THE EFFECT OF PACKAGING, SATISFACTION AND IMAGE ON CUSTOMER LOYALTY OF THE EL RAYHAN COMPANY

Ahmed Khaled El Gammudi
Ubud Salim
Ananda Sabil
University of Brawijaya

ABSTRACT

This study is aimed at investigating the effect of packaging, satisfaction, and image on customer loyalty to The El Rayhan Company, Libya. The questionnaires are employed to collect the data. The resultreveals that packaging has a positive effect on customer loyalty. Moreover, satisfaction and image affect directly on customer loyalty. However, the highest effect in this study is the packaging effect on customer loyalty.

Key words: Packaging, Satisfaction, Brand Image, and Customer Loyalty.

INTRODUCTION

Today most organizations face a number of fundamental challenges as the most important scientific and technological development, and the market increases in the number of institutions of different activities. In addition, the rapid and continuous changes of consumers' needs and tastes have become a major factor in strategic plans and marketing plans, and the cornerstone of modern marketing.

Companies throughout the nation are now utilizing loyalty programs more often than ever before. Theyunderstand the importance of retaining existing customers and decide to implement a system directed specifically to buildcustomer loyalty. A loyalty program is a marketing system instituted by a business that rewards purchasing behavior, thus it increases the customers' urge to stay loyal to the company. It may offer convenience, store credit, prizes, or any other benefits that would entice the loyalty of the customers . When some marketers think of loyalty programs, they begin to imagine a large portion of existing resources being funneled away into a program that may or may not find the success.

Packaging is one of the main strategies and policies that the productive institutions depends on. It represents the message that creates link between the product and the customers. In the way that the packing policy and packaging is vital to the success of marketing item, as an integral part of them often and one of the elements or the physical components.

Today it can be noted that most of the food is packed in plastic bottles, glass or metal. In order to preserve the nature of food and specifications throughout the interval between the moment of manufacturing and packaging until the sale and consumption of locally or after export.

Loyalty

According to Walsh *et* al. (2008) Loyalty is defined as repeated purchase behavior led by favorable attitudes or as a consistent purchase behavior resulting from the psychological decision making. The loyalty is the relationship between the organization and producer with the consumer. Customer loyalty helps in building satisfaction and trust toward the service or products. When customers are loyal to product, there will be an assurance that these customers will support the products, as a result it increases the sales and avoids bankruptcy.

Oliver R (1997) mentioned that loyalty is a deeply held commitment to re-buy or re-patronize a preferred product or service consistently in the future, which causes repetitive same brand or same brand set purchasing, despite any situational influences and marketing efforts that might cause switching behavior.

Jacoby and Chestnut (1978) provided a conceptual definition of brand loyalty as: (i) biased (i.e. non-random), (ii) behavioral response (i.e. purchase), (iii) expressed over time, (iv) by some decision making unit, (v) with respect to one or more brands out of a set of such brands, and is a function of psychological (decision -making evaluation) processes.

Sheth and Mittal (2004) mentioned that Brand loyalty is a measure of the extent to which consumers are loyal to a particular brand over a period of time, which emphasizes a consistent repurchase of the same brand.

Packaging

Packaging is the technology of enclosing or protecting products for distribution, storage, sale, and use. There is an old saying that a package must protect what it sells and sell what it protects. It may be an old saying, but it is still true. A package functions as a "silent salesman" (Lockhart, 1995). Packaging has types which helps to distribute with protecting the product. There are four types of packaging:

1. A Primary Package. It is the type which is in direct contact with the contained product. It provides the initial and usually the major protective barrier. Examples of primary packages includes metal cans, glass bottles, and plastic pouches. It is frequently onlythe primary package which the consumer purchases at retail outlets.
2. A Secondary Package. It contains a number of primary packages, a corrugated case. It is the physical distribution carrier and is sometimes

designed so that it can be used in retail outlets for the display of primary packages.

3. A Tertiary Package. It is made up of a number of secondary packages. The most common example is a stretch wrapped pallet of corrugated cases.
4. A Quaternary Package. It is frequently used tofacilitate the handling of tertiary packages in interstate and international trade. This is generally a metal container up to 12 m in length which can hold many pallets and is intermodal in nature. It means, it can be transferred to or from ships trains, and flatbed trucks by cranes. Certain designs are also able to have their temperature, humidity and gas atmosphere controlled and this is necessary in particular situations such as for the transportation of frozen foods or fresh fruits and vegetables.

Packaging has been defined in a number of ways. The Packaging Institute International defines packaging as the enclosure of products, items or packages in a wrapped pouch, bag, box, cup, tray, can, tube, bottle or other container form to perform one or more of the following functions, containment, protection or preservation, communications, and utility or performance. If the device or container performs one or more of these functions it is considered a package.

The UK Institute of Packaging provides three definitions of packaging:

1. A coordinated system of preparing goods for transport, distribution, storage, retailing and end use.
2. A means of ensuring safe delivery to the ultimate consumer in sound condition at minimum cost.
3. A techno economic function aimed at minimizing costs of delivery while maximizing sales and hence profits.

Image

Image can be defined as the set of beliefs, ideas, and impression that a person holds regarding an object.Furthermore, a brand can be defined as a name, term, sign, symbol, or design, or combination of them which is intended to identify the goods and services of one seller or group of sellers and to differentiate them from those of competitors (Kotler, 1991).Also, brand image has been recognized as an important concept in marketing (e.g., Gardner and Levy 1955). Consistent with definitions by Herzog (1963) and Newman (1957), brand image is defined here as perceptions about a brand as reflected by the brand associations held in consumer memory.

According to Hsieh*etal*. (2004), a successful brand image enables consumers to identify the needs that the brand satisfies and to differentiate the brand from its competitors, and consequently increases the likelihood that consumers will purchase the brand.

On the other hand Keller (1993) considered brand image as a set of perceptions about a brand as reflected by brand associations in consumer's memory. A comparable explanation of Image to Keller's was proposed by Aker (1991) in which brand image is referred to a set of associations, usually organized in some meaningful way. However, Biel (1992) defined brand image as a cluster of attributes and associations that consumers connect to the brand name.

Satisfaction

Satisfaction is defined by saying it is the act of providing what is needed or desired, the act of satisfying a need or desire.Regarding with this study, satisfaction is a customer's feeling about a product or services applied by an organization or producer. Oliver(1997) defined satisfaction as the consumer's fulfillment response. It is a judgment that a product or service feature, or the product or service itself, provides (or is providing) a pleasurable level of consumption related fulfillment, including levels of under or over fulfillment. Szymanski and Henard (2001) noted that the previous study on consumer's satisfaction focused mostly on the effects of expectations, disconfirmation of expectations, performance, effect, and equity on satisfaction.In general, customer satisfaction is seen as an indicator of the future of financial success for the company (Kotler, 2000). The benefits of customer satisfaction are often associated with high customer loyalty, the more loyal the customers are, the more often they use the company’s services or make purchases from the same supplier (Sasser and Jones, 1995). customer satisfaction can be described as the evaluation of a product or service taking place after a purchase considering the expectations the customer had before the purchase (Kotler, 2000).

Research Framework

H 1 :The packaging increasessatisfaction in El Rayhan company.
H 2 :The packaging increases loyalty in El Rayhan company.
H 3 :The packaging increases image in El Rayhan company.
H 4 :The satisfaction increases loyalty in El Rayhancompany.
H 5 :The image increases loyalty in El Rayhan company.

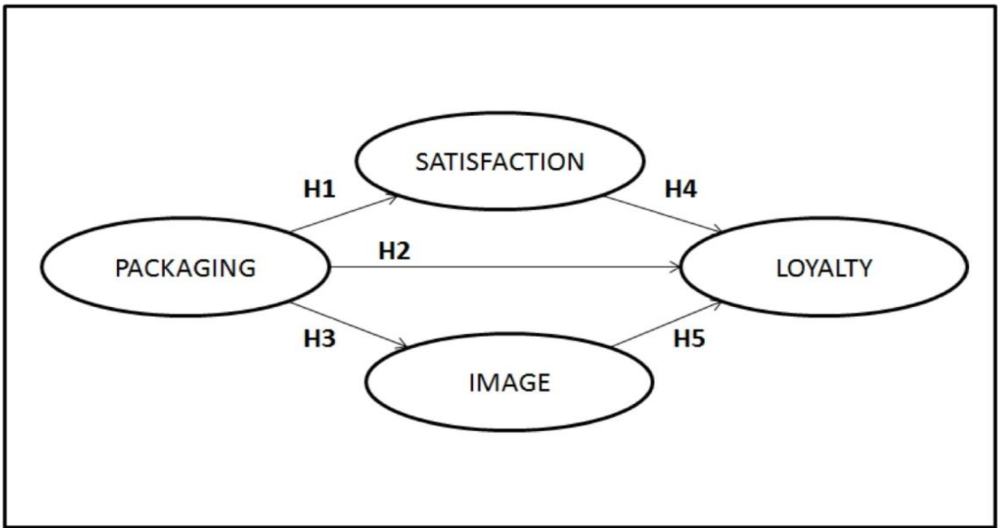


Figure 01: Research Framework

Research Design

This research uses quantitative approach, and considerably included in an explanatory research. Explanatory research is the one which is aimed at analyzing the relationships between variables or how one variable affects the other (Kotler, *etal*., 2006). This method is chosen because it is intended to access to the effect of packaging on customer loyalty and through this way the data are analyzed statistically.The location of the research is in Libya, a country where which The El Rayhan Company is located. The main product is juice drink. The respondentsof this study are all people who used to purchasingthe product.The instrument used in collecting data is a questionnaire. The selected data are analyzed by using PLS, defined as the method of choice to succeed factor studies in marketing (Albers, 2009). The PLS methodology have also achieved an increasingly popular mission in practical research in international marketing, which may represent an appreciation of distinctive methodological features of PLS.

Discussion

Through the results it becomes clear that the impact of packaging on customer loyalty is simple compared to other variables. Due to the different generations, there is a concern tothe consumersin experiencing and continuously consuming a new product.Note that those with the age group of 20-29 years arethe most responsive in completing the questionnaire. The nature of humanity is afraid of the unaware, in the sense that if the shape of the product development or product display is the same product with different form, the loyalty rate is remarkably decreased.

As to the culture of the youth generations with age category ranging from less than 20 to 30 years old, they have a different concept of what is customary. It is because this age group is willing to maintain its loyalty to the product as long as the company keeps developingthe ways of packaging compared to other products. Moreover, it is also caused by the openness of the Libyan market to many juice companies from neighboring countries or even across the seas.

Conclusion

Based on the result of the research, it can be concluded as follows :

1. There is an effect of image on loyalty, it is explained that a better image of the costumers to El Rayhancompany increases their loyalty. That means the importance of image to loyalty.
2. There is an effect of packaging on image, it is explained that a better packaging of El Rayhancompany increases the image of the costumer. That means the importance of packaging to image.. In addition, there is a positive effect of packaging on the loyalty and satisfaction.
3. It shows that packaging, satisfaction, and image have a direct effecton loyalty.
4. Furthermore there is an effect of satisfaction on loyalty. It means that when costumers satisfy with El Rayhan product, it also increases their loyalty.
5. The result shows the importance of packaging on loyalty. Improving and designing a modern style of packaging affects customer loyalty.

REFERENCES

Aaker, D. A. (1991). Managing brand equity. Capitalizing on the value of a brand name. New York: The Free Press.

Ahsan, B. J., & Abdul, B. R. (2014). Impact of Customer Satisfaction, Brand Image and Advertisements on Brand Loyalty. European Journal of Business and Management , 49-56.

Akabogu, C. O. (2014). Consumers' Satisfaction with 7up Packaging: an empirical Analysis . Journal of Business and Management , 28-36.

Albers, S.2009. Misleading Rankings of Research in Business German Economy Review. Germany.

Bennet, R., & Rundle -Thiele, S. (2004). customer sattisfaction should not be the only goal. journal of service marketing , 514-523.

Biel, A. L. (1992). How brand image drives brand equity. Journal of Advertising Research , 6-12.

Camille, R. (2005). an Analysis of Relationship Marketing as an Effective Marketing Technique for Quick-Service Restaurants. International Journal of Contemporary Hospitality Management (Vol,17 No,7), 592.

Dey , Ian.1993 Qualitative data analysis . Routledge.

Dwayne, G., & Stephen, B. (1996). Service Loyalty: Its Nature, Importance, and Implications. ISQA , 171-180.

el-rayhan.com. (2014). www.el-rayhan.com. Retrieved from el-rayhan.com.

Fecikova, I. (2004). An index method for measurement of customer satisfaction. the TQM magazine , 57-66.

Falk R. F. & Miller, N. B.(1992). A Primer for Soft Modeling. Akron, Ohio:The University of Akron Press.

Field, A. (2005). Discovering statistics using SPSS (Vol. 2nd). london: saga.

Hair, .. a. (1998). multivariate data analysis (Vol. 5th edition). new jersey: upper saldle river.

Hsieh, M., Pan, S., & Setiono, R. (2004). Product-, corporate-, and country-image dimensions and purchase behavior: A multicountry analy. Journal of the Academy of Marketing Science , 251-270.

Hysen, B., & Mensur, V. (2008). ANALYSIS OF CONSUMER BEHAVIOUR IN REGARD TO DAIRY PRODUCTS IN KOSOVO. Agricultural Research , 111-126.

J.A. Wegelin. 2000 . A survey of Partial Least Squares (PLS) methods. with emphasis on the two-block case. Technical report, Department of statistic, Univercity of Washington, seattle

Jacoby, J., & Chestnut, R. (1978). Brand loyalty: Measurement and management. New York: Wiley.

Josée, B., Ko, R. d., & Pascal, P. (1998). Investigating drivers of bank loyalty: the complex relationship between image, service quality and satisfaction. International Journal of , 276-286.

Keller, K. L. (1993). Conceptualizing, measuring, and managing customer-based brand equity. Journal of Marketing , 1-22.

Kotler, P. (2000). Marketing Management. The Millennium Edition. Prentice Hall International.
LO, L. K., Osman, M., T, R., & Rahim, M. (2010). The Impact of Service Quality on Customer Loyalty: A Study of Banks in Penang, Malaysia. International Journal of Marketing Studies , 57-66.
Lockhart, H. (1995). A paradigm for packaging. Packaging education news , 2-5.
Manilall Dhurup, M. C., & Dumasi, T. (2014). The impact of packaging ,price and brand awareness on brand loyalty. Acta Commercii , 1-9.
McCarthy, D. G. (1997). The Loyalty Link: How Loyal Employees Create Loyal Customers. New York: Wiley and sons Inc.
Naresh K Malhotra, David F Birks.2007. 3rd eddition. MarketingResearch. An Applied Orientation. Harlow, Financial Times.
Oliver, R. L. (1997). Satisfaction: A behavioral perspective on the consumer. New york: Irwin/McGraw-Hill.
Pirouz, Dante, M. (2006). An Overview of Partial Least Squares. The Paul MerageSchool of Business University of California.
Peter, C. (2002). How Come Your Brand isn't Working Hard Enough? london: Kogan Page.
Rundh, B. (2012). Linking packaging to marketing :how packaging is influencing the marketing strategy . britch food journal , 1560.
Sasser, E. W., & Jones, T. O. (1995). Why satisfied customers defect. harvard business review , 88-99.
Shahin, A., Abandi, A. A., & Moshref Javad, M. H. (2011). Analyzig the relationshop between customer satisfaction and loyalty in the software industry. international journal of business and social science , 129-136.
Shahin, A., Abandi, A. A., & Moshref Javadi, M. H. (2011). Analyzing the Relationship between Customer Satisfaction and Loyalty in the Software Industry. International Journal of Business and Social Science , 129.
Sheth, N., & Mittal, B. (2004). consumer behaviour , a managerial perspective . Oh: Thomson South-Western.
Silayoi, P., & Speece, M. (2004). packaging and purchase decisions . Britch Food lournal , 607-628.
Stephen, L., Maznah, W., & Nabsiah, W. (2007). THE EFFECT OF BRAND IMAGE ON OVERALL SATISFACTION AND LOYALTY INTENTION IN THE CONTEXT OF COLOR COSMETIC. Asian Academy of Management Journal , 83-107.
Walsh, G., Evanschitzky, H., & Wunderlich, M. (2008). Identification and analysis of moderator variables : Investigating the customer satisfaction-loyalty link. European Journal of Marketing , 977-1004.
Yuping, L. (2007). The Long-Term Impact of Loyalty Programs on Consumer Purchase Behavior and Loyalty. Journal of Marketing , 19-35.

Zeithaml, Valarie A., Leonard L. Berry, and A. Parasuraman (1996). The Behavioral Consequences of Service Quality. Journal of Marketing, 60 (2), 31–46

THE EFFECT OF PACKAGING, SATISFACTION AND IMAGE ON CUSTOMER LOYALTY OF THE EL RAYHAN COMPANY

Ahmed Khaled El Gammudi
Ubud Salim
Ananda Sabil
University of Brawijaya

ABSTRACT

This study is aimed at investigating the effect of packaging, satisfaction, and image on customer loyalty to The El Rayhan Company, Libya. The questionnaires are employed to collect the data. The resultreveals that packaging has a positive effect on customer loyalty. Moreover, satisfaction and image affect directly on customer loyalty. However, the highest effect in this study is the packaging effect on customer loyalty.

Key words: Packaging, Satisfaction, Brand Image, and Customer Loyalty.

INTRODUCTION

Today most organizations face a number of fundamental challenges as the most important scientific and technological development, and the market increases in the number of institutions of different activities. In addition, the rapid and continuous changes of consumers' needs and tastes have become a major factor in strategic plans and marketing plans, and the cornerstone of modern marketing.

Companies throughout the nation are now utilizing loyalty programs more often than ever before. Theyunderstand the importance of retaining existing customers and decide to implement a system directed specifically to buildcustomer loyalty. A loyalty program is a marketing system instituted by a business that rewards purchasing behavior, thus it increases the customers' urge to stay loyal to the company. It may offer convenience, store credit, prizes, or any other benefits that would entice the loyalty of the customers . When some marketers think of loyalty programs, they begin to imagine a large portion of existing resources being funneled away into a program that may or may not find the success.

Packaging is one of the main strategies and policies that the productive institutions depends on. It represents the message that creates link between the product and the customers. In the way that the packing policy and packaging is vital to the success of marketing item, as an integral part of them often and one of the elements or the physical components.

Today it can be noted that most of the food is packed in plastic bottles, glass or metal. In order to preserve the nature of food and specifications throughout the interval between the moment of manufacturing and packaging until the sale and consumption of locally or after export.

Loyalty

According to Walsh *et* al. (2008) Loyalty is defined as repeated purchase behavior led by favorable attitudes or as a consistent purchase behavior resulting from the psychological decision making. The loyalty is the relationship between the organization and producer with the consumer. Customer loyalty helps in building satisfaction and trust toward the service or products. When customers are loyal to product, there will be an assurance that these customers will support the products, as a result it increases the sales and avoids bankruptcy.

Oliver R (1997) mentioned that loyalty is a deeply held commitment to re-buy or re-patronize a preferred product or service consistently in the future, which causes repetitive same brand or same brand set purchasing, despite any situational influences and marketing efforts that might cause switching behavior.

Jacoby and Chestnut (1978) provided a conceptual definition of brand loyalty as: (i) biased (i.e. non-random), (ii) behavioral response (i.e. purchase), (iii) expressed over time, (iv) by some decision making unit, (v) with respect to one or more brands out of a set of such brands, and is a function of psychological (decision -making evaluation) processes.

Sheth and Mittal (2004) mentioned that Brand loyalty is a measure of the extent to which consumers are loyal to a particular brand over a period of time, which emphasizes a consistent repurchase of the same brand.

Packaging

Packaging is the technology of enclosing or protecting products for distribution, storage, sale, and use. There is an old saying that a package must protect what it sells and sell what it protects . It may be an old saying, but it is still true. A package functions as a "silent salesman" (Lockhart, 1995). Packaging has types which helps to distribute with protecting the product. There are four types of packaging:

1. A Primary Package. It is the type which is in direct contact with the contained product. It provides the initial and usually the major protective barrier. Examples of primary packages includes metal cans, glass bottles, and plastic pouches. It is frequently onlythe primary package which the consumer purchases at retail outlets.
2. A Secondary Package. It contains a number of primary packages, a corrugated case. It is the physical distribution carrier and is sometimes

designed so that it can be used in retail outlets for the display of primary packages.

3. A Tertiary Package. It is made up of a number of secondary packages. The most common example is a stretch wrapped pallet of corrugated cases.
4. A Quaternary Package. It is frequently used tofacilitate the handling of tertiary packages in interstate and international trade. This is generally a metal container up to 12 m in length which can hold many pallets and is intermodal in nature. It means, it can be transferred to or from ships trains, and flatbed trucks by cranes. Certain designs are also able to have their temperature, humidity and gas atmosphere controlled and this is necessary in particular situations such as for the transportation of frozen foods or fresh fruits and vegetables.

Packaging has been defined in a number of ways. The Packaging Institute International defines packaging as the enclosure of products, items or packages in a wrapped pouch, bag, box, cup, tray, can, tube, bottle or other container form to perform one or more of the following functions, containment, protection or preservation, communications, and utility or performance. If the device or container performs one or more of these functions it is considered a package.

The UK Institute of Packaging provides three definitions of packaging:

1. A coordinated system of preparing goods for transport, distribution, storage, retailing and end use.
2. A means of ensuring safe delivery to the ultimate consumer in sound condition at minimum cost.
3. A techno economic function aimed at minimizing costs of delivery while maximizing sales and hence profits.

Image

Image can be defined as the set of beliefs, ideas, and impression that a person holds regarding an object.Furthermore, a brand can be defined as a name, term, sign, symbol, or design, or combination of them which is intended to identify the goods and services of one seller or group of sellers and to differentiate them from those of competitors (Kotler, 1991).Also, brand image has been recognized as an important concept in marketing (e.g., Gardner and Levy 1955). Consistent with definitions by Herzog (1963) and Newman (1957), brand image is defined here as perceptions about a brand as reflected by the brand associations held in consumer memory.

According to Hsieh*etal*. (2004), a successful brand image enables consumers to identify the needs that the brand satisfies and to differentiate the brand from its competitors, and consequently increases the likelihood that consumers will purchase the brand.

On the other hand Keller (1993) considered brand image as a set of perceptions about a brand as reflected by brand associations in consumer's memory. A comparable explanation of Image to Keller's was proposed by Aker (1991) in which brand image is referred to a set of associations, usually organized in some meaningful way. However, Biel (1992) defined brand image as a cluster of attributes and associations that consumers connect to the brand name.

Satisfaction

Satisfaction is defined by saying it is the act of providing what is needed or desired, the act of satisfying a need or desire.Regarding with this study, satisfaction is a customer's feeling about a product or services applied by an organization or producer. Oliver(1997) defined satisfaction as the consumer's fulfillment response. It is a judgment that a product or service feature, or the product or service itself, provides (or is providing) a pleasurable level of consumption related fulfillment, including levels of under or over fulfillment. Szymanski and Henard (2001) noted that the previous study on consumer's satisfaction focused mostly on the effects of expectations, disconfirmation of expectations, performance, effect, and equity on satisfaction.In general, customer satisfaction is seen as an indicator of the future of financial success for the company (Kotler, 2000). The benefits of customer satisfaction are often associated with high customer loyalty, the more loyal the customers are, the more often they use the company’s services or make purchases from the same supplier (Sasser and Jones, 1995). customer satisfaction can be described as the evaluation of a product or service taking place after a purchase considering the expectations the customer had before the purchase (Kotler, 2000).

Research Framework

H 1 :The packaging increasessatisfaction in El Rayhan company.
H 2 :The packaging increases loyalty in El Rayhan company.
H 3 :The packaging increases image in El Rayhan company.
H 4 :The satisfaction increases loyalty in El Rayhancompany.
H 5 :The image increases loyalty in El Rayhan company.

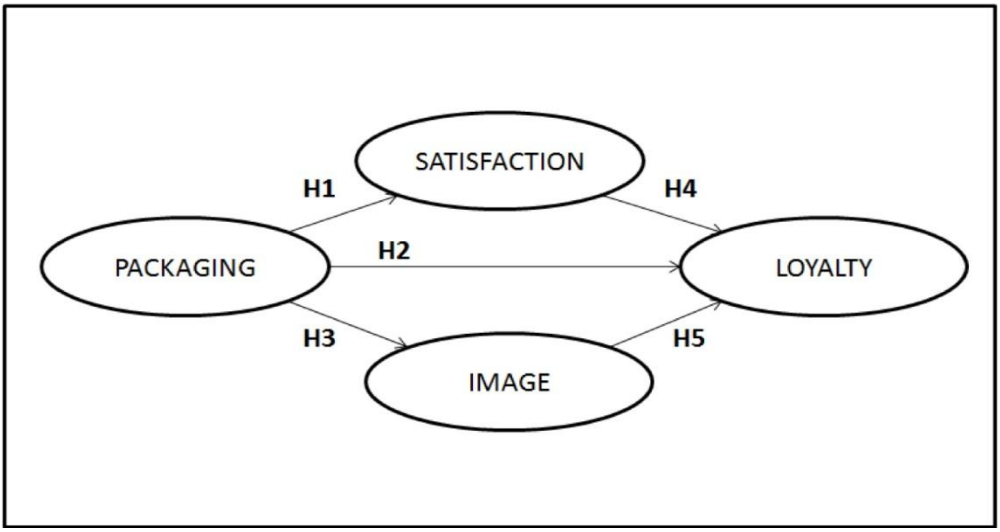


Figure 01: Research Framework

Research Design

This research uses quantitative approach, and considerably included in an explanatory research. Explanatory research is the one which is aimed at analyzing the relationships between variables or how one variable affects the other (Kotler, *etal*., 2006). This method is chosen because it is intended to access to the effect of packaging on customer loyalty and through this way the data are analyzed statistically.The location of the research is in Libya, a country where which The El Rayhan Company is located. The main product is juice drink. The respondentsof this study are all people who used to purchasingthe product.The instrument used in collecting data is a questionnaire. The selected data are analyzed by using PLS, defined as the method of choice to succeed factor studies in marketing (Albers, 2009). The PLS methodology have also achieved an increasingly popular mission in practical research in international marketing, which may represent an appreciation of distinctive methodological features of PLS.

Discussion

Through the results it becomes clear that the impact of packaging on customer loyalty is simple compared to other variables. Due to the different generations, there is a concern tothe consumersin experiencing and continuously consuming a new product.Note that those with the age group of 20-29 years arethe most responsive in completing the questionnaire. The nature of humanity is afraid of the unaware, in the sense that if the shape of the product development or product display is the same product with different form, the loyalty rate is remarkably decreased.

As to the culture of the youth generations with age category ranging from less than 20 to 30 years old, they have a different concept of what is customary. It is because this age group is willing to maintain its loyalty to the product as long as the company keeps developingthe ways of packaging compared to other products. Moreover, it is also caused by the openness of the Libyan market to many juice companies from neighboring countries or even across the seas.

Conclusion

Based on the result of the research, it can be concluded as follows :

1. There is an effect of image on loyalty, it is explained that a better image of the costumers to El Rayhancompany increases their loyalty. That means the importance of image to loyalty.
2. There is an effect of packaging on image, it is explained that a better packaging of El Rayhancompany increases the image of the costumer. That means the importance of packaging to image.. In addition, there is a positive effect of packaging on the loyalty and satisfaction.
3. It shows that packaging, satisfaction, and image have a direct effecton loyalty.
4. Furthermore there is an effect of satisfaction on loyalty. It means that when costumers satisfy with El Rayhan product, it also increases their loyalty.
5. The result shows the importance of packaging on loyalty. Improving and designing a modern style of packaging affects customer loyalty.

REFERENCES

Aaker, D. A. (1991). Managing brand equity. Capitalizing on the value of a brand name. New York: The Free Press.

Ahsan, B. J., & Abdul, B. R. (2014). Impact of Customer Satisfaction, Brand Image and Advertisements on Brand Loyalty. European Journal of Business and Management , 49-56.

Akabogu, C. O. (2014). Consumers' Satisfaction with 7up Packaging: an empirical Analysis . Journal of Business and Management , 28-36.

Albers, S.2009. Misleading Rankings of Research in Business German Economy Review. Germany.

Bennet, R., & Rundle -Thiele, S. (2004). customer sattisfaction should not be the only goal. journal of service marketing , 514-523.

Biel, A. L. (1992). How brand image drives brand equity. Journal of Advertising Research , 6-12.

Camille, R. (2005). an Analysis of Relationship Marketing as an Effective Marketing Technique for Quick-Service Restaurants. International Journal of Contemporary Hospitality Management (Vol,17 No,7), 592.

Dey , Ian.1993 Qualitative data analysis . Routledge.

Dwayne, G., & Stephen, B. (1996). Service Loyalty: Its Nature, Importance, and Implications. ISQA , 171-180.

el-rayhan.com. (2014). www.el-rayhan.com. Retrieved from el-rayhan.com.

Fecikova, I. (2004). An index method for measurement of customer satisfaction. the TQM magazine , 57-66.

Falk R. F. & Miller, N. B.(1992). A Primer for Soft Modeling. Akron, Ohio:The University of Akron Press.

Field, A. (2005). Discovering statistics using SPSS (Vol. 2nd). london: saga.

Hair, .. a. (1998). multivariate data analysis (Vol. 5th edition). new jersey: upper saldle river.

Hsieh, M., Pan, S., & Setiono, R. (2004). Product-, corporate-, and country-image dimensions and purchase behavior: A multicountry analy. Journal of the Academy of Marketing Science , 251-270.

Hysen, B., & Mensur, V. (2008). ANALYSIS OF CONSUMER BEHAVIOUR IN REGARD TO DAIRY PRODUCTS IN KOSOVO. Agricultural Research , 111-126.

J.A. Wegelin. 2000 . A survey of Partial Least Squares (PLS) methods. with emphasis on the two-block case. Technical report, Department of statistic, Univercity of Washington, seattle

Jacoby, J., & Chestnut, R. (1978). Brand loyalty: Measurement and management. New York: Wiley.

Josée, B., Ko, R. d., & Pascal, P. (1998). Investigating drivers of bank loyalty: the complex relationship between image, service quality and satisfaction. International Journal of , 276-286.

Keller, K. L. (1993). Conceptualizing, measuring, and managing customer-based brand equity. Journal of Marketing , 1-22.

Kotler, P. (2000). Marketing Management. The Millennium Edition. Prentice Hall International.

LO, L. K., Osman, M., T, R., & Rahim, M. (2010). The Impact of Service Quality on Customer Loyalty: A Study of Banks in Penang, Malaysia. International Journal of Marketing Studies , 57-66.

Lockhart, H. (1995). A paradigm for packaging. Packaging education news , 2-5.

Manilall Dhurup, M. C., & Dumasi, T. (2014). The impact of packaging ,price and brand awareness on brand loyalty. Acta Commercii , 1-9.

McCarthy, D. G. (1997). The Loyalty Link: How Loyal Employees Create Loyal Customers. New York: Wiley and sons Inc.

Naresh K Malhotra, David F Birks.2007. 3rd eddition. MarketingResearch. An Applied Orientation. Harlow, Financial Times.

Oliver, R. L. (1997). Satisfaction: A behavioral perspective on the consumer. New york: Irwin/McGraw-Hill.

Pirouz, Dante, M. (2006). An Overview of Partial Least Squares. The Paul MerageSchool of Business University of California.

Peter, C. (2002). How Come Your Brand isn't Working Hard Enough? london: Kogan Page.

Rundh, B. (2012). Linking packaging to marketing :how packaging is influencing the marketing strategy . britch food journal , 1560.

Sasser, E. W., & Jones, T. O. (1995). Why satisfied customers defect. harvard business review , 88-99.

Shahin, A., Abandi, A. A., & Moshref Javad, M. H. (2011). Analyzig the relationshop between customer satisfaction and loyalty in the software industry. international journal of business and social science , 129-136.

Shahin, A., Abandi, A. A., & Moshref Javadi, M. H. (2011). Analyzing the Relationship between Customer Satisfaction and Loyalty in the Software Industry. International Journal of Business and Social Science , 129.

Sheth, N., & Mittal, B. (2004). consumer behaviour , a managerial perspective . Oh: Thomson South-Western.

Silayoi, P., & Speece, M. (2004). packaging and purchase decisions . Britch Food lournal , 607-628.

Stephen, L., Maznah, W., & Nabsiah, W. (2007). THE EFFECT OF BRAND IMAGE ON OVERALL SATISFACTION AND LOYALTY INTENTION IN THE CONTEXT OF COLOR COSMETIC. Asian Academy of Management Journal , 83-107.

Walsh, G., Evanschitzky, H., & Wunderlich, M. (2008). Identification and analysis of moderator variables : Investigating the customer satisfaction-loyalty link. European Journal of Marketing , 977-1004.

Yuping, L. (2007). The Long-Term Impact of Loyalty Programs on Consumer Purchase Behavior and Loyalty. Journal of Marketing , 19-35.

Zeithaml, Valarie A., Leonard L. Berry, and A. Parasuraman (1996). The Behavioral Consequences of Service Quality. Journal of Marketing, 60 (2), 31–46

THE INTERNAL CONTROL PRACTICE OF JUMHOURIA AND SAHARA BANKS IN LIBYA: THE TOP MANAGEMENTS' PERSPECTIVES BASED ON COSO FRAMEWORK

Osama Mohamed M. Tekala
Gugus Iriantoand
Yeney Widya
Universitas of Brawijaya

ABSTRACT

The rapid change on economic environment highly requires organizations to control the risks related to the financial and operative purposes. Furthermore, monitoring is also crucial for the management and the board of directors in providing them significant information related to the performance and the effectiveness of internal control systems. Internal audit as a part of internal control system has helped organizations manage and mitigate the risk as well as understanding the position where their risks are. In the effort of achieving the objective, COSO framework gives a concrete alternative for organizations to mitigate the risks related to the validity of financial reporting. This study is aimed at understanding the internal control implemented in Jumhouria and Sahara banks in Libya according to the top managements' perspectives based on COSO framework. This study is qualitative descriptive research. Data was collected through questionnaire that was distributed by E-mail. Furthermore, an interview was also done to gain deep information done by e-mail as well. The findings of this study revealed that control environment has not been well implemented by the Jumhouria and Sahara banks although the integrity and ethical value are communicated effectively throughout the organization. However, there is no consistency between the works done by the management of operating units with the senior management. Furthermore, it is believed that COSO Framework brings some benefits for the banks although the implementation of its components has not been recognized. A good internal control is important, because it may give the bank an idea of how it is performing.

Key words*: Internal Control, COSO Framework, Libyan Banks*

INTRODUCTION

COSO standing for “Commission of Sponsoring Organizations” is a private commission employed to evaluate, investigate and report on the improvement of financial reporting quality based on business ethics, effective internal controls and corporate management”. Some of the organizations sponsoring COSO are as follows: American Institute of Certified Public Accountants, the Institute of Internal Auditors, International Financial Executive, Institute of Management Accountants, and American Accounting Association. COSO arranged a document in 1992 concerning on internal controls or integrated framework. Because internal control has different significances to different parties, COSO attempts to establish a common definition and standard for each party. Based on COSO report (cited in July Edition of COSO Internal Controls-Integrated Framework, “COSO Report,” 1994), Internal Control is broadly defined as a process effected by the entity of the board of directors, management, and other personnel.

Internal Control—Integrated Framework (henceforth, COSO Framework) published by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in 1992—is one of the leading frameworks applied to design internal controls for large-scale business activities. The primary purpose of COSO and its framework is giving a concrete alternative for organizations to mitigate the risks related to the validity of financial reporting. The COSO framework has further been applied towards financial reporting for business operations as well. Moreover, COSO has recently published a revised version of the framework proposed by (COSO, 2013) to support the changing business environment.

At the end of the 20th century, a new concept of management and corporate governance was developed for the public sector. If we wish to understand the message of this new concept we have to understand key terms. Internal control systems in the public sector consist of a network that establishes an organization whose goal is to provide: 1) enforcement of the law, regulations, rules and procedures; 2) economical, efficient and designated use of assets; 3) safeguarding assets and investments against losses, abuse, mismanagement, fraud or corruption; and 4) integrity and reliability of information, accounts and data, and fair disclosure of these data in timely reports.

RESEARCH QUESTIONS

The problem discussed in this study is the modern concepts of internal control systems like COSO which is not well implemented. The researcher attempts to investigate how the influence of the internal control implemented by the corporate management in mitigating the bad impacts on the sustainability of the organizations economic activities. Therefore, the main research question of this research is: "How is the Internal Control practice in Jumhouria and Sahara banks in Libya based on the Top Managements' Perspectives?"

THEORETICAL REVIEW

Agency Theory

According to Jensen and Meckling (1976), ownership is widely held by shareholders at least in US jurisdiction. In the other hand, German, French and Dutch jurisdiction and managerial actions deviate from the required maximization of shareholder returns Zeckhauser and Pratt (1985). On the other hand,Fama (1980) utilized the principal-agent theory to examine the hierarchical inter-manager relationships that exist within large firms. In this context, the firm's chief executive officer is viewed as the principal who attributes the right decision to the lower level management (agents) and thus inducing agency costs due to information asymmetry.

COSO FrameworkTheory

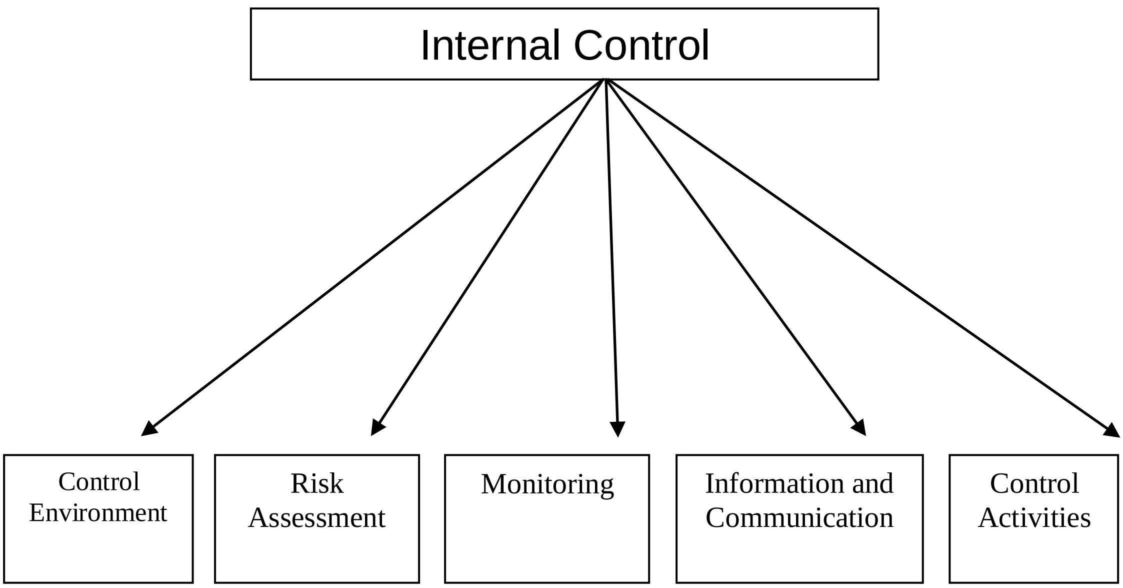
The primary theory that is used in this thesis is related to COSO itself. COSO published some articles on its framework and how it should be implemented in practice. The theory about internal control regulation is also relevant for this thesis. If new rules related to internal control are established, audit firms might have to adapt their practices in order to comply with those rules. This can result in a change in how auditors work by following several rules. The requirement of rules can be an explanation for the change in observed practices (why auditors perform their job in a certain way). In sum, regulation has an effect on audit practices. The SOX regulation and its Dutch variant, The Dutch Corporate Governance Code deal with internal control and are therefore relevant to be used in this thesis.

The COSO framework has become the most quoted framework in discussions on control systems within corporate governance committees (Corporate Governance Committee 2008) and by regulators PCAOB (2004). The COSO control framework appears to be an institutional rule and seems to function as a myth, which is embraced and legitimized by auditors, firms, regulators, and others, but does not enhance survival prospects of the firm (Meyer & Rowan, 1977). The concept of control implied by the COSO-framework can even decrease the real control (system) of a firm, focusing attention on a narrow definition of control restricted to maintain legitimacy in a regulatory environment instead of survival. Recent problems with a number of firms, some of which published an in-control statement based on the COSO framework, raise questions with respect to the effectiveness of the control system of these firms. Therefore, it raises questions regarding whether the COSO framework is a complete framework to achieve a sufficient system of control, or that quintessential elements or aspects might be missing.

COSO explicitly states that publicly traded companies should report on internal control. Within the section reporting to external parties in the framework, COSO mentions examples of private sector bodies as The Cohen

Commission, the Financial Executives Institute, and the Treadway Commission framework that support the importance of management reporting on internal control (COSO 2013). The Treadway Commission further refers to those potential investors which have a legitimate interest with regard to the extent of management responsibilities for the company's financial statements and internal control. The Commission noted that the management's opinion on the features of the internal control system is crucial because it provides the basis for the preparation of financial statements. In the framework, COSO provides detailed suggestions on what companies may report on related to internal controls COSO (2013) and Deumes (2004). However, investors should be cautious by solely relying on what is reported on internal control. Reporting on internal control is not an adequate proxy for the effectiveness of an internal control system.

Diagram for Internal Control



Source: COSO Framework (2013)

RESEARCH METHOD

In order to develop a deeper understanding of the role of the different types of control measures and their impact on the performance of the organization, the qualitative descriptive method utilized in this research. Furthermore, this study describes the accounting systems, techniques, and procedures used in practice. The findings can help answering the research question on how COSO is used and why COSO is used.

DATA AND SOURCE OF DATA

The data were obtained from two chosen banks among a group of Libyan Banks: Jumhouria and Sahara Banks It has been selected because they are the oldest established Bank and Commercial power in the Libyan state. This bank is from Al Khums city. The research participants involved the Audit Board Committee (ABC), Chief executive Officer (CEO), Chief Finance Officer (CFO) in Libyan Banks. They were chosen as survey participants for two key reasons. Firstly, they are in a senior position and thus, are expected to have a very good understanding of the quality of internal control procedures. Secondly, financial controllers are often actively involved in the oversight of any system reviews and changes, and thus would be aware of any control weaknesses or malfunctions of internal control procedures.

FINDINGS AND DISCUSSIONS

Questionnaire Results of the Implementation of Internal Control in Jumhouria and Sahara banks in Libya from the Top Managements Perspective

The result of the analysis reveal the practice of Internal Control in Libya's Banking industry from the Internal Auditor's perspective. For an organization to achieve its organizational objectives, the five control components of control environment, risk assessment, control environment, information and communication and monitoring must be integrated into management processes over the entire organization.

Control Environment

The findings discover the implementation of internal control seen based on the COSO Framework in two major Libyan banks including The Sahara Bank and Jumhouria Bank. The result is based on the perspective of Chief Executive Officers, Audit Board Committees, and Chief Finance Officers of the two banks. Their analysis explores variations in perceived control strength at the individual control element level in public organizations providing information about the practice of internal control according to COSO framework with five key elements.

The commitment to integrity and ethical values

The finding shows that the oldest commercial power banks in Libya has implemented integrity and ethical value within the organization and they are communicated fully from management operating units to board of directors.

Independence from management and exercises oversight of the development and performance of internal control

Based on the finding it is found that the expertise the board members is evaluated regularly to ensure the quality of the board members.

The establishment of structure, authority and responsibility by the management with board oversight

The result also presents the condition of management in two major banks in Libya. Surprisingly enough, there are not adequate policies and procedures for authorization and approval of transactions by the appropriate level. Each of the banks does not have a clear policy which talks about the legal decisions regarding the transactions in the Banks.

The demonstration of commitment to competence

The findings describe the condition of bank competence and how it maintains its competency in banking industry. According to the responses, all CEO of the two banks mentioned that the banks do not have standards and procedures for hiring, training, motivating, evaluating, promoting, compensating, transferring and terminating the employment of personnel that are applicable to all functional areas.

The organization establishes and enforces accountability

The findings describe the accountability of the two Libyan major banks. Based on the findings, it is revealed that there is not any mechanism in place to regularly educate and communicate to management and employees the importance of internal controls, and to raise their level of understanding of control.

Risk assessment

The findings reveal the practice of internal control seen based on the COSO Framework in two major Libyan banks including The Sahara Bank and Jumhouria Bank. The result is based on the perspective of Chief Executive Officers, Audit Board Committees, and Chief Finance Officers of the two banks. The analysis discovers the practice of risk assessment**.**

The organization of specifies relevant objectives with sufficient clarity to enable identification of risks

The analysis of the questionnaire responses reveals that the two banks specify their objectives using several methods. All of the respondents agree that their organization determines goals and objectives by identifying significant financial statement accounts and disclosures. Moreover, the objectives are also specified by examining relevant assertions, underlying transactions and events, and taking a closer look at the processes supporting those accounts and disclosures. Obviously, all of the CEO, CFO, and Audit Board Committees of the two banks apply the same method in their banking industry. Financial statement evaluation is crucial for the banking industry as it reflects the actual condition of the bank and the internal audit needs to focus their work on it to prevent fraud and minimize the risk treating the organization.

The organization of identifies and assesses risk

Banking organizations will set objectives for the efficiency and effectiveness of activities, reliability and completeness of financial and management information, and compliance with laws and regulations. Risk assessment entails the identification and evaluation of the risks involved in meeting those objectives. This process helps to ensure that the bank's internal controls are consistent with nature, complexity and risk of the bank's on- and off-balance sheet activities.

The organization considers the potential for fraud in assessing risk

The result of the questionnaire response analysis reveals the performance of organization on a risk assessment which is related to fraudulent finance and loss assets potential. It is started from the two banks, practice the assessment of the financial reporting, management override, and potential loss f assets and corruption which can prevent the existence of fraud in the organization.

The organization identifies and assesses changes that could significantly impact the system of internal control

Another risk assessment sub point based on COSO framework that some Banks have assessed significant changes which may impact on the internal control. However, some Banks do not pay attention on the changes which may influence the system within internal control. To sum up, risk assessment of changes in management activities are practiced by a merely small number of Libyan banks.

Control Activities

The finding shows that control activities are implemented by the majority of Libyan banks. The practice includes selecting and developing control activities and general control over technology and deploying through policies and procedures.

The organization selects and develops control activities

The banks use manual and automated to prevent and detect problems in the organization.

The organization selects and develops general control activities over technology

this means that the oldest banks have implemented technology application to control.

The organization deploys control activities through policies and procedures

the control activities are not deployed through policies and procedures folly.

Information and Communication

The information system of an organization produces formal as well as informal reports on how well the organization's objectives are met; this information makes it possible to run and control the organization. Every organization must capture and identify relevant information relating to both external and internal events.The finding of the results of the questionnaire responses for information and communication in Libyan banks is described in the following sub-chapters.

The organization obtains or generates and uses relevant, quality information The analysis result of quality information in the Libyan banks shows that Libyan banks obtain and generate relevant quality information.

The organization internally communicates information

The practice of information and communication is partially done within the internal control of the organization. The CEO and Audit Board Committee of Sahara Bank believe that members of the board of directors in this bank do not have direct access to employees without interference from management. The management arranges the access between the board of director member and the employees. The board of directors cannot directly communicate the information to the employees. Similarly, this is applied to the other two banks in which communication internal from the board of directors to employees is done by the help of organization management.

The organization communicates with external parties

theexternal parties are informed about the organization's activities that relates to matters of internal control evaluated by management. It is very important to have external communication to maintain the relationship with the external parties. Matters affecting the achievement of financial reporting objectives are communicated with outside parties.

Monitoring

The finding of the analysis reveals the practice of monitoring in two major Libyan banks and Sahara Bank, Jumhouria Bank. The two major banks in Libya implement monitoring within the organization. The practice of monitoring in Libyan banks is by selecting, developing, and performing ongoing and separate evaluations. Moreover, monitoring is also done by evaluating and communicating deficiencies.

The organization selects, develops and performs ongoing and/or separate evaluations

The findings discover the implementation of internal control seen based on the COSO Framework in two major Libyan banks. The bank internal control members conduct an evaluation of processes in place to assess whether controls within each of the five components of internal control are present and functioning as intended. They monitor by developing and performing an ongoing and separate evaluation on the five components.

The organization evaluates and communicates internal control deficiencies

Deficiencies are communicated to those parties responsible for taking corrective action, senior management and the board of directors or audit committee. Moreover, the management takes adequate and timely actions to correct deficiencies which are reported by the internal audit function and by other monitoring activities. On the other hand, in evaluating and communicating deficiencies, management does not respond timely and appropriately to the findings and recommendations of the independent auditors regarding internal control and policies and procedures of the organization.

CONCLUSIONS

This study examines the internal control in Jumhouria and Sahara banks in Libya from the top managements' perspectives with the focus on the implementation of components of the COSO Framework in audits for two major banks in Libya. Two major banks in Libya are the samples. The first is Sahara Bank which has 53 branches all over Libya. It is a corporation type bank with the capital base as discipline and dedication to work. The second sample is Jumhouria Bank which has operated 71 branches based on general partnership company. It can be summed up that the auditor team consists of an audit team which includes a partner, one auditor or senior auditor, one or two team leaders, one or two senior assistants, and one or two assistants. The data are presented through a qualitative descriptive research developed from questionnaire results, together with interviews with auditors. The analysis of the qualitative descriptive research and the interviews reveals that auditors use part of the COSO Framework components.

REFERENCES

Deumes, Rogier. (2004). Voluntary reporting on internal control by listed Dutch companies. *RM00042*.

Fama, Eugene F and Pratt & Zeckhauser (1980). Agency Problems and the Theory of the Firm. *The journal of political economy*, 288-307.

Jensen, Michael C, & Meckling, William H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of financial economics, 3*(4), 305-360.

Meyer, John W, & Rowan, Brian. (1977). Institutionalized organizations: Formal structure as myth and ceremony. *American journal of sociology*, 340-363.

PCAOB. (2004). Playing peekaboo with Constitutional law: The PCAOB and its public/private status. *Notre Dame L. Rev., 80*, 975.

Zeckhauser, Richard J, & Pratt, JW. (1985). Principals and Agents: The Structure of Business. *Boston: Harvard Business School*.

INFORMATION ASYMMETRY: EVIDENCE FROM IRAN LISTED COMPANIES

Jamal Roudaki
Faculty of Agribusiness and Commerce Lincoln University, New Zealand
Jafar Babajani
School of Accounting and Management, Allameh Tabatabaei University
Tehran Iran
Arash Tahriri
Tehran University, Tehran Iran

Abstract

Inherent in the International and indigenous accounting standards is managerial discretion in the application of accounting methods, preparation of financial reports and disclosures. Extent literature indicates that almost all companies are engaged in some type of earnings management (Healy, 1985; Perry & Williams, 1994; Defond & Jiambalvo, 1994; Jordon, Clark, & Pate, 2008). A crucial question posed for accounting research is to identify the environmental conditions under which managerial discretion (i.e. accounting choices) are exercised. Using empirical analysis this paper investigates one of the fundamental conditions of earnings management, information asymmetry between managers and investors. When information asymmetry is high, stakeholders including investors do not have sufficient resources, incentives, or access to relevant information to monitor managers' actions, which gives rise to earnings management. Empirical results show that the level of information asymmetry index which is the combination of five important Tehran Stock Exchange (TSE) relevant proxies (volume of trade, stock price variation, P/E ratio, number of trading days and firm age) has a positive statistically significant effect on the extent of earnings management practiced by companies listed on the TSE.

Key words: information asymmetry, volume of trade, stock price variation, price to earnings ratio, number of trading days, firm age, earnings management

Introduction

Growing empirical and systematic evidence supports the argument that earnings management (EM) is a common practice in the financial report of reporting entities (Healy, 1985; Perry & Williams, 1994; Defond & Jiambalvo, 1994). A fundamental question posed for accounting research is to identify the environmental conditions under which accounting choices became available to managers manipulate earnings. It is obvious that managers have a series of information emerging from the firm and its financial condition that shareholders do not have that is known as asymmetry between managers and stakeholder including current shareholders and potential investors. This paper examines how information asymmetry between managers and investors impacts the level of EM practiced by managers of companies listed in the Tehran Stock Exchange the sole share market in Iran.

Firm managers manage earnings with respect to several goals and motivations. It seems that a primary motive of EM by managers is to influence stock prices and manipulate company's stock market. Information available to the stock market affects how investors interpret and react to the financial information released by firms, and therefore influence the extent to which managers can impact the stock market with managed financial reporting.

In analytical models of EM, Dye (1988) and Trueman and Titman (1988) show that information asymmetry is a necessary condition for the practice of EM. Furthermore, Schipper (1989) suggests the need for empirical work which considers the information environment surrounding the practice of EM. This study hypothesize that the level of information asymmetry between managers and the stock market has a meaningful impact on the magnitude of EM. The reason is that when information asymmetry is high, investors do not have the necessary information to undo the manipulated earnings for their decision making needs (Richardson, 2000).

Test results suggest a significant, positive relationship between the composite score of information asymmetry (which is a combination of five important and relevant proxies of information asymmetry) and EM after controlling for other previously documented determinants of EM. The result is consistent with the view that the greater information asymmetry between managers and the stock market and other company's external parties collectively, the more likely the firm is to manage earnings. In this paper, EM is captured through accruals manipulation.

The rest of the paper is organised as follows. Section two presents review of the literature including the relationship of information asymmetry and EM from information and opportunistic perspectives of EM. Measuring two components of the study (i.e. information asymmetry and EM) are presented as component of the methodology in section three along with statistical model for hypothesis testing. Empirical results (descriptive and hypothesis testing) are discussed in the fourth section which follows by conclusion and discussion as the last section.

Literature Review and hypothesis development

In the absence of published research results about Iranian information asymmetry, this paper consider to brow a background of the study in this area using world and regional literature. While the stock market in Iran is yet to be developed, most of listed companies are not consider this market a prime source of funding.

The primary role of financial statements is to report a company's financial information to internal and external financial statement users in a timely and reliable manner. A controversial component of these annual reports is accounting earnings and financial and non-financial data about corporate governance. Some major decisions that are shaped by available information in annual reports are: executive compensation, debt covenants, capital rising, and perhaps most importantly, for external investors to make investment decisions. Ideally, the reported earnings should reflect a firm's underlying operating economics and facilitate efficient resource allocation within the firm. However, due to the control advantages that managers have over external information users in collecting and reporting firm specific information managers have the opportunity to present earnings in a manner that is most supportive to their financial reporting discretion. Commonly referred as managing the earnings, this topic is of considerable interest to academics and practitioners.

In a perfect market, there is no role for financial disclosures and thus no demand for accounting discretion (Watts & Zimmerman, 1978 1986; Holthausen & Leftwich 1983). However, with market imperfections such as information asymmetry, financial reporting is necessary for efficient contracting. However, due to the inherent advantage of asymmetric information and flexibility afforded in reporting, wealth can be transferred from stakeholders to managers.

There are two major perspectives in the field of EM. The opportunistic behaviour perspective, first enunciated by Watts and Zimmerman (1986), holds that managers take the opportunity to manage earnings in order to maximize their own utilities at the expense of the contracting parties and stakeholders. On the contrary, the second perspective, the signalling or information perspective that stems from the work by Holthausen and Leftwich (1983), proposes that managers exercise discretion in order to communicate inside information to outside investors to help investors predict and form expectations regarding the firm's future performance.

But the main argument here is that apart from incentives of EM (good or bad, dark or white and opportunistic or informative); there must be some extent of information distance between managers and the market for practicing EM by managers. More information available about the firm (less information asymmetry) may help investors distinguish the managed component of reported earnings from the pre-managed numbers, and therefore may make EM more transparent. There are two consequences associated with greater ability of the market to detect EM. The first consequence is that it diminishes the potential benefit of EM because the managed components are less likely to impact on financial statement users. The second consequence is that it may increase the expected costs of managed earnings (such as legal liability, disputes with the auditor, reputation loss and even pecuniary punishment).

Literature of information asymmetry indications that both sets of incentives of EM (opportunistic behaviour and the information perspective) show a positive relationship with information asymmetry, the explanation for each relationship differs under each incentive condition as discussed in the following sections.

Information asymmetry and earnings management: information perspective

The information perspective of EM suggests that accounting choices are made to reveal managers' expectation about the future performance of the firm. For example, managers may smooth earnings to communicate a firm's permanent earnings. Hunt, Moyer, and Shevlin (1995), Collins and Deangelon (1990), and Subramanyam (1995) all find empirical evidence consistent with this information perspective of EM. Hunt et al. (1995) argue that information asymmetry must exist between the managers and firm shareholders for managers to have incentives to make informative disclosures to the market. Without such an information gap, there would be no benefit to smoothing earnings, especially given the potential costs of practicing EM.

Likewise, previous research has demonstrated that information asymmetry translates into higher transaction costs for trading shares of the firm which, in turn, raises the required rate of return and lowers the current stock price. Bartov and Bodnar (1996) argue that value-maximizing managers have incentives to choose more informative disclosures to reduce the degree of information asymmetry among market participants. Moreover, Diamond and Verrecchia (1991) suggest that informative disclosures level the playing field for investors, which improves liquidity. An implication of the Diamond and Verrecchia (1991) model is that the firms with the highest level of information asymmetry stand to gain the most in liquidity (and therefore prices) from more informative disclosures. Given these arguments, it is hypothesized that the greater the level of information asymmetry, the greater is the expected magnitude of EM under an information perspective.

Information asymmetry and earnings management: opportunism perspective

Another incentive to engage in EM is that managers opportunistically adjust earnings to transfer wealth from shareholders to themselves or mislead them. Schipper (1989, p.92) defines EM under this incentive condition as "the purposeful intervention in the external financial reporting process, with the intent of obtaining some private gain". An example of this type of opportunistic EM would be the manipulation of earnings to maximize management bonuses or compensation (Healy 1985; Holthausen, Larcker, & Sloan, 1995).

In two analytical models, Dye (1988) and Trueman and Titman (1988), rely on this persistent information asymmetry (or blocked information condition) as a condition for practicing EM. For example Dye (1988) assumes an overlapping generation of owners, where the selling shareholders wish to sell to a set of buying shareholders. The selling shareholders instruct management to follow a certain EM strategy to create a favourable impression on the buying group. In this model, the inability to undo the EM is due to asymmetric information. Therefore, a condition which must be met for EM to exist in these analytical models is that the information asymmetry persists throughout the transactions.

There is some outstanding empirical research which examines the impact of information asymmetry on the level of EM. Richardson (2000) conducted an empirical investigation of the relationship between information asymmetry and EM predicted by Dye (1988) and Trueman and Titman (1988). His empirical results suggest a systematic relationship between the magnitude of information asymmetry and the level of EM in a broad sample setting around seasoned equity offerings. In fact he shows the significant effect of information asymmetry on both types of EM: accounting EM (accruals manipulation) and real EM (cutting R&D expenditures). Following the work of Richardson (2000), Cheng (2006) examines if EM is positively related to information asymmetry in different environments. Moreover, he tried to understand the differences in cultural and business factors between the east and the west. The results show that holding information may have “value” since information asymmetry can benefit those firms that undertake EM. He concludes that information asymmetry has a statistically significant impact on the level of EM practiced by Taiwanese companies. He believes that information asymmetry in Taiwan is higher than that in the west so that Taiwanese managers’ EM behaviour may have a greater effect on their firms’ stock prices.

Kang, Palman, and Sudit, (2009) examine the effect of business news coverage on EM in the USA. They empirically investigate whether a firm’s information environment such as the degree of information asymmetry, business news coverage, and analyst coverage affects EM. Using 35,352 firm-years and 105,604 news items from the Wall Street Journal for firms traded on the NYSE, AMEX, and NASDAQ markets over 11 years from 1994 to 2004, they find empirical evidence that the magnitude of EM is positively associated with the level of information asymmetry and negatively associated with analyst coverage. News coverage, interestingly, has a positive relationship with the magnitude of EM, indicating that a greater number of news releases generate more motivation for managers to engage in EM. Their results also suggest that the effects of a firm’s information environment on EM are stronger for firms engaging in income-increasing manipulation than firms engaging in income-decreasing manipulation.

Considering above literature and take into account the purpose of this study that is to investigate the relationship between information asymmetry and EM in the

Iranian context (listed companies on the Tehran Stock Exchange are considered as field of the study) therefore the hypothesis of the paper is as follows:

The magnitude of information asymmetry has a statistically significant effect on the level of earnings management.

Methodology

Methodology of this paper includes measurement of information asymmetry and EM in the following sections. Statistical model of the study is developed based of the hypothesis that presented in the previous section.

Measuring information asymmetry

Several proxies have been implemented in the literature to measure the concept of information asymmetry. Most of them are not usable with respect to the socio-economic environment of companies listed on the TSE board. For example bid-ask spreads and analysts' related variables (such as the number of analysts following particular securities and dispersion in analysts' forecasts) are the most commonly used measures for information asymmetry in the previous literature. Neither of them is applicable in the Iranian capital market context. Because a considerable number of firms listed on the TSE experienced massive sell or buy waiting lists during the last decade. Therefore there were no selling prices in the TSE trading system and therefore such variable cannot be used. Furthermore because of shortage of market makers on the TSE this variable is not similar to ones used in other sophisticated financial markets. Therefore we cannot rely on the registered bid or ask prices in the trading system because some of major stockholders or even few existing market makers manipulate proposed prices to achieve their goals, or the prices are missing. It should be mentioned that TSE is one of the emerging and thin capital markets in the world and it does not have sufficient depth and liquidity to adjust and ignoring the artificial proposed pricing, especially in the case of major and institutional stockholders which are completely dominant in the market.

On the other hand we cannot use the analysts' related variables for measuring the level of information asymmetry in the TSE listed companies because there is no database or archive for the nature, number and estimations of financial analysts available for researchers.

Consequently with respect to the above considerations and related literature we choose five proxies for measuring the extent of information asymmetry for TSE listed companies. These variables are selected with respect to the unique socio-economic condition of the Iranian stock market and the related literature. These five proxies are explained in the following paragraphs:

Volume of Trade: Frequently traded stocks usually have more available information. On the contrary, less frequently traded stocks tend to have less relevant information. Thus there is an inverse relationship between trading volume and information asymmetry. Since there are various measures of trading volume, we choose one commonly accepted standardized measure. Trading volume is affected by the number of outstanding shares, so this research uses turnover instead. Turnover is defined as trading volume divided by outstanding shares (See Lo and Wang (2000) for a systematic description of different measures of trading volume). Share turnover is also a measure of liquidity, it captures the willingness of investors to buy and to sell stocks. This willingness to transact in firm shares should be inversely related to the existence of possible information. Mohd (2005), Leuz & Verrechia (2000), Roulstone (2003) and bartov and bodnar (1996) used this variable as a proxy for information asymmetry.

Volatility of Stock Prices: Following Bhagat, Marr, and Thompson (1985), Blackwell, Marr, and Spivey (1990), and Krishnaswami and Subramaniam (1999), this study adopts the residual volatility in daily stock returns as the proxy for information asymmetry. We measure this proxy as the dispersion in the market adjusted daily stock returns in the year. If the investors and the firm's managers are equally well-informed about the economy-wide factors influencing the firm's value, then the residual volatility in the firm's stock returns captures the information asymmetry between the investors and the managers about firm-specific information. Stock expected returns are fraught with different levels of uncertainty in prediction. The higher the level of information asymmetry confronting the investors, the greater the probability of inaccurate prediction of the expected stock returns by them, therefore it is expected that firms with higher information asymmetry about their value to have higher residual volatility in their stock returns.

P/E Ratio: Researchers such as Javid & Ahmad (2009), Smith and Watts (1992) and Chung and Charoenwong (1991) used this variable as a proxy for information asymmetry. They argue that the degree of information asymmetry is larger for firms with significant growth opportunities, since managers of high growth firms have privileged knowledge about the firm's investment opportunities and insights in the expected future cash flows from their firm's existing assets. Resulting from this reasoning, a firm's set of investment opportunities is used as a proxy for information asymmetry. One of the most commonly used proxies to measure a firm's growth and investment opportunities is the price to earnings ratio. Some previous scholars have used market to book value as a proxy of growth opportunities and therefore it can be used as an information asymmetry proxy. However this study did not select this metric because there is considerable systematic error in this variable in the Iranian context. Iranian economic has experienced a high amount of inflation in the last two decades and consequently the reported book values are based on historical costing that are much lower than market values. Although the national accounting standards allow for reassessment of fixed assets the large majority of firms do not adjust their assets for inflation due to tax considerations that indicating the positive amount of reassessment is subject to tax. So we use Price to Earnings ratio as an indicator of the growth opportunities and one of information asymmetry proxies which do not have inflation related systematic error.

Number of Trading Days: This measure is one of the TSE specific measures of information asymmetry. Usually when some specific events are occurring for a listed firm (such as EPS adjustment news, calling a stockholders' meeting, and capital raising) the stock trading activity of that firm will be closed by stock exchange commission until the situation is clear and the related information is distributed. This procedure is done by legal authorities for protecting the individual investors. Furthermore, a shortage or even lack of necessary information about the listed firms may cause trading activity to be stopped. In this way when a company does not present sufficient information to be distributed by the stock exchange commission, its trading activity will be terminated until the information flow situation becomes normal. Nevertheless stopping the share trading activity of listed firms implies that there is some extent of information asymmetry between internal managers and external investors. So the number of firm's stock trading days is a meaningful and relevant proxy for information asymmetry in the socio-economic condition of the TSE. More trading days for a firm means that the situation of information flow is normal and the level of information asymmetry is less. It is assumed that more information surrounding companies which their stocks are traded more often.

Firm Age: Some researchers such as Leary and Roberts (2007) and Krasker (1986) have used firm age for a measure of information asymmetry. Older firms may face less information asymmetry because they tend to be more mature firms, have established and time-tested disclosure policies and practices, and receive more attention from the market and regulators (Diamond and Verrecchia, 1991; Harris, 1994). This proxy is measured as the number of years from the date of the company first listing on the TSE.

Although the previous studies have suggested various measures of information asymmetry the literature lacks a firm consensus on the optimal measure(s) of the information asymmetry concept. Most empirical papers focus on one or two variables to measure asymmetric information. These measures usually are correlated with each other but each contains unique information. In this paper, a comprehensive measure by constructing an index of asymmetric information based on the various dimensions of the concept is implemented. Similar to Drobetz et al. (2009), his study creates a composite index based on the five mentioned information asymmetry benchmarks. The information asymmetry index (IA-index) that is developed in this paper, is based on the percentile rankings of each proxy. In order to construct the information asymmetry index, first firm's quintile ranking over all firms for each dimension of information asymmetry in a given year is calculated. It is considered that higher score indicates a greater degree of information asymmetry. For example, a firm obtains a score of 5 (1) if it belongs to the smallest (largest) firms in a given year. Then add up the ranks along all five dimensions of information asymmetry. Therefore, the largest (smallest) value the variable IA-index can take is 25 (5) for the firms with the highest (lowest) degree of information asymmetry. Table 1 and the diagram 1 in the result section of the paper show descriptive statistics for the information asymmetry index.

Measuring earnings management

According to Ronen and Yaari (2008) EM is a collection of managerial decisions that may result in reporting untrue short-term value-maximizing earnings as preserved by management. EM can be Beneficial: it signals long-term value; Pernicious: it conceals short- or long-term value; Neutral: it reveals the short-term true performance. The managed earnings result from taking production/investment actions before earnings are realized, or making accounting choices that affect the earnings numbers and their interpretation after the true earnings are realized.

Most of the previous research studies have measured EM by using "discretionary accruals" (which means accounting based EM). Therefore this paper focuses on the same accounting based EM which means considering accruals behaviour. Accruals arise when there is a discrepancy between the timing of cash flows and the timing of the earnings recognition of the transaction. Non-discretionary accruals are accruals that arise from transactions made in the current period that are normal for the firm given its performance level and business strategy, industry conventions, macro-economic events, and other economic factors. Discretionary accruals are accruals that generate from transactions made or accounting treatments chosen in order to manage earnings (Ronen and Yaari 2008).

Jones (1991) offers a model to help identify firms that manage earnings. The objective of this model is to segregate expected (normal or nondiscretionary) accruals, and the difference (residual) is described as managed (or discretionary) accruals. The measure of the managed accounting accrual used in this research is estimated using the Jones model as modified by Kothari, Leone and Wasley (2004), i.e., it is the residual in the below model:

$$TACC_t = a_0\left(\frac{1}{Assets_{t-1}}\right) + a_1 \Delta Sales_t + a_2 PPE_t + a_3 ROA_t + \varepsilon_t$$

(Regression 1)

In Regression (1), the total accruals (TACC); change in sales (ΔSales); and gross property, plant, and equipment (PPE) are each deflated by the beginning-of-year total assets. Total accruals are net income minus operating cash flow. Return on assets (ROA) is added as an additional control variable, because previous research finds that the Jones model is not precisely specified for well-performing or poorly-performing firms (Dechow, Hutton & Sloan, 1996; Kothari, Leone & Wasley, 2004).

To employ a large number of observations, we run the regression on all firms in the same industry each year (cross-section approach). The non-discretionary accruals (NDACC) are the fitted values of Regression (1) and the discretionary accruals (DACC) which is the measure of the level of EM, are the deviations of total accruals from non-discretionary accruals (DACC = TACC – NDACC). This study did not use real earnings management (REM) due to unavailability of necessary information in the Iranian financial market. Literature of REM shows extensive use of REM which is defined as changing the time of transactions (Ewert & Wagenhofer, 2005) or altering operating, financing, and investing activities (Roychowdhury, 2006; Xu, Taylor, and Dugan, 2007) in financial reporting of many companies from almost all countries around the globe (Xu, Taylor, and Dugan, 2007). The end result of REM and EM are aiming the same, misleading external users of published financial information.

Statistical model for hypothesis testing

Obviously, information asymmetry between firm managers and investors is not the sole determinant of managers' accounting choices. Two important incentives for managing earnings are to reduce political costs and avoid violating debt covenants. Past research suggests that political process theory has implications for the determination of accounting choices (Watts & Zimmerman, 1978). For example, Zmijewski and Hagerman (1981) suggest that political costs increase with firm size and with firm risk. Managers of large and/or high risk firms, therefore, have greater incentives to exploit the latitude in accounting to reduce these political costs. Firm size, the firm's market to book ratio, and sales growth are used as proxies for a firm's size and risk. Moreover, Sweeney (1994) shows evidence that managers are more likely to exploit the latitude in accounting the closer the firm is to binding debt covenants. Therefore, a firm's debt to equity ratio is used as proxy for the firm's proximity to binding debt covenants. Considering the past research in this area, this study anticipated that the level of EM will increase as the level of firm leverage and risk increase. Apart from the positive theory implication of firm size, the size of firm may also be capturing a firm's information environment and could exhibit a negative relationship with the level of managed accruals. The existing empirical literature about the impact of size on the magnitude of EM also shows mixed results (both negative and positive effect). Therefore, this study does not attempt predicting the sign of the relationship between firm size and the level of EM.

Using IA-index as a composite measure of information asymmetry between the firm and the market, this study suggests the following model to examine the relationship between EM and information asymmetry:

$$\left|DACC_{i,t}\right| = \alpha_0 + \alpha_1 IAindex_{i,t} + \alpha_2 DEBT_{i,t} + \alpha_3 MKTBV_{i,t} + \alpha_4 SIZE_{i,t} + \alpha_5 GROWTH_{i,t} + \varepsilon_{it}$$

In the above model, DACC is the discretionary (managed) accounting accruals under modified Jones model as modified by Kothari, Leone and Wasley (2004) using the cross-section estimation approach. *IA-index* is the information asymmetry index which is measured by compositing five important and relevant proxies (volume of trade, stock price variation, P/E ratio, numbers of trading days, and firm age) as explained before. *DEBT* is the ratio of long-term debt divided by the book value of equity, and *MKTBV* is market capitalization divided by the book value of equity. In this model SIZE is natural log of the market capitalization and *GROWTH* is net revenues for the current year less net revenues for the previous year scaled by net revenues for the previous year.

The test of the research hypothesis will be performed by estimating α_1. It is anticipated that an α_1 that is significantly greater that zero would provide evidence of a positive effect of information asymmetry level on the magnitude of EM.

Sample selection

The population of this study consists of all Iranian non-financial firms listed on the Tehran Stock Exchange over 9 years (2000 to 2008). Sample firms should satisfy two criteria of 1) listed at TSE from 2000 to 2008 with no delisting record and 2) The end of company's fiscal years should be at 20 March of each year (This is the date that set as end of fiscal year because according to the Iranian calendar year usually begins within a day of 21 March of the Gregorian calendar).

Based on the above criteria, 119 firms are selected for data collection. Following other research studies in the same area, holding, financial, and insurance firms are excluded because these industries are subject to a different regulatory regime that likely have fundamentally different cash flow and accrual processes. Firms with incomplete financial reporting over the period of the study have been excluded from the data base. It should be added that there is one more filter for selecting the final sample of the study which is related to the estimation of firms' EM level. For estimating the extent of EM using the cross-section estimation approach of the modified Jones model, there must be at least six firms in each industry in a given year. However some groups of industry-year in TSE do not meet this criterion. So the firm-year observations belonging to those industry-year groups were deleted from the final sample of the study. Ultimately there are 1022 firm-year observations spread across 10 industries which are available for statistical analysis required for hypothesis testing.

It should be mentioned that market and accounting data needed to compute the research variables are obtained from existing Iranian databases and TSE reports on DVDs.

Empirical results

Results are presented in two sections of descriptive and regression analysis (hypothesis testing) which the resent section presents results of running the study model.

Descriptive statistics

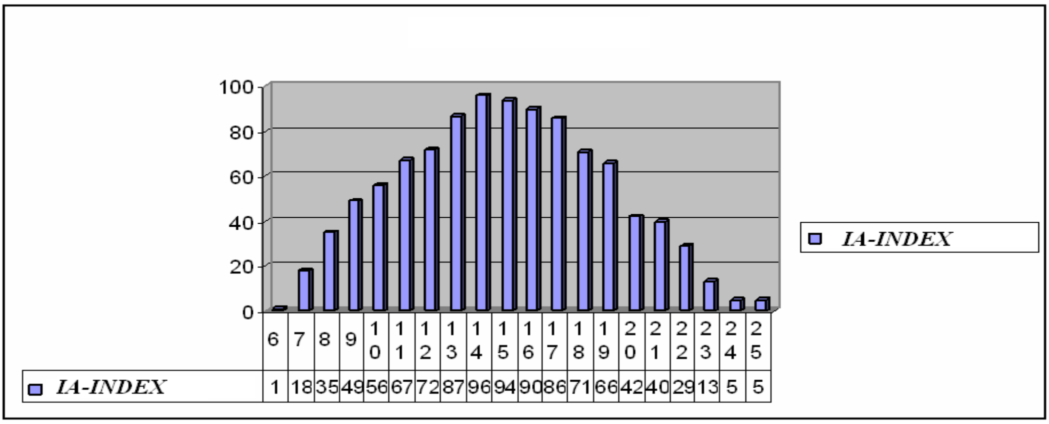
Table 1 shows the information about central parameters and distribution of all of the variables. This table presents 1022 firm-year observations which are derived from 119 firms over nine years. The table shows that all of the variables have positive skewness but with respect to size of sample which is big enough, the normality matter can be forgotten. With respect to the table 1 it is obvious that the mean of IA-index is around 15 and the max and min are 25 and 6 respectively.

Table 1: descriptive statistics of used variables

	IA-index	**SIZE**	**MKTB**	**GROWTH**	**DEBT**	**DACC**
Mean	14.8679	11.4637	4.4099	0.4351	0.1563	0.5846
Median	15.0000	11.4140	2.4000	0.2714	0.1881	0.0562
Maximum	25.0000	13.3639	130.8300	13.4363	7.9814	87.2303
Minimum	6.0000	9.7849	-135.1000	-7.6059	-160.0553	0.0001
Std. Dev.	3.9630	0.6372	8.8841	1.0928	5.1174	4.1698
Skewness	0.0922	0.3903	1.0313	3.2277	-30.1949	13.2865
Kurtosis	2.3713	3.0556	111.0476	38.3667	942.5821	226.5022
Sum	15195.0000	11715.8700	4506.8800	444.6217	159.7096	597.4883
Sum Sq. Dev.	16035.1700	414.6089	80583.8500	1219.3760	26737.3100	17752.4500
Observations	**1022.0000**	**1022.0000**	**1022.0000**	**1022.0000**	**1022.0000**	**1022.0000**
Cross sections	**119.0000**	**119.0000**	**119.0000**	**119.0000**	**119.0000**	**119.0000**

Diagram 1 provides summary statistics for firms depending on their information asymmetry index. The data is pooled across the entire sample period. The distribution of scores reported in the diagram shows that most of the observations are clustered around IA-index between 10 and 20, indicating that a majority of the firms have conflicting individual information asymmetry signals. Hence, there is benefit in aggregating the signals. There are however, a sufficient large number of firms with high scores (134 firm-years with scores higher or equal to 20, the fifth quintile) or with low scores (159 firm-years with scores lower or equal to 10, the first quintile). As it can be seen in this diagram the distribution of information asymmetry indexes are bell shaped similar to other social phenomena.

Diagram 1: distribution of information asymmetry index (IA-index)



Hypothesis testing

This study uses panel data regression model to extract the results. In order to select the appropriate method of estimation among OLS the pooled model, Fixed Effects (FE), and Random Effects (RE), the Chow and Hausman tests using Eviews 7 (For more details about panel data technique and the related tests, see Baltagi, 2008, Hsiao, 2005 and Gujarati, 2004) is applied.

Tables 2 and 3 present Chow and Hausman tests for the used model respectively. The Chow test is a test for choosing between simple pooled OLS regression and panel data analysing. The results show that panel data analysis is the suitable model.

Also, to decide between fixed or random effects, the Hausman test can be run where the null hypothesis is that the preferred model is random effects vs. the alternative fixed effects (see Green, 2008). Based on information in Table 3, the suitable approach is random effects. So the regression model through panel data analysis with random effect procedure is performed.

Table 2: Chow test results

Model	Chow test statistic		P-VALUE	
	Cross-section F	Cross-section Chi-square	Cross-section F	Cross-section Chi-square
Main model	5.4689	553.4464	0000	0.0000

Table 3: Hausman test result

Model	Hausman statistic	P-VALUE
Main model	1.6960	0.8894

The results of running the main regression model of research after considering the suitable procedures are presented in Table 4. With respect to the table 4 results, the coefficient of IA-index is positive and statistically significant with the expected sign. This means that there is a significant relationship between information asymmetry and EM and that information asymmetry has a significant effect on the magnitude of EM practiced by managers of TSE listed companies. In addition SIZE has a negative and significant effect on EM. This result implies that smaller firms manage their earnings more than others. As it is shown in table 4 there is no statistically significant relationship between other used control variables and EM magnitude. The F statistic indicates that all the coefficients of model are different than zero and the model is statistically significant. The R-squared shows that 34% of variance of dependent variable explained by variation in the independent variables.

Table 4: hypothesis testing results

variables	tneiciffoc	Sig
c	2.3180	0.0313
IA_INDEX	0.0508	0.0393
SIZE	-0.2156	0.0279
MKTBV	-0.0030	0.1788
GROWTH	-0.0059	0.8451
DEBT	-0.0074	0.4081
statistic F	5.3703	
SIG	0.0000	
R^2	0.4238	
R^2 adjusted	0.3449	
statistic DW	1.9118	

Conclusion and discussion

The two principles of financial reporting (i.e. relevance and reliability) directly reflect the role of accounting information and are aimed to resolve the fundamental problem of information asymmetry. The released information is relevant information with respect to firm's future prospects, and is reliable information free of managerial manipulation. Where financial disclosure and judgements initially are aimed to reduce the information asymmetry between managers and outsiders, it has been increasingly argued that managers' ability in exercising discretion is likely to impose costs on the users of accounting information. Dye (1988) and Trueman & Titman (1988) point out that the existence of information asymmetry between managers and shareholders is a necessary condition for EM. Schipper (1989) also highlights the condition for EM being the persistence of asymmetric information. This research scrutinise the effect of information asymmetry on the level of EM practiced by TSE listed companies. This is accomplished by employing five proxies (i.e. volume of trade, stock price variation, P/E ratio, numbers of trading days and firm age) for measuring information asymmetry which are suitable and applicable with respect to the socio-economic environment of the TSE. The empirical results show that the information asymmetry index (IA-index) which is a composition of the selected information asymmetry proxies has a positive and statistically significant effect on the extent of EM. In particular, the results suggest that firms for which investors have more information are less likely to manipulate accruals for managing their earnings. This is a direct test of Dye (1988) and Trueman and Titman (1988), as well as Schipper (1989) suggesting that the presence of information asymmetry is a necessary precondition for EM. This study also following the works of Richardson (2000) in the USA and Cheng (2006) in Taiwan. The study results are consistent with the theoretical and empirical literature that is discussed above.

There are several reasons to expect that information asymmetry affects managers' EM decisions. First, more information available about the firm may help investors distinguish the managed component of reported earnings from the pre-managed numbers, and therefore may make EM more transparent. In such a situation potential benefits of EM will diminish and with respect to the expected costs of EM (especially opportunistic EM) there will be no rational reason for managers to engaging in EM. On the contrary, when information asymmetry is high, investors may not have the necessary information to undo the managed earnings. This situation may be evidence of shareholders without sufficient resources, incentives, or access to relevant information to monitor managers' actions, which may give rise to the practice of EM. In this way, firms may smooth or otherwise manage earnings informatively when information asymmetry is high in order to signal the expected level of a firm's permanent earnings. Second, the market may rely less on reported earnings when investors already have a lot of information about the firm, which in turn reduces the potential benefit of EM, and therefore mitigates EM incentives. Third, more information about the firm may facilitate better corporate governance mechanisms. For example, the board of directors may be more likely to step in if they have more information that reflects the adverse consequences of managers' costly EM. Finally, the information uncertainty associated with firms with low information availability may serve as an additional incentive for managers to manipulate earnings because information uncertainty may exacerbate investors' overconfidence and it is associated with greater potential benefit for managers or their companies like as greater equity pricing (Jiang, Lee & Zhang, 2005; Zhang, 2006).

Evidence from this paper suggests that information about the firm and firm earnings may limit the extent of EM occurrence. There may also be outside monitors who curtail management action and management's accounting choices. Evidence of such monitoring within a particular firm may be the proportion and strength of outside members of the board of directors, the strength of the audit committee, the focused shareholders (e.g., labour unions, firm suppliers, and similar), and shareholders that hold a large proportion of the company shares. Furthermore, this study is also of value to policy makers. EM has attracted more and more attention from the regulators, particularly after the high-profile meltdowns of several big companies in the world. Given the severe adverse consequences that earnings manipulations can lead to, regulators have started to take actions to curb opportunistic EM. Reducing the discretion that managers have in accounting choices through setting more standards and regulations may be one solution. But an unintended consequence of this type of policy is that it may reduce the general usefulness of accounting earnings, given that managers sometimes use their discretion to signal their private information (for example see Subramanyam 1996). Furthermore, curbing EM by restricting managers' choices is very unlikely to succeed because managers can always circumvent regulations using innovative accounting (or creative accounting) methods and transaction structuring. If transparent information flows in, the capital markets can attenuate the incentives that managers have for EM, regulatory bodies should probably focus more on promoting more efficient dissemination of firm-specific information in the market. For getting more information flow in the capital markets, one should insist on the role of information intermediaries such as capital market related media, financial analysers, powerful brokerage firms, investment banks, financial and credit ranking companies and so on. In Iran these factors do not work well and the financial and investment consultancy industry totally is weak, therefore related financial phenomena such as herding behaviour and rumour based stock trading is common (Keshavarz & Rezaei, 2011; Saeedi and Farahanian, 2012). So there is more information asymmetry surrounding TSE listed companies and this circumstance may give rise the EM as showed by this research empirical results.

REFERENCES

Arya, A., Glover, J. and Sunder, S. (2003). Are unmanaged earnings always better for shareholders? *Accounting Horizons* (Supplement) 17: 111-116.

Bartov, E. and Bodnar, G. M. (1996). Alternative accounting methods, information asymmetry and liquidity: theory and evidence. *The Accounting Review* 71: 397-418.

Bhagat, S., Marr, M. and Thompson, G. (1985). The rule 415 experiment: equity markets. *Journal of Finance* 40: 1385-1401.

Blackwell, D., Marr, M. and Spivey, M. (1990). Shelf registration and the reduced due diligence argument: implications of the underwriter certification and the implicit insurance hypotheses. *Journal of Financial and Quantitative Analysis* 25: 245-259.

Bushee, B. (1998). The influence of institutional investors on myopic R&D investment behaviour. *The Accounting Review* 73(3): 305-333.

Chaney, S. K. and Lewis, C. M. (1995). Earnings management and firm valuation under asymmetric information. *Journal of corporate finance: Contraction, Governance and Organization* 1: 319-345.

Cheng, C. H. (2006). Information asymmetry and earnings management in Taiwanese Tech industry. Retrieved at 5 May 2013 from: *http://www.knjc.edu.tw/admin/aa/publish/pic-1/book/8/5%E9%84%AD%E5%AE%B6%E8%88%88.pdf*

Chung, K. H. and Charoenwong, C. (1991). Investment options, assets in place, and the risk of stocks, *Financial Management* 20, 21-33.

Collins, D. and DeAngelo, L. (1990). Accounting information and corporate governance: market and analyst reactions to earnings of firms engaged in proxy contests. *Journal of Accounting and Economics* 13: 213-247.

Defond, M. and Jiambalvo, J. (1994). Debt covenant violation and manipulation of accruals. *Journal of Accounting and Economics* 17: 145-176.

Diamond, D. W. and Verrecchia, R.E. (1991). Disclosure, liquidity, and the cost of capital. *The Journal of Finance* 46: 1325-1360.

Drobetz, W., Matthias, C. G. and Hirschvogl, S. (2009). Information asymmetry and the value of cash. *Journal of Banking and Finance* 34: 2168-2184.

Dye, R. (1988). Earnings management in an overlapping generation's model. *Journal of Accounting Research* 26: 195-235.

Ewert, R. and Wagenhofer, A. (2005). Economic effects of tightening accounting standards to restrict earnings management. The Accounting Review 80 [4]: 1101-1124.

Ghosh, D. and Olsen, L. (2009). Environmental uncertainty and managers' use of discretionary accruals. *Accounting, Organizations and Society*: 34 (2), 188-205.

Harris, L. E. (1994). Minimum price variations, discrete bid-ask spreads, and quotation sizes. *Review of Financial Studies* 7 (1): 149-178.

Healy, P. (1985). The effect of bonus schemes on accounting decisions. *Journal of Accounting and Economics* 7: 85-107.

Holthausen, R. W. (1990). Accounting method choice: opportunistic behaviour, efficient contracting, and information perspectives. *Journal of Accounting and Economics* 12: 207-218.

Holthausen, R. W., and Leftwich, R. (1983). The economic consequences of accounting choice. *Journal of Accounting and Economics* 5: 77-117.

Holthausen, R., Larcker, D., and Sloan, R. (1995). Annual bonus schemes and the manipulation of earnings. *Journal of Accounting and Economics* 19(1): 29-74.

Hunt, A., Moyer, S. E. and Shevlin, T. (1995). Earnings volatility, earnings management, and equity value. *Working paper, university of Washington, Seattle, WA.*

Javid, A.Y. and Ahmad, E. (2009). Testing Multifactor Capital Asset Pricing Model in Case of Pakistani Market. *International Research Journal of Finance and Economics* 25: 115 – 138.

Jiang, G., Lee, C. and Zhang, G. (2005). Information uncertainty and expected returns. *Review of Accounting Studies* 10 (2-3): 185-221.

Jordan, C. E., Clark, S. J, and Pate, G. R. (2008). Earnings Manipulation to Achieve Cognitive Reference Points in Income. *Academy of Accounting and Financial Studies Journal* 12 (3): 97-112.

Kang, P., Palman, D. and Sudit, E. (2009). Firms' information environment and earnings management. *Working paper, Rutgers University. Retrieved at 2012 from http://aaahq.org/MARegion/2010/2010MA_Abstracts/10-078-PAPER.pdf*

Keshavarz haddad, G. and Rezaei, M. (2011). Herding behaviour among institutional investors in Tehran stock exchange. *Iranian economic research* 15 (45): 103-137.

Kothari, S., Leone, A. and Wasley, C. (2005). Performance matched discretionary accrual measures. *Journal of Accounting & Economics* 39(1): 163–197.

Krasker, W. S. (1986). Stock price movements in response to stock issues under asymmetric information. *Journal of finance* 41: 93-105.

Leary, M. T. and Roberts, M. R. (2008). The Pecking Order, Debt Capacity, and Information Asymmetry, *working paper*, *Cornell University*.

Louis, H., and Robinson, D. (2005). Do managers credibly use accruals to signal private information? Evidence from the pricing of discretionary accruals around stock splits. *Journal of Accounting and Economics* 39, 361-380.

Ozkan, A. and Ozkan, N. (2004). Corporate cash holdings: an empirical investigation of UK companies. *Journal of Banking & Finance* 28: 2103-2134.

Perry, S. E. and Williams, T. H. (1994). Earnings management preceding management buyout offers, *journal of Accounting and Economics* 18, 157-179.

Richardson, V. (2000). Information asymmetry and earnings management: some evidence, *Review of Quantitative Finance and Accounting* 15: 325-347.

Ronen, J. and Yaari, V. L. (2008). Earnings management: emerging insights in theory, practice, and research. *Springer*.

Roychowdhury, S. (2006). Earnings management through real activities manipulation. Journal of Accounting and Economics 42 [3]: 335-370.

Saeedi, A. and Farhanian, M. J. (2012). To study the investor herd behaviour in Tehran stock exchange. *Quarterly journal of securities exchange* 16.

Sun, L. and Rath, S. (2008). Fundamental determinance, opportunistic behavior and signaling mechanism: an integration of earnings management perspectives. *International Review of Business Research Papers* 4 (4): 406-420.

Schipper, K. (1989). Commentary on Earnings management. *Accounting Horizons* 3: 91-102.

Smith, C.W. and Watts, R. L. (1992). The Investment Opportunity Set and Corporate Financing, Dividend, and Compensation Policies. *Journal of Financial Economics* 32 (December): 263- 292.

Subramanyam, K. R. (1996). The pricing of discretionary accruals. *Journal of Accounting and Economics* 22: 149-281.

Sweeney, A. P. (1994). Debt-covenant violations and managers' accounting response. *Journal of Accounting and Economics* 17: 281-308.

Trueman, B. and Titman, S. (1988). An explanation for accounting income smoothing. *Journal of Accounting Research* 26 (Supplement), 127–139.

Vermaelen, T. (1981). Common stock repurchases and market signaling: An empirical study. *Journal of Financial Economics* 9: 139-183.

Warfield, T. D., Wild, J. J and Wild, K. L. (1995). Managerial ownership, accounting choices, and informativeness of earnings. *Journal of Accounting and Economics* 20: 61-91.

Watts, R and Zimmerman, J. L. (1978). Towards a positive theory of the determination of accounting standards. *The Accounting Review* 53: 112-134.

Xu, R. Z., Taylor, G. K., & Dugan, M. T. (2007). Review of real earnings management literature. *Journal of Accounting Literature*, *26*, 195-228. Retrieved from http://search.proquest.com/docview/216307021?accountid=27890

Zhang, X. F. (2006). Information uncertainty and stock returns. *The Journal of Finance* 61 (1): 105-37.

THE EFFECT OF AUDIT COMMITTEE CHARACTERISTICS ON TIMELINESS OF FINANCIAL REPORTING BY USING AUDITOR QUALITY AS THE MODERATING VARIABLE (AN EMPIRICAL STUDY FROM INDONESIAN MANUFACTURING COMPANIES)

Fouad Mohammed Alshrife
Imam Subekti
Yeney Widya
University of Brawijaya

Abstract

This study examines the effects of the audit committee independence, audit committee activity, audit committee competence, and moderating auditor quality on the timeliness of financial reporting in manufacturing companies in Indonesia. The variables used in this study are timeliness of financial reporting, audit committee independence, audit committee activity, audit committee competence, and auditor quality. This study used purposive sampling method with the population of manufacturing companies in Indonesia. The sample used in this study was 92 manufacturing companies listed in Indonesia Stock Exchange (IDX) for the period of 2010-2012. The data of this study were financial statement of the manufacturing companies which were collected from the Indonesia Stock Exchange official website. The hypotheses were tested using hierarchical regression analysis. The results showed that the audit committee independence and the audit committee activity negatively affect the timeliness of financial reporting while these results do not support the agency theory. However, another variable examined in this study, namely competence of the audit committee, is not proven to affect the timeliness of the financial reporting. Similarly, the finding of the moderating variable reveals that the auditor quality strengthens the relationship between audit committee independence and financial report timeliness, and audit committee activity and financial report timeliness. On the other hand, auditor quality does not strengthen the correlation between audit committee competence and timeliness of financial reporting.

Keywords: Timeliness of Financial Reporting, Independence of Audit Committee, Activity of Audit Committee, Competence of Audit Committee, Auditor Quality

Introduction

The financial report is a report that is expected to provide information about the company, and combined with other information, such as industrial, economic conditions, could provide better overview of the prospects and risks of the company (Ajrbem, 2012). Financial report has significance for all users of financial statements such as investors, creditors and other users. The objective of financial reporting itself is to provide useful information to users of financial statements in making decisions regarding the financial position, performance and changes in financial position of an enterprise (Ajrbem, 2012). Financial statements must be prepared and presented to the public within a reasonable period from the closing of the company's financial year-end, if delaying the presentation of the financial statements, the usefulness of financial statements will be reduced (Indonesia SFAS (2010) and Yadirichukwu and Ebimobowei (2013)). According to Yadirichukwu and Ebimobowei (2013), they must be available on the timely basis. Owusu-Ansah (2000) added that the timely of information may help alleviate the occurrence of leak, rumors and insider trading in capital market.

Furthermore, Ika and Ghazali (2011) reported that Indonesian government has issued some regulations regarding the timeframe for information submission in order to protect shareholders' interests in the capital market. The Indonesian Capital Market Supervisory Agency-BadanPengawasPasar Modal- (BAPEPAM) (2003) sets the rule which requires the listed companies to submit the annual audited financial statement to BAPEPAM and Indonesian Stock Exchange (IDX) (BAPEPAM, 2003) at most within four months after the companies' financial year-end (BAPEPAM, 2006) . The submission of audited financial statements in Indonesia is ruled based on the three main regulations (Merdekawati, 2011). Disclosure and presentation of financial statements is one aspect of good corporate governance. The timeliness of financial reporting problems can be solved by implementing good corporate governance through the establishment of an audit committee. Audit committees have a role as an independent committee in a company whose main function is to improve the quality of financial reporting, increase public confidence and reduce delay in financial reporting. Moreover, Yadirichukwu and Ebimobowei (2013) added that the oversight quality of audit committees can be seen from understanding of its characteristics including the size, the independence, and the expertise of the audit committee, the frequency of audit committee meetings, and financial knowledge of audit committee members. This indicates that the more attempts to improve the audit process and audit committee characteristic quality will generally lead to the higher audit quality (Knechel, 2013).

Afify (2009) documented that the audit committee formation was found significant to explain the reporting timeliness.Yadirichukwu and Ebimobowei (2013) suggested the relationship between the audit committee and the financial report timeliness are examined by agency theory as well. Furthermore Kirk (2000) also suggested the independence of the audit committee will contribute to the financial report quality. Thus, this study adopted a contingency framework to evaluate the relationship between audit committee independence, audit committee activity and audit committee competency on timeliness of financial reporting. However, the subsequent differences from the previous studies are the companies that were examined namely manufacturing and the differences in the study period. This research applies the quality of the auditor as a moderating variable. This study seeks for answers on the following questions: Do the audit committee independence, the audit committee activity, and the audit committee competency affect the timeliness of financial reporting? Does the quality of the auditor have moderating influence on the impact of audit committee independence, audit committee activity and audit committee competency on timeliness of financial reporting?

LITERATURE REVIEW

Agency Theory

In discussing timelines of audited financial reports, agency theory can explain the relationship between shareholder and manager (agent) and the importance of the timelines of audited financial reports for both of them. Agency theory mentions that separating ownership and control can make information asymmetry. Therefore, the managers can use to exploit shareholders using their opportunistic behavior (Jensen and Meckling, 1976). It is ensured that shareholders need the company performs well. There should be lack of delay or shorter timing of audit report released. Scott (1997) illustrate the existence of an agency relationship (agency relationship) as a relationship arising from a contract established between the principal who use agents to perform services of interest to the principal in the event of separation of ownership and control of the company. Between the internal and external parties there are differences that can lead to abuse of the financial statements (Jensen and Mackling, 1976). In the model agency designed a system that involves both parties that the relationship management (agents) and owners (principal).

The Influence of the audit committee independence on the timeliness of the financial reporting

The quality and the credibility of the financial reporting can be worse affected when the audit committee has low or no independence (Habbash, 2010). One of the objectives of the audit committee is to give unbiased reviews on the financial information (Kirk, 2000). Yadirichukwu and Ebimobowei (2013) showed that the audit committee independence (ACI) is significantly related to the timeliness of financial reports.

In terms of independence, the previous researchers have documented the relation between the independence of audit committee members and the integrity and quality of company financial reporting. Companies with audit committee comprised solely of nonrelated or outside directors were less likely to be sanctioned by the SEC for fraudulent financial reporting, had negative relation with the occurrence of earnings restatement (Abbott et al., 2004), and were likely to reduce aggressive earnings management (Bedard et al., 2004). This discussion leads to the following hypothesis:
H1: The Audit Committee Independence positively affects the timeliness of financial reporting.

The Influence of the audit committee activity on the timeliness of the financial reporting

A more active audit committee should improve the reliability of financial reporting. The establishment of the audit committee is meant to ensure continuous communication between the external auditors, the internal auditors and the board, where the committee meets regularly with the auditors to review the financial statements and audit processes as well as the internal accounting systems and controls (Habbash, 2010). The frequency of meetings indicates that an active audit committee devotes time to rectify any immediate issues and offers a better review and oversight environment, which, in turn, may assist in detecting financial statements errors. Li *etal*. (2008) show a positive relationship between the audit committee activity and the timeliness of financial reports. This discussion leads to the following hypothesis:
H2: Audit Committee Activity positively affects the timeliness of financial reporting.

The Influence of the audit committee competence on the timeliness of the financial reporting

Turley and Zaman (2004) stated that studies on audit committees are mainly based on agency theory which was proposed by Jensen and Meckling (1976) and Fama and Jensen (1983). Moreover, the relation between audit committee competency and timeliness of reporting is based on the factual need which shows that if audit committee is competent in doing its monitoring duty of financial reporting process, this audit committee competence will affect the quality of financial reporting which may lead to timely presentation of financial information. BRC (1999) recommends each of the Audit Committee to have at least one member of which has the financial expertise, which is defined as work experience in finance or accounting. In addition, Elizabeth (2004) proposed another definition mentioning that the financial expertise refers to the directors who are members of professional accountancy body. Previous study done by DeZoort and Salterio (2001) documented that the financial expertise provide a good basis for audit committee members to examine and analyze financial information. Educational background became an important feature to ensure the effectiveness of the audit committee. On the basis of the above, the study stated the following hypothesis:

H3: Audit Committee Competency positively affects the timeliness of financial reporting.

Research Method

The population in this study is all manufacturing companies listed in Indonesia Stock Exchange for three consecutive years from the period of 2010 to 2012. They are chosen because manufacturing companies are dominating companies listed on the Indonesia Stock Exchange (IDX) and are one of most develop industries and providing largest contribution to Gross Domestic Product (GDP) of Indonesia. The samples were obtained by purposive sampling method. The types of data used in this research is quantitative data in the form of financial statements and annual report of companies in the manufacturing sectors listed in Indonesia Stock Exchange for three consecutive years from the period of 2010 to 2012. This research applies the quality of the auditor as a moderating variable.

In this study, researchers used a dependent variable, the date of submission of annual audited financial statement to BAPEPAM. This variable is measured by the number of days between financial year-end and the date of a company's audited financial statement is received by the stock exchange.

Timeliness of financial reporting = Date of Received - The Financial Report

There were independent variables in this study including independence of the audit committee, activity of audit committee, and competence of audit committee. Independence audit committee is the percentage ratio between the numbers of independence audit committee to the total number of audit committee of the company. The number of meetings attended by the audit committee is a proxy to measure the level of the audit committee activity. Moreover, the audit committee competency is the percentage ratio between the numbers of audit committee who has an experience as a CFO, by having the knowledge in financial background such as reading and analyzing the financial report to the total number of audit committee of the company.The data is analyzed using multiple regression method. Before conducting the multiple regression analysis, descriptive statistic analysis will be applied, and some testing of classical assumptions such as test of normality and multi-co-linearity among the independent variables. Tests on multiple regression analysis are conducted to determine whether independent variables affect the dependent variable. The calculation will be done with the help of a computer through Excel and SPSS 20.

FINDINGS AND DISCUSSIONS

Classical Assumption Test

Normality Test

The normality test aims to test whether the regression model or residual confounding variable has a normal distribution or not. The residual data was normally distributed, because the significance value is above 0.05. Therefore, $H_0$is accepted. Thus, the normality is qualified.

Multicolinearity test

Multicolinierity test is done to obtain that there is no strong relation or there is no perfect linear relation or it can also be considered that there is no relation in each independent variable. The test is done by comparing value of tolerance resulted from multiple regression calculation, if the value of tolerance is < 0,1 then there is multicolinearity.

Table : Multicolinearity test result

		Colinearity Statistics	
Model		Tolerance	VIF
3	Independence of		
	AC	.919	1.089
	Activity of AC	.244	4.100
	Competence of	.767	1.304
	AC	.161	6.226
	Auditor Quality	.392	2.553
	IAC x AQ	.120	8.356
	AAC x AQ	.153	6.537
	CAC x AQ		

According toTable4.1, the result of the test indicates the value of tolerance> 0,1, so it can be concluded that the multicolinearity does not occur between the independent variables

Hypothesis Test of Multiple Linear Regression

Linier Regression is used to calculate the influence of each independent variable, Independence of AC (X_1), Activity of AC(X_2), and Competence of AC (X_3)to the dependent variable which isTimeliness(Y). Regression equation is funtionated to find the relation between dependent and independent variables by usingSPSS for Windowsversion 20.00. The regression model is presented in Table 4.2.

Table Results of Hierarchical Regression

Model		Unstandardized Coefficients B	t	Sig.
1	(Constant)	39.382	3.037	.003
	Independence of AC	-87.903	6.523	.000
	Activity of AC	-4.731	13.961	.000
	Competence of AC	-6.443	1.435	.152
2	(Constant)	36.907	2.849	.005
	Independence of AC	-86.372	6.434	.000
	Activity of AC	-4.474	12.411	.000
	Competence of AC	-4.919	1.086	.278
	Auditor Quality	-3.799	2.010	.045
3	(Constant)	32.946	2.659	.008
	Independence of AC	-90.324	7.002	.000
	Activity of AC	-2.351	3.709	.000
	Competence of AC	-3.099	.662	.508
	Auditor Quality	13.200	3.253	.001
	IAC x AQ	-5.826	2.242	.026
	AAC x AQ	-2.354	3.727	.000
	CAC x AQ	-4.853	1.117	.265

According toTable, the obtained regression results are as follows.

- T test of X_1 (Independence of AC) and Y (Timeliness) indicates that t test is > t Tablethat is 7.002 is > 1.968 or sig t (0,000) is <α (0.05). Thus, the influence of X_1(Independence of AC) on Timelinessis significant. In other words, by increasingIndependence of AC, the number in Timeliness will significantly decrease. Therefore, if Independence of AC has 1 increasing member, Timelinesswill decrease 87.903 days with the assumption that another variable is considered as constant.
- T test of X_2 (Activity of AC) and Y (Timeliness) indicates that t test is > t Tablethat is 13.709 > 1.968 or sig t (0,000) is <α (0.05). Thus, the influence of X_2 (Activity of AC) on Timeliness is significant with alpha 5%. In other words, by increasing Activity of AC, the number in Timeliness will significantly decrease. Therefore, if Activity of AC increases 1 meeting, Timelinesswill increase4.731 days with the assumption that another variable is considered as constant.
- T test of X_3 (Competence of AC) and Y (Timeliness) indicates that t test< t Table that is 0.662 < 1.968 or sig t (0,508) is >α (0.05). It means that the

influence of X_3 (Competence of AC) on Timelinessis not significant in alpha of 5%.In short, by increasingthe Competence of AC,the number in Timelinesswill not decrease signficantly.

- T test of X_1X_4 (IACxAQ) and Y (Timeliness) indicates t test = 2.242 with sig. t of 0.001. Because sig t (0,001) is <α = 0.05, the influence of X_1X_4 (IACxAQ)on Timelinessis significant in alpha of 5%. In short, Timelinesscanbe influenced significantly by the IACxAQ. Thus, by increasing the IACxAQ, the number in Timeliness will significantly decrease.
- T test of X_2X_4 (AACxAQ) and Y (Timeliness) indicates t test = 3.727 with sig. t of 0.000. Because sig t (0,000) is <α = 0.05, the influence of X_1X_4 (AACxAQ)to Timelinessis significant in alpha of 5%.In short, Timelinesscanbe influenced significantly by the AACxAQ. Thus, by increasing the AACxAQ, the day of Timelinesswill decrease signficantly.
- T test of X_3X_4 (CACxAQ) and Y (Timeliness) indicates t test = 1.117 with sig. t of 0.00265. Because sig t (0,265) is >α = 0.05, the influence of X_3X_4 (CACxAQ)on Timelinessis not significant in alpha of 5%. In short, Timelinesscannot be influenced significantly by the CACxAQ. In other words, by increasing the CACxAQ, the days of Timelinesswill notdecrease signficantly.

Discussion

The results showed that the testing of the hypothesis (H1) which states that the Audit Committee Independence positively affects Timeliness of Financial Reporting shows a significant relation, but the positive effect is not accepted. As a result, the independence of audit committee negatively affects the timeliness of financial reporting. Thus, although the manufacturing companies in Indonesia have fulfilled the requirement of having independent audit committee, the result showed that independence of AC is not sufficient enough to explain the pattern of the timeliness of financial reporting. In short, it can be said that even though the independent audit committee exists in the firms, they may not submit the financial statement on time. This may be due to the maturity level of the AC in manufacturing companies in Indonesia because the recognition of AC function in Indonesia is still at the initial stage at this time. The result of this study does not support the Agency theory. However, the finding supports the results of research conducted by Habbash (2010) stating that the audit committee should be independent from management in order to be able to conduct effective monitoring of the quality and the credibility of the financial reporting. The result is consistent with Beasley et al. (2000), Klein (2002), Abbott et al (2004) and Saleh et al (2007) that a significant relationship exists between audit committee independence and accounting quality.

The results showed that the testing of the hypothesis (H2) which states that the Audit Committee Activity positively affects the Timeliness of Financial Reporting shows a significant relation, but the positive effect is not accepted.

Therefore, the activity of audit committee negatively affects the timeliness of financial reporting. It can be said that although they have fulfill the required number of meeting within a year, there may be no continuous engagement with the members of the committee to discuss any related issues for continuous improvement. Moreover, the meetings may not discuss the timeliness of submitting financial statement. Consequently, there is still lateness of financial report submission even though they have held regular meeting. In line with that, AC activity is negatively associated with timeliness. Menon& William (1991) mention that small number or no meeting at all held in a year indicates bad monitoring practice of the AC as Xie et al. (2003) found that AC activity influences the monitoring effectiveness.

In this study, the Audit Committee Competence hypothesized that the greater the Audit Committee Competency, the smaller Timeliness of Financial Reporting and vice versa. The result of the hypothesis test does not show significant effect of the audit committee competence on the timeliness of financial reporting. Therefore, Audit Committee Competency does not positively and significantly affect the Timeliness of Financial Reporting. This reflects that even though the companies have a number of Audit Committee expertise, their competence may not related to the Financial Statement. Therefore, the high level of audit committee competence does not guarantee the timeliness of financial reporting.On the other hand, Farber (2005) suggested that firms which have considerably higher financial experts experience less fraud compared to fraud firms which have lower financial experts. Moreover, the loss companies often publish their annual financial statements latter than the ones which do not experience loss. Thus, the on-time or late submission of financial reports by manufacture companies can be determined by the loss within the companies. However, there is no correlation between audit committee competence and timeliness of financial reporting.

In the moderating variables, the results indicate that Quality of Auditor strengthens the significant relation between Audit Committee Independence and Timeliness of Financial Reporting. Related to that, Big 4 clients disclose financial statement significantly more quickly than non-Big 4 clients do. Leventies et al. (2005) who finds that the clients of Big N auditors have shorter audit report lags. In addition, AC financial expertise is associated with higher quality financial reporting (Abbott et al., 2004; Bedard et al., 2004; Carcello et al., 2009). Obviously, the result of this study supports the agency theory as a tool for examining the importance of the delay or not of audited financial statements for shareholder (owner) and manager (agent).

Similarly, quality of auditor also strengthens the significant relation between audit committee independence and timeliness of financial reporting. It is obvious that the finding of this study supports the agency theory. The agency theory suggests that shareholders need protection because the management (agents) can perform not similar to the interest of the owners (principals) as stated by Jensen &Meckling(1976). Abbott et al. (2004) suggested that higher frequency of committee activity which was measured by the four annual meetings held is considerably associated with a lower incidence of financial restatement.

Finally, in this study, the hypothesis stating that Quality of Auditor strengthens the relationship between Audit Committee Competency and Timeliness of Financial Reporting is not supported. This indicates that Quality of Auditor does not strengthen the impact of Audit Committee Competency on the Timeliness of the Financial Reporting as the relation among three of them is not significant. This finding does not support the agency theory. In the agency theory, it is stated that audit committee duties involve a high degree of accounting sophistication which includes understanding auditing issues and risks and comprehending the audit procedures which are proposed to address them. In addition, Noland, Nichols, & Flesher (2004) found that institutions with audit committee members who had banking or financial experience reported significantly more effective internal controls than institutions without this expertise on their audit committee.

CONCLUSION, LIMITATION AND RECOMMENDATION

Conclusion

The resultscan be concluded that the audit committee independence and audit committee activity negatively and significantly affect the timeliness of financial reporting. The result of this study does not support the agency theory. In accordance with the agency theory, the activity of the audit committee is positively associated with the firm efficiency related to the timeliness of financial reporting. On the other hand, audit committee competency does not positively and significantly affect the timeliness of financial reporting. Result of this study does not support the Agency theory. The results of previous research mentioned that the financial expertise provides a good basis for audit committee members to examine and analyze financial information, but not the timeliness of financial reporting. Similarly, the test on the Hypothesis 4a and 4b shows that the moderation of Quality of Auditor strengthens the relation between Audit Committee Independence or Audit Committee Activity and the Timeliness of the Financial Reporting. On the other hand, Hypothesis 4c result shows that the moderated variable of Quality of Auditor does not strengthen the relation between Audit Committee Competency and the Timeliness of the Financial Reporting.

Limitation

In the data gathering process, it was found that there were some manufacturing companies which did not provide clear details of the competence of the audit committee. Therefore, not all manufacturing companies could be used as the sample of this research.As the consequence, the results may be affected by the limited number of observations.

Recommendation

For future research, it is suggested to include other corporate governance characteristics or structures in Indonesia's Code of Good Corporate Governance (2006) as variables in investigating the factors that influence the timeliness of financial reporting.

REFERENCES

Abbott, J; Parker, S & Peters, G. (2004). Audit committee characteristics and restatements.*Auditing: A Journal of Practice and Theory*, 23(1): 69–87.

Abdullah, S.N. (2006). Board composition, audit committee, and timeliness of corporate financialreports in Malaysia. *Corporate Ownership and Control*, 4(2): 33-145.

Afify, E. (2009). Determinants of audit report lag: Does implementing corporate governance have any impact? Empirical evidence from Egypt.*Journal of Applied Accounting Research*, 10(1) 56–86.

Ajrbem, (2012).The Timeliness of Bahraini Annual Reports. *Advances in International Accounting*, 9: 73−88.

BAPEPAM. (2003). Decree No. 36/PM/2003 Concerning Obligation to Submit Periodical Financial Statement. Jakarta: BAPEPAM.

BAPEPAM. (2006). Decree No. Kep-134/BL/2006 Concerning Obligation to Submit Annual Report for Public Listed Company. Jakarta: BAPEPAM.

Beasley, M.S; Carcello, J.V; Hermanson, D.R. &Lapides, P.D. (2000). Fraudulent Financial Reporting: Consideration for Industry Traits and Corporate Governance mechanisms, *The Accounting Horizon*, 14(4): 441-454.

Bédard, J.; Chtourou, S. M., &Courteau, L. (2004).The effect of audit committee expertise, independence, and activity on aggressive earnings management.*Auditing: A Journal of Practice & Theory*, 23(2): 13–35.

Carcello, J. V. & Neal, T. L. (2000).Audit committee composition and auditor reporting.*The Accounting Review*, 75(4), 453–467.

DeZoort, F. T. &Salterio, S. E. (2001).The effects of corporate governance experience and financial reporting and audit knowledge on audit committee members' judgments.*Auditing: A Journal of Practice and Theory*, 20(2): 31–47.

Elizabeth, R. (2004) Audit Committee Membership - A New Zealand Perspective, *Pacific Accounting Review* , 16 (2): 45 – 69.

Fama, E. F. , and Jensen, M. C. (1983). Separation of Ownership and Control.*Journal of Law and Economics* , 26 (2): 301–25.

Farber, D. B. (2005).Restoring Trust After Fraud: Does Corperate Governance Matter? *The Accounting Review*, 80(2): 539-561.

Habbash, M. (2010).The Effectiveness of Corporate Governance and External Audit on Constraining Earnings Management Practices in the UK. Ph.D. thesis, Durham: Durham University Press. http://ethesis.dur.ac.uk/448.

Ika, S. R &Ghazali, N. A. M. (2011). Audit Committee Effectivemness and Timeliness of Reporting: Indonesian Evidence. Managerial Auditing Journal, 27 (4): 403-424

Jensen, M.C. &Meckling, W.H. (1976). Theory of the firm: managerial behavior, agency costs, and ownership structure. *Journal of Financial Economics*, 3: 305-360.

Kirk, D. J. (2000).Experience with the Public Oversight Board and corporate audit committees.*Accounting Horizons*, 14(1), 103–111.

Klein, A. (2002). Audit committee, board of director characteristics, and earnings management.*Journal of Accounting & Economics*, 33(3), 375–400.

Knechel, W. R. (2013). Do Auditing Standards Matter?. Current Issues in Auditing, 7 (2): A1-A16.

Leventis, S.; Weetman, P. &Caramanis, C. (2005). Determinants of audit report lag: Some evidence from the Athens Stock Exchange. *International Journal of Auditing*, 9(1): 45–58.

Li, J., Pike, R. &Haniffa, R. (2008). Intellectual capital disclosure and corporate governance structure in UK. *Accounting and Business Research*, 38(2): 136–159.

Menon, K.and Williams, J. D. (1994). The use of audit committees for monitoring.*Journal of Accounting and Public Policy* 13:121–139.

Merdekawati, I. (2011). Timeliness of Financial Reporting Analysis : An Empirical Study In Indonesia Stock Exchange. *Accounting National Symposium XIV*

Noland, T.; Nichols, D.L. & D. Flesher. (2004). Audit Committee Effectiveness in the Banking Industry: How Effective are Audit Committees in the Banking Industry? The Answer to that question May Hinge on Who is on the Auditing Committee. *Management Accounting Quarterly*, 5 (3).

Owusu-Ansah, S. (2000). Timeliness of corporate financial reporting in emerging capital markets: Empirical evidence from the Zimbabwe Stock Exchange. *Accounting and Business Research*, 30(3): 241-254.

Saleh, N.M., Iskander, T.M. &Rahmad, M.M. (2007). Audit Committee Characteristics and Earning Management: Evidence from Malaysia. *Asian Review of Accounting*, 15(2): 147-163.

Scott, W.R. 1997, “Financial Accounting Theory”, Prentice Hall, Scarborough.

Turley, S. &Zaman, M. (2004), The corporate governance effect of audit committees. *Journal of Management and Governance*, 8: 305-332.

Xie, B., Davidson III, W. N., &Dadalt, P. J. (2003). Earnings management and corporate governance: The role of the board and the audit committee. *Journal of Corporate Finance*, 9(3): 295–316.

Yadirichukwu, E&Ebimobowei, A. (2013), Audit Committee And Timeliness Of Financial Reports: Empirical Evidence From Nigeria. *Journal of Economics and Sustainable Development*, 4 (20).(Online) (www.iiste.org ISSN 2222-1700 (Paper) ISSN 2222-285).

MEASURING THE POTENTIAL FOR FINANCIAL REPORTING FRAUD IN A HIGHLY REGULATED INDUSTRY

Yunita Awang, Suhaiza Ismail,Abdul Rahim Abdul Rahman

[*a]*Lecturer at the Faculty of Accountancy, Universiti Teknologi MARA (UiTM) Malaysia and PhD candidate at Kulliyah of Economics and Management Science, International Islamic University Malaysia (IIUM), Malaysia.*
E-mail: yunita@tganu.uitm.edu.my.
[b]*Associate Professor at Kulliyah of Economics and Management Science, International Islamic University Malaysia (IIUM), Malaysia.*
[c]*Professor at Faculty of Economics and Muamalat, Universiti Sains Islam Malaysia (USIM), Malaysia.*

Abstract

Fraud in financial reporting is an intentional misstatement of financial statements to mislead the users. It caused huge losses to the organizations, erodes accounting profession's image and affects the public confidence on published financial statements. This paper aims to examine the relevance of the theory of reasoned action in measuring the intention towards fraud in financial reporting in a highly regulated industry. Partial least squares structural equation modelling was used for data analysis. Findings indicate that the attitude and subjective norms influencedintention for fraud in financial reporting among the participants in financial reporting process,controlling for the effect of firm type. The findings expand the applicability of the theory of reasoned action to the highly regulated industry and provide better understanding on the factors influencing fraud in financial reporting to the top management within the industry. This paper concludes with limitations and avenues for future research.

Keywords: Attitude, subjective norms, fraud in financial reporting, highly regulated industry, firm type,partial least squares structural equation modelling

Introduction

Fraud resulted in loss of assets and business reputation, declined in staff moral and damaged business relations (Mung-Ling, Sze-Ling, & Chin-Hong, 2008). Fraud cost about 6% of company's total revenue (Watson, 2003) and, 7% or $994 billion in total of revenue per year (Bierstaker, 2009). Fraud is a significant ethical dilemma for businesses and believed to be the most serious corporate problem in the present business environment (Palshikar, 2002; M. Smith, Normah Haji Omar, Syed Iskandar Zulkarnain Sayd Idris, & Ithnahaini Baharuddin, 2005).The people who were implicated in fraud are those entrusted with company's sensitive information and controls, especially dealing with finance functions or finance-related role (KPMG, 2011; Rezaee, 2005). The cited reasons were economic pressures, weakening society's values and insufficient emphasis on prevention and detection (Abdolmohammadi & Owhoso, 2000).

Fraud occurs both in private and public companies, with no exception to the banking industry.According to the Global Fraud Survey, banking and financial services accounted to 16.7% of the reported 1, 388 occupational fraud cases (ACFE, 2012). This is about a similar percentage of 16.6% in year 2010 (ACFE, 2010). This caused a median loss of $232,000, with 229 reported cases, which placed the banking and financial services industry as the fifth highest median loss due to fraud, after other industries including Mining, Real Estate, Construction, and Oils and Gas.

Although the issue of fraud in financial reportingin banking institutions is notwidely documented locally or abroad,it does not necessarily indicate that accountants in the banking industry exhibit superior ethical standards.In analysing the cases of distress in Islamic banks of Bank Taqwa, Faisal Islamic Bank, Kuwait Finance House, International Islamic Bank of Denmark, it was concluded that banks failed due to bad management, improper accounting and management system (Rajhi & Hassairi, 2011). The problems of making fraud cases as a determinant of banking crisis are due to lack of paper trail, difficulty to establish the actual intentions of the agents involved, and restricted accessibility of the information to the public (Soral, İşcan, & Hebb, 2006).

Being a highly regulated industry, banking institutions are perceived to be safeguarded from fraud occurrences. However, as fraud in financial reporting involves people, the ethical loophole in banking industry may well open the room for fraud occurrences.

Theoretical background

Fraud in Financial Reporting

Being the prime source of reference in making economic decisions among the capital market participants, financial statements are expected to be reliable, transparent and comparable.Management decisions may influence the quality of financial reports whether the reports areof 'high quality' in one end or fraud at the other end(Kalbers, 2009).Attempts to mislead the financial report may be detrimental to these stakeholders.

Beyond the reliability expectation of financial statements, the financial statement fraud or fraud in financial reporting keeps occurring in the business environment (ACFE, 2012; KPMG, 2009; Rezaee, 2005).It is an "intentional material misstatement of financial statements or financial disclosures or the perpetration of an illegal act that has a material direct effect on the financial statements or financial disclosures," (Beasley, Carcello, & Hermanson, 1999: 11).

Methods used includeillegitimate revenue recognition, inappropriate deferral of expenses, understatement of expenses/liabilities, fictitious sales, premature sales, reversal or use of unjustified reserves,overstatement of assets other than accounts receivable,misappropriation of assets, inappropriate disclosure, and other miscellaneous techniques(Beasley et al., 1999; Rezaee, 2002).

Intention for Fraud in Financial Reporting

As human deviant behaviour factor is involved in fraud in financial reporting, the root causes for such behaviour need to be identified(Siti Noor Hayati, Kamil, Rashidah, & Wah, 2011). Unfortunately, the actual fraud in financial reporting is not easily detected as the decisions for fraud in financial reporting are aggregated into financial statements (Carpenter & Reimers, 2005). Little research was done measuring the actual ethical/unethical behaviour as the sensitivity and the difficulties for observing the occurrence of ethical/unethical behaviour (Ahmed, 2010; Haines & Leonard, 2007; Sweeney & Costello, 2009; Trevino, 1992). However, strong link was indicated between behavioural intention and the actual behaviour, allowing researchers to measure behavioural intention rather than the actual behaviour (Carpenter & Reimers, 2005).Behaviour intention acts as a proxy for behaviour as the intention to behave unethically provide a basis to influence the behaviour (Buchan, 2005; Gibson & Frakes, 1997).

Thus, to measure the likelihood of fraud in financial reportingthe individuals' intention of committing such fraud is examined.Human behaviour intention are subjective probabilities for the likelihood of choosing a given behavioural alternative (Ajzen & Fishbein, 1980). Understanding behavioural factors that motivate behavioural intention could give guidance to management, regulators and minority shareholder group to develop strategies to curb its occurrence(Siti Noor Hayati et al., 2011). Pertaining to accounting and auditing practices, identifying the behavioural intention for fraud in financial reporting is relevant due to the difficulties and costs associated with its deterrence(Rezaee, 2005). Prior studies examined the intention for fraudulent financial reportinginclude namely Gillett and Uddin (2005); Carpenter and Reimers (2005); and,Siti Noor Hayati et al., (2009; 2011). Researches on intention towards cheating behaviour that has characteristics similar to fraudulent financial reporting as both behaviours were done for personal gain or reward and led to ethical implicationswere also conducted in other fields(e.g. Chang, 1998; Kurland, 1995; Randall & Gibson, 1991; Stone, Jawahar, & Kisamore, 2009).

Theory of Reasoned Action (TRA)

The theory of reasoned action wasconsidered as the best known theory for measuring ethical intention (Leonard, Cronan, & Kreie, 2004). The major goal of TRA is to predict and understand an individual's behaviour and posits that an individual's intention to perform (or not to perform) the behaviour is the immediate determinant of behaviour (Ajzen & Fishbein, 1980; Dubinsky & Loken, 1989).Intentions are "assumed to capture the motivational factors that influence a behaviour; they are indications of how hard people are willing to try, of how much an effort they are willing to exert in order to perform the behaviour,"(Ajzen & Fishbein, 1980: 181).

According to TRA, behavioural intention is depicted as a function of two basic determinants of attitude and subjective norm. Attitude reflects one's feeling towards performing a behaviour or whether the person is in favour of doing it, whilstsubjective norm refers to the influence of referent groups (i.e. family members, friends or those who are close to an individual) that could change one's opinion or ideas, or how much the person feels social pressure to do it(Carpenter & Reimers, 2005; Francis et al., 2004).

Past studies indicated that attitude toward behaviour is a significant predictor of behavioural intention (e.g. Ajzen & Fishbein, 1980; Buchan, 2005; Doll & Ajzen, 1992; Harding, Mayhew, Finelli, & Carpenter, 2007; Peterson, 2002). It is predicted that if an individual evaluates performing a particular behaviour as favourable, it is more likely he or she will intend to perform that particular behaviour(Fishbein & Ajzen, 1975). Specific to fraud in financial reporting, if an individual had a positive attitude for a transaction and felt that it was the right thing to do, even if those procedures would violate generally accepted accounting principle, then it is predicted that he or she would be willing to violate generally accepted accounting principle to reach a specific earnings prediction or goal (Carpenter & Reimers, 2005).Hence, more positive attitude toward the specific behaviour would lead to higher intention of fraudulent financial reporting (Gillett & Uddin, 2005).Thus, it is hypothesized that:

H_1: There is a significant positive relationship between attitudes and the intention for fraud in financial reporting among Muslim accountants.

As for the subjective norm, the referent group especially the superiors influenced the behavioural intention and consequent behaviour (N. C. Smith, Simpson, & Huang, 2007). The social network of relationships at work or personal communities where individuals are integrated into, comprising of family, relatives, friends, and associates, or the set of people that directly involved with the individuals (Cornwall, 1989)had also contributed towards unethical behaviour (Brass, Butterfield, & Skaggs, 1998).Other studies also concluded on the significant effect of referent groups of both peer groups and top management influences on ethical decision behaviour namely the intenders more likely to feel pressure from referents especially top management and supervisors(Dubinsky & Loken, 1989); and, absence of top management actions against unethicalbehaviour resulted in stronger approval of questionable practices (Akaah & Riordan, 1989).

The more an individual perceives that referent groups think he should engage in a behaviour, the more likely he intends to do such behaviour(Fishbein & Ajzen, 1975). In the case of fraud in financial reporting, an individual who perceive that referent group would approve or support the violation of generally accepted accounting principle (i.e. fraudulent financial reporting), he or she will highly likely to violate generally accepted accounting principle thus committingfraud in financial reporting to meet earnings predictions (Carpenter & Reimers, 2005; Siti Noor Hayati et al., 2009).This study hypothesized that:

H_2: There is a significant positive relationship between subjective norm and the intention for fraud in financial reporting among Muslim accountants.

Bank Type as a Control Variable

Control variable is defined as “any exogenous or extraneous variable that could contaminate the cause-and-effect relationship, but the effects of which can be controlled through a process of either matching or randomization,”(Sekaran & Bougie, 2010: 437). Control variables are included in the investigation to address problems related to the potential threat of alternative explanations (Troy, Smith, & Domino, 2011) and to ensure that the results are not biased by excluding them (Cooper & Schindler, 2011).

In the current study, two major types of banks with different underlying philosophy and values were involved. The Islamic banks are considered as having *ethical identity* as their business philosophy was grounded on religion with the social goal are at least of equal important as making profit, unlike its conventional counterparts which is interest based (Haniffa & Hudaib, 2007). The principle underlying the operation and activities of Islamic banks is the *Shari’ah* law, whereas conventional banks are operating solely for business purpose with no religious aspect(Sudin & Wan Nursofiza, 2009).

As religion is the basis for its establishment, Islamic banks are expected to internalize the teaching of religion not only in terms of its operations which need to conform to Islamic principles, but their employees are also expected to embed the religion or religiosity in fulfilling their professional obligations. Those who manage and govern Islamic banks are not only expected to make economic decisions on behalf of the shareholders and fund depositors in enforcing the rules of God, but to be believers imbued with piety and righteousness (Haniffa & Hudaib, 2007). Moreover, it was found that firms with strongreligious social norms generally experience lower incidences of financial reportingirregularities (Dyreng, Mayew, & Williams, 2012; McGuire, Omer, & Sharp, 2012). Thus, to avoid making any improper inferences and reduces the possibility of spurious statistical influences, bank type was measured in the analysis as a control variableby a dummy variable. No specific prediction was made for bank type andthe expected sign of bank type was not hypothesized. It was dummy coded as 1 (conventional) and 0 (Islamic).

Research Model

This study used TRA as the main theoretical framework to examine the intention for fraud in financial reporting with the inclusion of bank type as a control variable. The research model is depicted in Figure 1.

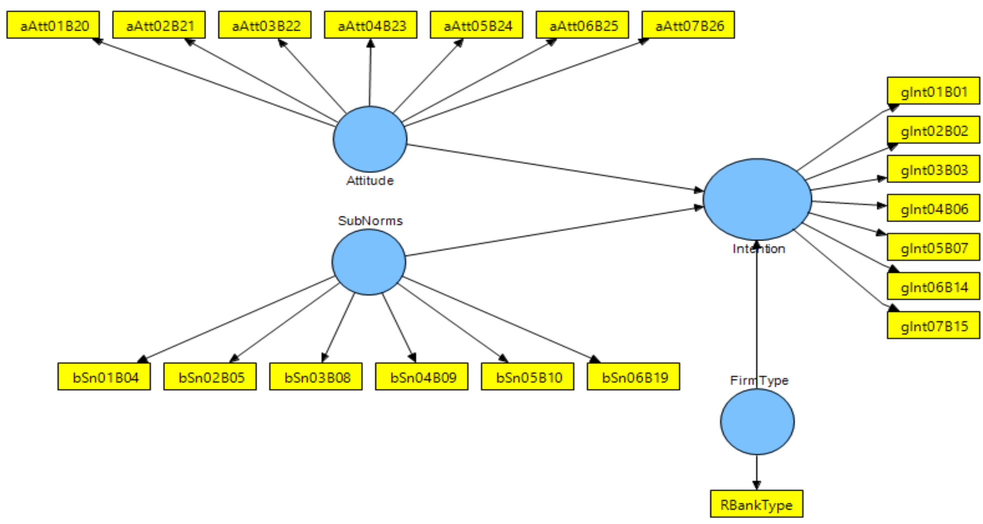


Figure 1: Research model

Research Methodology

Sample and Data

The unit of analysis in this study is the Muslim accountants that had a minimum of five years' experience in financial reporting process at the head office of Malaysian banking institutions. As the list of all the elements of the population could not be obtained, this study used a non-probability purposive sampling. As such only Muslim accountants that involved in the financial reporting process for a minimum of five years,inboth Islamic and conventional banks, either locally-owned or foreign-owned banking institutions were chosen.

A total of two hundred and six self-administered questionnaires were distributed to forty four banks through personal hand-delivery to the respective bank's contact in thirty six banks andsecured postage (courier service) to the remaining eight banks. The distribution and collection process took over a two months' period. Ultimately, 127 questionnaires were returned (61.7%) but only 121 questionnaires (58.7%) were valid for further analysis due to the incomplete responses, irrelevant respondents and outliers.

Measures

A scenario on an ethical dilemma related to the deferring of office supplies expense into the following year to meet the current year's net income target was presented in the questionnaire to examine the influence of attitude and subjective norm on the intention towards fraud in financial reporting. Deferring expenses to future period is the type of unethical financial reporting similar to that alleged at Enron and WorldCom (Burns, 2002 & Pulliam, 2003 in Carpenter & Reimers, 2005). The deferment of expense can mislead the information provided in financial statements and possibly deliberately deceive investors, crossing the line from earnings management to fraud (Carpenter & Reimers, 2005).

In evaluating the hypothetical scenario, 20 statements were presented, comprised of 7 statements for measuring intention; 7 statements for measuring attitude; and, 6 statements for measuring subjective norm, phrased and scaled using semantic differential scalesbased on a seven-point likert scale. The statements were mainly adapted from Carpenter and Reimers (2005), which have also been previously used by Madden et al.(1992) and Chang (1998).; and also partially adapted from other studies (Ajzen & Fishbein, 1980; Carpenter & Reimers, 2005; Cohen, Pant, & Sharp, 2001; Francis et al., 2004; Gillett & Uddin, 2005; Godin, Conner, & Sheeran, 2005; Hanudin, Abdul Rahim, Stephen, & Ang Magdalene, 2011; Hanudin, Abdul Rahim, & T. Ramayah, 2009; Montesarchio, 2009; Morris, Venkatesh, & Ackerman, 2005).

Data Analysis

This study used partial least squares structural equation modelling (PLS-SEM) SmartPLS Version 2.0 M3 developed by Ringle, Wende and Will (2005). PLS-SEM analysis involves the assessment of the measurement models and the structural models.

In the assessment of measurement model, the reliability and validity of the items were examined through convergent and discriminant validity based on item loadingsand cross-loadings, composite reliability (CR) and average variance extracted (AVE). Convergent validity is the degree to which multiple items used to measure the same concept are in agreement as assessed through outer loadings, CR and AVE. Outer loadings are the results of single regressions of each indicator variable on their corresponding construct; CR is the degree to which the construct indicators indicate the latent construct; and, AVE is the overall amount of variance in the indicators accounted for by the latent construct.The cut-off value for item loading, CR and AVE are 0.5, 0.7, and 0.5 respectively (Hair, Black, Babin, & Anderson, 2010).

Meanwhile, the discriminant validity is "the extent to which a construct is truly distinct from other constructs by empirical standards,"(Hair, Hult, Ringle, & Sarstedt, 2014: 104). In assessing the discriminant validity of the model, an indicator's outer loadings on a construct should be higher than all its cross loadings with other constructs; and the square root of each construct's AVE is greater than its highest correlation with any other construct referred to as Fornell-Larcker Criterion (Hair et al., 2014) .

Once the measurement model was satisfied, the next step is to evaluate for the structural model. This covers the assessment of collinearity issue, significance and relevance of structural model relationships, coefficient of determination (R^2 values), effect size and predictive relevance of the constructs.

Results and discussion

Respondents' Profile

Based on 121 valid and usable responses, the respondents' profile is shown in Table 1 below. 58 (47.9%) are male respondents and 55 (45.5%) are female respondents, fall within the age group of 40 years and above (35 or 28.9%). Most of the respondents are at managerial position (50.4%), while 38.8% are at executive level. The executive level are those respondents designated as executives in the accounting or finance department; and, the managerial level are those respondents designated as Assistant Vice President/Manager/Head of accounting or finance department; or, Vice President/Senior Manager in accounting or finance department of the related banking institutions.

Besides, 61 respondents (50.4%) worked in Islamic banks with most respondents (69.4%) had 5 to 15 years working experience in banking sector, 44.6% had less than 5 years working experience at their present bank and 60.3% had 5 to less than 10 years financial reporting experience in banking institutions. Hence the respondents' profile indicates the credibility of the respondents for this study purpose as they represent both male and female groups working in Islamic and conventional banks, with adequate length of working experience as well as financial reporting experience in banking institutions.

Table 1: Respondents' Profile

Item	Category	Frequency	%
Gender	Male	58	47.9
	Female	55	45.5
	No information provided	8	6.6
Age	Less than 30 years	25	20.7
	30- less than 35 years	28	23.1
	35- less than 40 years	21	17.4
	40 years and above	35	28.9
	No information provided	12	9.9
Qualification	Bachelor	75	62.0
	Master	15	12.4
	Professional	21	17.4
	Diploma and below	9	7.4
	No information provided	1	.8
Income	RM5000 and below	44	36.4
	RM5001-RM7000	31	25.6
	RM7001-RM10000	27	22.3
	Above RM10000	12	9.9
	No information provided	7	5.8
Job Level (Position)	Executive level	47	38.8
	Managerial level	61	50.4
	No information provided	13	10.7
Working experience in banking	5- less than10 years	60	49.6

sector	10- less than 15 years	24	19.8
	15 years and above	36	29.8
	No information provided	1	.8
Working experience in financial reporting in banking	5- less than10 years	73	60.3
	10- less than 15 years	26	21.5
	15 years and above	19	15.7
	No information provided	3	2.5
Working experience at present bank	Less than 5 years	54	44.6
	5- less than10 years	32	26.4
	10- less than 15 years	15	12.4
	15 years and above	20	16.5
Bank type	Islamic banks	61	50.4
	Conventional banks	60	49.6
Bank ownership	Local-owned bank	95	78.5
	Foreign-owned bank	26	21.5

Testing the Measurement Model

Firstly the convergent validity of the model based on the items loading, AVE and CR need to be established. The results of the measurement model from Table 2 indicate all item loadings, CR values and AVE exceed the recommended value of 0.5, 0.7 and 0.5, respectively (Hair et al., 2010). Hence, convergent validity of the model is established.

Table 2: Results of measurement model

Construct	Label	Loadings	AVE[a]	CR[b]
Attitude	aAtt01B20	0.912	0.809	0.967
	aAtt02B21	0.886		
	aAtt03B22	0.936		
	aAtt04B23	0.891		
	aAtt05B24	0.865		
	aAtt06B25	0.901		
	aAtt07B26	0.903		
Subjective Norms	bSn01B04	0.884	0.663	0.921
	bSn02B05	0.890		
	bSn03B08	0.874		
	bSn04B09	0.782		
	bSn05B10	0.766		
	bSn06B19	0.665		
Intention	gInt01B01	0.925	0.831	0.972
	gInt02B02	0.931		
	gInt03B03	0.915		
	gInt04B06	0.943		
	gInt05B07	0.834		

	gInt06B14	0.904		
	gInt07B15	0.925		

[a] Average variance extracted (AVE) = (summation of the square of the factor loadings) / {(summation of the square of the factor loadings) + (summation of the error variances)}
[b] Composite Reliability (CR) = (square of the summation of the factor loadings)/ {(square of the summation of the factor loadings) + (square of the summation of the error variance)}

Next is testing for the discriminant validity of the model.The Fornell-Larcker Criterion reveals a discriminant problem between two constructs of subjective norm and intention as indicated by the off-diagonal value greater than the diagonal value (as italicized in Table 3). The off-diagonal values are the correlations values for the relevant latent construct, whereas the diagonal values are the square root value of each construct's AVE.

Table 3: Discriminant Validity Problem of Two Constructs (*Italicized*)

	Attitude	Subjective Norms	Intention
Attitude	0.899		
Subjective Norms	0.783	***0.814***	
Intention	0.823	*0.895*	0.912

Further examination on the loadings and cross-loadings indicate some offending items (Table 4) that cross-load on more than one latent variable (Farrell, 2010) with difference in cross-loadings of lesser than 0.1 (Gefen & Straub, 2005). Low difference suggests that the respondents were unable to discriminate between the items to their respective constructs.

Table 4: Items with cross-loading problem

Construct	Label	Attitude	Subjective Norms	Intention
Attitude	***aAtt07B26***	***0.903***	0.731	*0.818*
Subjective Norms	***bSn03B08***	0.725	**0.874**	*0.859*
	bSn05B10	0.501	**0.766**	*0.743*
	bSn06B19	0.612	**0.665**	*0.573*

These items represent "I like-dislike the idea of deferring this office supply (aAtt07B26)"; "It is expected of me that I will defer this office supply expense into 2013(bSn03B08)"; "I usually do what others think I should do(bSn05B10)"; and, "If I defer this office supply expense into 2013, most people who are important to the company will disapprove-approve (bSn06B19)", respectively. These offending items were deletedto overcome the discriminant validity problem. The revised results of discriminant validity (Table 5) show the Fornell-Larcker Criterion is satisfied. Similarly, offending items no longer exist (Table 6). This suggeststhat adequate discriminant validity is established.

Table 5: Discriminant validity of constructs

	Attitude	Subjective Norms	Intention
Attitude	0.903		
Subjective Norms	0.725	0.904	
Intention	0.804	0.796	0.912

Table 6: Loadings and cross-loadings

Construct	Label	Attitude	Subjective Norms	Intention
Attitude	aAtt01B20	**0.915**	0.701	0.810
	aAtt02B21	**0.895**	0.661	0.665
	aAtt03B22	**0.943**	0.666	0.715
	aAtt04B23	**0.905**	0.709	0.699
	aAtt05B24	**0.867**	0.523	0.683
	aAtt06B25	**0.890**	0.660	0.766
Subjective Norms	bSn01B04	0.719	**0.944**	0.764
	bSn02B05	0.671	**0.957**	0.737
	bSn04B09	0.569	**0.803**	0.652
Intention	gInt01B01	0.711	0.756	**0.925**
	gInt02B02	0.742	0.763	**0.932**
	gInt03B03	0.761	0.748	**0.916**
	gInt04B06	0.757	0.800	**0.944**
	gInt05B07	0.656	0.682	**0.833**
	gInt06B14	0.759	0.637	**0.903**
	gInt07B15	0.743	0.684	**0.924**

Assessing the Control Variable

Prior to testing for the hypothesized relationships, the influence of control variable on the intention for fraud in financial reportingwas examined using a bootstrapping technique. Bootstrapping is “an approach to validate a multivariate model by drawing a large number of sub-samples and estimating models for each subsample. Estimates from all the subsamples are then combined, providing not only the “best” estimated coefficients, but their expected variability and thus their likelihood of differing from zero; that is are the estimated coefficients statistically different from zero or not,” (Hair et al., 2010: 2). Bank type as a control variable was linked directly to the criterion or endogenous variable in the model. The control variable was specified in a formative way with the dummy-category (0 and 1) served as the indicator (Falk & Miller, 1992 in Berghman, 2006).

The bootstrapping result indicates a significant relationship between bank type and intention (t-value = 2.535). Further assessment on the effect size based on the f-squared value of the difference between R^2 included (0.757) and R^2 excluded (0.743) of the control variable shows small effect size (f^2= 0.060) of bank type on intention for fraud in financial reporting. The control variable should be included regardless whether it is significant or not, and the results for control variables are usually not further interpreted(Hair, Ringle, & Sarstedt, 2013). However, when the effect of control variables are significant, the findings should carefully be used when drawing conclusions or initiating additional analyses(Hair et al., 2013).Hence, bank type as control variable is included in further analysis of structural relationship to test for the hypothesized relationships in this study.

Testing the Structural Model

The key assessment criteria in testing for the hypothesized relationships are the significance of the path coefficients, the value ofvariance explained (R^2), the f^2 effect size, the predictive relevance (Q^2) and the q^2 effect size (Hair et al., 2014). The path coefficients are the relationships between the latent variables in the structural model (Hair et al., 2014) that measure the strength of a relationship between a dependent variable and an independent variable, while holding constant the effects of all other independent variables (Allison, 1999 in Berghman, 2006). The R^2shows the amount of explained variance of endogenous latent variables in the structural model (Hair et al., 2014), with higher value indicates the better the construct is explained jointly by all latent variables in the structural model via path relationship. In this study the significance levels for loadings and path coefficients were determined based on the bootstrapping method, with 121 cases and re-sample of 500.

The resulted $R^2$of intention at0.757 suggests that 75.7% of the variance in the intention for fraud in financial reporting among Muslim accountants can be explained by the predictors in this study. The path coefficients and hypotheses testing results are shown in Table 7.

Table7: Path Coefficients and hypothesis testing

Research Hypotheses	Relationship	Standard Beta	Standard Error	t-value	Decision
H_1: There is a significant positive relationship between attitudes and the intention for fraud in financial reporting among Muslim accountants.	Attitude -> Intention	0.465	0.074	6.259**	Supported
H_2: There is a significant positive relationship between subjective norm and the intention for fraud in financial reporting among Muslim accountants.	Subjective Norms -> Intention	0.442	0.068	6.498**	Supported

**Significant at $p<0.05$

Based on Table 7, attitude was positively related to the intention for fraud in financial reporting among Muslim accountants ($\beta = 0.465$, $\rho <0.05$),thus supportedH_1. The higher the attitude of respondents towards fraud in financial reporting the higher is their intentions to commit fraud in financial reporting. This findings is in line with previous findings that attitude toward behaviour is a significant predictor of behavioural intention (e.g. Ajzen & Fishbein, 1980; Doll & Ajzen, 1992; Harding et al., 2007; Peterson, 2002). If an individual evaluates performing a particular behaviour as favourable, it is more likely he or she will intend to perform that particular behaviour(Fishbein & Ajzen, 1975). The more the respondents are in favour of fraud in financial reporting, the higher their intentions to commit fraud in financial reporting. Hence, more positive attitude toward the behaviour leads to higher intention of fraudulent financial reporting(Gillett & Uddin, 2005), and the individual would reflects such intention to report unethical or fraudulent financial reporting (Carpenter & Reimers, 2005; Siti Noor Hayati et al., 2009).

Similarly, subjective norm was found to be positively related to the intention for fraud in financial reporting among Muslim accountants ($\beta = 0.442$, $\rho < 0.05$), thus supported H_2. This is in line with the prediction that the more an individual perceives that referent groups think he should engage in a behaviour, the more likely he intends to do such behaviour(Fishbein & Ajzen, 1975). In the case of fraud in financial reporting, an individual who perceive that referent group would approve or support the violation of generally accepted accounting principle (i.e. fraudulent financial reporting), he or she will highly likely to violate generally accepted accounting principle thus committingfraud in financial reporting to meet earnings predictions (Carpenter & Reimers, 2005; Siti Noor Hayati et al., 2009).

The next step in assessing for the structural relationship is the "blindfolding" procedure. Blindfolding is "a sample reuse technique that omits every *d*th data point in the endogenous construct's indicators and estimates the parameters with the remaining data points," (Hair et al., 2014: 178). Blindfolding procedure was conducted to measure the model's predictive relevance (Q^2). The Q^2 determines how well observed values are recommended by the model and its parameter estimates(Chin, 1998) and used to assess the relative predictive relevance of a predictor construct on an endogenous construct (Hair et al., 2014). Predictive relevance is established when the model has Q^2 value of greater than zero. Omission distance (OD) of 7 was utilized for blindfolding calculation as any value between 5 and 10 is feasible (Chin, 1998).The blindfolding result (CV red = 0.619> 0) indicates model prediction is good or the model has predictive relevance for intention towards fraud in financial reporting.

Further assessment for structural relationships involvesthe effect size of blindfolding (q^2)to identify which predictor is more important in the model's predictive relevance. The results as summarized in Table 8 indicate that attitude and subjective norm had medium effect on the predictive relevance of the model. Thus, both predictors are equally important for the model's predictive relevance.

Table8: Results of effect size of blindfolding (q^2)

CV redundancy	Excluded predictor	CV redundancy	q^2	Effect size
0.619	Attitude	0.537	0.217	Medium
	Subjective Norms	0.540	0.208	Medium

Conclusion

The findings of this study indicate that the attitude and subjective norms significantly influenced the intention for fraud in financial reporting among Muslim accountants in banking institutions, controlling the effect of differentbank type.

The findings indicate the relevance of TRA in predicting intention for fraud in financial reporting in banking, thus broaden the applications of the TRA model in the context of a highly regulated industry and add up to the scarcity of literature on the ethics in banking industry. The findings provide better understanding on the factors influencing fraud in financial reporting to the top management of banking institutions. Besides, the application of PLS-SEM shows the suitability of the PLS-SEM for data analysis in the field of accounting and business ethics.

However, the findings need to be interpreted in consideration for its limitations. Firstly, although scenarios are widely used in business ethics research(e.g. Ampofo, Mujtaba, Cavico, & Tindall, 2011; Carpenter & Reimers, 2005; Chun-Chang, 2007; Flannery & May, 2000; Randall & Gibson, 1991; Uddin & Gillett, 2002), the scenarios presented to the respondents are artificial and can only examine hypothetical situations (Brief, Dukerich, Brown, & Brett, 1996). Hence, the responses received represent, at best, the tendencies of Muslim accountants' intention for fraud in financial reporting.Secondly, the issue of social desirability bias also present in using scenarios but steps already taken in this study to minimize the issue. These included the use of self-administered questionnairewith the covering letter assuring anonymity and confidentiality of the responses receivedand the adaptation of the measurement items which were presented in a non-offensive and neutral manner to the respondents(Flannery & May, 2000; Fritzsche, 2000; Nederhof, 1985).Thus, future research using survey method should adopt similar precautionary steps but incorporates different scenarios to represent various ethical dilemmas in the Muslim accountants' financial reporting decision. The research scope could be extended to include accountants in other financial services to enhance the comparison of research results.

Future research should also examine the influence of perceived behavioural control on the intention for fraud in financial reporting in banking industryusingthe theory of planned behaviour(TPB) to compare on the relevance of the TRA and TPB in measuring the behavioural intentionin banking industry.

ACKNOWLEDGEMENTS
The first author expresses her gratitude to Universiti Teknologi MARA and Kementerian Pengajian Tinggi Malaysia for the scholarship under *'Skim Latihan Staf UiTM/KPT-SLAB.'*

REFERENCES

Abdolmohammadi, M., & Owhoso, V. D. (2000). Auditors' ethical sensitivity and the assessment of the likelihood of fraud. *Managerial Finance, 26*(11), 21-32.

ACFE. (2010). Global Fraud Survey: Report to the nations on occupational fraud and abuse: Association of Certified Fraud Examiners

ACFE. (2012). Global Fraud Survey: Report to the nations on occupational fraud and abuse: Association of Certified Fraud Examiners

Ahmed, Y. S. M. (2010). *The Role of Individual Variables, Organizational Variables, and Moral Intensity Dimensions in Accountants' Ethical Decision Making: A Study of Management Accounting in Libya.* University of Huddersfield.

Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behavior*: Prentice-Hall, Inc., Upper Saddle River, NJ 07458.

Akaah, I. P., & Riordan, E. A. (1989). Judgments of marketing professionals about ethical issues in marketing research: A replication and extension. *Journal of Marketing Research*, 112-120.

Ampofo, A., Mujtaba, B., Cavico, F., & Tindall, L. (2011). The relationship between organizational ethical culture and the ethical behavior of employees: A study of accounting and finance professionals in the insurance industry of United States. *Journal of Business & Economics Research (JBER), 2*(9).

Beasley, M. S., Carcello, J. V., & Hermanson, D. R. (1999). Fraudulent Financial Reporting: 1987-1997 An Analysis of U.S. Public Companies: Committee of Sponsoring Organizations of the Treadway Commission (COSO).

Berghman, L. A. (2006). *Strategic Innovation Capacity: A Mixed Method Study on Deliberate Strategic Learning Mechanisms.* Erasmus University Rotterdam.

Bierstaker, J. L. (2009). Differences in attitudes about fraud and corruption across cultures: Theory, examples and recommendations. *Cross Cultural Management: An International Journal, 16*(3), 241-250.

Brass, D. J., Butterfield, K. D., & Skaggs, B. C. (1998). Relationships and unethical behavior: A social network perspective. *Academy of management review*, 14-31.

Brief, A. P., Dukerich, J. M., Brown, P. R., & Brett, J. F. (1996). What's wrong with the Treadway Commission Report? Experimental analyses of the effects of personal values and codes of conduct on fraudulent financial reporting. *Journal of Business Ethics, 15*(2), 183-198.

Buchan, H. F. (2005). Ethical decision making in the public accounting profession: An extension of Ajzen's theory of planned behavior. *Journal of Business Ethics, 61*(2), 165-181.

Carpenter, T. D., & Reimers, J. L. (2005). Unethical and fraudulent financial reporting: Applying the theory of planned behavior. *Journal of Business Ethics, 60*(2), 115-129.

Chang, M. K. (1998). Predicting unethical behavior: a comparison of the theory of reasoned action and the theory of planned behavior. *Journal of Business Ethics, 17*(16), 1825-1834.

Chin, W. W. (1998). *The partial least squares approach to structural equation modeling*. New Jersey: Lawrence Erlbaum.

Chun-Chang, L. (2007). Influence of Ethics Codes on the Behavior Intention of Real Estate Brokers. *The Journal of Human Resource and Adult Learning 3*(2), 97-106.

Cohen, J. R., Pant, L. W., & Sharp, D. J. (2001). An examination of differences in ethical decision-making between Canadian business students and accounting professionals. *Journal of Business Ethics, 30*(4), 319-336.

Cooper, D. R., & Schindler, P. S. (2011). *Business Research Methods* (International Edition ed. Vol. Eleventh): McGraw-Hill

Cornwall, M. (1989). The determinants of religious behavior: A theoretical model and empirical test. *Social forces, 68*(2), 572-592.

Doll, J., & Ajzen, I. (1992). Accessibility and stability of predictors in the theory of planned behavior. *Journal of personality and social psychology, 63*(5), 754.

Dubinsky, A. J., & Loken, B. (1989). Analyzing ethical decision making in marketing. *Journal of Business Research, 19*(2), 83-107.

Dyreng, S. D., Mayew, W. J., & Williams, C. D. (2012). Religious social norms and corporate financial reporting. *Journal of Business Finance & Accounting, 39*(7-8), 845-875.

Farrell, A. M. (2010). Insufficient discriminant validity: A comment on Bove, Pervan, Beatty, and Shiu (2009). *Journal of Business Research, 63*(3), 324-327.

Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention and behavior: An introduction to theory and research*.

Flannery, B. L., & May, D. R. (2000). Environmental ethical decision making in the US metal-finishing industry. *Academy of management Journal*, 642-662.

Francis, J. J., Eccles, M. P., Johnston, M., Walker, A., Grimshaw, J., Foy, R., . . . Bonetti, D. (2004). Constructing questionnaires based on the theory of planned behaviour. *A manual for health services researchers, 2010,* 2-12.

Fritzsche, D. J. (2000). Ethical climates and the ethical dimension of decision making. *Journal of Business Ethics, 24*(2), 125-140.

Gefen, D., & Straub, D. (2005). A practical guide to factorial validity using PLS-Graph: Tutorial and annotated example. *Communications of the Association for Information systems, 16*(1), 5.

Gibson, A. M., & Frakes, A. H. (1997). Truth or consequences: A study of critical issues and decision making in accounting. *Journal of Business Ethics, 16*(2), 161-171.

Gillett, P. R., & Uddin, N. (2005). CFO intentions of fraudulent financial reporting. *Auditing: A Journal of Practice & Theory, 24*(1), 55-75.

Godin, G., Conner, M., & Sheeran, P. (2005). Bridging the intention–behaviour gap: The role of moral norm. *British Journal of Social Psychology, 44*(4), 497-512.

Haines, R., & Leonard, L. N. K. (2007). Individual characteristics and ethical decision-making in an IT context. *Industrial Management & Data Systems, 107*(1), 5-20.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis: A global perspective*: Pearson.

Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2014). *A primer on partial least squares structural equation modeling (PLS-SEM)*: Sage Publications.

Hair, J. F., Ringle, C. M., & Sarstedt, M. (2013). Editorial-partial least squares structural equation modeling: Rigorous applications, better results and higher acceptance. *Long Range Planning, 46*(1-2), 1-12.

Haniffa, R., & Hudaib, M. (2007). Exploring the ethical identity of Islamic banks via communication in annual reports. *Journal of Business Ethics, 76*(1), 97-116.

Hanudin, A., Abdul Rahim, A. R., Stephen, L. S. J., & Ang Magdalene, C. H. (2011). Determinants of customers' intention to use Islamic Personal financing: The case of Malaysian Islamic banks. *Journal of Islamic Accounting and Business Research, 2*(1), 22-42.

Hanudin, A., Abdul Rahim, A. R., & T. Ramayah. (2009). What makes undergraduate students enroll into an elective course? The case of Islamic accounting. *International Journal of Islamic and Middle Easten Finance and Management, 2*(4), 289-304.

Harding, T. S., Mayhew, M. J., Finelli, C. J., & Carpenter, D. D. (2007). The theory of planned behavior as a model of academic dishonesty in engineering and humanities undergraduates. *Ethics & Behavior, 17*(3), 255-279.

Kalbers, L. P. (2009). Fraudulent financial reporting, corporate governance and ethics: 1987-2007. *Review of Accounting and Finance, 8*(2), 187-209.

KPMG. (2009). KPMG Malaysia Fraud Survey Report 2009: KPMG Malaysia.

KPMG. (2011). KPMG Analysis if Global Patterns of Fraud: Who is the typical fraudsters? : KPMG Malaysia.

Kurland, N. B. (1995). Ethical Intentions and the Theories of Reasoned Action and Planned Behavior. *Journal of applied social psychology, 25*(4), 297-313.

Leonard, L. N. K., Cronan, T. P., & Kreie, J. (2004). What influences IT ethical behavior intentions—planned behavior, reasoned action, perceived importance, or individual characteristics? *Information & Management, 42*(1), 143-158.

Madden, T. J., Ellen, P. S., & Ajzen, I. (1992). A comparison of the theory of planned behavior and the theory of reasoned action. *Personality and social psychology Bulletin, 18*(1), 3-9.

McGuire, S. T., Omer, T. C., & Sharp, N. Y. (2012). The impact of religion on financial reporting irregularities. *The Accounting Review, 87*(2), 645-673.

Montesarchio, C. E. (2009). *Factors influencing the unethical behavioral intention of college business students: Theory of planned behavior.* (Doctor of Philosophy), Lynn University.

Morris, M. G., Venkatesh, V., & Ackerman, P. L. (2005). Gender and age differences in employee decisions about new technology: An extension to the theory of planned behavior. *Engineering Management, IEEE Transactions on, 52*(1), 69-84.

Mung-Ling, V., Sze-Ling, V., & Chin-Hong, P. (2008). An Empirical Analysis of the Determinants of Corporate Crime in Malaysia. *International Applied Economics and Management Letters, 1*(1), 13-17.

Nederhof, A. J. (1985). Methods of coping with social desirability bias: A review. *European Journal of Social Psychology, 15*(3), 263-280.

Palshikar, G. (2002). The Hidden Truth On the list of business-critical applications, fraud detection is moving ever higher. Will it become the next killer app for data analytics? *Intelligent Enterprise - San Mateo-, 5*, 46-63.

Peterson, D. K. (2002). The relationship between unethical behavior and the dimensions of the ethical climate questionnaire. *Journal of Business Ethics, 41*(4), 313-326.

Rajhi, W., & Hassairi, S. A. (2011). Unconventional Banking System in Distress. *International Journal of Economics and Finance, 3*(4), p70.

Randall, D. M., & Gibson, A. M. (1991). Ethical decision making in the medical profession: An application of the theory of planned behavior. *Journal of Business Ethics, 10*(2), 111-122.

Rezaee, Z. (2002). *Financial statement fraud: Prevention and detection*: John Wiley & Sons, Inc.

Rezaee, Z. (2005). Causes, consequences, and deterence of financial statement fraud. *Critical Perspectives on Accounting, 16*(3), 277-298.

Ringle, C. M., Wende, S., & Will, A. (2005). SmartPLS 2.0.M3. Hamburg: SmartPLS,. Retrieved from http://www.smartpls.de.

Sekaran, U., & Bougie, R. (2010). *Research Methods for Business: A Skill Building Approach* (Fifth Edition ed.): John Wiley & Sons, Inc. .

Siti Noor Hayati, M. Z., Kamaruzaman, J., Rashidah, A. R., & Kamil, M. I. (2009). Behavioural Intention for Fraudulent Reporting Behaviour Using Cognitive Theory. *Asian Social Science, 4*(7), 43-47.

Siti Noor Hayati, M. Z., Kamil, M. I., Rashidah, A. R., & Wah, Y. B. (2011). Antecedents of Non-Normal Financial Reporting. *International Journal of Business and Social Science, 2*(5), 170-178.

Smith, M., Normah Haji Omar, Syed Iskandar Zulkarnain Sayd Idris, & Ithnahaini Baharuddin. (2005). Auditors' perception of fraud risk indicators: Malaysian evidence. *Managerial Auditing Journal, 20*(1), 73-85.

Smith, N. C., Simpson, S. S., & Huang, C.-Y. (2007). Why managers fail to do the right thing: An empirical study of unethical and illegal conduct. *Business Ethics Quarterly*, 633-667.

Soral, H. B., İşcan, T. B., & Hebb, G. (2006). Fraud, banking crisis, and regulatory enforcement: Evidence from micro-level transactions data. *European Journal of Law and Economics, 21*(2), 179-197.

Stone, T. H., Jawahar, I., & Kisamore, J. L. (2009). Using the theory of planned behavior and cheating justifications to predict academic misconduct. *Career Development International, 14*(3), 221-241.

Sudin, H., & Wan Nursofiza, W. A. (2009). *Islamic finance and banking system: Philosophies, Principles & Practices.*: McGraw Hill Education.

Sweeney, B., & Costello, F. (2009). Moral intensity and ethical decision-making: An empirical examination of undergraduate accounting and business students. *Accounting Education, 18*(1), 75-97.

Trevino, L. K. (1992). The social effects of punishment in organizations: A justice perspective. *Academy of management review, 17*(4), 647-676.

Troy, C., Smith, K. G., & Domino, M. A. (2011). CEO demographics and accounting fraud: Who is more likely to rationalize illegal acts? *Strategic Organization, 9*(4), 259-282.

Uddin, N., & Gillett, P. R. (2002). The effects of moral reasoning and self-monitoring on CFO intentions to report fraudulently on financial statements. *Journal of Business Ethics, 40*(1), 15-32.

Watson, D. M. (2003). Cultural dynamics of corporate fraud. *Cross Cultural Management: An International Journal, 10*(1), 40-54.

THE EFFECT OF ACQUIRING FIRM'S GROWTH OPPORTUNITY ON THE VALUE RELEVANCE OF GOODWILL

Yuji Shirabe. Doctoral student, Graduate School of Commerce and Management, Hitotsubashi University.

Abstract

In recent years, mergers and acquisitions (M&A) have become increasingly important for Japanese firms to achieve growth. In this situation, how does the stock market recognize and evaluate the goodwill generated as a consequence of M&A? Given that Japanese companies have increasingly used M&A as for a tool for growth, we can say that the growth opportunity of the acquiring firms is an important factor that affects valuation of goodwill in the stock market. In this study, we investigate the link between growth opportunity and the value of goodwill in the stock market.

The results of our study show that the market valuation of newly acquired goodwill is positively influenced by the growth opportunities of acquiring firms in Japan. Therefore, this study implies that M&A works better when it is done to utilize internal growth opportunity rather than to incorporate external growth opportunities into the firm.

Does Acquiring Firm's Growth Opportunity Affect Market Valuation Of Goodwill?

Introduction

In recent years, merger and acquisition (M&A)hasbecome an increasingly important tool forachievinggrowthin Japan. Japanese enterprises,facedwith a shrinking domestic market and expansion in emerging markets, mustacquire firms more aggressively for growth. Historically,M&A deals in Japan have not been common.Miyajima [2007] stated that the causes of this lack of M&A activity include (1) the existence of the main-bank system, (2) restrictions of horizontal mergers under the Antimonopoly Act, and (3) firms' strong preference for internal growth.This situation changed in the late 1980s. The yen appreciated rapidly in the wake of the Plaza Accord and thereal purchase price of foreign companies substantially decreased. In this period, the acquisition of foreign companies by Japanese companies occurred with great frequency (Miyajima, 2007). Figure 1 shows that the number and value of M&A deals in Japan.[1] There were only 260 deals, collectivelyworth 207.2 billion yen, in 1985, which increased to 645 deals, collectivelyworth 6.174 trillion yen, in 1989. In

[1]*MARR* is the M&A journal published by Recof Data Corporation, which is a standard provider of the M&A database in Japan.

the late 1990s, a second M&A boom occurred. Many of the M&A deals during this period were caused by temporary factors such as the restructuring of heavy industry in the face of intensified international competition and the restructuring of the financial industry following the collapse of the bubble economy and deregulation.

Therefore, many of the traditional M&A deals in Japan occurred in response to temporary events and were not pursued as a part of a growth strategy of companies on an ongoing basis. Inthe 2000s and later, however, many M&A deals have regularly occurred to achieve growth in many industries, including the information and communication industry and the pharmaceutical industry (e.g.,the 2006 acquisition of Vodafone Japan corporation by Softbank andthe 2011 acquisition of Nycomed, a Norwegian pharmaceutical company, by Takeda Pharmaceutical Company Limited). Despite negative economic events such as the global financial crisis of 2008 and the Great East Japan Earthquake of 2011, many M&A deals have been carried out in recent years. This indicates that M&A has become more common for Japanese companies as a growth strategy, rather than as a response to temporary events.

Given this situation, how does the stock market recognize and evaluate the goodwill generated as a consequence of M&A? Japanese companies have increasingly used M&A as a tool for growth, and so we can say that growth opportunity is an important factor that affects the valuation of goodwill in the stock market. As is well known, previous studies have found a strong relation between acquisition and growth opportunity (e.g. Andrade et al., 2001; Miyajima, 2007). These studies show that firms having more growth opportunity are more likely to acquire other firms. Additionally, other previous studies have consistently found a positive relation between goodwill and firm value, that is, goodwill is value-relevant (e.g., Jennings et al., 1996; McCarthy and Schneider, 1995; Henning et al., 2000). However, few studies have examined whether the growth opportunities of acquiring firms affect the market valuation of its purchased goodwill. Given the fact that Japanese companies have increasingly used M&A as a tool for growth, it is necessary to answer this question. This study investigates the link between growth opportunity and the value of goodwill in the stock market.

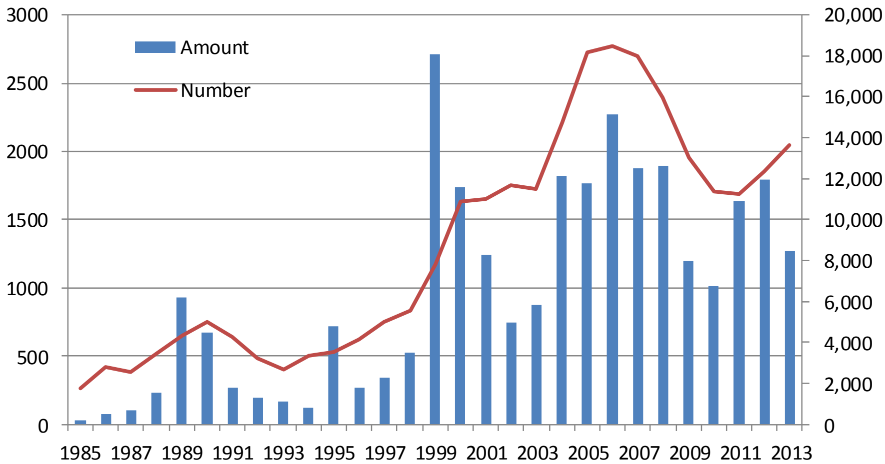


Fig. 1. Number of M&A deals (left) and total value of M&A deals (billion yen, right)
Source: *MARR,* Feb, 2014.

We find that the stock market attacheshighervalue tothe newly purchased goodwill for firms with larger growth opportunitythan for firms with smaller growth opportunity. This research has two main implications. First, we introduce growth opportunity as a new perspective in the literature on goodwill value-relevance and investigate the relation between growth opportunity and the valuation of goodwill in the stock market. Previous studies have been limited in their examination of the factors that affect goodwill valuation, and further, these studiesfocus on only the components of goodwill. Thus, this research may be the first to focus on the characteristics of goodwill as an asset that arisesfrom M&A conducted as part of a growth strategy. Second, this study provides a recommendation for companies considering M&A as a part of growth strategy. In recent years, M&A deals by mature companies have become common in Japan. However, according to the findings of this paper, the goodwill of companies with less growth opportunity tends to be less valued on the stock market than that of firms with more growth opportunity. Therefore, the present study shows that M&A works better with respect to goodwill when it is done to utilize internal growth opportunity rather than to incorporate external growth opportunity into the firm.

The remainder of this paper is organized as follows. Section 2 reviews the literature and develops the hypotheses. The research design is presented in Section 3. Section 4 describes our sampling method and sample data. Results of the analysis and robustness checks are presented in Section 5, followed by a conclusion in Section 6.

2. Prior Literature and Hypothesis Development

A number of prior studies investigate the relation between goodwill and firm value (e.g., Jennings et al., 1996; McCarthy and Schneider, 1995; Henning et al., 2000, Nagata, 2002; Bugeja and Gallery, 2006; Yamaji, 2008; Al-Jifri and Citron, 2009; Oliveira et al., 2010). In the past, there have been differences in the accounting standards on whether to capitalize purchased goodwill, but now, firms must capitalize the purchased goodwill in all of the major accounting standards. After the capitalization of goodwill became mandatory, many studies have examined empirically whether goodwill is valued or not.

Jennings et al. (1996) examine the value relevance of goodwill by performing multiple regression analyses with an estimation equation in which the dependent variable is market capitalization and the independent variables are book value of goodwill, tangible assets, other assets, and debt. They find that there is a positive correlation between the book value of goodwill and market capitalization, and conclude that the stock market sees goodwill as a valuable asset. Similarly, McCarthy and Schneider (1995) investigate the relation between goodwill and firm value by using an estimation equation in which the dependent variable is market capitalization and the independent variables are book value of goodwill, total assetsexcluding goodwill, debt, and net profit. They show that the coefficient of goodwill is significantly positive, which impliesthat the stock market values goodwill on average.

Nagata (2002) analyzes the value relevance of goodwill in Japan from 1997 to 1999 by using an estimation equation similar to that of Jennings et al. (1996). The result of multiple regression shows that stock price is significantly correlated with the carrying value of goodwill. Yamaji(2008) also examines the value relevance of goodwill in Japan from 2002 to 2005 by using anestimation equation in which the dependent variable is stock price and the independent variables are book value of goodwill, net assetsexcluding goodwill, and net profit. This study also finds that the coefficient of goodwill is significantly positive. These results show that the Japanese stock market also places the value on goodwill.

Al Jifri and Citron (2009) and Oliveira et al. (2010) examine the impacts of the adoption of new accounting requirements on the value relevance of purchased goodwill. Both of these studies find that the adoption of new accounting policies affected the market valuationof goodwill.

Every study described above examines whether total goodwill is valued in the stock market. However, Henning et al. (2000) and Bugeja and Gallery (2006)focus on the components of goodwill, whichdistinguishes these studies from other previous studies. Henning et al. (2000) adopt the framework of Johnson and Petrone(1998) and divide goodwill into various components to examine whether the stock market distinguishes among or attaches different value to each component. The analysis targets companies included in Compustat from 1990 to 1994, and the results show that stock price is positively correlated with the going-concern component and the synergy component and negatively correlated with the overestimation component and the overpayment component. The results imply that investors attach different values to each component of goodwill.Bugeja and Gallery (2006) examine whether goodwill evaluation is affected by the “age” of goodwill. They find that recently acquired goodwill is valued but goodwill acquired more than two years previously is not valued as such in the Australian stock market.

As stated above, many of the previous studies, such as Jennings et al. (1996) and Yamaji(2008), show that goodwill, in total, is valued in various stock markets. However, it is possible to suppose that goodwill acquired in any given year hasa different value relevance, that is, stock markets donot seegoodwill equally in terms of value. Stock markets can get information about goodwill acquired in the past years and cannot get information about goodwill acquired in the current year. This is because a relatively long time has passed since the older goodwill was acquired, whereas just a little time has passed since the new goodwill was acquired. As a result, the stock market can value older goodwill appropriately anddiscount the value of new goodwill. However, at the same time, it is possible to hypothesize that markets value new goodwill, since investors know from past experience that goodwill typically has a value to the firm, and thus, they value new goodwill before any accounting tests are applied. Considering that market valuation precedes accounting valuation (Ball and Brown, 1968; Beaver, 1968), we take the latter view and develop Hypothesis 1 (H1).

H1: Goodwill acquired in the current year is valued in the stock market.

M&A is often used as part of a growth strategy (Morck et al., 1988; Miyajima, 2007). Miyajima(2007) classifies M&A with synergy as having integration effects and growth effects. In Miyajima(2007), for the latter, acquiring firms can increase their competitiveness and firm value by gaining the managerial resources that enable them to utilize their growth opportunity. Jovanovic and Rousseau (2002) show that firms with a high Tobin’s Q, an indicator of future growth opportunity, tend to acquire other businesses. Additionally, Andrade et al. (2001) examine 4,258 M&A deals from1973 to 1998 in the United States. They find that theTobin’s Q of the acquiring firm is higher than that of the acquired firm in about two-thirds of these M&A deals. Miyajima(2007) investigatesM&A deals from 1995 to 2004 in Japan and also finds that Tobin’s Q of the acquiring firm is significantly higher than that of the acquired firm.

Given the strong link between M&A and growth opportunity, it is expected that there is a relation between growth opportunity and the goodwill accumulated through M&A. If firms have abundant growth opportunity, such firms can use their goodwill in their growth opportunity and achieve high levels of earnings. Therefore, we develop Hypothesis 2a (H2a) and Hypothesis 2b (H2b).

H2a: The goodwill of firms with higher rates of sales growth is highly valued in the stock market.
H2b: The goodwill of firms considered by investorsas having larger growth opportunity is highly valuedin the stock market.

Both H2a and H2b mean that investors value the goodwill of firms with larger growth opportunity than that of firms with smaller growth opportunity.

3. Research Design

To examine the value relevance of goodwill, we modify a regression model so that market capitalization is written as a function of the book value of equity and earnings. Many prior studies in the value relevance literature use similar models (see Holthausen and Watts, 2001; Barth et al, 2001). As stated in Section 2, many of the previous studies about the market valuation of goodwill employ similar regression models. Following previous studies, we estimate regression equation (1) to test H1. Definitions of each variable are as follows.

$$MV_t = \alpha_0 + \alpha_1 NI_t + \alpha_2 BVEXGW_t + \alpha_3 GWXGWAQ_t + \underline{\alpha_4} GWAQ + \varepsilon \qquad (1)$$

Next, we describe $GWAQ_t$, a proxy variable for book value of new goodwill acquired in the current year at closing date of year *t*. First, we calculate goodwill for year *t* before amortization by adding goodwill amortization for year *t*to the book value of goodwill atthe closing dateof

Variable	Definition
MV_t	Market capitalization three months after closing date of year *t*
NI_t	Net income for year *t*
$BVEXGW_t$	Book value of equity excluding book value of total goodwill at closing date of year *t*
$GWXGWAQ_t$	Book value of total goodwill at closing date of year *t* excluding new goodwill acquired in year *t*
$GWAQ_t$	Book value of new goodwill acquired in the current year at closing date of year *t* ((book value of total goodwill at closing date of year *t* + goodwill amortization for year *t* - book value of total goodwill at closing date of year *t*-1) * residual rate of goodwill)

year*t*. When goodwill for year *t* before amortization is larger than book value of goodwill at the closing date of year *t*, the excess can be considered as new goodwill acquired in the current year. Second, we calculate a residual rate of goodwill for each observationas (1 – (goodwill amortization for year *t* / (book value of total goodwill at closing date of year t + goodwill amortization for year t))).

Then, we estimate $GWAQ_t$ by multiplying new goodwill acquired in the current year by the average residual rate. The reason that we do not use residual rates of each observation directly is that that there are indicationsthat firms amortize their goodwill over a longer period than the maximum amortization period allowed by accounting standards, and so it is inappropriate to adopt these rates. The estimated average residual rate of goodwill is 84.5%. This means that the estimated average amortization period is 6.45 years (1 / (1 - 0.845)),which seems reasonable. We are interested in the coefficient of $GWAQ_t$,, α_4, and expect that it is positive.

In order to test H2a, we estimate regression equation (2). We introduce two new independent variables to examine how growth opportunity affects market valuation of goodwill. One variable is the rate of sales growth ($CAGR_t$), and the other is the interaction term with $GWAQ_t$ ($GWAQ_t$*$CAGR_t$). Definitions of new variables are as follows.

$$MV_t = \alpha_0 + \alpha_1 NI_t + \alpha_2 BVEXGW_t + \alpha_3 GWXGWAQ_t + \alpha_4 GWAQ_t + \underline{\alpha_5} GWAQ_t * CAGR_t + \alpha_6 CAGR_t + \varepsilon \qquad (2)$$

Variable	Definition
$CAGR_t$	Compound annual growth rate of sales during (t-3)–(t-1)
$GWAQ_t * CAGR_t$	Interaction term of $GWAQ_t$ and $CAGR_t$

$CAGR_t$ is a proxy variable of an acquiring firm's growth opportunity. By introducing the interaction term of $GWAQ_t$ and $CAGR_t$, we can examine how growth opportunity affectsthe market valuation of goodwill. The variable of interest is $GWAQ_t * CAGR_t$, and its coefficient, α_5, is expected to be positive.

To test H2b, we divide all firms in the sample into fourgroups on the basis of the Tobin's Q ((market capitalization + book value of debt) / book value of total asset). Then, we estimate regression equation (1) for each group. The reason that we do not use a similar method to those used in the test of H2a is that Tobin's Q is highly correlated withMV_t and so it would beinappropriate to use the same method. If the growth opportunity of the acquiring firm hasa positive effect on the value relevance of goodwill, the coefficient of $GWAQ_t$, α_4, for the higher Tobin's Q's groupwill be larger than that ofthe lower Tobin's Q group. In order of increasing of Tobin's Q, the coefficients α_4 of each groupare named as $\alpha_{4,q1}$, $\alpha_{4,q2}$, $\alpha_{4,q3}$, $\alpha_{4,q4}$. We expect that $\alpha_{4,q1} < \alpha_{4,q2} < \alpha_{4,q3} < \alpha_{4,q4}$.

In this study, all variables that indicate an amount of money (MV_t, NI_t, $BVEXGW_t$, $GWXGWAQ_t$, $GWAQ_t$) are scaled by the book value of total asset at closing date of year t-1. To control for year effects and industry effects, year dummy variables and industry dummy variables are included in both regression equations (1) and (2). To handleheteroscedasticity, standard errors are corrected by the method of White [1980].

4. Sampling Procedure and Data

4.1. Sampling procedure

The data used in this study are collected from Nikkei's "NEEDS-FinancialQUEST" database, which is widely used in the analysis of Japanese companies. Our sample period is 2000–2013. Firm-year observations that meet the following criteria are included in our sample:

(a) the firm should be a nonfinancial company;
(b) the firms' fiscal year ends on March 31;
(c) all variables must have data available;
(d) the value of $GWAQ_t$ before scaling should be above the median in the first sample; and
(e) observationsin the top and bottom 1%for each variable in the first sample are excluded.

Criterion (d) is needed to limit the observations to those with an economically significant $GWAQ_t$. In all, 1,917 firm-year observations fulfill these criteria.

4.2. Data

Table 1 shows descriptive statistics and Table 2 presents the correlation matrix. Table 3 shows the distribution of observations by industry and fiscal year. Although Table 2 indicates that $CAGR_t$ and $GWAQ_t$*$CAGR_t$ are highly correlated, these VIFs are lower than 10. Thus, we do not change equation (2).

Table 1. Descriptive Statistics

	Mean	s. d.	Min	25%	Median	75%	Max	N
MV_t	0.661	0.559	0.046	0.299	0.504	0.806	5.021	1917
NI_t	0.024	0.036	-0.175	0.009	0.022	0.042	0.172	1917
$BVEXGW_t$	0.416	0.200	0.007	0.261	0.408	0.553	1.647	1917
$GWXGWAQ_t$	0.015	0.028	0.000	0.001	0.004	0.015	0.191	1917
$GWAQ_t$	0.014	0.026	0.000	0.002	0.005	0.014	0.242	1917
$CAGR_t$	0.048	0.102	-0.233	-0.010	0.035	0.093	0.635	1917

Table 2. Correlation Matrix

	①	②	③	④	⑤	⑥	⑦
① MV_t		0.6696	0.5967	0.1402	0.156	0.2418	0.2658
② NI_t	0.5458		0.4977	0.127	0.1386	0.2313	0.2424
③ $BVEXGW_t$	0.5183	0.4332		-0.0473	0.1592	0.0219	0.064
④ $GWXGWAQ_t$	0.083	0.0926	-0.1258		0.3378	0.1556	0.2215
⑤ $GWAQ_t$	0.1748	0.0831	0.058	0.2064		0.0861	0.3608
⑥ $CAGR_t$	0.2472	0.1758	0.0167	0.1172	0.0696		0.8628
⑦ $GWAQ*CAGR$	0.2527	0.113	0.0322	0.1262	0.4503	0.4864	

Pearson (Spearman) correlations are reported below (above) the diagonal.

MV_t	Market capitalization three months after closing date of year *t*
NI_t	Net income for year *t*
$BVEXGW_t$	Book value of equity excluding book value of total goodwill at closing date of year *t*
$GWXGWAQ_t$	Book value of total goodwill at closing date of year *t* excluding new goodwill acquired in year *t*
$GWAQ_t$	Book value of new goodwill acquired in the current year at closing date of year *t* ((book value of total goodwill at closing date of year *t* + goodwill amortization for year *t* - book value of total goodwill at closing date of year *t*-1) * residual rate of goodwill)
$CAGR_t$	Compound annual growth rate of sales during the period t-3 to t-1
$GWAQ_t*CAGR_t$	Interaction term of $GWAQ_t$ and $CAGR_t$

5. Results

5.1. Main results

Table 4. Regression results for the tests of Hypothesis 1 and Hypothesis 2a

Dependent variable	MV_t	Standard model	H1 Equation (1)	H2a Equation (2)
	Expected sign			
NI_t	+	5.893	5.9323	5.4831
		[10.99]***	[11.18]***	[10.75]***
$BVEXGW_t$	+	0.9275	0.9094	0.9395
		[10.14]***	[10.46]***	[12.74]***
GW_t	+	1.8326		
		[5.81]***		
$GWXGWAQ_t$	+		1.4157	1.2315
			[3.93]***	[3.41]***
$GWAQ_t$	+		2.2724	1.3579
			[4.24]***	[2.38]**
$CAGR_t$	+			0.5865
				[4.18]***
*GWAQ*CAGR*	+			14.6416
				[2.25]**
_cons	?	0.0126	0.0206	0.0022
		[0.17]	[0.28]	[0.03]
Year Dummy		Included	Included	Included
Industry Dummy		Included	Included	Included
Adj. R-squared		0.5271	0.5276	0.5526
N		1,917	1,917	1,917

* p<0.1, ** p<0.05, *** p<0.01

*** (**,*) Significant at the 1% (5%, 10%) level, two-tailed. Definitions of variables are as follows. $MV_t$is Market capitalization three months after closing date of year *t*.$NI_t$is Net income for year *t*. $BVEXGW_t$is Book value of equity excluding book value of total goodwill at closing date of year *t*. $GWXGWAQ_t$is Book value of total goodwill at closing date of year *t* excluding new goodwill acquired in year *t*. $GWAQ_t$is Book value of new goodwill acquired in the current year at closing date of year *t* ((book value of total goodwill at closing date of year *t* + goodwill amortization for year *t* - book value of total goodwill at closing date of year *t*-1) * residual rate of goodwill). $CAGR_t$ is Compound annual growth rate of sales during the period t-3 to t-1. $GWAQ_t*CAGR_t$ is Interaction term of $GWAQ_t$ and $CAGR_t$.

Table 4 shows the regression results for H1 and H2a. In column 1 of Table 4, we report the regression results of the standard regression model with market capitalization as a dependent variable and net income, book value of equity excluding goodwill, and goodwill as independent variables, a model widely used in the previous studies.The results indicate that coefficients of each variable are significantly positive, and these results are consistent with previous studies. The significantly positive value of the coefficient of GW_t implies that the stock market values goodwill in our sample.

In column 2 of Table 4, we present the regression results of equation (1) for H1. The results indicate that the coefficient of $GWAQ_t$ is positive (2.2724) and statistically significant ($p<0.01$). These results imply that not only total goodwill but also new goodwill acquired in the current year is valued by investors in Japan;this is consistent with the hypothesis that since investors know goodwill to be valuable on average, they value goodwill even when the goodwill was acquired recently.From these results, H1 is supported.

Column 3 reports the estimation results of equation (2) for the test of H2a. We are interested in the coefficient of $GWAQ_t*CAGR_t$. The coefficient is positive and statistically significant. This result indicates that firms achieving higher growth in the past receive higher market valuation for their own goodwill in the stock market. Based on these results, it is plausible to say that investors attach higher value to the goodwill of firms with abundant growth opportunity and encourage such firms to acquire goodwill.

Table 5 presents the regression results for the test of H2b. We test H2b by regressing equation (1) for each subgroup classified by Tobin's Q. Column 1 shows the regression results of the group with the least growth opportunity, with each subsequent column showing firms with more growth opportunity than the previous column. The results for the group with the greatest growth opportunity are shown in column 4. These resultsindicate that the coefficients of $GWAQ_t$ are positive for each group, though there are differences in the level of statistical significance. Moreover, these results show that the groups with more growth opportunity have a larger positive value for the coefficient of $GWAQ_t$. This suggests that the stock market tends to highly value the goodwill of firms that are considered by investors to have larger growth opportunity, which is consistent with the results of the test for H2a.

We test these differences among the coefficients of $GWAQ_t$ ($\alpha_{4,q1}<\alpha_{4,q2}<\alpha_{4,q3}<\alpha_{4,q4}$) statistically. Taking the comparison of $\alpha_{4,q1}$ with $\alpha_{4,q2}$ for example, we first make the second quartile dummy variable, $Dummy_{2nd\ quartile}$ and its interaction term with $GWAQ_t$, $GWAQ_t*Dummy_{2nd\ quartile}$. We then regress MV_t on NI_t, $BVEXGW_t$, $GWXGWAQ_t$, $GWAQ_t$, $Dummy_{2nd\ quartile}$, and $GWAQ_t*Dummy_{2nd\ quartile}$ for the joint sample of the first and second quartile groups. The coefficient of the interaction term indicates the excess value of the coefficient of $GWAQ_t$. We adopt the same method for each joint sample. The results show that all of the coefficients of the interaction term for each joint sample are positive

and statistically significant. This means that the differences among the coefficients of $GWAQ_t$ ($\alpha_{4,q1}<\alpha_{4,q2}<\alpha_{4,q3}<\alpha_{4,q4}$) are statistically significant.
In summary, our regression results for the sample of the Japanese firms present evidence to support our hypotheses, H1, H2a, and H2b. This suggests that new goodwill is valued and that the acquiring companies' growth opportunity has a positive effect on the value relevance of goodwill in Japan.

[Table 5 Regression results for the test of hypothesis 2b]

Dependent variab	MV_t		H2b		
			Equation (1)		
	Expected sign	*1st Quartile*	*2nd Quatrti*	*3rd Quartile*	*4th Quartile*
NI_t	+	0.5775	0.1004	0.7605	4.7842
		[4.16]***	[1.21]	[5.22]***	[3.48]***
$BVEXGW_t$	+	0.6938	0.9818	0.9973	1.701
		[22.04]***	[65.88]***	[49.00]***	[7.75]***
$GWXGWAQ_t$	+	1.1696	1.0021	0.9721	2.3409
		[8.64]***	[9.59]***	[6.95]***	[3.20]***
$GWAQ_t$	+	0.3425	1.043	1.5741	3.4339
		[1.27]	[10.61]***	[9.79]***	[4.90]***
_cons	?	0.0264	0.0275	0.1107	-0.2046
		[0.81]	[1.67]*	[4.67]***	[-1.10]
Year Dummy		Included	Included	Included	Included
Industry Dummy		Included	Included	Included	Included
Adj. R-squared		0.781	0.9461	0.914	0.4636
N		480	479	479	479

* p<0.1, ** p<0.05, *** p<0.01

*** (**,*) Significant at the 1% (5%, 10%) level, two-tailed. Definitions of variables are as follows. $MV_t$is Market capitalization three months after closing date of year *t*.$NI_t$is Net income for year *t*. $BVEXGW_t$is Book value of equity excluding book value of total goodwill at closing date of year *t*. $GWXGWAQ_t$is Book value of total goodwill at closing date of year *t* excluding new goodwill acquired in year *t*. $GWAQ_t$is Book value of new goodwill acquired in the current year at closing date of year *t* ((book value of total goodwill at closing date of year *t* + goodwill amortization for year *t* - book value of total goodwill at closing date of year *t*-1) * residual rate of goodwill). $CAGR_t$ is Compound annual growth rate of sales during the period t-3 to t-1. $GWAQ_t$*$CAGR_t$ is Interaction term of $GWAQ_t$ and $CAGR_t$.

5.2. Robustness check

In the preceding section, we test H2a by estimating equation (2) and H2b by estimating equation (1) for each subgroup. These results generally support the hypotheses and suggest that the acquiring company's growth opportunity has a positive effect on the value relevance of new goodwill in Japan. In this section, we conduct tests to check the robustness of our findings. Specifically, we change the proxy variable for growth opportunity in the retest for H2a and use an alternative measurement for classifying our sample in the retest for H2b. Descriptive statistics and the correlation matricesfor these tests are omitted.

5.2.1. Robustness check for H2a

In the main test for H2a, we use $CAGR_t$, the compound annual growth rate of sales during the period from t-3 to t-1 as a proxy variable for growth opportunity. To check the robustness of the results, we retest H2a by using GR_t, the growth rate of sales in the year t-1. Table 6 shows the regression results of the retest.

The results show that the estimated coefficient of $GWAQ_t*GR_t$ is significantly positive at the 1%level and does not differ much from that of $GWAQ_t*CAGR_t$ in the main results. Additionally, there are not any significant differences for other coefficients from the main results. These results of the retest also support H2a. Hence, the results of the primary test for H2a are robust.

Table 6. Regression results of the retest for H2a

Dependent variable	MV_t	H2a Equation (2)
	Expected sign	
NI_t	+	5.6393
		[10.78]***
$BVEXGW_t$	+	0.9291
		[11.63]***
$GWXGWAQ_t$	+	1.2493
		[3.39]***
$GWAQ_t$	+	1.5609
		[3.21]***
GR_t	+	0.2515
		[2.38]**
$GWAQ_t*GR_t$	+	12.9546
		[2.46]**
_cons	?	0.0213
		[0.30]
Year Dummy		Included
Industry Dummy		Included
Adj. R-squared		0.541
N		1917

* p<0.1, ** p<0.05, *** p<0.01

5.2.2. Robustness check for H2b

In the main test for H2b, we use Tobin's Qto partition the main sample into four groups. To check the robustness of the results, we retest H2b by usingPBR_t, the price–book-value ratio, as the value for grouping firms into quartiles. The regression results of the retest are shown in Table 7.

The regression results of the retest indicate that the coefficient of $GWAQ_t$ increases as PBR_t becomes higher and that they are generally consistent with that of the main analysis using Tobin's Q.[2]Therefore, the results of the main test

[2]We perform the same test as in the primary analysis. The results show that the differences between the coefficients of $GWAQ_t$ ($\alpha_{4,q1}<\alpha_{4,q2}<\alpha_{4,q3}<\alpha_{4,q4}$) are statistically significant.

for H2b are robust even when an alternative measure for growth opportunity is used.

Table 7. Regression results of the retest for H2b with firms grouped by PBR_t

Dependent variable	MV_t	H2b Equation (1)			
	Expected sign	*1st Quartile*	*2nd Quatrtile*	*3rd Quartile*	*4th Quartile*
NI_t	+	0.581	0.4124	0.8939	2.9644
		[4.95]***	[3.99]***	[3.62]***	[2.70]***
$BVEXGW_t$	+	0.5781	0.9443	1.3636	2.401
		[23.79]***	[43.60]***	[38.33]***	[13.72]***
$GWXGWAQ_t$	+	0.8723	0.8517	1.3461	2.9526
		[7.22]***	[6.90]***	[9.03]***	[4.19]***
$GWAQ_t$	+	0.4167	0.9881	1.5578	2.7707
		[1.80]*	[7.61]***	[7.00]***	[4.82]***
_cons	?	0.095	0.0018	0.0483	-0.2936
		[2.95]***	[0.10]	[1.26]	[-1.30]
Year Dummy		Included	Included	Included	Included
Industry Dummy		Included	Included	Included	Included
Adj. R-squared		0.7623	0.9236	0.9196	0.677
N		480	479	479	479

* p<0.1, ** p<0.05, *** p<0.01

6. Conclusion

Does an acquiring firm's growth opportunity affect the market valuation of goodwill? We performed a number of tests to answer the question and concluded that the market valuation of goodwill is positively influenced by the growth opportunities of acquiring firms in Japan. In other words, investors attach higher value to the goodwill of firms with larger growth opportunity than that of firms with smaller growth opportunity. The findings of this study are reasonably robust since the results of the robustness check are consistent with the results of the primary tests.

As discussed above, previous studies have been limited in their examination of the value relevance of goodwill and the factors that affect the evaluation. Further, these studies only focus on the components of goodwill. Therefore, this research may be the first to focus on the characteristics of the goodwill, that is, an asset that arise as a result of M&A as a growth strategy. In this study, we introduce growth opportunity into the goodwill value-relevance literature and investigate the relation between growth opportunity and the valuation of goodwill in the stock market. In addition, this study has implications for Japanese companies planning M&Aas a part of growth strategy. In recent years, M&A deals by mature companies have become common in Japan. According to the findings of this paper, however,the goodwill of companies with less growth opportunity tend to be less valued by investors than that of firms with more growth opportunity. Therefore, thisstudy implies that M&A works better when it is done in order to utilize internal growth opportunity rather than to incorporate external growth opportunity into the firm.

We cannot say whether our findings and implications can be generalized to different conditions such as other countries or other types of markets such as bond markets. These are remaining issues for future research.

REFERENCE

Aboody, D., and B. Lev. 1998. The Value Relevance of Intangibles: The Case of Software Capitalization. *Journal of Accounting Research* 36 (supplement) 161-191.

Al Jifri, K. and D. Citron. 2009. The Value-Relevance of Financial Statement Recognition versus Note Disclosure: Evidence from Goodwill Accounting. *European Accounting Review* 18 (1) : 123-140.

Andrade, G., M. Mitchell, and E. Stafford. 2001. New Evidence and Perspectives on Mergers. Harvard Business School Working Paper No. 01-070; HBS Finance Working Paper No. 01-070. Available at SSRN: http://ssrn.com/abstract=269313 or http://dx.doi.org/10.2139/ssrn.269313

Ball, R. and P. Brown. 1968. An Empirical Evaluation of Accounting Income Numbers. *Journal of Accounting Research* 6 (2) : 159-178.

Barth, M. E., W. H. Beaver, and W. R. Landsman. 2001. The relevance of the value relevance literature for financial accounting standard setting: another view. *Journal of Accounting and Economics*31 : 77–104.

Beaver, W. H. 1968. The Information Content of Annual Earnings Announcements. *Journal of Accounting Research* 6, Empirical Research in Accounting: Selected Studies 67-92.

Bugeja, M. and N. Gallery. 2006. Is older goodwill value relevant? *Accounting and Finance*46 : 519–535.

Henning, Steven L. and Lewis, Barry L. and Shaw, Wayne H. 2000. Valuation of the Components of Purchased Goodwill. *Journal of Accounting Research* 38 (2) : 375-386.

Holthausen, R. W. and R. L. Watts. 2001.The relevance of the value-relevance literature for financial accounting standard setting. *Journal of Accounting and Economics*31 : 77–104.

Jennings, R., J. Robinson, R. B. Thompson II, L. Duvall. 1996. The Relation Between Accounting Goodwill Numbers And Equity Values. *Journal of Business Finance and Accounting* 23 (4) : 513-533.

Johnson, L. T., and K. R. Petrone. 1998. Is Goodwill an Asset? *Accounting Horizons* 12 (3) : 293-303.

Jovanovic, B., and P. L. Rousseau. 2002. The Q-Theory of Mergers. *Working Paper,* NBER. Available at http://www.nber.org/papers/w8740

Kagaya, Tetsuyuki. 2006. Management of Intellectual Property right and Stock Value (in Japanese). Ito, Kunio (Eds.). *Accounting for Intangible Assets.*Chuokeizai-Sha, Inc (in Japanese).

Miyajima, Hideaki. 2007. *M&A in Japan: The Impacts on Corporate Governance, Organizational Efficiency, and Firm Value.* Toyo

Keizai Inc(in Japanese).

McCarthy, M. G., and D. K. Schneider. 1995. Market Perception of Goodwill: Some
Empirical Evidence. *Accounting and Business Research* 26 (1) : 69-81.

Morck, R., A. Shleifer, and R. W. Vishny. 1988. Characteristics of Targets of Hostile and Friendly Takeovers. Alan J. Auerbach. *Corporate Takeovers: Causes and Consequences* : 101-136.University of Chicago Press.

Nagata, Kyoko. 2002. Valuation of Goodwill recognized in Consolidated Financial Statement in Japanese Stock Market (in Japanese). *Accounting* 54 (2) : 290-297(in Japanese).

Oliveira, L., L. Rodrigues, and R. Craig. 2010. Intangible assets and value relevance: Evidence from the Portuguese stock exchange. *The British Accounting Review* 42 241–252.

White, H. 1980. A Heteroskedasticity-Consistent Covariance Matrix Estimator and a Direct Test for Heteroskedasticity. *Econometrica*48 (4) : 817-838.

Yamaji, Noriaki. 2008. An Empirical Study on Value Relevance of Goodwill and Goodwill Amortization (in Japanese). *Business and Accounting Review* 3: 39-50(in Japanese).