev	.062	.079	.006	.004	.241	1.102
Cv	.171	.072	.011	.005	36.119	1.071
Size 1	27.732	19.433	24.308	15.266	32.270	22.735
Size 2	27.504	19.202	24.432	14.307	32.269	22.521
Gr	.295	.229	-.602	-.826	4.651	10.789
Pe	11.964	.782	-142.537	-174.652	1705.24	174.653
Pb	.491	.311	-33.708	-2.339	119.714	16.634
Tobin's Q	1.67	1.709	.584	.507	6.528	18.964

According to Francis *et al*. (2004), if the value obtained for earnings persistence is close to one, it designates high earnings persistence. According to **Table 2**, the average earnings persistence of New Zealand companies (0.258) is higher than Iranian companies (0.201), so earnings persistence in both countries is low, while it was expected that New Zealand to have high earnings sustainability as a developed country. Internationally, earnings sustainability in developing countries is lower than in developed countries.
To test the first hypothesis about the significance of the difference in earnings persistence of companies in Iran and New Zealand, the Mann-Whitney test was used, so that the average earnings persistence per year for both countries during the research period was calculated and to test their significance the Mann-Whitney was used.

Table 3. Man-Whitney test

	per
Mann-Whitney U	1.000
Wilcoxon W	7.000
Z	-1.528
Asymp. Sig. (2-tailed)	.127
Exact Sig. [2*(1-tailed Sig.)]	.200[a]
Exact Sig. (2-tailed)	.200

Exact Sig. (1-tailed)	.100
Point Probability	.050

a. Not corrected for ties.

According to **Table 3**, the sig. value is greater than 5%; consequently, the null hypothesis is accepted. So, it can be said that the averages of the two societies are not significantly different. Thus, the first hypothesis that there is a significant difference in the values of earnings persistence of both countries is rejected.
Table 4 reveals the effect of each of the determinants of earnings quality on earnings persistence in both Iran and New Zealand by the exploratory method.

Table 4. Regression coefficients of determinants on earnings persistence

$Per = \alpha + \beta Det_{it}$				
variable	Coef of IR	p-value	Coef of NZ	p-value
Le	.0108	.573	.08659	.0149
Int	.912	.681	.48218	.0022
Cap	-.137	.394	.217	.141
Sv	.065	.743	-.2998	.238
Inv	-.0853	.432	-.35	.228
Di	-.059	.394	.157	.129
Au	.023	.72	-.0099	.944
PT	-.05	.41	-.0258	.793
Age	.0015	.497	-.0009	.335
Ev	-.687	.259	-.398	.166
Cv	-.007	.438	-.696	.0468
Lo	-.008	.9	.05	.588
Size1	.02	.335	.0253	.258
Size2	.005	.733	.02	.355
Gr	.029	.382	-.014	.57
R^2 model	.029		.284	
p-value model	.607		.0637	
MSPE	.1749		.1018	

According to **Table 4**, the model is not significant for Iranian companies. In the case of New Zealand companies, the 90% confidence level is significant. The explanatory rate for earnings persistence is 28.4%. Likewise, the explanatory percentage for different studies varies due to differences in the number and type of variables used for determinants. According to **Table 4**, leverage is directly related to earnings sustainability, which is not consistent with Ahrens's (2010) results in this field. So, theoretically, according to Ahrens (2010), due to more debt in the capital structure, companies with high leverage have more demand for controlling, so the quality of earnings increases.
In the same way, the variability of operating cash flow has a negative and significant relationship with earnings persistence that is consistent with Ahrens's (2010) results but is not consistent with the results of Francis *et al*. (2004). Therefore, theoretically, the higher the standard deviation of operating cash flow, the more negative the effect on earnings quality; this indicates that companies have lower operating stability. As it is clear from the results, the impact of determinants of earnings quality varies in different environments, and a consistent theory cannot be proposed.
Table 5 reveals the relationship between earnings persistence and each of the firm value criteria.

Table 5. Regression coefficients of earnings persistence on firm value

$IndPE_{it} = \alpha + \beta Per_{it} + y Det_{it} + £_{it}$, $IndPB_{it} = \alpha + \beta Per_{it} + y Det_{it} + £_{it}$, Q Tobin= $\alpha + \beta Per_{it} + y Det_{it} + £_{it}$

variable	Coef on pe(IR)	Coef on pe(NZ)	Coef on pb(IR)	Coef on pb(NZ)	Coef of Tobin's Q(IR)	Coef of Tobin's Q(NZ)
intercept	-25.455	-5.48	-8.99	-.556	2.23***	1.343**
Per	9.41	-10.03	1.08	-.236	.081*	-.152
Le	-6.647	1.067	.017	.417***	.288***	.415***
Cap	.408	-20.94	2.12	-.569	-.256**	.156
Sv	-57.25	-20.44	2.68	-.188	.003	.753**
Inv	.514	16.779	-1.4	-1.06*	-.155	-.405
Di	13.09	-2.987	.59	-1.08**	.16***	-.13
Au	-9.4	-4.77	1.71**	-.718	.019	.033
PT	-14.73	-4.694	-.7	.078	-.134***	.017
Int	54.22	-31.12	8.11	8.1***	-1.38	8.026***
Age	-.318	.05	.023	-.005*	-.00087	-.0002
Ev	80.179	5.2	6.62	3.53***	.07	-.428
Cv	.104	27.57	-.04	-6.444***	.006	-1.78**
Lo	14.84	-38.71***	1.522	.132	.143**	.09
Size 1	8.48	-3.737	-.82	-.825***	-1.04***	-.957***
Size 2	-6.83	5.283	1.08*	.936***	1.029***	.962***
Gr	18.16	.955	-.43	.016	.047	-.02
R^2 model	.0028	.0287	.009	.552	.705	.864
p-value	.634	.01	.087	<.0001	<.001	<.001
BIC	5003.248	1176.177	2791.282	257.5791	376.2622	158.002
MSPE	10325.69	838.52	44.1388	.5315	.1131	.1063

*** Coefficients are significant at the level of 1%
** Coefficients are significant at the level of 5%
* Coefficients are significant at the level of 10%

According to **Table 5**, the p-value value of the models, all models except the regression model of earnings persistence on *pe* in the Iranian environment are significant. To compare the models in each environment, BIC and MSPE statistics were used. The lower their value, the better and more appropriate the model. Among the models in the New Zealand environment, the model related to the effect of earnings persistence on Tobin's Q has a lower BIC (158.002) and lower MSPE (.1063). For Iranian companies, the model related to the effect of earnings persistence on Q Tobin has less BIC (376.2622) and MSPE (.1131). So, according to the results obtained from both environments, it is more appropriate and better than other models. Likewise, the coefficient of determination of the PE model is low, and in the New Zealand environment, it is less than 10%, which shows that the earnings quality determinants and earnings persistence have a small role in explaining the variability of firm value (PE). Similarly, earnings persistence in none of the models had a significant relationship with PE. The coefficient of determination of the pb model was nearly appropriate only in the New Zealand environment, and 55.2% of the variability of firm value (pb) was explained by the determinants of earnings quality and earnings persistence. The highest coefficient of determination in the two environments is related to Tobin's Q model, which is above 60%. Among all the models related to the effect of earnings persistence on firm value, only earnings persistence had a positive and significant relationship with Tobin's Q ratio in Iran. According to the results obtained in this section, among the criteria considered for the value of the company, the criterion of Tobin's Q ratio compared to pe and pb is a better criterion to explain the economic consequence of earnings quality. Based on the obtained results, the second research hypothesis on the significant relationship between earnings persistence and firm value is accepted only in Tobin's Q ratio in the Iranian environment, and in the case of other value criteria of the firm, i.e., pe, and pb, it is rejected. According to **Table 5**, the results of the economic impact of

earnings quality are different in Iran and New Zealand companies, so the earnings persistence has a positive and significant effect on the Q Tobin ratio in Iran but does not have a significant effect on New Zealand's environment. Therefore, the third research hypothesis is accepted.

Conclusion

The findings showed that this model was not significant in the Iranian environment, but in the New Zealand environment, it was significant. Among the determinants of earnings quality, leverage, intangible intensity, and the variability of operating cash flow had a significant relationship with earnings sustainability. The leverage had a direct relationship with earnings quality. The variability of operating cash flow had a negative and significant relationship with earnings sustainability. Based on the results, the intangible intensity had a positive and significant relationship with earnings sustainability. The impact of determinants of earnings quality varies in different environments, and a fixed theory cannot be put forward. Among all the models related to the effect of earnings sustainability on firm value, only earnings sustainability had a positive and significant relationship with Tobin's Q ratio in the Iranian environment. Among the models in the New Zealand environment, the model related to the effect of earnings sustainability on Tobin's Q has less BIC (158.002) and less MSPE (.1063). In Iran, the model related to the effect of earnings sustainability on Tobin's Q has less BIC (376.2622) and MSPE (.1131). Likewise, the highest determination coefficient in the two environments is related to the Tobins' Q model, which is above 60%. Consequently, according to the results obtained from both environments, the model related to Tobin's Q is more appropriate and better than other models.

The results of the study suggested that it is better to expand the research scope in future research and to compare and investigate the quality of earnings by including more countries. In line with the economic consequences of earnings quality, the findings of this study indicated that earnings sustainability is not significantly related to PE and PB ratios, so it is recommended that in future research, other economic outcomes measures of earnings quality, such as capital cost, the extent of the price of buying and selling, distribution in analysts' earnings forecasts, the number of analysts following the company, the market value of equity, analysts' predictions, and the company's value be used. In the current study, macroeconomic indicators such as inflation and exchange rate are not considered determinants of earnings quality, so it is suggested that these factors be considered in future research.

Like other studies, the current research project has suffered from some limitations, so some companies were removed due to a lack of necessary information which led to a small sample size.

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