Revista Gestão & Tecnologia
e-ISSN: 2177-6652
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http://revistagt.fpl.edu.br/

THE MEDIATING ROLE OF ACCOUNTING INFORMATION QUALITY ON THE RELATIONSHIP BETWEEN COMPARABILITY OF FINANCIAL STATEMENTS AND CASH HOLDINGS: EVIDENCE FROM SELECTED IRANIAN COMPANIES

O PAPEL MEDIADOR DA QUALIDADE DA INFORMAÇÃO CONTÁBIL NA RELAÇÃO ENTRE A COMPARABILIDADE DAS DEMONSTRAÇÕES FINANCEIRAS E A LIQUIDEZ DE CAIXA: EVIDÊNCIAS DE EMPRESAS IRANIANAS SELECIONADAS

EL PAPEL MEDIANTE DE LA CALIDAD DE LA INFORMACIÓN CONTABLE EN LA RELACIÓN ENTRE LA COMPARABILIDAD DE LOS ESTADOS FINANCIEROS Y LA LIQUIDEZ EN EFECTIVO: PRUEBAS DE SELECCIONADAS EMPRESAS IRANÍAS

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Editor Científico: José Edson Lara
Organização Comitê Científico
Double Blind Review pelo SEER/OJS
Recebido em 02.10.2020
Aprovado em 11.05.2021

ABSTRACT
This study is looking for investigating the mediating effect of accounting information quality on the Relationship between Financial statement comparability and cash holdings. Hence In this paper, data from 90 non-financial firms listed on TSE between 2013 and 2017 (450 firm-year) were evaluated by using linear regression models with panel data analysis. To test the significance of mediating effect, the Sobel test is used. The results of the research show that financial statement comparability decreases poor accounting information, Also the results indicate that poor accounting information increases cash holdings. Moreover, by adding accounting information quality (mediating variable) to the model, there is also significant relationship between Financial statement comparability and cash holdings which implies comparability enhances accounting information quality that indirectly and significantly decreases cash holdings. Thus the author finds a partial mediation effect of accounting information quality on mentioned relationship.

Keywords: Comparability, cash holdings, accounting information quality, accrual earnings management

RESUMO
Este estudo procura investigar o efeito mediador da qualidade da informação contábil na relação entre comparabilidade das demonstrações contábeis e liquidez de caixa. Assim, neste artigo, os dados de 90 empresas não financeiras listadas no TSE entre 2013 e 2017 (450 anos-ano) foram avaliados usando modelos de regressão linear com análise de dados em painel. Para testar a significância do efeito mediador, o teste de Sobel é usado. Os resultados da pesquisa mostram que a comparabilidade das demonstrações financeiras diminui as informações contábeis ruins. Os resultados também indicam que informações contábeis inadequadas aumentam o caixa. Além disso, ao agregar a qualidade da informação contábil (variável mediadora) ao modelo, existe também uma relação significativa entre a comparabilidade das demonstrações contábeis e a disponibilidade de caixa, o que implica que a comparabilidade aumenta a qualidade da informação contábil que indireta e significativamente diminui a liquidez. Assim, o autor encontra um efeito de mediação parcial da qualidade da informação contábil no relacionamento mencionado.

Palavras-chave: Comparabilidade, liquidez de caixa, qualidade da informação contábil, gerenciamento de resultados acumulados

RESUMEN
Este estudio busca investigar el efecto mediador de la calidad de la información contable sobre la relación entre la comparabilidad de los estados financieros y las tenencias de efectivo. Así, en este artículo se evaluaron datos de 90 empresas no financieras cotizadas en el TSE

entre 2013 y 2017 (450 años-años) mediante modelos de regresión lineal con análisis de datos de panel. Para probar la importancia del efecto mediador, se utiliza la prueba de Sobel. Los resultados de la encuesta muestran que la comparabilidad de los estados financieros disminuye la mala información contable. Los resultados también indican que la información contable inadecuada aumenta el efectivo. Además, al agregar la calidad de la información contable (variable mediadora) al modelo, también existe una relación significativa entre la comparabilidad de los estados financieros y la disponibilidad de efectivo, lo que implica que la comparabilidad aumenta la calidad de la información contable que de manera indirecta y significativa disminuye la liquidez. Así, el autor encuentra un efecto mediador parcial de la calidad de la información contable en la relación mencionada.

Palabras clave: Comparabilidad, Tenencia de Efectivo, Calidad de la Información Contable, Gestión de Ganancias.

1. INTRODUCTION

One of the main duties of corporate financial managers is to manage the firm's cash. Firms determine their cash management strategies on the basis of two goals: to provide cash for company's payments and to minimize the funds remaining in the company stagnant. The second goal reflects this thinking that if no asset items are used properly, there will be no returns for the company. Unfortunately, these two goals may contradict each other. One theory of corporate cash management is pecking order theory, which, in contrast to the Trade-Off theory, contends that the most worry of managers is not to determine the optimal level of cash; Instead, they focus more on how to fund investment projects and for investment, use available cash in the company, retained earnings, debt and equity, respectively. According to this theory, managers will save the company's cash assets to use for investments. Another theory relates to the theory of Agency theory. Based on this theory, managers with high cash assets have a greater incentive to use these assets for their own interests and do not pay attention to optimal levels of cash and appropriate investments (Khajavi et al., 2012).

Mehrvarz and Marfou (2016) state that the information of a reporter entity will be more useful when compared with similar information from other entity and with similar information of the same entity for other periods. Comparability is one of the main quality features associated with providing information that adds to the usefulness of the information.

According to FASB Statement No. 8 (FASB., 1980) and the IASB Financial Reporting Framework, the ability to compare, validate, timely and comprehensible are qualitative

features that highlight the handiness of the information that is pertinent and truly allocated. the ability to compare, which enables the investors to recognize and get similitudes and contrasts, decreases the expense of getting information and processing them, And by that way enhances the general amount of quantity and quality of companies' information (De Franco et al., 2011) and leads to the allocation of capital efficiency (Chen et al., 2013). Other advantages of comparability include: increasing the quality of available information and, consequently, increasing the coverage of analysts and their predictive accuracy and reducing their predictive dispersion (Horton et al., 2013; Lang et al., 2010). Increasing liquidity and volume of stock trades and reflecting more specific company's information on the returns of the current period (Barth et al., 2013) and reducing the benefits of using confidential information (Brochet et al., 2012). In the concept statement No. 8 of the Financial Accounting Standards Board, the importance of financial statement comparability has been highlighted that among the most basic reasons for the need for financial reporting standards is increasing the ability to compare the reported financial information, and in the theoretical concepts of financial reporting of Iran (Accounting Standards Committee., 2010), It has been argued that if information is relevant and reliable, its usefulness will be restricted if it is not comparable and incomprehensible.

On the other hand, the quality of accruals is considered as a substitute for the quality of accounting information, as it provides information about the expected cash flow to investors' knowledge and can be a criterion for optimal cash management (García-Teruel et al., 2009). Due to the effect of accounting information quality on the companies' interest in holding cash, firms with low (high) quality of accounting information tend to hold more (less) cash. Since opaque reporting accentuates information asymmetry, thereby making external financing costly (Sun et al., 2011). In terms of comparability of financial statements, Peterson et al. (2015) show that by increasing the comparability of financial statements, the incentives for earning management are reduced. In general, the better quality of accrual accounting information is, the better prediction of future corporate cash flow is easier, and this prediction is more easily done, and in this situation it seems that companies are more easily financed and are not obliged to hold additional cash in the company. On the other hand, managers of Iranian companies may hold more cash due to more caution, regardless of the quality or weakness of the quality of accounting information.

Since the Similarity level of financial statements decrease the expense of acquiring information and, expanding the information quality, and consequently reduces unreliability information through the access of investors to low-cost information, it is expected that this diminishing in unreliability information, subsequently decrease cash holdings by lessening restrictions of financing and information asymmetry issues.

What is less obvious from the existing studies is the mediating role of accounting information quality in the relationship between financial statement comparability and cash holdings. To handle this problem, current study was designed to answer this problem.

This study develops the existing literature in various significant ways. To start with, as far as we could possibly know, it is the first study that examines the accounting information quality as a potential mediating variable between similarity level of financial statements and cash holdings. Second, it features the problem of accounting information quality and comparability of financial statements in TSE firms. In this manner, this paper can give more experiences into solving the agency problems and information asymmetry in TSE firms.

2. LITERATURE REVIEW AND BACKGROUND OF THE STUDY

Among different resources, cash is seen as the most significant resources that controlling managers can seize from firms under their control (Myers and Rajan.,1998). Despite the fact that the additional cash saves in a firm, lessens the expenses related with external financing by expanding the adaptability of internal financing, it might have negative ramifications while controlling managers put these liquid assets in low value activities, for example, capital expenditures and acquisitions (Dittmar and Mahrt-Smith., 2007; Lee and Lee., 2009). The additional cash can be effectively changed into managers' private advantages at a lower cost (Pinkowitz et al., 2006). based the theoretical perspective, it is contended that leaving a lot of cash holds under CEOs control will motivate them to waste the additional cash in projects that expand the managers riches to the detriment of outside financial investors, particularly when the corporate governance system is not strong (Jensen., 1986; Stulz., 1990).

Trading incentives, cautionary incentives and speculative incentives are the three main incentives for cash holding (Dehghanfard and Moslemi., 2017). Trading incentive refers to the use of other assets other than cash in trading transactions. In this approach, companies that face shortages of domestic resources can increase their resources by selling assets, creating

new debt and issuing new stocks. Therefore, companies with higher transaction costs are expected to hold more cash resources than the optimal amount (Kashanipour and Naghizade., 2009). On the other hand, the cautionary incentive is more in countering the risk of liquidity shortage and the use of business opportunities and avoiding bankruptcy. Accordingly, companies maintain cash holdings to deal with unforeseen events, and, if the cost of other sources of financing is high, they use cash holdings to finance their investments. Due to the speculative motive, companies in order to exploit unexpected future investment opportunities are in the process of maintaining cash assets when expensive external financing is involved (Ozkan and Ozkan., 2004). With increasing information asymmetry as one of the main implications of low accounting information quality, the amount of cash held by companies increases to the optimal amount (García-Teruel et al., 2009; Ferreira and Vilela., 2004). According to the information asymmetry theory, one can predict a negative relationship between Low-quality of accounting information and cash holdings.

Likewise De Franco et al. (2011) contend that comparability permits significant correlation among firms, enabling examiners to make important derivations about economic similitudes and contrasts crosswise over comparable firms, and empowering them to all the more likely comprehend the dynamism of how financial and economic occasions are converted into firm execution. In addition, in light of the fact that comparable firms establish great benchmarks for one another, data exchange among them could diminish the investigators' effort in comprehension and evaluating their financial statements. Comparability of financial statement decreases the requirement for holding additional cash by lessening frictions of financial emerging from information asymmetry and reinforcing access to outside resources of finance at relatively lower cost.

Here's the most important previous studies related to our research; Farah Mita et al. (2018), In their research entitled "The adoption of IFRS, comparability of financial statements and foreign investors' ownership" utilizing 18 nations data contains Europe, Asia, Africa, and Australia in a period from 2003 to 2012, demonstrated that "the level of IFRS adoption positively affects the comparability of financial statements. The degree of compliance with IFRS obliquely expands the ownership of cross-border investors via the comparability of financial statements". Their findings are in accordance with defenders for compliance with IFRS which contend that "compliance with IFRS enhances the financial statements comparability, thus improves the attraction of foreign investors' ownership". Pasandideh

Parsa and Sarraf (2018) in their research entitled “Financial Statement Comparability and the Expected Crash Risk of Stock Prices” utilizing 81 firms in the range of 2010 and 2017 in TSE listed companies, demonstrated that comparability of financial statements significantly reduces expected crash in stock prices. Habib et al. (2017) In their research entitled “Financial statement comparability and corporate cash holdings”, Examined a sample of 58828 firm-year in the US from 1981 to 2013. They stated that “there is a significant and negative relationship between financial statement comparability and cash holdings”. Also they examined whether corporate governance, financial reporting quality and financing constraints play a mediating role in this relationship or not. Their findings confirm the correctness of this issue. Kia and Safari garayeli (2017), In their research entitled “Financial Statements Comparability, Accrual-based Earnings Management, Real Earnings Management: An empirical test of Tehran Stock Exchange” using a sample of 85 companies listed in Tehran Stock Exchange during the years 2012-2016 and Multivariate Regression Model based on panel data, showed that “the comparability of accounting information reduces accrual-based earnings management, while increases real earnings management”. That’s mean, with the expansion in the comparability of financial statement, managers replace real earnings management with accruals earnings management. Hajiha and Chenari booket (2017), In their research entitled “Financial Statements Comparability and Real Earnings Management” utilizing 400 firm-year in TSE listed companies during 2012-2016, uncovered that “financial statements comparability significantly increases the real earnings management”. That’s mean, with expanding the comparability, managers' propensity to real earnings management would be expanded to manipulating real activities. Hosseini (2016), in his research entitled “Investigation of Effects of Corporate Reporting Quality, Timeliness and Quantity for Disclosure and Reliability of Financial Reports on Stock Price Delay” using 111 active firms in Tehran stock exchange during 2010-2014 indicated that the score of disclosure quality, timeliness and reliability affected the stock price delay. also, the mentioned effects were confirmed in the firms with high risk of lack of funds. Peterson et al. (2015) in their research entitled “The Earnings Quality and Information Processing Effects of Accounting Consistency”, expressed that as accounting consistency increases, features of the earnings quality also increases. They also concluded that high accounting consistency is related with poor information asymmetry. Additionally they demonstrated that impetuses in earnings

management decrease with an expansion in comparability. With the guide of the important extra input of identical firms, users of financial statements can more readily assess a company's actual function, and this lessens information asymmetry. Ebrahimi et al. (2015), In their research entitled “The relationship between Financial reporting quality and deviation from optimal level of cash of listed companies in Tehran Stock Exchange” using the financial data between the years 2008 to 2012 of 111 listed companies in Tehran stock exchange, Found that “as financial reporting quality is ameliorated, the amount of cash held by companies indicates less deviation from the optimal level”. Other results also show that “as the quality of financial reporting quotes is improved, the companies confront with less sufficient optimal level of cash”. Bhattacharya et al. (2013), in their research entitled “Does Earnings Quality Affect Information Asymmetry? Evidence from Trading Costs” using the financial data from NASDAQ and NYSE firms, demonstrated that poor quality of accounting information is related with high degree of information asymmetry. Additionally in companies that do not have strong information conditions, the quality of earning excessively influenced information asymmetry. Their findings proposed that the standard setters’ endeavors to improve accounting standards that enhance earnings quality should provide high information conditions for investors and users of financial statements. Fakhari and Taghavi (2010), in their research entitled “Accruals Quality and Corporate Cash Holdings” by using 150 non-financial firms listed in Tehran stock exchange in period 2001 to 2007 (1050 observation) showed that “cash holdings are negatively affected by financial reporting quality. These findings suggest firms with good accrual quality hold lower cash levels than firms with poor accrual quality”.García et al. (2009), in their Research entitled “Accruals quality and corporate cash holdings”, using panel data for firms listed in the Spanish Stock Exchange over the period from 1995 to 2001, Showed that firms with good accruals quality hold lower cash levels than firms with low quality of accruals. They suggested that the quality of accounting information may reduce the negative effects of information asymmetries and adverse selection costs, allowing firms to reduce their level of cash holdings.

3. PROPOSED METHODOLOGY

3.1 HYPOTHESES OF RESEARCH

According to theoretical foundations and in order to achieve the research objectives, the following hypotheses are presented:

H1: Financial statement comparability has a negative and significant effect on cash holdings.
H2: Financial statement comparability has a positive and significant effect on accounting information quality.
H3: financial statement comparability affects cash holdings through accounting information quality.

3.2 Methodology of the Research

Considering that the results of this research can be used by investors, shareholders, corporate executives and other users of financial statements, this research can be considered as an applied research. Also, in terms of data-analysis method is cross sectional descriptive-correlational study. Descriptive because its purpose is to describe the circumstances or phenomena under investigation and to know more about the current situation, and correlational because of the relationship between research variables. The information about variables was collected from the audited financial statements of the companies listed on TSE via reliable resources such as Codal [1]website and Rahavard-Novin Database.

Accordingly, after data collection, to investigate the relationship between variables and test the hypothesis of research, first in each stage, multivariate regression models based on panel data, the necessary tests have been done and in the final stage to test the research hypothesis, using the estimated coefficients of the previous models, through the Sobel test, the significance of the role of the mediating variable has been investigated. To analyze the data, descriptive and inferential statistics were used using Eviews8 and Excel software. To examine whether accounting information quality mediates the Relationship between Financial statement comparability and cash holdings, online Sobel test has been used. This method was first introduced in Baron and Kenny's (1986) paper and rapidly turned into the most usually utilized mediating test in the humanities researches. Baron and Kenny's systems are at present the most usually utilized structure for mediating test. As indicated by Baron and Kenny (1986), testing for mediating impact should be possible after three stages:

Stage 1: Check out that the explanatory variable is associated with the explained variable.

[1] www.Codal.ir

Stage 2: Check out that the explanatory variable is associated with the mediator. This stage basically includes regarding the mediator as though it were an explained variable.

Stage 3: Check out that the mediator influences the explained variable. It isn't adequate just to associate the mediator with the explained variable, in light of the fact that mediator and explained variable might be connected because they are both occurred by the explanatory variable. Therefore, the explanatory variable should be controlled in setting up the impact of the mediator on the explained variable.

Baron and Kenny (1986) called attention to three options. To start with, if the impact of the explanatory variable on the explained variable winds up insignificant within the sight of the mediator, the impacts of the explanatory variables are totally interceded by the mediator. Second, if the impact of the explanatory variables stays significant within the sight of the mediator, the impacts of the explanatory variable are partially mediated. At long last, if none of the above conditions are met, the mediation effect will not be approved.

Sobel test cannot be directly calculated and to obtain it, the regression coefficients are calculated from online sites. In this research the site http://quantpsy.org/sobel/sobel.htm is used.

3.3 Research population and statistical sample

The statistical population of this research includes all companies accepted in Tehran Stock Exchange from 2013 to 2017 excluding financial firms. Also, in order to calculate the Financial statement comparability, it was required to have data for the last six semester (3 years ago) of it, Therefore, the required data for sample companies should be available for the 8 year period (years 2010-2017). Sampling method was performed using systematic elimination method (screening). Common features of the firms to determine the population are as follow:

– The company is listed on TSE from the beginning of 2010 till the end of 2017, According to the research time period (2010-2017).
– in order to enhance the comparability and homogeneity of companies, The fiscal periods of companies should be finished at the end of the solar year
– The company should be continuously active during the research period and its shares have been traded, and there is no trading halt.
– The type of the company activity should be productive not be subsidiaries of banks, financial institutions such as investment firms, financial mediating, holding corporations, and leasing agencies. Because their nature of management, activity, and financial reporting is different.

– As the explanatory variable of research is defined and calculated at industry level, according to Foroghi and Ghasemzad (2016), Kia and Safari garayeli (2017), selected industries should have at least 6 companies.

Accordingly, the sample selection includes 90 firms and 450 firm-years.

3.4 Research models

In testing the mediation effect of accounting information quality on the Relationship between Financial statement comparability and cash holdings we use the Sobel test. Therefore the following steps must be met:

1. Test the direct impact of the explanatory variable (Financial statement comparability) on the explained variable (cash holdings). as appeared in Figure 1, examine track (c_i), Regarding Model 1.
2. The explanatory variable (Financial statement comparability) affects the mediator variable (accounting information quality). As appeared in Figure 1, examine track (a_i), Regarding Model 2.
3. The mediator (accounting information quality) affects the explained variable (cash holdings) controlling the impacts of the explanatory variable. As appeared in Figure 1, examine track (b_i), Regarding Model
4. Investigate the impact of the explanatory variable (Financial statement comparability) on the explained variable (cash holdings) by controlling for the impacts of the mediator. As appeared in Figure 1, examine track (c_i'), Regarding Model 3.

The regression models are given as follows:

$$CASH_{i,t} = \beta_0 + \beta_1 COM_{i,t} + \beta_2 SIZE_{i,t} + \beta_3 MB_{i,t} + \beta_4 LEV_{i,t} + \beta_5 R\&D_{i,t} + \beta_6 DIV_{i,t} + \beta_7 NWC_{i,t} + \beta_8 CFO_{i,t} + \varepsilon_{i,t} \quad (1)$$

$$DAC_{i,t} = \beta_0 + \beta_1 COM_{i,t} + \beta_2 SIZE_{i,t} + \beta_3 MB_{i,t} + \beta_4 LEV_{i,t} + \beta_5 R\&D_{i,t} + \beta_6 DIV_{i,t} + \beta_7 NWC_{i,t} + \beta_8 CFO_{i,t} + \varepsilon_{i,t} \quad (2)$$

$$CASH_{i,t} = \beta_0 + \beta_1 DAC_{i,t} + \beta_2 COM_{i,t} + \beta_3 SIZE_{i,t} + \beta_4 MB_{i,t} + \beta_5 LEV_{i,t} + \beta_6 R\&D_{i,t} + \beta_7 DIV_{i,t} + \beta_8 NWC_{i,t} + \beta_9 CFO_{i,t} + \varepsilon_{i,t} \quad (3)$$

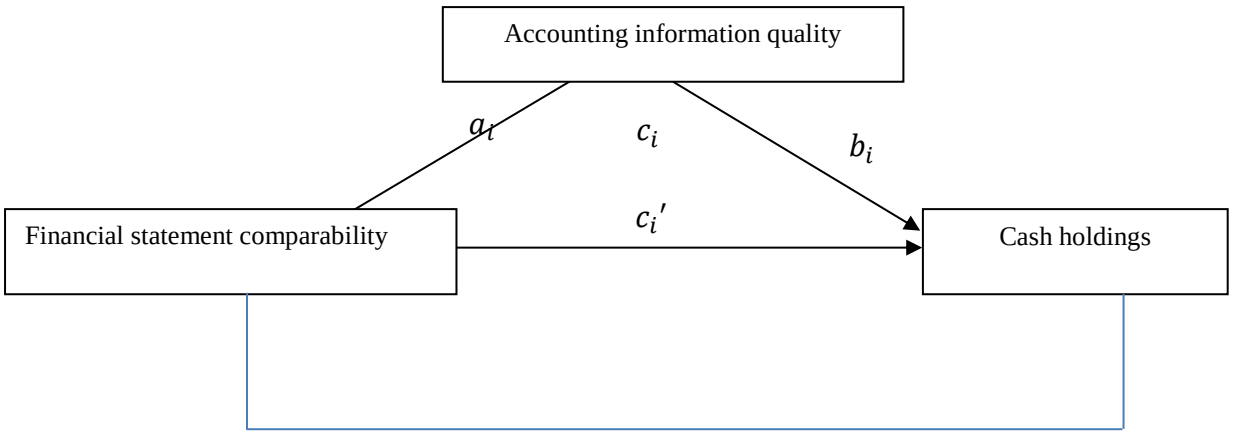

Figure 1: Research framework

Where $CASH_{i,t}$ denotes cash holdings, $COM_{i,t}$ represents financial statement comparability, $DAC_{i,t}$ is the accounting information quality proxied by discretionary accruals model, $SIZE_{i,t}$ denotes the size of firms, $MB_{i,t}$ denotes growth firms, $LEV_{i,t}$ denotes the leverage of firms, $R\&D_{i,t}$ denotes Research and development expenditures of firms, $DIV_{i,t}$ denotes cash dividends, $NWC_{i,t}$ denotes Net working capital, $CFO_{i,t}$ is defined as operating cash flows and $\varepsilon_{i,t}$ is the error term of firm i in year t,

3.5 Measurement of variables

The present research has an explained variable called cash holdings, an explanatory variable called financial statement comparability and a mediator variable called accounting information quality and a number of control variables. the details of the variables used in the current study are described below:

$CASH_{i,t}$: Cash holdings that are equal to cash and cash equivalent divided by net assets of firms (Lin et al., 2017; Chen et al., 2013; Kashanipour and Mohammadi., 2017).

$COM_{i,t}$: Financial statement comparability which is calculated by De Franco et al. (2011) model (Kia and Safari garayeli., 2017).

$DAC_{i,t}$: The accounting information quality proxied by the discretionary accruals (DAC) model developed by Jones (1991).

$SIZE_{i,t}$: The size of firm which is measured through Natural logarithm of the Market value of firm (Mehrvarz and Marfou., 2016).

$MB_{i,t}$: The firm's growth which is measured through Market value relative to equity book value (Lin et al., 2017; Arabsalehi et al., 2016).

$LEV_{i,t}$: The leverage of firms calculated as total debt divided by total assets (Hajiha and Chenari booket., 2017).

$R\&D_{i,t}$: Research and development expenditures of firm that is extracted from footnotes to the financial statements.

$DIV_{i,t}$: Cash dividends which is a dummy variable coded 1 for firms that pay dividends during a fiscal year and 0 otherwise (Khajavi et al., 2012).

$NWC_{i,t}$: Net working capital calculated as Current asset minus current debt.

$CFO_{i,t}$: operating cash flows calculated as Cash from operations of the company over the total assets of the company.

3.5.1 Measurement of financial statement comparability

To measure the financial statement comparability, De Franco et al. (2011) model is used. In this model, the two firms are considered to be similar if they provide a similar financial report (for example, accounting profit) for a series of similar economic events (such as returns). To measure the comparability between the two firms i and j, first for each firm-year, following time-series regression using firm i's 6 previous semester (last three years) of earnings (a proxy for financial statements) and stock returns (a proxy for economic events) is used to obtain the coefficients $a_{i,t}$ and $\beta_{i,t}$:

$$Earning_{i,k} = a_{i,t} + \beta_{i,t} Return_{i,k} + \varepsilon_{i,k} \quad (4)$$

Where $Earning_{i,k}$ is firm's net income in six months k Divided by the stock market value of the firm at the beginning of six months. And $Return_{i,k}$ is the Stock return of the firm i in six months k.

The estimated coefficients $\widehat{\alpha_\iota}$, and $\widehat{\beta_\iota}$, are firm i's accounting system or its function and the coefficients $\widehat{\alpha_j}$ and $\widehat{\beta_j}$ representing the firm j's accounting system or its function. The similarity between the accounting function of the two firms shows the degree of comparability between the two firms. To quantify the familiarity of the activities between firms i and j, De Franco et al. (2011) utilize each company's economic occasions (proxied by $Return_i$ or $Return_{j,k}$) to compute the assessed earnings utilizing each company's accounting system parameters ($\widehat{\alpha_\iota}, \widehat{\beta_\iota}$ or $\widehat{\alpha_j}$, $\widehat{\beta_j}$). Hence, for each year, by the Model of 5 and 6, the firm i's income (similar event) is predicted for the same period of time as the (4) model (Foroghi and Ghasemzad., 2016):

$$E(Earning)_{ii,k} = \widehat{\alpha_\iota} + \widehat{\beta_\iota} Return_{i,k} \quad (5)$$

$$E(Earning)_{ij,k} = \widehat{\alpha_j} + \widehat{\beta_j} Return_{i,k} \quad (6)$$

In the above Models:

$E(Earning)_{ii,k}$ is the firm i's predicted earnings, Obtained from the accounting function and return of firm i in semester k (Using firm i coefficients). So also, $E(Earning)_{ij,k}$ is the predicted earnings of firm i, Obtained from firm j's accounting function and firm i's return in semester k. Then the financial statement comparability between two companies i and j in year t is calculated using the Model (7) for the past 6 semesters:

$$COMPACCT_{ijk} = \frac{-1}{6} \times \sum_{k-5}^{k} \left| E(Earning)_{ii,k} - E(Earning)_{ij,k} \right| \quad (7)$$

Where $COMPACCT_{ijk}$ is The ability to compare financial statements between the two firms i and j. De Franco et al. (2011) Point out that the high amount of COMPACCT, which has a lower absolute difference between $E(Earning)_{ii,k}$ and $E(Earning)_{ij,k}$, shows the ability to compare more between two firms. In the final step, in order to determine the firm-year's comparability for each specific firm i, applies as follows:

For each year and for each pair of firm i, with firm j, in the same industry, the criterion $COMPACCT_{ijk}$ is calculated and the average of 4 larger ones, is defined as the specific comparability criterion of firm I that is shown as $COM_{i,t}$.

3.5.2 Measurement of accounting information quality

In order to calculate the accounting information quality based on the research, Habib et al. (2017) modified Jones model (Jones., 1991), controlling for firm performance is used (Dechow et al., 1995; Kothari and Leone., 2005):

$$\frac{TAC_{i,t}}{TA_{i,t-1}} = \beta_0 + \beta_1\left(\frac{1}{TA_{i,t-1}}\right) + \beta_2\left(\frac{\Delta SALES_{i,t} - \Delta RECEIVABLE_{i,t}}{TA_{i,t-1}}\right) + \beta_3\left(\frac{PPE_{i,t}}{TA_{i,t-1}}\right) + \beta_4 ROA_{i,t} + \varepsilon_{i,t} \quad (8)$$

In the above Model:

TAC_{it} : Total accruals that is equal to net income minus cash flows from operation

$TA_{i,t-1}$: Total assets in year t-1,

$\Delta SALES_{i,t}$: Changes in firm's sales from year t-1 to year t;

$\Delta RECEIVABLE_{i,t}$: Change in accounts receivable from year t-1 to year t;

$PPE_{i,t}$: Property, plant and equipment of firm.

$ROA_{i,t}$: Total return on assets of firm that is income before extraordinary items over beginning total assets

$\varepsilon_{i,t}$: The error term that is refers to discretionary accruals (DAC).

All the Variables in the Model (8) are scaled by total assets in year t-1 (Ahsan et al., 2011; Moghaddam et al., 2014). Since accounting information quality proxied by low levels of earnings management, thus low value of DAC represents high quality of accounting information quality (Habib et al., 2017).

4. RESULTS AND ANALYSIS

4.1 Descriptive Statistics

To evaluate the data, the descriptive statistics including minimum, maximum, mean, median, standard deviation, Skewness and Kurtosis are calculated and presented in the table 1 below:

Table 1
Descriptive Statistics for Major Variables

	CASH	COM	DAC	SIZE	R&D	NWC	MB	LEV	CFO	DIV
Average	0.038	-0.814	0.004546	14.057	1.176	0.122	2.596	0.616	0.134	0.788
Median	0.025	-0.709	0.034870	13.9	0.000	0.142	2.274	0.633	0.122	1.000
Maximum	0.46	-0.003	2.732040	18.427	10.630	1.057	33.21	0.996	0.823	1.000
Minimum	0.000	-2.629	-2.929760	10.616	0.000	-1.228	-32.953	0.012	-0.283	0.000
Std. Dev.	0.043	0.603	0.991098	1.415	2.653	0.288	4.261	0.196	0.142	0.408
Skewness	3.307	-0.826	0.059486	0.471	1.929	-0.427	-0.221	-0.351	0.624	-1.415
Kurtosis	23.632	3.020	3.069619	3.34	5.058	4.382	40.352	2.882	4.821	3.004
Observations	450	450	450	450	450	450	450	450	450	450

Definition for variables
CASH : cash holdings, COM : financial statement comparability, DAC : the financial reporting, SIZE : size of firms, MB :growth firms, LEV :leverage of firms, R&D :Research and development expenditures, DIV : cash dividends, NWC : Net working capital, $CFO_{i,t}$: operating cash flows

The average represents the equilibrium point and the distribution center, and is a good indicator of the centrality of the data. The average of CASH variable is 0.038, indicating that on average sample firms have 0.038 cash holding. Median is another central indicator that shows the state of the population. As the results show, the median of the Cash variable is 0.025, which means that half of the data is less than this and half those more than this value. The homogeneity of the average and median value indicates that the distribution of the variables is normal. The standard deviation is a measure that is used to quantify the amount of variation or dispersion of a set of data value. The value of this parameter is equal to 0.043 for firm's Cash holding. The Skewness and Kurtosis of Cash holding is 3.307 and 23.632 respectively, indicating that the distribution of this variable is to the right, but the value of the skewness for financial statement comparability is -0.826, which indicates the relative symmetry of the distribution of this variable.

4.2 Multicollinearity of Variables

We utilize two tests to check the multicollinearity between the independent variables. In the principal test, a Pearson correlation matrix is evaluated. Multicollinearity alludes to a condition in which at least two explanatory variables are very associated to each other. Based on Kervin (1992), when Pearson correlation coefficient surpasses 0.7, there is multicollinearity. Based on Table 2, the correlation coefficients are poor, proposing that there is no significant issue of multicollinearity among explanatory variables.

To additionally test whether the independent variables are associated to each other, we determined the variance inflation factor (VIF). Studenmund (2006) shows that the basic point

is 10 and more of this amount represents a high degree of multicollinearity. As featured in Table 2, the VIF for independent variables is poor. This demonstrates the independent variables are not significantly related with one another.

Table 2
Correlation matrix (Pearson values)

Variables	COM	DAC	SIZE	RD	NWC	MB	LEV	DIV	CFO	VIF
COM	1.000 -----									1.138
DAC	-0.0102 (0.828)	1.000 -----								3.245
SIZE	0.098 (0.036)	0.036 (0.445)	1.000 -----							1.188
RD	-0.120 (0.010)	0.015 (0.742)	0.057 (0.220)	1.000 -----						1.022
NWC	0.338 (0.000)	0.0677 (0.151)	-0.016 (0.734)	-0.059 (0.206)	1.000 -----					1.716
MB	0.121 (0.010)	-0.045 (0.332)	0.133 (0.004)	0.045 (0.339)	0.037 (0.425)	1.000 -----				1.041
LEV	-0.450 (0.000)	-0.013 (0.771)	-0.186 (0.000)	0.146 (0.001)	-0.602 (0.000)	-0.086 (0.066)	1.000 -----			1.944
DIV	0.357 (0.000)	0.012 (0.787)	0.198 (0.000)	-0.059 (0.206)	0.309 (0.000)	0.061 (0.195)	-0.441 (0.000)	1.000 -----		1.137
CFO	0.189 (0.000)	-0.608 (0.000)	0.285 (0.000)	-0.088 (0.061)	0.114 (0.015)	0.085 (0.069)	-0.315 (0.000)	0.270 (0.000)	1.000 -----	3.473

Note: The Table denote the significant at level of 5 percent. The values in brackets represent p-value significance level. Variable definition is same with that of bottom of Table 1.

4.3 Assumptions of the classical linear regression test

One of the hypotheses of the CLR[2], is that residuals of estimated model have the same variance. This is known as homoscedasticity. When this assumption is not confirmed, we have heteroscedasticity. In this study Bartlett's test is used to detect heteroscedasticity. According to Table 3, Results in all three models indicate that the Null hypothesis based on homoscedasticity is accepted. Additionally for checking autocorrelation and independence of the residuals, the Durbin-Watson test is used. As indicated by Table 3, in all models the

[2] Classical linear Regression

Durbin-Watson statistic is between 1.5 and 2.5 and therefore the data is not autocorrelated. Multicollinearity of Variables checked out in Table 2.

Table 3
assumptions of the classical regression test

Classical assumptions / Regression Models	Homoscedasticity test	Autocorrelation test
Regression Model 1	2.702 (0.439)	2.07
Regression Model 2	6.317 (0.097)	1.97
Regression Model 3	2.827 (0.419)	2.07

Note: The Table denotes the significant at level of 5 percent. The values in brackets represent p-value significance level.

4.3.1 Determination the type of model's estimation

In this research all models are assessed utilizing panel data regression. Based on Baltagi (2013), panel data eliminates many of the cross-sectional problems, including unwanted heterogeneity, dynamics, and … between independent variables. Panel data with consideration firm feature effects, controls the unobserved heterogeneity, which might be random or fixed (Hsiao., 2014). The F-Limer test has been used to determine the pooled or panel estimation (Baltagi., 2013) and the Hausman (1978) test was used to determine the fixed and random effects. The Hausman test is an important factor in identifying the presence or absence of correlation between the error of regression and explanatory variables. Random effects model will use if such a relationship exists (the acceptance of H0), and if it does not, fixed effects model will be used (Baltagi., 2013).

According to the results of Table 4, it can be concluded that since the probability value of F-Limer test is less than 0.05 for all models, the preference of the pooled method is rejected, while the panel data method is accepted.

Table 4
F-Limer Test

Model	Null hypothesis	F-limer test
Model 1	Preferred pooled	3.802 (0.000)
Model 2	Preferred pooled	12.968 (0.000)
Model 3	Preferred pooled	3.729 (0.000)

Following confirming the use of the panel data method in all models, the Hausman test is used to determine whether a panel data with fixed effects should be used or a panel data with random effect. What stands out from Table 5 is that since the probability value Hausman Test is less than 0.05 for the all research models, the preference of the Fixed Effects Model is accepted and the Random Effects Model is rejected (Baltagi., 2013).

Table 5
Hausman Test

Model	Null hypothesis	Hausman test
Model 1	Preferred Random Effects Model	17.12 (0.028)
Model 2	Preferred Random Effects Model	1145.7 (0.000)
Model 3	Preferred Random Effects Model	18.937 (0.025)

4.4 The Regressions results of the research

After performing various statistical tests and identifying its results, the findings of the hypotheses of this research are shown in Table 6. It is necessary to test the significance of the model before variables examination, approval or rejection of the hypothesis. This can be done by calculating the F statistic and P-value of this statistic. Since P-value calculated for this statistic is less than 0.05, the significance of all models can be confirmed at five-percent error level. According to the result, the high value of R-squared shows all our models will fit better data.

Table 6
The Regression results of the research

Variables	Model 1 (Cash)	Model 2 (DAC)	Model 3 (Cash)
COM	-0.002*** (0.006)	-0.113*** (0.000)	-0.002*** (0.000)
DAC			0.001*** (0.004)
SIZE	-0.004 (0.849)	0.006 (0.8688)	-0.004 (0.000)
R&D	0.0001 (0.000)	-0.002 (0.456)	0.0008 (0.897)
NWC	0.043 (0.552)	1.333 (0.000)	0.039 (0.000)
MB	-0.0001 (0.000)	0.007 (0.017)	-0.0001 (0.495)
LEV	0.033 (0.012)	-0.782 (0.000)	0.032 (0.000)
DIV	-0.003 (0.000)	-0.481 (0.000)	-0.002 (0.026)

CFO	0.052 (0.000)	-9.700 (0.000)	0.069 (0.000)
R-squared	0.74	0.98	0.73
Adjusted R-squared	0.67	0.97	0.65
Prob(F-statistic)	0.000	0.000	0.000
Sobel test			-2.721
P-value of Sobel t			0.006

Note: The Table denotes the significant at level of 5 percent. The values in brackets represent p-value significance level. All The models are estimated with firm-year fixed effects.

Model (1) in the research tests the effect of financial statement comparability on cash holdings. The results are reported in Table 6 (Column 2). According to the results obtained from the estimated first regression model, the level of possibility of financial statement comparability is less than 5 percent and has a negative effect on cash holding. Thus the H0, namely the insignificance of the obtained coefficient is rejected and H1 is accepted and the obtained coefficient is significant, statistically. The results of this hypothesis showed a negative and significant connection between financial statement comparability and cash holdings. Regarding the control variables of this model, it can be mentioned that the variables of R&D, LEV and CFO are positively connected with cash holding; while DIV and MB are negatively connected with cash holding.

Model (2) in the research tests the effect of financial statement comparability on accounting information quality. The results are reported in Table 6 (Column 3). According to the results obtained from the estimated second regression model, the coefficient for COM is negative and statistically significant. Implying that financial statement comparability decreases low-level of financial reporting. Thus the H0, namely the insignificance of the obtained coefficient is rejected and H1 is accepted and the obtained coefficient is significant, statistically. The results of this hypothesis showed a negative and significant connection between financial statement comparability and low quality of accounting information. Regarding the control variables of this model, it can be mentioned that the variables of NWC and MB are positively connected with low quality of accounting information; while CFO, DIV and LEV, are negatively connected with low quality of accounting information.

Model (3) in the research tests the mediating effect of accounting information quality on the relationship between financial statement comparability and cash holdings. The results are reported in Table 6 (Column 4). According to the results obtained from the estimated third regression model, the level of possibility of DAC on cash holdings (by controlling the effects

of the financial statement comparability) is less than 5 percent and is positive and statistically significant, implying that low-level of accounting information increases cash holdings. Also the level of possibility of financial statement comparability on cash holdings by controlling for the effects of accounting information quality is again less than 5 percent and has a negative effect on cash holding. Which means comparability improves accounting information quality that indirectly reduces cash holdings. Thus the H0, namely the insignificance of the obtained coefficient is rejected and H1 is accepted and the obtained coefficient is significant, statistically. Regarding the control variables of this model, it can be mentioned that the variables of R&D, LEV, and CFO are positively connected with cash holding; while DIV, NWC and Size are negatively connected with cash holding.

The Sobel test for the indirect effects as shown in Table 6 demonstrates that the impacts of financial statement comparability and cash holdings through their indirect effects via accounting information quality are significant. Accordingly, our findings demonstrate a partial mediation effect of accounting information quality on mentioned relationship. These results are in accordance with Baron and Kenny's (1986) findings.

5. CONCLUSIONS AND IMPLICATIONS

The present study tried to give a few responses to the questions concerning the mediating role of accounting information quality on the Relationship between Financial statement comparability and cash holdings. Thus this research used panel data from 90 TSE listed companies during 2013-2017 (450 observations).

consistent with previous studies (Habib et al., 2017; Kia and Safari garayeli., 2017; Peterson et al., 2015; Bhattacharya et al., 2013; Ebrahimi et al., 2015; Fakhari and Taghavi., 2010; García-Teruel et al., 2009), our empirical results reveal that low-level of accounting information increases cash holdings, The higher accounting information quality, the lower the cash holding. The results also show that accounting information quality mediates the effects of financial statement comparability on cash holdings.

The results of this study have important implications. First, the factors that improve the quality of accounting information and the ability to compare financial instruments are essential, including providing solutions for the rapid, effective and efficient transmission of information reporting and comparability, such as providing information through the company's website that can be identified for the general public (charts, tables, etc.). Second,

regarding the role of financial statement comparability and accounting information quality, in reducing issues such as information asymmetry and agency conflicts, and hence reducing cash holdings, it is recommended that the standard-makers determine strategies for applying these two criteria and thereby help the accounting information providers to providing the best information. Third, The results of this study will increase investors and other users awareness of cash holdings, so they are advised to focus more on the financial statement comparability and accounting information quality. Because comparability is an important qualitative feature of financial information that enables users to identify similarities and differences in financial performance of companies. In addition it is recommended that directors and officials of the Tehran Stock Exchange be required to reduce the conflict of interests by requiring institutions to accurately audit and validate financial reports and check the criteria for financial statement comparability.

In this research, the accruals quality criterion has been used as a accounting information proxy. Other studies can extend the current research to other features of earning quality such as sustainability, predictability, timeliness and relevancy. Also, Since De Franco et al. (2011) model is based on the returns and earnings; there are some limitations on this model. zalaghi et al. (2017) claim that the suggested model of De Franco et al. (2011) cannot properly reflect the ability to compare, and when companies have a different capital cost, the model shows fewer comparisons. Therefore, it is suggested that financial statement comparability be calculated based on newer models, such as Cascino and Gassen (2015) and zalaghi et al. (2017), and its relationship with cash holdings be tested again. On the other hand, since larger companies are more capable of comparing their performance due to the better performance of the accounting system in reflecting economic events (in the form of financial statements) than on smaller companies, Therefore, it is suggested that the subject of this research be considered separately in small, medium and large companies.

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