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INTERACTION EFFECT OF BUDGETARY PARTICIPATION AND MANAGEMENT ACCOUNTING SYSTEM ON MANAGERIAL PERFORMANCE: EVIDENCE FROM INDONESIA

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ABSTRACT

This study examines the examine effect of interaction budgetary participaton(BP) and the characteristics of management accounting systems (MAS) including scope (BMAS), timeliness (TMAS), angregation (AMAS) and integration (IMAS) on managerial performance (MP). The study used a survey questionnaire and was sent to leaders of the Regional Work Unit in Banda Aceh. A moderate regression model is used to examined the interaction effect among BP, the characteristics of each MAS and MP. The results showed the interaction between BP and BMAS is negatively related to MP. The interaction between BP and IMAS is positively related to MP. This study shows an interaction between BP and TMAS; BP and AMAS on MP. We explore implications on the development of management accounting theory in that the control system developed at private organization can not be generalized entirely tp government organizations.

JEL: H6, H7

KEYWORDS: Budgetary Participation, Management Accounting Systems, and Managerial Performance

INTRODUCTION

The influence of the interaction between budgetary participation (BP) and management accounting systems (MAS) on managerial performance (MP) is not clear in the management accounting literature. Obscurity is due to different research results among researchers. According to Cheng (2012), this is the result of non-monotonic interaction between BP and MP over the range of the broadscope Management Accounting System (BMAS). The non-monotonic nature of BMAS shows a moderate positive relationship between BP and MP when MAS is high and a moderate negative relationship when MAS is low. Eker (2009) showed that MAS can moderate relationships between participation in budgeting and performance and that MAS score varies according to low and high managerial performance. In other words, higher use of MAS information leads to high MP, while less use of MAS information leads to low MP. Differences in the findings are also caused by culture. Tsui (2001) concluded the effect of interaction between BP and MAS on MP is negative for Chinese managers and positive for western managers. However, Etemadi et al (2009) concluded there was no interaction effect between BP and the MAS on the performance of managers in Iran.

In general, accounting researchers measure MAS quality through the characteristics of the MAS (Gul, 1991; Abernethy and Guthrie, 1994; Gul and Chia, 1994; Mia and Chenhall, 1994; Chong, 1996; Chong and Chong, 1997; Moores and Yuen, 2001; Soobaroyen and Poorundersing, 2008; Eker, 2009; Cheng, 2012). Characteristics are often referred to as the dimensions developed by Chenhall and Morris (1986). These Dimensions of MAS consist of scope, timelinessss, aggregation and integration. There are several ways researchers have tested the MAS relationship with performance. First, they have examined the dimensions of MAS influence on performance (Chia, 1995; Bouwens and Abernethy, 2000; Soobaroyen and Poorundersing, 2008). Second, they saw some dimensions of the MAS, such as broad scope and timelinessss on performance (Tsui, 2001; Eker, 2009; Etemadi et al, 2009), scope and aggregation (Gul and Chia, 1994). Third, they examine the scope dimension on performance (Chong and Chong, 1997; Chong, 2004, Cheng, 2012).

This study explores the effects of the interaction between BP, MAS and MP. This study is different from previous studies as follows: 1) In a previous study (Tsui, 2001; Etemadi et al, 2009; Eker, 2009; Cheng, 2012) generalizations are done for managers in the private sector, while this research is conducted in the public sector, such as local government organizations. 2) Cheng (2012) examined MAS from the broad scope dimensions and Tsui (2001) and Eker (2009) examined MAS from broad scope and timelinesss. In contrast this study examines all dimensions of MAS including broad scope, timeliness, aggregation and integration as conducted by Soobaroyen and Poorundersing (2008). 3) In the research conducted by Tsui (2001) and Etemadi et al (2009) MAS is treated as an independent variable. In this study MAS is treated as a moderating variable.

The organization of this research paper is as follows: The first section introduces the paper. The second section provides a brief review of related literature, followed by the research methodology in the third section. The fourth section presents the main findings. The last section provides some concluding comments.

LITERATURE REVIEW

Several theories explain the management accounting system. These theories include: technical rational theory, contingency theory and institutional theory. The theory of rational technical, often called technical rational approach is commonly found in textbooks of management accounting (Houge, 2003: 9). This approach is based on neo-classical economic theory that considers the calculation of management accounting as a tool in decision-making that can help maximize organizational goals. According to management control theorists (Houge, 2003: 8) the rational technical approach can assist managers in making decisions that maximize organizational goals. Houge (2003: 9) says there are a few important things in a rational technical approach to consider including: 1) preset goals or consistent goal sets, 2) accounting is tool used to measure the efficiency of resource allocation for each level of the organization, 3) focus on the bureaucratic, hierarchical control and optimal resource allocation. In accounting, the rational technical approach is used to rationalize decision-making, for instance by using a system of budgetary control through standard setting.

Contingency theory in the organization claims that no universal model that can be accepted as an organizational system design. Gordon and Miller (1976) suggest useing contingency theory in the development of management accounting systems. Accounting information system development depends on the environment, organization and decision-making style (Gordon and Miller, 1976). Thus there are two factors that influence the effectiveness of MAS external factors and internal factors. Effectiveness is also highly dependent on characteristics of the MAS and various factors that help organizations achieve various levels of effectiveness. The factors that influence effectiveness are environmental factors, technology (Waterhouse and Tiessen, 1978) and business strategy (Simon, 1987). Changes in the organizations external environment require changes the management accounting system (Atkinson et al., 1997; Haldma and Laats, 2002; Waweru et al., 2004). Changes are needed because managers require management accounting systems in a special form that can help to make a decision on the environmental uncertainty and help monitor the progress of the strategy undertaken. (Baines and Langfield-Smith, 2003).

Institutional theory was discussed by Burns and Scapens (2000). They argue management accounting systems and regulations contain the organization's routines. Management accounting potentially become institutionalized. Change and stability is not something independent but happens simultaneously in the MAS process. Doyle (2008) conducted a test using the Burn and Scapens (2000) concluded that in public setting, new management accounting practices become institutionalized with evident change in organizational rules and routines. The private for profit setting did not succeed in institutionalizing new management accounting practices (Doyle, 2008) . Various theories used to explain MAS show that MAS can not be explained by a single theory. The use of shared theories are complementary so that the understanding of MAS becomes more comprehensive.

DIMENSIONS OF MANAGEMENT ACCOUNTING SYSTEMS

MAS dimensions consist of scope, timeline, integration, and aggregation. This dimension is used to understand information from the user's perspective (Chenhall and Morris, 1986). According to Soobaroyen and Poorundersing (2008), the dimensions are a reliable measurement of quality and describing the sophistication of a MAS. The following describes each dimension.

Scope

Scope is a dimensional continuum between a narrow scope on the one end and the broad scope of the other (Bouwens and Abernethy, 2000; Chong and Eggleton, 2003). MAS with narrow information only describes the historical data of a financial nature and only focuses on events within the organization. A narrow-scope of information is only adequate for static job functions because rules and procedures are sufficient for effective performance. Such information serves to make the decision for an organizational environment that is predictable, stable, and for routine jobs. Normally narrow information is generated by traditional accounting systems. Broad scope information, consists of internal, external, quantitative, qualitative, financial and non-financial data oriented past and future (Gordon, 2000; Mia and Winata, 2008). These characteristics are required by managers in making managerial decisions that are not routine because it can not predict a dynamic environment (Chenhall and Morris, 1986). Such information is also capable of enabling managers to understand the relationship between inputs and outputs (Abernethy and Guthrie, 1994) and can also be used to objectively assess parts consistently with each other. Broad scope information can also help managers compare costs of alternative decisions, develop strategies, evaluate existing strategies, focusing on efforts that lead to improved performance and evaluate the contribution and performance of organizational units and members who participate in the budget process (Kaplan, 1988; Sprinkle, 2003). The scope of the breadth of the information can be used as attention-directing and problem solving (Chenhall and Morris; 1986; Tsui, 2001). Information described by the MAS can be categorized into three parameters; the focus, quantification and time horizon (Gordon and Miller, 1976; Gordon and Narayanan, 1984; Chenhall and Morris, 1986). Broad scope of information help facilitate control and evaluation through non-financial reporting of data relating to the behavior of subordinates. Non-financial information is generated and can be used to evaluate performance and control functions for each employee in meeting organizational goals (Lillis, 2002).

Timeliness

Timely information (timelinesss) describes the availability of information when needed and describes the frequency of reporting information. These dimensions can reduce uncertainty by allowing the manager to continuously adjust their activities to respond to changes required by each part of the organization. MAS with timely information is able to report events as soon as possible, as well as provide feedback to make decisions (Chenhall and Morris, 1986).

Aggregation

The aggregation dimension provides summary information for functional areas, such as a summary report of activities of business units, during a certain period or through a decision model (Chenhall and Morris, 1986). Information aggregated at the level of existing functionality provide the manager with information about the outcome of the results of decisions made by other parts. These dimensions make the manager able to process large amounts of information, compres information in a format that can be processed quickly, increase the amount of information being processed in a given time, and reduce information overload. Information that meets these characteristics allows managers to consider some alternatives and create a better understanding of the relationship between input and output both within the department and between departments. Thus the possibility of solving the problem finds a solution that will optimize the organization as a whole.

Integration

Dimensional integration provides a coordinating role between sub-units of mutual dependence. Integrated information can reduce uncertainty, encourage learning and get ideas. It is also possible for managers to learn how to adapt products and production methods in accordance with other departments and also allows managers to understand the different objectives in decision-making of different units (Bouwens and Abernethy, 2000).

Relationship Management Accounting Systems and Managerial Performance

In this study the relationship of accounting systems and management performance can be explained by the theory of rational technical. Information provided by management accounting systems in the theory of rational technical, especially in government organizations, can assist the allocation of resources efficiently and effectively (Houge, 2003). As this approach illustrates, if the organization changes, then the management accounting system will also change. New management accounting systems will provide information that can assist decision makers (Mool, 2000). Therefore, the management accounting system is a part, structure, and organization of the elements that make up the management control system (Simons, 1990).

Managerial performance is the performance of managers in leading his unit that can be measured by how the manager runs managerial functions like planning, organizing, staffing, leading and controlling (Weihrich and Koontz, 2004). Managerial performance describes the degree of success achieved by an individual (Mahoney et al, 1963). Emphasis on the technical theory of rational look at the benefits of the use of management accounting systems that provide information to assist decision makers in carrying out their functions. These functions include planning, organizing, staffing, leading and controlling. To ensure the existing management accounting systems can help management, it requires certain characteristics that describe the quality of the management accounting system.

Testing characteristics of MAS in research is done in various ways. There are researchers who see the overall dimensions, parts of the dimensions, or only one dimension. The results showed that all the characteristics broadscope, timelinesss, aggregation and integration have an influence on managerial performance (Mia and Clarke, 1999; Chia, 1995, and Soobaroyen and Poorundersing, 2008). The characteristics broad scope and timeliness have an influence on managerial performance (Tsui, 2001; Eker, 2009; Etemadi et al, 2009). The characteristics broadscope and agregation (Gul and Chia, 1994) have an influence on managerial performance (Mia 1993; Chong and Chong (1997). Several other researchers claim information systems serve as a learning system for improving the performance of managers (Ferris and Haskins , 1988) with high-performance resulting from the availability of information needed (Hiromoto, 1988). A study conducted by Macintosh and Williams (1992) also concluded that public sector information systems and accounting is very valuable for running a variety of managerial roles.

Budgetary Relationship Participation and Managerial Performance

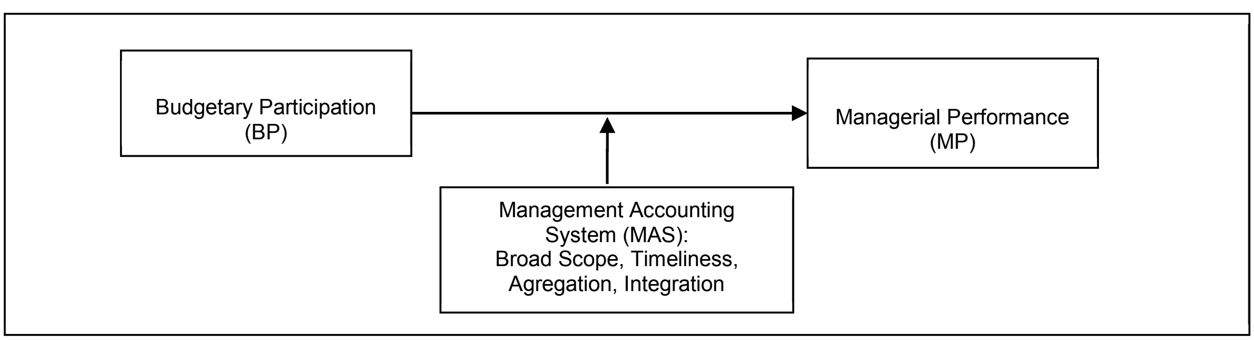
There are two theories used by researchers to explain the relationship between BP and the MP: motivation theory and contingency theory. Research results are not consistent in explaining the relationship of BP and MP which are based on motivation theory. Some researchers found no positive relationship between BP and MP (Brownell, 1982; Frucot and Shearon, 1991; Nouri and Parker, 1996; Charlos and Poon, 2000; Lopez et al, 2008; Eker, 2009). In contrast, other studies reported that participation has a negative effect (Cherrington and Cherrington, 1973; Locke and Schweinger, 1979) or even that two variables do not have a relationship (Kenis, 1979). Contingency theory states the effect of BP on MP is dependent on variables that are intervening and moderating. The variable relevant job information is an intervening variable between BP and MP as was demonstrated by researchers such as (Kren, 1992; Chong and Chong, 2002; Heath and Brown, 2007; Chong and Johnson, 2007). Tsui (2001), Eker (2009), and Cheng 2012 using MAS as a moderating variable between BP and MP with varying research results.

Research results from Tsui (2001) state that the interaction between BP and MAS is negative for Chinese managers and positive for western managers. The results of the study Eker (2009) state that interaction between BP and MAS has an influence on MP, where employees who have a higher performance have more use of MAS. Meanwhile, results of research conducted by Cheng (2012) state that broad scope MAS interacts non-monotonically towards MP. BMAS positively moderates the relationship between BP and MP if BMAS is high and moderates MAS Broadscope negatively if broad scope MAS is low. Several studies indicate that BP and MAS generally moderate the relationship between BP and MP. Based on study of the theory, the research hypothesis (H) can be put forward as follows:

H_1. Broad Scope MAS moderates the relationship between BP and MP
H_2. Timeliness MAS moderates the relationship between BP and MP
H_3. Aggregation MAS moderates the relationship between BP and MP
H_4. Integration MAS moderates the relationship between BP and MP

A summary of the research model describing the relationship between the variables can be seen in Figure 1.

Figure 1 Relationship between Variables



This Figure shows the relationship between variables. The Figure indicates linkages between the budgetary participation and managerial performance are moderated by management accounting system.

DATA AND METHODOLOGY

The objective of this study is to investigate the interaction between budgetary participaton (BP) and the characteristics of management accounting system (MAS) consisting of; broad scope (BMAS), timelinesss (TMAS), aggregation (AMAS) and integration (IMAS) on managerial performance (MP). To reach this objective, a survey questionnaire was used as a method to collect data from a Regional Work Unit listed in the Inspectorate Departement. Questionnaires were sent to the departement heads (top manager), head field (midle manager), section head/sub field head (lower manager) in the month of July 2013. A total of 220 questionnaires were sent and 104 were returned with a return of 47%.

Measurement: Managerial performance is measured through a self-evaluation questionnaire developed by Mahoney et al (1963). Respondents were asked to define his own managerial performance rating among nine Likert scale items on eight sub-dimensions of planning, Investigating, coordinating, evaluating, supervising, staffing, negotiating and representing and an overall score (Brownell, 1982; Brownell and McInnes, 1986; Tsui, 2001; Chong and Chong, 2002; Agbejule and Saarikoski, 2006; Frucot and White, 2006, Chong and Johnson, 2007; Yuen, 2007, Cheng 2012). Managerial performance value will be calculated by the average value of the eight sub-dimensions value. This variable has very high reliability which is shown by The Cronbarch'h alpha value of 0.91 (Nunnally, 1967).

BP was measured through six items by Milani (1975). The measurument has been widely used in previous studies (Tsui, 2001; Chong and Chong, 2002, Lau and Eggleton, 2003, Lau and Tan, 2006; Agbejule and Saarikoski, 2006; Frucot and White 2006; Chong and Jonnson 2007; Maiga and Jacobs 2007; Lopez et al, 2008; Eker, 2009; Sandalgaad et al, 2011; Cheng, 2012). Each item was measured on a seven-point 7 Likert scale, where 1= "strongly disagree", 7 = "strongly agree". The Cronbarch'h alpha values obtained was at 0, 92. This value indicates that scale internal reliability is high (Nunnally, 1967). MAS was measured through the MAS characteristics broad scope (BMAS), timelinesss (TMAS), aggregation (AMAS) and integration (IMAS), developed by Chenhall and Morris (1986). These measurements have been used by researchers such as Soobaroyen and Poorundersing (2008). There were in total 19 questions relating to the five BMAS information parameters; five for timelinesss, five for aggregation, and four for integration characteristics. The question posed by using a scale of 1 to 6 and 0, where 1= "not available", 6 = "always available" , while 0= "not appropriate" Cronbarch'h alpha values for the dimensions BMAS was 0.81, TMAS was 0.81, IMAS was 0.82 and AMAS was 0.715.

Data Analysis : To determine whether broadscope, timelinesss, aggregation and integration moderate the relationship between BP and MP, the following moderated regression model is used.

$$MP = \alpha + \beta 1(BP) + \beta 2(BMAS) + \beta 3(TMAS) + \beta 4(AMAS) + \beta 5(IMAS) + \beta 6(BP) * (BMAS) + \beta 7(BP) * (TMAS) + \beta 8(BP) * (AMAS) + \beta 9(BP) * (IMAS) + \mathcal{E} \quad (1)$$

Where (BP)*(BMAS), (BP)*(TMAS), (BP)*(AMAS) and (BP)*(IMAS) are interaction term; β1-9 the regression coefficient. If β1-9 is significant and positive we have empirical evidence to support the hypothesis.

RESULT AND DISCUSSION

Demographic characteristics are given in Table 1. Descriptive statistics for independent variable BP, moderating variable MAS and dependent variable managerial performance and their average score for each subdimension, characteristic and item for above variables are given in Table 2.

Table 1: Demographic Characteristics of Respondents

Characteristics	Frequency	%
Sex		
Male	54	51.9
Female	50	48.1
Age (years)		
<30	7	6.7
31-40	40	38.5
41-50	43	41.3
51 >	14	13.5

This table shows the demographics of respondents to this study. The second column reports the results of the frequency. Note: N =104.

Table 2: Descriptive Statistics

Variable	Mean	Std Deviation	Actual range	Theoretical range
Panel A: Descriptive Variable (N=104)				
MP	5.88	1.48	2.13 - 8.75	1.00 - 9.00
BP	4.77	1.46	1.00 -7.00	1.00 - 7.00
BMAS	4.25	1.07	1.20 - 6.00	0.00 - 6.00
TMAS	4.23	1.09	1.20 - 6.00	0.00 – 6.00
AMAS	4.92	1.03	1.80 - 6.00	0.00 – 6.00
IMAS	4.51	0.94	1.50 - 6.00	0.00 – 6.00
Panel B : Summarized Subdimension (N=104)				
MP				
Subdimention.1	6.30	1.467	2 – 9	
Subdimention.2	6.44	1.364	3 – 9	
Subdimention.3	6.83	1.458	3 – 9	
Subdimention.4	6.07	1.942	1 – 9	
Subdimention.5	5.81	2.168	1 – 9	
Subdimention.6	5.09	2.208	1 – 9	
Subdimention.7	5.12	2.209	1 – 9	
Subdimention.8	5.43	2.144	1 – 9	
BP				
Item 1	4.85	1.653	1 – 7	
Item 2	5.22	1.723	1 – 7	
Item 3	4.63	1.685	1 – 7	
Item 4	4.41	1.825	1 – 7	
Item 5	4.75	1.671	1 – 7	
Item 6	4.62	1.656	1 – 7	
BMAS				
Characteristic 1	4.28	1.390	0 – 6	
Characteristic 2	4.01	1.445	0 – 6	
Characteristic 3	4.44	1.406	0 – 6	
Characteristic 4	4.48	1.393	0 – 6	
Characteristic 5	4.02	1.421	0 – 6	
TMAS				
Characteristic 1	4.22	1.238	0 – 6	
Characteristic 2	3.88	1.572	0 – 6	
Characteristic 3	4.82	1.283	1 – 6	
Characteristic 4	4.37	1.421	0 – 6	
Characteristic 5	3.87	1.619	0 – 6	
IMAS				
Characteristic 1	4.11	1.468	0 – 6	
Characteristic 2	4.68	1.248	1 – 6	
Characteristic 3	4.60	1.211	1 – 6	
Characteristic 4	4.67	1.218	1 – 6	

This table shows descriptive statistics . Panel A shows results of the descriptive variable. Panel B shows summarized subdimension results.

A correlaation matrix for budgetary participation, MAS characteristic, and performance is given in Table 3. The correlation matrixs show that BP is positively correlated with managerial performance and MAS characteristics as well, except the characteristic agregation (AMAS).

Table 3: Correlation Matrix

Variable	MP	BP	BMAS	TMAS	AMAS	IMAS
Managerial Performance (MP)	1	0.399^{**}	0.297^{**}	0.270^{**}	0.105	0.211^{*}
BP	0.399^{**}	1	0.078	0.110	0.079	0.082
BMAS	0.297^{**}	0.078	1	0.633^{**}	0.307^{**}	0.487^{**}
TMAS	0.270^{**}	0.110	0.633^{**}	1	0.404^{**}	0.521^{**}
AMAS	0.105	0.079	0.307^{**}	0.404^{**}	1	0.773^{**}
IMAS	0.211^{*}	0.082	0.487^{**}	0.521^{**}	0.773^{**}	1

*This table shows the correlation matrix. The table indicates correlation between MP and BP, BMAS, TMAS, AMAS, IMAS. BP and BMAS, TMAS, AMAS, IMAS. BMAS and TMAS, AMAS, IMAS. TMAS and AMAS, IMAS. AMAS and IMAS. **. Correlation is significant at the 0.01 level (2-tailed). *. Correlation is significant at the 0.05 level (2-tailed).*

Table 4 show the main effect of BP, BMAS, TMAS, AMAS and IMAS, interaction effect of BP and BMAS, the interaction effect of BP and TMAS, the interaction effect of BP and ASAM, the interaction of BP and ISAM on managerial performance. As Table 4 indicates, the effect of BP, BMAS, interaction effect of BP and BMAS, and the interaction BP and IMAS are significant. The first hypothesis (H_1) that BP and BMAS have impact on managerial performance is supported and the fourth hypothesis (H_4) that BP and IMAS have impact on managerial performance is supported. Table 4 contains the parameter estimate for main variables (BP, BMAS, TMAS, AMAS, IMAS) and interaction variables (BP*BMAS, BP*TMAS, BP*AMAS, BP*IMAS). Even though the interaction BP and BMAS is significant, its coefficient is negative. This confirms that the combination of BP and BMAS has an adverse impact on managerial performance in local government organization. The coefficient β7 and β8 which shows the interaction between TMAS and AMAS is insignificant, meaning that H2 and H3 are not supported.

Table 4: Regression Result

Variable	Coefficient	Estimated Value	SE	t	Sig	Hyphotesis	Result
Intercept	b_o	-1.331	2.538	-0.524	0.601		
BP	b_1	1.227	0.542	2.262	0.026*		
BMAS	b_2	1.383	0.671	2.060	0.042*		
TMAS	b_3	0.090	0.697	0.128	0.898		
AMAS	b_4	0.942	0.819	1.151	0.253		
IMAS	b_5	-1.250	0.883	-1.416	0.160		
BP*BMAS	b_6	-0.237	0.131	-1.805	0 .074**	H1	Supported
BP*TMAS	b_7	-0.005	0.136	-0.036	0.971	H2	Not supported
BP*AMAS	b_8	-0.240	0.162	-1.484	0.141	H3	Not supported
BP*IMAS	b_9	0.310	0.177	1.754	0.083**	H4	Supported

*This table shows the regression results include the coefficient, estimated value, SE, t value and sig. Notes: N=104; R^2=0.300 . adjusted R^2= 0.233; * significant at level 0.05; ** significant at level 0.1.*

CONCLUSIONS

The goal of this research is to investigate the interaction effect between BP and the MAS on MP. In this study, BP is treated as an independent variable and dimensions of MAS, consisting of BMAS, TMAS, AMAS and IMAS as moderating variables and MP as dependent variable. A survey questionnaire was used to collect data from a Regional Work Unit. Questionnaires were sent to departement heads representing top managers, head field representing middle managers, section head/sub field head representing lower manager listed in the Inspectorate Departement. A moderated regression is used to test the hypotheses proposed. Only two of the dimensions of the MAS; BMAS, IMAS and BP interact influence MP. BP and IMAS interact at a significant level to positvely influence M, while BP and BMAS interact at a significant level to negatively influence MP. This study supports the results of research by Tsui (2001) and Etemadi et al (2009) which states that the MAS (for broadscope dimensions and timelinesss) and managerial performance has a negative correlation to the high participation of managers of Chinese and Iran nationality. The empirical evidence of this study shows two conflicting findings on the dimensions of MAS; the first that the broadscope dimension showed a negative influence while the second dimension of integration to show a positive effect, although the effect is not strong. However, this condition indicates that the MAS-dimensional concept that is used in the private sector can not be fully generalized to public sector organizations, especially government organizations.

Managerial implications that can be drawn from the empirical evidence of this study include 1) BP and BMAS is a management tool that can be used to improve managerial performance. 2) Integration has the role of moderation between BP and BP MP and therefore must be considered to achieve integration within the organization. 3) The results between the dimensions of the MAS and the contrary in this study showed characteristics of MASs of different government organizations compared to characteristics of MAS on private organizations. This study has various limitations including; 1) constraints imposed by survey research methodology that uses non-targeted questionnaire respondents and has non-response bias (Birnberg, Shield and Young, 1990). 2) This research only focuses on the effect of the interaction between BP and MAS towards MP, while there are some other moderating variables such as locus of control and decentralized organizational culture that should be considered in further research.

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SALARY GAP AND OPERATING PERFORMANCE: PERSPECTIVE OF TOURNAMENT THEORY

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ABSTRACT

According to the tournament theory, different hierarchies are paid different salaries. The salary gap between different hierarchies can motivate employees. The empirical data are from the 2005-2009 Survey Report of Audit Firms in Taiwan and published by the Financial Supervisory Commission (FSC). The hierarchy in audit firms is divided into certificate accountant, officer, assistant officer, and assistant. This study investigates the relationship between the salary gap in different hierarchies in the workplace and the operating performance of audit firms in Taiwan. The empirical results are consistent with the tournament theory and show that the salary differences in different hierarchies are statistically and positively related to the operating performance. The salary gap increases with the rise of hierarchies in audit firms. Employees in audit firms obtain promotion opportunities by continuously competing with coworkers. Accordingly, the association between operating performance and salary difference between certificate accountants and officers is the greatest. The salary gap increases with each level of the hierarchy along with promotion incentives for employees.

JEL: M42

KEYWORDS: Salary Gap, Tournament Theory, Operating Performance, Audit Firms

INTRODUCTION

In a knowledge-based economy, knowledge becomes the primary driving force of productivity improvement and economic development. The maximum value for operating business is from employees' professional knowledge. The knowledge includes explicit and tacit knowledge. Explicit knowledge is easily transferred, but tacit knowledge is not easily transferred (Lane and Lubatkin, 1998; Polanyi, 1967; Teece, Pisano, and Shuen, 1997; Liebeskind, 1996). Tacit knowledge is revealed by application and obtained through practical use (Grant, 1996). The transfer of tacit knowledge is a very slow and complicated process (Teece et al., 1997). Audit firms belong to the knowledge-intensive and labor-intensive industry. The most important input factor is human capital, including employees' professional knowledge and capacity. Most professional knowledge in audit firms is tacit knowledge. Employees obtain important tacit knowledge through learning by doing (Pisano, 1994). New employees bring explicit knowledge into audit firms and establish tacit knowledge by experience. Therefore, investing in training and managing human capital would greatly improve organizational operating performance and productivity (Acemoglu and Pischke, 1999). In theory, human capital can provide economic value for organization (Youndt et al., 1996). However, it cannot be possessed by audit firms because employees can freely transfer to others. Audit firms have to manage and maintain the valued employees (Sveiby, 1997; Edvinsson and Malone, 1997). Therefore, audit firms should eagerly encourage and support those inventive and specific employees. To challenge employees, audit firms should continuously train and educate them. Audit firms should also establish a stimulated system of compensation, reward, and punishment to make employees consistently maintain the high level of inventiveness and uniqueness (Lepak and Snell, 1999).

Employees in audit firms are divided into four levels, including partnership accountants, managers, officers and assistants. Audit firms usually recruit a substantial amount of new professional assistants annually. After 2-3 years, these assistants gain professional experience and may be promoted to officers. With 3-5 years of work experience, officers may then be promoted into managers. After over 5 years of practical experience, managers can become partnership accountants (Elder, Beasley, and Arens, 2008). Audit firms have employment contracts with new employees. These new employees are required to pay a penalty for breaking the agreement if they leave their position before two years of employment. The salary of new employees is not high in audit firms. However, after acquiring experience on the job, these new employees accumulate more professional knowledge and experience in specialized industries and companies. Employers are then willing to pay them a higher salary (Hutchens, 1989). Determining a reasonable salary becomes a very important issue in attracting and retaining employees. According to the tournament theory, if audit firms pay different hierarchies different salaries, the salary gap can motivate employees. The wider the salary gap is for different hierarchies, the broader the ranges of raises are for employees. The objective of this study is to investigate the relationship between the salary gap in different professional hierarchies and the operating performance in audit firms. The remainder of this study proceeds as follows. The subsequent section presents a literature review and hypothesis development, followed by the depiction of research methodology. The next section reports empirical results. Finally, this study discusses and concludes in the last Section.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

When the level of performance of employees can be not observed, the supervision cost for managers to obtain relevant information regarding employees' performance will be too costly. The tournament theory states that employees with different skills can be ranked based on a comparison between his/her performance and that of coworkers. The issue of supervision cost can then be resolved (Lazear and Rosen, 1981). The tournament theory also indicates that when senior managers are risk-neutral they are paid according to their rank-order and individual output. The allocation of resources can then induce the same efficiency (Lazear and Rosen, 1981). Firms can have higher productivity when employees are supervised by those efficient workers. The optimal arrangement for employees is to assign those efficient workers to higher levels and pay them a higher salary (Mayer, 1960; Calvo and Wellisz, 1979). The performance of workers would then be higher (Ehrenberg and Smith, 2000). Salary is increased by a rise in hierarchy. Employees compete with one another in firms to get opportunities for promotion, which is similar to sequential elimination tournaments. In order to motivate excellent employees to devote themselves to their work and to sustain competition in the workplace, the salary gap in firms is extended by a rise in hierarchy. Employees can obtain a higher salary by working hard and being prepared to constantly compete. The salary gap between the second highest and the highest hierarchy is the largest, and they are not promoted often to maintain an intense competition between employees (Rosen, 1986). The practical phenomenon can be explained because different hierarchies are paid different salaries, and employees are motivated by the salary gap. The higher the raise in salary, the more promotion incentives employees have (Lazear and Rosen, 1981).

Regarding the empirical studies of the tournament theory, Main, O'Reilly III, and Wade (1993) assert that in the senior hierarchy, the extension of the salary gap is positively related to the operating performance in firms. Accordingly, the salary scheme designed by the tournament theory can greatly benefit firms. Eriksson (1999) uses the salary data and the personal background of 2600 mangers from 210 firms in Denmark as a research sample. His empirical results suggest that the mean salary gap between CEOs and managers significantly and positively is related to firms' operating performance. Lin and Lu (2009) examine the relationship between compensation gap and firm performance from the 2001-2004 Chinese public listed companies in China. Empirical results indicate that compensation gap between senior executives plays a tournament role and motivates managers to achieve the higher level of performance. However, there is the adverse effect in the tournament theory. Employees might collude clandestinely or compete excessively due to keen competition with one another. Siegel and Hambrick (2005) investigate the senior hierarchy in technology firms and found that the salary gap is significantly and negatively related to the firms' operating performance in the technology-intensive industry. Therefore, firms should concentrate on group cooperation, employees' assisting with one another, or equal pay to eliminate the vicious competition resulting from the tournament system (Lazear, 1998).

The tournament theory arose out of the labor economics literature more than 30 years ago. Since then, it has expanded to a wide range of other disciplines, such as law (Anabtawi, 2005), ecology (Zabel and Roe, 2009), psychology (Nieken and Sliwka, 2010), and finance (Bothner, Kang, and Stuart, 2007). Lazear and Rosen (1981) propose that the tournament theory can be explained the relationship between compensation gap and performance. The employee compensation remains perhaps the most powerful tool for engineering successful management of human capital and thereby promoting organization effectiveness (Connelly, Tihanyi, Crook, and Gangloff, 2014). However, Gupta and Shaw (2014) review the topics of attention in HRM and find that researches on employee compensation are sporadic and sparse. Furthermore, a study of audit firms from the perspective of tournament theory appears lacked.

Audit firms provide professional services by working group. Members of the working group must eagerly cooperate with one another to provide these services. Audit firms usually pay new employees lower salaries. When these new employees are promoted into a higher hierarchy, they can obtain a higher salary. The hierarchies in audit firms are divided into certificate accountants, officers, assistant officers, and assistants. According to the tournament theory, different hierarchies are paid different salaries. The salary gap between different hierarchies can motivate employees. The wider the ranges of salaries, the more promotion incentives increase for employees. This study predicts that the salary gap between different hierarchies is positively related to the operating performance in audit firms. The hypotheses in this study are as follows:

H1 ∶ The salary gap between certificate accountants and other employees positively relates to the operating performance in audit firms.

H2 ∶ The salary gap between certificate accountants and officers positively relates to the operating performance in audit firms.

H3 ∶ The salary gap between officers and assistant officers positively relates to the operating performance in audit firms.

H4 ∶ The salary gap between assistant officers and assistants positively relates to the operating performance in audit firms.

METHODOLOGY

<u>Empirical Model</u>

The structure-conduct-performance (S-C-P) theoretical framework in industrial economics states that market structures affect the firm's behavior and performance (Cowling and Waterson, 1976). Based on the S-C-P framework, this study investigates the relationship between salary gap and operating performance in audit firms and establishes the following cross-sectional regression equation to test our hypotheses.

$$PERFORM = \alpha_0 + \alpha_1 DIF\_N + \alpha_2 HC + \alpha_3 LICENSE + \alpha_4 MKS + \alpha_5 DIV + \alpha_6 CPE + \varepsilon \quad (1)$$

where,

PERFORM	=	financial performance of audit firms;
DIF_N	=	*DIF_cpaall*, differences in mean salary between certificate accountants and other employees;
	=	*DIF_cpaman*, differences in mean salary between certificate accountants and officers;
	=	*DIF_maninc*, differences in mean salary between officers and assistant officers;
	=	*DIF_incass*, differences in mean salary between assistant officers and assistants;
HC	=	educational levels of employees;
LICENSE	=	percentage of employees with an accounting certification;
DIV	=	degree of business diversification;
MKS	=	audit firm size; and
CPE	=	continuing professional education.

Variable Definitions

Dependent variable: Operating performance: This study defines the operating performance of audit firms as net income, which refers to revenue minus expense in audit firms. The expenses for audit firms include the salary of certificate accountants. However, the criteria for salary payments to certificate accountants vary across firms. In order to reduce such an artificial noise, the salaries of certificate accountants are added back to net income.

Independent variables: Differences in mean salary between hierarchies (DIF_N) This study divides total employees into four categories, including certificate accountants, officers, assistant officers, and assistants in audit firms. The inter-hierarchy wage gap is the mean salary of superior employees minus the mean salary of inferior employees divided by the number of inferior employees. This study establishes the differences between the mean salaries of certificate accountants and other employees (*DIF_cpaall*), the differences between the mean salaries of certificate accountants and officers (*DIF_cpaman*), the differences between the mean salaries of officers and assistant officers (*DIF_manin*), and the differences between the mean salaries of assistant officers and assistants (*DIF_incass*). The wider the differences in the mean salaries are, the higher the salary professionals obtain after receiving a promotion.

Control Variables

Human capital includes the personal ability, knowledge, skills, work experience, educational level, organizational creativity, ingenuity, and innovation of employees and managers (Swanson and Holton, 2001; Mincer, 1974). Bröcheler, Maijoor, and Witteloostuijn (2004) find that higher educational levels of employees improved the operating performance of audit firms. For this study, the length of education is used to determine the educational levels of employees (*HC*). Auditors with an accounting certification are equipped with academic and professional expertise and work experience, a symbol of professionalism. This study estimates the degree of professionalism by the number of auditors with an accounting certification (*LICENSE*). Audit firms also provide non-auditing services to meet their clients' needs. These services include taxation litigation and management consultancy. Therefore, diversity in service lines enhances the firms' efficiencies due to the existence of economies of scope arising from the sharing or joint utilization of inputs (Baumol, Panzar, and Willig, 1982; Markides and Williamson, 1996; Robins and Wiersema, 1995). For this study, Entropy is used to evaluate the degree of business diversification (*DIV*) as follows:

$$DIV = \sum_{i=1}^{5} S_i LOG\left(\frac{1}{S_i}\right) \quad (2)$$

where,

Si is the ratio of i to the total revenue in audit firms. The database shows that the services of audit firms can be divided into auditing, booking, management consultancy, taxation litigation, and other services. In theory, high Entropy indicates that an audit firm has more diversified levels (*DIV*). Prior studies suggest that the degree of business diversification positively relate to the operating performance in audit firms (e.g., Chen, Chang, and Lee, 2008; Michel and Shaked, 1984). Similarly, this study proposes that the diversified levels of audit firms are positively related to the operating performance. According to the economics theory, market share is positively associated with operating performance (Boulding and Staelin, 1990; Buzzell and Gale, 1987). Therefore, this study asserts that market share (*MKS*) is positively related to the operating performance. Continuing professional education are requirements for auditing professionals in the auditing industry. Auditors can then obtain the least knowledge of accounting, auditing, and taxation in the constantly changing management environment (Elder et al., 2008). The quality of auditing can be improved, and auditors can also meet the requirements of continuing auditing (Whittington and Pany, 2003). Continuing professional education is positively associated with operating performance (Russell, Terborg, and Powers, 1985; Delaney and Huselid, 1996; Creter and Summey, 2003; Nafukho and Hinton, 2003). This study defines continuing professional education as the natural logarithm of the training expenditure of audit firms.

RESULTS

Data

The empirical data are from the “Survey Report of Audit Firms in Taiwan” published by the Financial Supervisory Commission, Executive Yuan, and ranging from the years of 2005 to 2009. Contents of the survey include quantitative information of total revenues and their compositions, total expenses and their compositions, demographics of various levels of employees, and ending amounts of and changes in fixed assets. The Financial Supervisory Commission does not provide uniform serial number of audit firms because of trade secrets. Therefore, the empirical data used in this study are cross-sectional pooled data. The data can lead researchers to maximize the numbers of observations, and the study results can more accurately reflect the average effect of independent variables (Geletkanycz and Hambrick, 1997). This study examines the association between the salary gap of hierarchies and the operating performance in audit firms. The differentials in salary must be positive. The original sample is 4,337. For this study, audit firms employing certificate accountants, officers, assistant officers, and assistants are selected. The final number of observations is 587. They are 103, 112, 118, 133, and 121 in 2005, 2006, 2007, 2008, and 2009, respectively.

Descriptive Statistics

Table 1 illustrates descriptive statistics. The mean salary difference between certificate accountants and other employees (*DIF_cpaall*) is $1,324,442. The mean salary difference between certificate accountants and officers (*DIF_cpaman)* is $1,001,798. The mean salary difference between officers and assistant officers (*DIF_maninc*) is $225,087. The mean salary difference between assistant officers and assistants (*DIF_incass)* is $194,774. Table 2 shows that the mean salary differences increase as the hierarchies rise.

Table 1: Descriptive Statistics

Variable	Mean	Std. Dev.	Mini.	Maxi.	Q1	Median	Q3
PERFORM	1,770,690	1,313,760	1,474	10,576,887	990,915	1,446,102	2,111,235
DIF_cpaall	1,324,442	1,242,973	1,113	9,830,935	585,832	1,020,068	1,623,540
DIF_cpamma	1,001,798	1,169,673	853	9,264,063	315,546	658,889	1,265,200
DIF_maninc	225,087	195,372	3	1,533,038	86,827	177,200	306,354
DIF_incass	194,774	134,018	208	841,311	96,107	168,743	271,307
HC	15.566	0.686	12.75	16.75	15.25	15.733	16
LICENSE	0.142	0.071	0.027	0.846	0.1	0.129	0.167
MKS	0.621	2.846	0	26.244	0.033	0.064	0.161
DIV	0.297	0.132	0	0.657	0.212	0.317	0.387
CPE	9.380	4.473	0	17.715	8.825	10.783	12.004

This table shows the descriptive statistics for variables used in regression model. PERFORM is equal to operating performance of audit firms. DIF_cpaal1 is the mean salary difference between certificate accountants and other employees. DIF_cpaman is the mean salary difference between certificate accountants and officers. DIF_maninc is the mean salary difference between officers and assistant officers. DIF_incass is the mean salary difference between assistant officers and assistants. HC stands for the educational levels of employees. LICENSE is the percentage of employees with an accounting certification. DIV is the degree of business diversification. MKS represents the audit firm size. CPE is the natural logarithm of the training expenditure of audit firms. PERFORM, DIF_cpaall, DIF_cpamma, DIF_maninc, and DIF_incass are expressed in new Taiwan dollars

Correlation Matrix

Table 2 displays the correlation coefficients between dependent and independent variables used in regression models. The correlation coefficients for the independent variables, the mean salary difference between certificate accountants and other employees (*DIF_cpaall)* and the mean salary difference between certificate accountants and officers (*DIF_cpaman)*, are over 0.7. Furthermore, the correlation coefficients for the mean salary difference between certificate accountants and other employees (*DIF_cpaall)* and the mean salary difference between certificate accountants and officers (*DIF_cpaman)* are higher than 0.9. The correlation coefficients for other variables are all below 0.7. However, the variance inflation factors (VIFs) are less than 10 (un-tabulated), implying that no serious multi-collinearity exists among the independent variables.

Table 2: Correlation Matrix

Variables	1	2	3	4	5	6	7	8	9	10
1.*PERFORM*	1	0.975	0.903	0.454	0.313	0.210	-0.096	0.434	0.165	0.274
		(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.020)	(0.000)	(0.000)	(0.000)
2.*DIF_cpaall*	0.993	1	0.946	0.409	0.288	0.225	0.054	0.648	0.143	0.259
	(0.000)		(0.000)	(0.000)	(0.000)	(0.000)	(0.191)	(0.000)	(0.001)	(0.000)
3.*DIF_cpamma*	0.976	0.988	1	0.189	0.127	0.212	0.066	0.622	0.141	0.219
	(0.000)	(0.000)		(0.000)	(0.002)	(0.000)	(0.113)	(0.000)	(0.001)	(0.000)
4. *DIF_maninc*	0.496	0.463	0.346	1	0.267	0.161	0.032	0.453	0.083	0.291
	(0.000)	(0.000)	(0.000)		(0.000)	(0.000)	(0.437)	(0.000)	(0.043)	(0.000)
5.*DIF_incass*	0.296	0.271	0.186	0.233	1	0.100	-0.040	0.238	-0.001	0.213
	(0.000)	(0.000)	(0.000)	(0.000)		(0.016)	(0.333)	(0.000)	(0.990)	(0.000)
6.*HC*	0.242	0.184	0.170	0.126	0.082	1	0.147	0.355	0.068	0.224
	(0.000)	(0.000)	(0.000)	(0.002)	(0.048)		(0.000)	(0.000)	(0.098)	(0.000)
7.*LICENSE*	0.070	-0.155	-0.138	0.000	0.020	0.109	1	-0.101	0.035	0.062
	(0.089)	(0.000)	(0.001)	(0.995)	(0.622)	(0.008)		(0.014)	(0.394)	(0.131)
8.*MKS*	0.659	0.363	0.253	0.417	0.337	0.244	0.082	1	0.155	0.591
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.046)		(0.000)	(0.000)
9.*DIV*	0.159	0.139	0.127	0.069	0.017	0.088	0.071	0.083	1	0.047
	(0.000)	(0.001)	(0.002)	(0.094)	(0.689)	(0.033)	(0.085)	(0.044)		(0.253)
10.*CPE*	0.277	0.256	0.195	0.291	0.241	0.231	0.019	0.316	0.001	1
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.654)	(0.000)	(0.984)	

Table 2 displays the correlation for variables used in regression model. Pearson (Spearman) correlation coefficients are on the upper (lower) diagonal. The number of total observations is 587. Variables are defined in Table 1.

Regression Results

This study investigates the relationship between the salary gap of the hierarchies and the operating performance in audit firms. The empirical results of the hierarchical regression analysis are displayed in Panel A of Table 3. The independent variables of model (1-1) only shows 5 control variables. Different research variables for this study are added to Models (1-2) - (1-5). The adjusted coefficient of determination (Adjusted-R^2) for regression models are 0.451, 0.908, 0.960, 0.982 and 0.990 with F-statistic of 97.140, 346.472, 357.455, 464.100 and 623.688. All F-statistics are statistically significant at the 1 percent level, which indicates that our research variables explain dependent variable with both econometric and economic implications.

Model (1-2) illustrates that the coefficient for the mean salary differences between certificate accountants and other employees (*DIF_cpaall)* is significantly positive ($t = 158.277$，$p < 0.01$). A broad salary gap between certificate accountants and other employees indicates that the operating performance of an audit firm is higher. H1 receives a support. When the research variable represents the mean salary difference between certificate accountants and officers (*DIF_cpaman*), model (1-3) demonstrates that the coefficient of that variable is statistically positive ($t = 86.256$，$p < 0.01$). The salary gap between certificate accountants and officers is positively associated with the operating performance of audit firms and H2 receives a support. Model (1-4) simultaneously reports the mean salary difference between certificate accountants and officers (*DIF_cpaman*) and the mean salary difference between officers and assistant officers (*DIF_maninc*). The coefficients for these two variables are significantly positive ($t = 126.736$ and 26.913，$p < 0.01$). A broad mean salary difference between officers and assistant officers indicates that the operating performance of an audit firm is high. Therefore, H3 receives a support. Model (1-5) shows that The coefficient for the mean salary difference between assistant officers and assistants (*DIF_incass*) is also significantly positive ($t = 20.034$，$p < 0.01$). The salary gap between assistant officers and assistants positively relates to the operating performance in audit firms. H4 receives a support.

The empirical results of Panel A demonstrate that a larger salary differences between certificate accountants and officers promote the operating performance in audit firms. Previous studies suggest that the salary differences increase with higher hierarchies. Employees can obtain promotion opportunities by continuously competing with coworkers, which is similar to sequential elimination tournaments. To motivate excellent employees to maintain contributions and compete continuously, salary increases with higher hierarchies. Employees will work hard and continue to compete until the final tournament in order to obtain higher compensation. The salary gap is widest between the second highest hierarchy and the highest hierarchy. The competition at this level is the most aggressive (Rosen, 1986). In order to prove this proposition, the Wald test was used to examine the research variables of models (1-4) and (1-5). The empirical results are shown in Panel B of Table 3.

In model (1-4), the coefficient (α_1) for the mean salary difference between certificate accountants and officers (*DIF_cpaman*) is statistically higher than the coefficient (α_2) for the mean salary difference between officers and assistant officers (*DIF_maninc)* ($F=6.74$，$p<0.01$). In model (1-5), the coefficient (α_1) for the mean salary difference between certificate accountants and officers (*DIF_cpaman*) is significantly higher than the coefficient (α_2) for the mean salary difference between officers and assistant officers (*DIF_maninc)* ($F=2.82$，$p<0.01$). The coefficient (α_2) for the mean salary difference between officers and assistant officers (*DIF_maninc)* is statistically higher than the coefficient (α_3) for the mean salary difference between assistant officers and assistants (*DIF_incass)* ($F=10.80$，$p<0.01$).

Table 3: Regression Result for Relationship between Mean Salary Difference in Hierarchies of Audit Firms and Operating Performance

Panel A: Regression Result

Independent variables	Predicted sign	Model (1-1)	Model (1-2)	Model (1-3)	Model (1-4)	Model (1-5)
Research variables						
DIF_cpaall	+		0.970 (158.277)***			
DIF_cpaman	+			0.916 (86.256)***	0.901 (126.736)***	0.897 (163.955)***
DIF_maninc	+				0.170 (26.913)***	0.158 (32.391)***
DIF_incass	+					0.089 (20.034)***
Control variables						
HC	+	0.068 (2.094)**	0.012 (2.412)**	0.018 (2.020)**	0.014 (2.443)***	0.0123 (2.759)
LICENSE	+	0.004 (0.129)	0.013 (2.886)***	0.000 (0.028)	0.002 (0.342)***	0.007 (1.681)**
MKS	+	0.613 (18.581)***	0.020 (3.214)***	0.067 (6.186)***	0.010 (1.306)	-0.000 (-0.028)
DIV	+	0.101 (3.279)***	0.016 (3.455)***	0.022 (2.605)***	0.015 (2.647)***	0.017 (3.961)***
CPE	+	0.067 (2.057)**	0.016 (3.200)***	0.050 (5.678)***	0.023 (3.847)***	0.012 (2.547)***
Adjusted R^2		0.451	0.908	0.960	0.982	0.990
F-statistic		97.140***	346.472***	357.455***	464.100***	623.688***

Panel B: Coefficients of Wald Test

Wald Test	Difference of sign	Model (1-4) Standardized Coefficient (F-statistics)	Model (1-5) Standardized Coefficient (F-statistics)
α_1-α_2=0	+	0.731 (6.74)***	0.739 (2.82)***
α_2-α_3=0	+		0.069 (10.80)***
α_1-α_3=0	+		0.808 (9.35)***

$$PERFORM = \alpha_0 + \alpha_1 HC + \alpha_2 LICENSE + \alpha_3 MKS + \alpha_4 DIV + \alpha_5 CPE + \varepsilon \quad (1-1)$$

$$PERFORM = \alpha_0 + \alpha_1 DIF\_cpaall + \alpha_2 HC + \alpha_3 LICENSE + \alpha_4 MKS + \alpha_5 DIV + \alpha_6 CPE + \varepsilon \quad (1-2)$$

$$PERFORM = \alpha_0 + \alpha_1 DIF\_cpaman + \alpha_2 HC + \alpha_3 LICENSE + \alpha_4 MKS + \alpha_5 DIV + \alpha_6 CPE + \varepsilon \quad (1-3)$$

$$PERFORM = \alpha_0 + \alpha_1 DIF\_cpaman + \alpha_2 DIF\_maninc + \alpha_3 HC + \alpha_4 LICENSE + \alpha_5 MKS + \alpha_6 DIV + \alpha_7 CPE + \varepsilon \quad (1-4)$$

$$PERFORM = \alpha_0 + \alpha_1 DIF\_cpaman + \alpha_2 DIF\_maninc + \alpha_3 DIF\_incass + \alpha_4 HC + \alpha_5 LICENSE + \alpha_6 MKS + \alpha_7 DIV + \alpha_8 CPE + \varepsilon \quad (1-5)$$

*Panel A of this table shows the OLS regression results of salary gap in different hierarchies and the operating performance in audit firms. The empirical results of Model (1-2) demonstrate that a broad salary difference between certificate accountants and other employees promotes the operating performance of an audit firm. The empirical results of Model (1-3) indicate that a broad salary difference between certificate accountants and officers promotes the operating performance in audit firms. The empirical results of Model (1-4) represent that a broad salary difference between officers and assistant officers promotes the operating performance in audit firms. The empirical results of Model (1-5) demonstrate that a broad salary difference between assistant officers and assistants promotes the operating performance in audit firms. Panel (B) shows the empirical results of Wald Test. It indicates that the association between operating performance and salary gap between certificate accountants and officers is the greatest. *, **, *** Denote one-tailed significance at the 10 %, 5 % and 1 % levels. The number of total observations is 587. Variables are defined in Table 1.*

Furthermore, the coefficient (α_1) for the mean salary difference between certificate accountants and officers (*DIF_cpaman*) is also statistically higher than the coefficient (α_3) for the mean salary difference between assistant officers and assistants (*DIF_incass)* (F=9.35，p<0.01). The empirical results of Table 3 demonstrate that the coefficients for the relationship between the operating performance and the mean salary difference between certificate accountants and officers (*DIF_cpaman*) is significantly greater than the association between the mean salary difference between officers (*DIF_maninc)* and assistant officers and between assistant officers and assistants (*DIF_incass).* Furthermore, the coefficient for the association between the operating performance and the mean salary difference between officers and assistant officers (*DIF_maninc)* is greater than the association between the operating performance and the mean salary difference of assistant officers and assistants (*DIF_incass)*. In this study, the empirical results are consistent with the tournament theory. The mean salary gap is widest between the second highest hierarchy and the highest hierarchy. The salary differences are also statistically associated with the operating performance in audit firms.

DISCUSSION AND CONCLUSION

This study explores the relationship between the salary gap in different hierarchies and the operating performance in audit firms . The regression results show that the salary differences in different hierarchies are statistically and positively related to the operating performance. The parameter estimates with a multivariate Wald test demonstrate that the association between the operating performance and the salary difference between certificate accountants and other employees is greater than the relationship between the operating performance and the salary difference between officers and assistant officers and between assistant officers and assistants. Consequently, the association between the operating performance and the salary difference between certificate accountants and officers is the highest.

The empirical results are consistent with the tournament theory. The salary gap increases as the hierarchies in firms rise. Employees obtain promotion opportunities by continuously competing with coworkers. Employees can then positively affect the operating performance in firms. A wider salary difference between the hierarchies of audit firms indicates a higher operating performance. Therefore, audit firms can expand salary differences in hierarchies to increase operating performance by designing a salary system. These new assistants must work at least two years before being eligible for promotion. Audit firms also need a certain percentage of officers and assistant officers with work experience to train new employees. Audit firms usually have employment contracts with new assistants. These new assistants must pay a penalty for a breach of contract if they leave the position prior to two years of employment in audit firms. Therefore, the salary for new employees in audit firms is usually low. Due to the nature of the accounting industry, these assistants only make a small contribution to the operating performance in audit firms. However, audit firms can expand salary gap in different hierarchies to improve their productivity, and thereby enhance their operating performance. Thus, the empirical results of this study are practical and consistent with the current accounting industry.

Due to data availability, this study employs a cross-sectional data, which may suffer violations of the assumption of independent observations under the OLS regression model. Additionally, the turnover rate of employees in audit firm is unlikely to measure. These factors comprise a limitation in this study. Future studies may extend this study and investigate the formal and informal organizations in audit firms, the segregation of duties in management classes and centralization and separation of powers.

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CONTROL MECHANISMS AND ACCOUNTABILITY CHALLENGES IN NONPROFIT ORGANIZATIONS

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ABSTRACT

Nonprofit Organizations (NPOs) face numerous challenges in maintaining accountability. The lack of financial accountability creates risks in goal achievement. An environment of accountability positively contributes to the effectiveness and efficiency of operations. We interviewed 22 participants from 6 NPOs in the State of Delaware in our qualitative phenomenological study. We identified themes defining accountability, control mechanisms, and ethics. The greatest challenges affecting control mechanisms include expenditures controls and transparency. The results suggest that while most managers have a high awareness of controls and accountability, smaller NPOs struggle because they lack sufficient resources. The study adds to the understanding of best practices, which could benefit communities in which NPOs operate and encourage accountability to beneficiaries and other stakeholders.

JEL: M10, M40

KEYWORDS: Nonprofit, Accountability, Control Mechanism, Transparency, Ethics

INTRODUCTION

The number of Nonprofit Organizations (NPOs) in the United States increased from 1.16 million in 1998 to 1.51 million in 2008, representing a 31% increase (Wing, Roeger, & Pollak, 2012). NPOs are involved in almost all areas of the economy, including education, health, religious, charitable, scientific, and human services (Kistruck, Qureshi, & Beamish, 2013). Thus, NPOs play an important role in the socioeconomic development of the economy. In this research, we used a qualitative phenomenological design to explore the process of accountability in U.S. based NPOs. The purpose of this study was to gain an understanding of NPO financial accountability, operational controls and efficiency, and management challenges over accountability. We interviewed 22 participants from six NPOs in the State of Delaware. NPO manager comments obtained through face-to-face interviews form the basis of data used for analysis. We identified themes defining accountability, control mechanisms, and ethics. The greatest challenges affecting operational controls include controls over expenditures and transparency. The results suggest that while most managers have a high awareness of controls and accountability, smaller NPOs struggle because of the lack of resources. The results of this study could benefit NPO operations and the communities in which NPOs operate by encouraging accountability to all stakeholders. The remainder of the paper is organized as follows. The next section describes the literature review. Next, we present the methodology used in this paper. The results are reported in the following section. The final section contains conclusions and recommendations for future research.

LITERATURE REVIEW

NPOs traditionally provide social services and advocacy functions to underserved populations. These organizations experienced rapid changes during the recent economic downturn. The economic situation created a need for additional public services (Williams, 2010). The typical role of NPOs is to provide services when the market or governments fail to meet social services, health, and economic development needs of citizens (Moulton & Eckerd, 2012). The critical nature of public services offered by NPOs increases the need to improve governance. Baur and Schmitz (2012) indicated that the ability to adapt is related to the strength of accountability.

Accountability

Accountability represents an obligation to perform and to account for the organization's performance (Oakes & Young, 2008). Organizations achieve a level of accountability when individual managers agree to execute their duties within an environment of trust and high ethical standards (Fowler, 2008). Costa, Ramus, and Andreaus (2011) suggested that accountability involves three elements: (a) financial sustainability, (b) social responsibility, and (c) value creation. Argandoña (2009) operationalized accountability by focusing on three activities including (a) measuring and reporting on performance, (b) developing a process to handle complaints, and (c) measuring client satisfaction. While organizations must be accountable, accountability requires a commitment at the individual manager level (Songelwa, 2011). Accountability implies that there are people and groups who are on the receiving side of an organization's accountability. However, NPOs do not follow the agency theory structure of principals and agents (Jensen & Mackling, 1976). It is not clear who the principal is in the organization structure because no single person or group can claim ownership (Ebrahim, 2005). NPOs are responsible to numerous stakeholders including donors, regulators, and beneficiaries of NPO services (Moulton & Eckerd, 2012). The greater the complexity in transactions and corporate strategy, the more important accountability becomes. Accountability also adds to the transparency of management decisions. Transparency and accountability work together to add to the consistency of management actions (Crofts & Bisman, 2010; Szper & Prakash, 2011).

Organizational Governance Structure

An organization is successful when well-structured internal control mechanisms are in place and governance embraces a corporate strategy (Rost, Osterloh, Frey, & Inauen, 2010). Embracing governance as part of a corporate strategy is in line with the control environment framework as outlined by the Committee of Sponsoring Organizations (COSO) of the Treadway Commission (COSO, 2012). COSO (2012) defined the control environment as a top down structure that emanates from the board of directors and corresponding subcommittees including the audit committee. While the board is a critical element of the control environment, studies suggested that many board members lack the expertise to provide quality oversight (Sun & Anderson, 2012). Arena and Renz (2009) noted that there is a governance gap in the operations and development of ethics and accountability in NPOs. The gap applies to the governance of public sector and stakeholder's accountability. Ineffective governance increases the risk of corrupt activities, which may have significant consequences for organizational economic growth (Dennis, 2011).
Corporate governance includes the need to monitor management in ways that will ensure compliance to corporate policies (Marx & Davis, 2012). There is also a need for collaboration between management and board members to develop and manage the organization's purpose and strategy (Marx & Davis, 2012).

A corporate governance model provides a critical competitive advantage for NPOs as they compete with other NPOs for donations and a client base (Brickley, Van Horn, & Wedig, 2010; Mersland, 2011). In addition, the NPO governance model should consider and support other stakeholders that the organization serves (Curran & Totten, 2010). Stakeholders including donors, supporters, and governmental agencies are the primary users of an NPO's financial information (Moxham, 2009). Audited financial statements provide information about the financial position of an organization. Stakeholders use this information to monitor the financial effectiveness and efficiency of the NPO (Li, McDowell, & Hu, 2012). Audited financial statements give donors assurances over the appropriate use of their donations (Clark, 2006; Mayhew, 2012). The success of an organization involves many challenges, not only for its current operations but for the development of future projects (Johnston & Kouzmin, 2010). Governance involves a top-down approach to direct, control, and regulates activities within an organization (Ferkins, McDonald, & Shilbury, 2010). The development of an effective long term strategy requires a strong governance structure (Carman & Fredericks, 2010). To develop organizational effectiveness, management must adopt control strategies that monitor goal attainment (Williams, 2010). Both management and the board have a crucial role in the long term growth of the NPO. Both are responsible for developing and achieving strategic goals (Wood & Winston, 2005). Leaders of organizations also require personnel who have the appropriate training and understanding of accountability and a strong ethical base (Fowler, 2008). A strong top-down ethical environment is required if an organization hopes to hire and keep personnel who are appropriate for their roles (Ferkins et al., 2010). Corporate governance is ultimately the responsibility of individuals or persons entrusted with supervision, control, and the direction of an entity. A governance structure increases assurances that the organization adheres to all applicable laws and policies, avoids conflict of interest, protects assets, and presents financial reports that conform to IRS reporting standards (Elson, O'Callaghan, Holland, & Walker, 2012; Neely, 2011). Elson et al. (2012) contended that accountability forms the framework of the organization's governance framework.

Internal controls embedded in a governance structure impacts the (a) effectiveness and efficiency of operations, (b) reliability of financial reporting and (c) compliance with applicable laws and regulations (COSO, 2012: Helmer & Deming, 2011). Controls should be consistently reviewed and monitored (Ionescu, 2011). Organizations that have internal audit departments are most likely to implement programs such as periodic assessments of operational and financial controls (Iyer & Watkins, 2008). Policies and procedures form the basis of controls that ensure the completion of the corporate mission and development of the organization goals (Mayer, 2012). Preventing internal control failures can be an enormous challenge (Elson et al., 2012; Petrovits, Shakespeare, & Shih, 2011). Keating, Parson, and Roberts (2008) indicated that many NPOs, irrespective of size, fail to report all costs associated with fundraising. Smaller NPOs are likely to have just a few administrative staff members, thus it is difficult to segregate duties and implement complete and thorough review policies (Williams, 2010). In addition, these organizations may not have managers or board members with sufficient financial, regulatory, or control knowledge (Petrovits et al., 2011).

Transformational Leadership

Managers of NPOs face financial and operational accountability challenges that start with leadership (Beal & Griffin, 2012). There is a link between leadership and the internal control environment. Leadership is the ability to influence a group toward the achievement of its goals (Conlon et al., 2012; Smandek, Barthel, Winkler, & Ulbig, 2010). Leadership includes a variety of activities such as governing decision making, formulating goals and objectives, developing policies and regulations, and carrying out the day-to-day operations of an organization. Bass (1999) indicated that transformational leader is an individual who are able to inspire followers. Transformational leaders charge followers to merit the leaders' expectations, perceptions, and motivations to work toward their desired goals. This theory explains how leaders are able to successfully challenge followers to explore new ways to learn.

Transformational leaders create an open communication with individual followers in order to enhance the aim of the organization. McMurray, Pirola-Merlo, Sarros, and Islam (2010) indicated that leaders inspire followers by creating an understanding environment for parties through motivation and sense of attainment. To build trust for followers, leaders must be consistent with their beliefs and values. Leaders inspire subordinates through communication and empowerment within the organization. The power of the leader comes from the situation and the position held (Burns, 1978). Transformation leaders challenge followers to be vigilant and provide a high level of performance. Leaders encourage followers to provide their very best efforts toward the achievement of organizational goals (Schaltegger & Burritt, 2010; Homer & Baron, 2010). Leaders hold followers accountable and encourage transparency in all levels of management (Warrick, 2011). Leaders also serve as role models to the followers, which could influence the individual followers or internalize their ideas.

METHODOLOGY

We chose a phenomenological design because we wanted to explore the lived experiences of participants (Wolcott, 2009). This approach provided the framework for an extensive examination of multiple themes related to accountability and control mechanisms. Our overreaching research question was:

How can NPO leaders develop appropriate control mechanisms and meet the challenges influencing accountability? Data included 22 interviews over a 6 week period occurring in the fall of 2013. Participants worked as managers in one of six NPOs registered in the State of Delaware with annual revenue ranging from $100,000 to $212 million. Prior to our visits, we reviewed their individual IRS 990 forms to gain an understanding of the financial background of each NPO. Through the use of open-ended questions (see Appendix A), we explored what attributes are necessary to build and maintain accountability and control mechanisms. We recorded each interview and transcribed the recordings. This data was subsequently processed through nVivo 9.0 software in order to discern themes from the narrative segments.

RESULTS

Based upon our review of interview data, we identified three distinct themes. The following summarizes the three themes identified in our analysis of narrative segments.

<u>Thematic Label 1: Defining Accountability</u>

Many of the comments from participants related to the application of accountability from the view point of day-to-day operations. Several subthemes emerged in the analysis of the data related to accountability. Most comments related to financial accountability. However, comments covered the NPOs social responsibility and sustainability. Participants stated that financial accountability refers to their role in donor fund utilization and transparency. For expenditure controls, ten participants suggest that accountability is a reflection of the NPO leaders' commitment to community development projects that have been approved and allocated for implementation. Participant 18 (P18) made this comment as it relates to this control issue: "the resources that we receive from donors need to be used for the purpose for which the money was given." Participant 8 (P8) emphasized that accountability should reflect the efficiency and effectiveness of the NPO in utilizing donor funds. This way, "we are able to maximize our reach to those we serve." In addition, P8 stressed the importance that funding has on the sustainability of the organization.

Donor Fund Utilization: Participant 1 (P1) stated that financial accountability means that "each employee to hold themselves accountable." He stated that each employee has a responsibility to "bring in money to the organization and to make sure the funds are allocated to the appropriate places." P1 suggested that leaders have the responsibility of re-allocating any excess funds from individual projects in such a way to match the intent of donors with the strategic plan of the organization. Reallocation occurs when NPO leaders do not have sufficient donors to support operational needs of the organization. P1 emphasized that accountability should be a continuous process of resource augmentation so that funding for individual programs are appropriately allocated.

Participant 2 (P2) supported these comments by stating that the primary role of leaders is in working with the donors, particularly in reporting the details of how funds are used. P2 indicated that accountability includes the accounting of how donors want their donations be used and then how these funds are actually used. P1 articulated the term "fiduciary responsibility" to refer to the need for NPOs to account for donor fund utilization. P2 shared that accountability is "making sure that I am following all the procedures and policies and appropriately discharging my duties." P2 stated that policies and procedures form the basis of accountability. These policies take the guessing out of what we should do. Participant 3 (P3) supported this definition by stating that "financial accountability is making sure that we are spending the money the way it supposed to be." P3 reported that financial accountability is a necessary quality for NPOs as they request donor support and additional funding. P3 narrated that when NPOs are unable to account for funds in appropriate manner, "donors are not going to give any more money." Participant 7 (P7) also stressed that accountability occurs when we show our supporters that "services are in place and we are not misusing donations."

P7 and Participant 10 (P10) discussed the importance of knowledge of finances and how this knowledge is translated in the implementation of community projects. P7 stated that their finance department is charged with the responsibility of proving information and communicating the results of activity. P10 also stated that one of the roles of the business manager is communicating financial information to stakeholders. P8 described accountability as including a strong financial understanding of costs and related company resources. P8 implied that NPO leaders must possess the ability to manage a balance and sustainable means of financing the operational needs through the donations.

Transparency: Twenty participants indicated that operational controls and efficiency are addressed through the establishment of an environment of transparency. Both transparency and accountability are crucial in their sustainability. Participants linked transparency to financial accountability. Ten participants specifically used the term *transparency* to refer to the information shared by the organization to their respective stakeholders. Several participants suggested that NPOs implement system to ensure transparency. For instance, Participant 9 (P9) narrated his experiences on implementing a fund liquidation process and the mechanism to ensure transparency of financial use. P9 indicated that this includes documenting every transaction and making the documentation available to stakeholders.

The participants emphasized that control mechanisms are sometimes difficult with smaller organizations. P9 also indicated that transparency is difficult with smaller NPOs that lack sufficient resources to have appropriate control mechanisms. Participant 11, Participant 12 (P12), and Participant 13 (P13) indicated that their individual NPOs use financial monitoring controls to enhance transparency over the use of donor funds. P12 shared the process of receiving, recording, utilizing, and reporting of funds from donors. P13, on the other hand, used the term "reconciliation" to refer to the reporting process of donor fund utilization. Participant 15 also indicated that his NPO uses a "lot of checks and balances to make sure that we are not misappropriating funds and to make sure that we are not billing for what has not been completed."

Ten of the participants suggested the role of NPO leaders is in ensuring the integrity of the organization and the effective and efficient use of program funds. Participant 19 (P19) described this role as "using them [the monies] appropriately…we want to make sure that the purpose of those monies has been discharged appropriately, and so in view of that we are so strict in financial accountability." P19 further suggested that their integrity as an organization must be supported with mechanisms that ensure efficiency and productivity.

Thematic Label 2: Control Mechanisms

Internal control mechanisms that participants discussed included participative management, segregation of duties, and monitoring mechanisms. Seventeen of the participants shared that local offices actively participate in home office financial reporting. P4 said that their organization is very keen in monitoring the allocation and utilization of program funds. P4 shared that at the local level, project implementers are given the responsibility of ensuring that all support and purchases are accounted for. Further, P4 stated that "we document every piece of information with backups and record all data into our financial records." These reports are then discussed in operational meetings. P4 indicated that the management team meets regularly. The primary focus of the discussion is the accounting of expenditures. The management team reviews the justification and approves these expenses. Segregation of duties and accountability at the local level can also be seen by reviewing field financial documentation. P8 shared that, "I must have receipts for everything and must account for all items. It is very detailed.

In addition, I need my supervisor to approve all my expenses." P9 shared that "each home office is responsible for monitoring the influx of monies in and out of their homes. Never ask me about cash, because we do not carry cash, instead we use purchase card provided by the organization. The purchase card serves as a mechanism in ensuring that the financial process is secured and valid." P8 continued that their responsibilities entail "ensuring saving receipts related to any type of transaction that is carried out." P9 suggested the importance of monitoring as an additional control. His comments specifically focus on the performance of staff and the coordinators. The focus of monitoring not only includes expenses, but also time allocation between projects.

Thematic Label 3: Promoting Ethical Values

The analysis from the participant's comments on promoting ethical values generated three subthemes: (a) implementation of stakeholders' policies, (b) leading by example, and (c) organizational integrity.

Implementation of stakeholders' policies: The participants in the study shared that NPOs staff and leaders are compelled to follow the rules and regulations of program stakeholders. Within the NPO organization, each individual employee is required to abide by organizational policies. This has been clearly demonstrated in the case of P7. He shared that before a new employee starts to work in the program, he or she must sign an agreement as a condition of employment that stipulates that organizational policies will be followed. In addition, P7 implied that many policies in their organization are influenced by the donor agencies. P7 stated that "some donors set policies and standards including giving specific orders as to the use of their funding." P7 shared that the implication of not following the policies could mean losing funding or being banned from implementing further programs and projects in the community.

P7 said that "these standards are important to us, and we have no choice other than following the standards, otherwise we lose donor support." In addition to the donor driven organizational policies, there are community standards that we must abide to. P7 indicated that the community set standards for our operation in the neighborhood and we must ensure these standards are followed; otherwise we will lose the community support. P7 summarized that our role is to be accountable to all stakeholders. He stated that we are accountable to everyone who supports us, and our policies are a reflection of this support. Thus, our success depends upon following the guidance outlined in these policies. P13 also supported this comment by sharing that the practices of their organization reflect the intent of donors and other stakeholders. P13 shared that employees are guided by the principles reflecting the values of beneficiaries and other program stakeholders. This guidance drives their efforts to ensure transparent and accountable program implementation.

Leading by example: This subtheme suggests that a part of the leadership framework is leaders who recognize that policies will not be enforced by the organization unless they are able to implement personal accountability. The comments from P1 reflect this understanding: "I try to lead by example. I think the work I do is transparent and that what I do is based upon a high understanding of ethics." P2 supported P1's comments by stating that leading by example only occurs when each leader develops personal accountability. P2 indicated that NPOs "are not perfect and that people can and do make mistakes." However, he further stated that when mistakes occur, individuals must be accountable for these mistakes. Being able to identify what you did wrong and then being allowed to follow through to correct the mistake is a part of accountability and a reflection of an ethical leadership framework. Participant 5 also shared that in addition to being a follower of the organizational policies, accountability starts with individual ethical standards. Similarly, P6 shared that "as an executive director, I try to promote accountability by my own personal example of leadership and ethics."

Promotion of organizational integrity: This subtheme is the reflection from participants who articulated the need for all NPO employees to maintain high ethical values and practices in all their field activities. The integrity of the organization is a critical element that determines the sustainability of its continued value. P3 described the value of integrity to an NPO. He stated that promoting individual and organizational integrity creates value. These organizations are rewarded with sustained donor and community support. P4 commented that integrity is a requirement for employment. P4 stated that, "integrity and high standards at this organization start from the very first day at new hire orientation." P4 shared that the content of the new hire training stresses the importance of accountability in the light of the goal to achieve organizational integrity. P8 also shared the potential outcome from employees who do not observe a high level of integrity. The integrity of each employee impacts the reputation of the organization. P8 indicated that the reputation of the organization is a reflection of its leadership, accountability, and integrity. P4 shared "we all have to be accountable. I strive to be accountable to employees and stakeholders. I think honesty and integrity are important values."

CONCLUSION AND RECOMMENDATIONS FOR FUTURE RESEARCH

Accountability is achieved when individual managers agree to execute his or her duties within an environment of trust and high ethical standards (Fowler, 2008). Organizational research scholars suggest that accountability and responsibility may have similar meanings but are focused in achieving different results (Fowler, 2008). In the context of the organizational partnership, accountability defines the commitment of an individual to another individual in the delivery of agreed results. Accountability emerged as a concept of tangible achievements of a commitment to individual and organizational values (Costa et al., 2011; Oakes & Young, 2008).

The participants focused on financial accountability and articulated the themes related to expenditure controls and the establishment of transparency mechanisms. The themes extracted from the narrative segments embrace the concepts that are embedded in many of the participants' operations. The themes we identified related to the importance of accountability are significant. Developing accountability within NPOs allows an organization to meet the demands of stakeholders. The application of financial accountability differs depending upon the size of the organization. Accountability in the context of larger NPOs includes monitoring systems over programs, purchases, and expenditures. However, smaller NPOs do not have structured control systems and are not able to implement best practices related to segregation of duties. This lack of structure could affect the overall sustainability of the program. Our results suggest that monitoring and evaluation of program processes is not always the priority of smaller NPOs.

While all the NPO participants in this study understood their individual responsibility, some NPOs lacked sufficient structure and staff to develop an appropriate accountability structure. A few of the organizations participating in the study did not have sufficient full time staff which is necessary to manage and monitor operations. Insufficient and untrained staff creates an environment of weak internal control structures. These circumstances increase transaction risks. However, staffing issues are not unique to small organizations. Even some of the larger NPOs we interviewed had minimal accounting staff to operate. Our results suggest that managers have a good understanding of internal control mechanisms. However, these managers depend upon the work of others who may not have the same understanding of accountability. The concept of accountability has been associated with the responsibilities and action of leaders (Behnam & MacLean, 2011). The findings of the study reiterated the value of best practices over internal control structures in the delivery of quality results (Lafont, 2010).

However, the results also suggest that these controls are not always implemented due to lack of resources. The challenge facing these firms is to find a system of controls that meets the needs of each individual organization. The challenges of small NPOs could be further explored by examining the areas of weaknesses in order to determine how these organizations can potentially strengthen the control environment. In this study, we assumed that implementation of financial accountability is an element that could provide financial advantage to NPOs. An exploration of how these practices are implemented in small, medium, and large NPOs can provide a framework guiding NPO leaders in the most effective strategies to achieve operational sustainability. Insufficient and unqualified staff leaves small NPOs susceptible to control risks. In addition, managers of smaller NPOs often have less experience as compared to those in larger organizations. As such, it can be difficult for an organization with limited resources to hire qualified staff. Without financial expertise, staff members struggle to analyze and organize financial data. Therefore, exploring what training is most effective for these organizations is a worthy research stream.

APPENDIX

Appendix A – Semi-structured Interview Questions

How has the board or the regulator influenced the management of your company?
How are your operations supervised by the regulatory authority if it is different from the board?
What financial and operational controls exist in your day-to-day operations?
What code of conduct exists in your organization and how does it influence the work output of management and staff of your company?
What operational challenges do you face?
How are your operations monitored and regulated?
How are people recruited into your company?
What mechanism is in place to identify training needs for management and staff to receive training to enhance their skills?
What mechanisms are in place for management and staff to meet and share ideas on operational and welfare matters?
What performance-related incentives exist to motivate employees in your company?

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WORK HABITS AS POSITIVE AND NEGATIVE INFLUENCE ON WORKPLACE PRODUCTIVITY

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ABSTRACT

The purpose of this study was to measure senior level executive perception of what encompasses successful workplace productivity in 21st century organizations. This qualitative study involved 42 senior level executives from 14 different industries and institutional groupings who represented Western organizations. The authors collected data from August 2013 to April 2014. Over 76% of the participants had over 10 years' experience in their professional field. These senior level executives indicated that a number of different categories such as Attitude, Ethics, Initiative, Interpersonal Skills, Personal Development, Teams, Leadership, Time Management, Focus, Rules and Solutions were either positive or negative workplace habits affecting productivity. The majority of executives cited Attitude as the most positive workplace habit affecting productivity and Unaccountability and Carelessness as the most negative workplace habits affecting productivity. The authors' findings offer insights into ways that senior leaders can adjust their hiring and training strategies so positive workplace habits are enabled and negative ones are contained and minimalized so greater productivity can be engaged in the workplace. We offer directions for future research in the subject area and point to areas for possible training consideration.

JEL: M12, M51, M53, M54

KEYWORDS: Workplace Productivity; Workplace Habits; Strategic HRM

INTRODUCTION

Measuring work place productivity is a difficult process to quantify. What does it mean to have a productive workplace? Is productivity measured strictly by financial results or do other characteristics play a role in the final definition? The characterization of the 21st century as the information age has brought with it an unquestionable number of challenges for businesses. These challenges range from ethical considerations to technological advances to methods of communicating a message to a global community forcing companies to evaluate business strategies and focus. Each of these concepts is a component of what becomes overall organizational productivity. According to Plunkett, Allen and Attner (2013), "productivity is the relationships between the amount of input needed to produce a given amount of output and the output itself" (p. 136). Understanding what defines specific inputs and outputs will differ from organization to organization. Kemppila and Lonnqvist (2003) believe productivity is the key measure of success. This study focused on the key concepts that senior level leaders believe encompass successful workplace productivity in 21st century organizations. Primarily, this study sought to understand the specific work habits expected by senior level management to create positive workplace productivity. In contrast, understanding what behaviors and work habits create negative productivity was also important. The following summarizes the opinions and findings of the research participants, which serves as the starting point for further discussion of these concepts. This paper presents a rational approach format beginning with a discussion on the research background followed by a thorough review of the literature.

The authors presented a methodology and data with a thorough analysis of the findings, concluding with a thorough analysis of the findings and concluding with recommendations for future study.

LITERATURE REVIEW

Previous studies agreed there are positive and negative connotations associated with an employee's workplace performance. de Waal (2012) identified 35 characteristics correlating with high performance in an organization. de Waal's study grouped these qualities into five factors, which effectively developed a descriptive framework model of a high performance organization (HPO). de Waal defined a HPO as one that "achieves financial and non-financial results that are exceedingly better than those of its peer group over a period of time of five years or more" (pp. 46-47). de Waal's five factors included: Continuous Improvement and Renewal, Openness and Action Orientation, Management Quality, Workforce Quality, and Long Term Orientation. The Long Term Orientation factor had the strongest correlation with competitive performance, while a sixth factor, Autonomy, did not show any correlation with relative performance and only a weak correlation with historical performance, and was eliminated as a relevant factor.
Additionally, in an examination of the impact of organizational culture on employee performance and productivity, Uddin, Luva, and Hossian (2013) conducted a qualitative study in the telecommunications industry in Bangladesh and concluded that organizational culture significantly influenced employee performance and productivity. Rapert and Wren (1998) incorporated both a structural framework and processes of communication theory when they concluded that both are determining factors between what is considered a high or a low performing organization.

One other consideration involved the changing nature of technological improvements in the workplace and how there may be generational differences in how workers are able to adjust to organizational demands. According to de Koning and Gelderblom (2006) the relationship of information and communications technology (ICT) use among older workers influences job performance. de Koning and Gelderblom concluded that older workers make less use of ICT and have more difficulties with complicated applications than younger workers. The diminished use of ICT was seen as a disadvantage for older workers, as the increased application of ICT in today's workplace is recognized as a positive impact on performance.

Meanwhile, Posthuma, Campion, Masimova, and Campion (2013) recognized there is a lack of consensus in the literature related to the structure of high performance work systems (HPWS). Posthuma et al developed a taxonomy to address what they determined to be a potential barrier to growth in the literature on HPWS, as well as limited knowledge that potentially resulted in diminished application of HPWS in organizations. Posthuma et al reviewed 193 peer-reviewed articles published between 1992 and 2011, categorizing 61 practices into nine categories to draw those conclusions: 1) compensation and benefits; 2) job and work design; 3) training and development; 4) recruiting and selection; 5) employee relations; 6) communication; 7) performance management and appraisal; 8) promotions; and, 9) turnover, retention, and exit management (pp. 1193-1199).

Jensen, Patel and Messersmith (2013) explored the influence of high-performance work systems (HPWS) with traditional human resources variables of job control, employee anxiety, role overload and turnover. Jensen et al surveyed nearly 1600 government workers in Wales, concluding that appropriate levels of job control and employee autonomy in the implementation of job responsibilities could ameliorate the negative consequences of HPWS. HPWS typically address human resources management practices that address recruitment and selection, compensation, and training, with the expectation of the organization realizing a strategic competitive advantage because of improved efficiencies in performance, productivity, and employee turnover.

Furthermore, Langfred (2013) investigated the underlying reason of what motivates people to seek autonomy at work. Langfred's research focused on two perspectives: 1) people desire autonomy to be more satisfied in their job, and 2) people desire autonomy to be more productive in their job. The Langfred study concluded that workers who believe that more autonomy would lead to greater satisfaction were more likely to seek increased autonomy than those seeking autonomy only for potential rewards. Dever and Morrison (2009) studied the positive workplace conditions that were highly conducive for productivity among women researchers. Among the factors leading to higher productivity were varieties of personal factors as well as the workplace culture. Complementing the traditionally recognized factors of personal motivation and individual practice were the institutional support structure of organization culture, work-life balance and workplace dynamics. Utilizing research survey data conducted in British workplaces, Brown, McHardy, McNabb and Taylor (2011) focused on the influence of worker commitment and loyalty on workplace performance. Brown et al concluded that through HR practices, management could increase commitment and loyalty among employees, resulting in improvement of workplace performance.

External factors also have an effect on performance as evidenced by Forde, Slater and Spencer (2006), who revisited a 1998 British workplace employee relations study examining the relationship between threat of job loss and participation on productivity. Forde et al found the threat of job loss on productivity was relatively insignificant compared with the highly positive influence occurring when workers fully participate in their work and productivity is increased. Concurrently, Linz (2003) analyzed job satisfaction of Russian workers, utilizing studies of U.S. workers showing positive correlation with labor productivity and negative correlation with labor turnover, and concluding both had an influence on the organization's performance. Both of these correlated factors, worker characteristics (e.g., work experience and supervisory responsibilities) and subjective characteristics (e.g., attitude toward work), appeared to influence the firm's performance. The Linz study did not attempt to assign causality of the factors on job satisfaction, but did evaluate factors that increased probability of perceived high level of job satisfaction.

Charness and Kuhn (2007) found that worker attitudes directly affected behavior and thus overall productivity. The impact of worker attitudes comparing their own wages to coworkers' wages was found to be a non-factor in affecting workers' efforts. Charness and Kuhn concluded that workers' efforts were related to their own wages, raising a question about the validity of equity concerns in relation to pay policy (wage compression and wage secrecy). Doucouliagos (1995) applied meta-analysis techniques to investigate effects of worker participation on productivity. Doucouliagos addressed two perspectives related to participation: supporters' arguments for improved worker commitment, and increased work effort resulting in efficiency and productivity; detractors' arguments that participation reduces managerial power waste of resources and other human resource problems.

Doucouliagos (1995) arrived at several conclusions: participation did not hinder productivity; democratic governance in labor-managed firms is not negatively correlated with productivity; labor-managed firms' (LMFs) profit-sharing is more positively related to productivity than worker participation in decision making; profit-sharing did not appear to be more important than participation in participatory capitalist firms (PCFs). This opposing view of the effect of profit-sharing was explained by Doucouliagos describing workers in LMFs as worker-entrepreneurs, more interested in profit and the firm's survival. Workers in PCFs, however, were described as hired labor, more interested in issues affecting them as workers, rather than in furthering the owner's interests.

Additionally, Heywood and Jirjahn (2004) explored the costs of absenteeism as it relates to productivity. The researchers hypothesized that interdependent worker productivity firms have higher costs of absence, and therefore spend additional resources on monitoring absences as compared with team production firms that experience lower costs for absenteeism. Heywood and Jirjahn determined that firms with a team approach have lower absence rates, which would then increase worker productivity and lower the organization's overhead costs. Mas and Moretti's (2009) study on peer pressure's effects in the workplace noted positive productivity outcomes from infusing highly productive personnel into a work group. Mas and Moretti concluded that positive productivity was the outcome of workers who interacted with highly functional team members. Meanwhile, those workers who did not have direct engagements with such engaged people did not experience the same level of productivity in their organizational setting.

Similarly, Abel (2013) explored the relationship between increasing employee satisfaction and lower labor costs. Recognizing a need to increase organizational efficiencies, Abel researched employer-employee relationships, and concluded that more satisfied employees likely provide organizations with human resources to address environmental challenges effecting increased profitability. There is also a connection to a study by Singh (2013), who explored the correlation between leader emotionally intelligent behaviors (EIBs) and the job satisfaction of their employees. Singh found that there is a significant correlation between employee job satisfaction and leaders' interpersonal and intrapersonal EIBs. The study concluded that a leader's EIBs are essentially intrinsic motivational factors that influence employees to perform at optimum levels due to job satisfaction. On the other hand, Singh concluded that dissatisfied employees are less influenced by the leader's EIBs and thus perform at less than desired optimal levels in the organization. Thus, there are opportunities and challenges for leaders who either have a positive or negative influence on their organization's operations and desire to effect a change toward greater productivity.

METHODOLOGY

Design and Population

This study utilized a qualitative, exploratory case study research design to consider how senior leaders identify and categorize positive and negative workplace habits involving current employees. This approach was performed in order to probe if there are approaches for organizational leaders to use when attempting to increase positive productivity levels and reduce negative behavior that causes productivity to decrease and morale to be lowered in the process. Data was collected from August 2013 through April 2014. Gaining insights from this method was seen as appropriate because its purpose was to provide senior leadership with understanding on ways to proactively engage future and current employees and connect them to the organization's cultural expectations. The results provide significant value in considering human capital need decisions in pre-employment and for training considerations for established workers.

Forty-two senior level leaders', coded RS1-RS42 to protect their identity, from14 industries and institutional groupings were chosen to participate in the study from a population of several hundred professional and social media connections of the researchers. Other invited connections did not respond to repeated requests from the researchers to provide their insights into the subject matter. Gender, age, and education were not considered significant areas of delineation for the current study. Tables 1 and 2 illustrate the participants' demographic background in terms of years of experience and areas of expertise makeup. In the open-ended online survey, the sampled participants were asked to describe their perspectives on work habits that may have a positive or negative influence on their organization's operations.

Table 1 Subjects' Years of Experience

Years in Work Area	n
1-10	10
11-20	12
21-30	13
31-40	5
41-50	2

Table 1 illustrate the participants' demographic background in terms of years of experience a. N=42 participants in the study

Recruitment, Data Collection and Analysis

The study was limited by the number of executives who agreed to visit the survey web site and complete both the demographic and survey questions. Participants were invited to give their opinion on workplace habits from the fields of education and learning; government and legal; manufacturing; consulting; service; communications; information technology; security; food and beverage; marketing; transportation; medical; nuclear engineering; and real estate. Prior to having access to the actual survey questions, participants were required to sign an informed consent document that explained participant rights and provides an assurance of strict confidentiality with any published documents relating to this study.

Table 2: Subjects' Work Fields

Area of Expertise	n
Education and Training	9
Military and Government	7
Service	5
Consulting	4
Manufacturing	4
IT/Software	3
Communications	2
Food and Beverage	2
Marketing	1
Medical	1
Nuclear	1
Real Estate	1
Security	1
Transportation	1

Table 2 illustrate the participants' demographic background in terms of years of areas of expertise makeup. N=42 participants in the study

Those participants who did not follow instructions were not allowed by the system to move on to the main survey pages. Participants who just filled in letters or numbers to defeat the system were not included in the survey tabulation. Approximately ten potential participants were excluded from the study for that reason. This study focused on two interview questions:

1. What does your organization consider to be the most important work habits that an employee should follow, which could lead to positive workplace productivity?
2. What does your organization consider to be the most detrimental work habits that an employee should avoid, which could lead to negative workplace productivity?

Research was conducted using an online survey method through SurveyMonkey™. This method allowed participants to use as much time as required to answer two open-ended survey questions at their leisure, but all responses were required to be entered during that session. Information was not tabulated by SurveyMonkey™ until the subject clicked on the submit button once their work was completed. Prior to the beginning of the survey session, potential subjects were informed of the purpose, benefits, measures to protect their identity, possible risks, and where to seek assistance if questions or concerns arose from their involvement in the study.

The instrumentation used for this study were semi-structured interview questions to gather participants' perceptions of both positive and negative workplace habits. Two open-ended questions were used to guide the study in determining what senior level leaders believe are work attributes that are either beneficial or detrimental to organizational productivity. Each question was categorized under two research topics. Survey question #1 was used to gather details on what senior leaders see as the most important work habits that an employee should follow to maintain and increase workplace productivity. Survey question #2 was used to gather details regarding what senior leaders in an organization view as the most detrimental work habits that an employee should avoid because such practices lower workplace productivity in an organization. Data analysis was conducted using a qualitative method study with a collective case study research design. Axial coding was utilized to evaluate the data closer and to specifically identify categories and clusters of information where the senior leaders might be in general agreement. Selective coding was also used to identify the major themes, constructs, and concepts of the study. The coding process reviewed emerging themes that were naturally categorized around the raw data that came from the received qualitative data.

RESULTS

The narrative data were analyzed, and themes and patterns emerged pertaining to the viewpoints of senior leaders and their perspectives on positive and negative workplace habits. The 42 senior level leaders in this study identified 11 general categories where on the research questions seemed to cluster. Participants indicated that workplace habits were aligned in the areas of attitude; rules; ethics; focus; development; initiative; interpersonal skills; solutions; time management; leadership; and teams. The number of subjects who commented on attitude issues in the workplace was at the top of the list in both the positive and negative habit inquiries. Ethics and Interpersonal Skills also shared in the top five categories in both listings, though not in the exact same position. Focus, Initiative, Personal Development, and Time Management also appeared in one of the top positive or negative categories of the study. Table 3 provides a side-by-side comparison of where all 11 categories ranked when all areas were categorized from the data collected and analyzed.

Table 3: Workplace Attitude Category Rankings

Positive Workplace Habits		Negative Workplace Habits	
Attitude	43%	Attitude	45%
Ethics	33%	Interpersonal Skills	29%
Initiative	26%	Time Management	26%
Interpersonal Skills	24%	Focus	24%
Personal Development	21%	Ethics	21%
Teams	17%	Initiative	17%
Leadership	14%	Rules	14%
Time Management	14%	Leadership	10%
Focus	12%	Personal Development	10%
Rules	12%	Solutions	10%
Solutions	7%	Team	5%

This table shows workplace attitude category rankings.

The top five issues in both positive and negative work habits that emerged from the data are presented. Attitude, Ethics, Focus, Initiative, Interpersonal Skills, Personal Development, and Time Management will be examined from the perspectives of the 42 senior level leaders who participated in this study.

Attitude

This category was the one noted by participants as both the top positive and negative workplace habit an employee can possess. Eighteen participants (43%) gave comments involving attitude related issues as a positive influence in the workplace while 19 participants (45%) provided input involving such practices being a negative influence in the organization. Table 4 shows specific comments from subjects on both sides of the attitude issue.

Ethics

Fourteen participants (33%) gave comments involving ethics related issues as a positive influence in the workplace while nine participants (21%) provided input involving such practices being a negative influence in the organization. Table 5 shows specific comments from subjects on both sides of the ethics issue.

Table 4: Workplace Attitude Characteristics

Positive Workplace Habits		Negative Workplace Habits	
Accountable	Positive Attitude	Absenteeism	Negative talk
Adaptable	Pride in work	Arrogance	Not committed
Attention to details	Professional	Backstabbing	Questions authority
Cooperation w/Peers	Quality	Careless	Reactive
Curiosity	Respectful	Complaining	Rude
Enthusiasm	Sense of humor	Disrespect	Selfish
Hard work	Servant Leadership	Disrespectful	Unaccountable
Initiative	Willing to learn	Finger pointing	Uncooperative
Open to ideas	Work-life balance	Inconsistency	Undependable
		Indifference	Unmotivated
		Lone wolf	Unwilling to change
		Low respect	

This table shows positive and negative workplace attitude characteristics.

Table 5: Workplace Ethics Characteristics

Positive Workplace Habits	Negative Workplace Habits
Environmental awareness	Bad mouth clients
Ethics	Corruption
Honesty	Inappropriate behavior
Integrity	Inappropriate language
Moral Courage	Lying
Work ethics	Misrepresenting facts

This table shows positive and negative workplace ethics characteristics.

Focus

Five participants (12%) gave comments involving focus related issues as a positive influence in the workplace while ten participants (24%) provided input involving such practices being a negative influence in the organization. Table 6 shows specific comments from subjects on both sides of the focus issue.

Table 6: Workplace Focus Characteristics

Positive Workplace Habits	Negative Workplace Habits
Attention to details	Divisive
Big Picture	Email wars
Dedication	Missed deadlines
Focus on customer	Not able to multi-task
Globally competitive	Personal problems
Right mind set	Repeated mistakes
	Unfocused work

This table shows positive and negative workplace focus characteristics.

Initiative

Eleven participants (26%) gave comments involving initiative related issues as a positive influence in the workplace while seven participants (17%) provided input involving such practices being a negative influence in the organization. Table 7 shows specific comments from subjects on both sides of the initiative issue.

Table 7: Workplace Initiative Characteristics

Positive Workplace Habits		Negative Workplace Habits
Commitment	Follow up	Accept poor quality
Customer Served	Initiative	Lack of follow up
Dependable	Intellectual curiosity	Lack of preparation
Diligent	Owns up to mistakes	Reactive in approach
End result in mind	Takes ownership	Unfocused work
Follow through		Unmotivated
		Unwilling to change

This table shows positive and negative workplace initiative characteristics.

Interpersonal Skills

Ten participants (24%) gave comments involving interpersonal skills related issues as a positive influence in the workplace while 12 participants (29%) provided input involving such practices being a negative influence in the organization. Table 8 shows specific comments from subjects on both sides of the interpersonal skills issue.

Table 8: Workplace Interpersonal Skills Characteristics

Positive Workplace Habits		Negative Workplace Habits	
Be wrong	Preparation	Arrogance	Inconsistency
Consistent	Prioritize	Disrespect	Lack of quality
Creativity	Quality	Ego centered	Not prepared
Detailed	Resourceful	Gossiper	Not value others
Help others	Responsibility	Ignore people	Poor people skills
Networks with others	Thoughtful	Inconsiderate	Unpredictable

This table shows positive and negative interpersonal skill characteristics.

Personal Development

Nine participants (21%) gave comments involving personal development related issues as a positive influence in the workplace while four participants (10%) provided input involving such practices being a negative influence in the organization. Table 9 shows specific comments from subjects on both sides of the personal development issue.

Table 9: Workplace Personal Development Characteristics

Positive Workplace Habits		Negative Workplace Habits
Coach others	Learnability	Inability to grow
Continuous development	Networking	Lack of follow up
Innovation	Persistent	Lack of suggestions
Learn software used	Willing to learn	Miscommunication

This table shows positive and negative workplace personal development characteristics.

Time Management

Six participants (14%) gave comments involving time management related issues as a positive influence in the workplace while 11 participants (26%) provided input involving such practices being a negative influence in the organization. Table 10 shows specific comments from subjects on both sides of the time management issue.

Table 10: Workplace Attitude Characteristics

Positive Workplace Habits		Negative Workplace Habits	
Being on time	Time allocation	Lack of time commit	Tardiness
Punctuality	Timely delivery	Not timely	Time commitment
Scheduling	Work until done	Procrastination	Unable to complete work

This table shows positive and negative workplace attitude characteristics.

CONCLUSIONS

The diverse nature of the participants of this study encompassed a wide range of expertise and professions ranging from both public sector and private sector organizations. The focus of this study was not on a specific measure of productivity but on expected behaviors of performance covering both positive and negative workplace habits. According to an overwhelming majority of cited opinions, attitude focused on such positive components of accountability, adaptability and professional behavior and such negative components of disrespect, unaccountability and carelessness.

In summary, the direct correlation of either positive or negative workplace habits to workplace productivity was based on intangible behaviors that are not easily quantified but are familiar to experienced leadership. The behaviors noted by participants for positive workplace productivity included: (a) ethics, (b) initiative, (c) interpersonal skills, and (d) personal development. Senior leaders also noted that negative behaviors affecting workplace productivity included: (a) lack of interpersonal skills, (b) inability to manage one's time, and (c) lack of individual focus.

Future Research

The basis of this study was on a wide range of senior level executives from both public sector and private sector organizations. Future research should focus on more specific professional disciplines. It would also be helpful to tie related organizational disciplines together to indicate whether a correlation exists between the disciplines. Another approach could be on geographic location. Future research needs to focus on a more specific work environment that could eventually be used in a comparative study between these disciplines.

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THE INCONSISTENT RESPONSE OF TURKISH EXPORT DEMAND TO REAL EXCHANGE RATE SHOCKS

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ABSTRACT

In this study, we examine the responsiveness of exports to the real exchange rate shocks for different countries. Employing a Vector Autoregressive (VAR) methodology, the effects of different real exchange rate shocks on the Turkish export demand is examined by using quarterly data from the Turkey's 15 major trade partners. The study finds that the depreciation of the aggregate real exchange rate affected the Turkish export demand positively and significantly for three quarters. After accounting for the effect of the aggregate real exchange rate, this study empirically shows that the responses of Turkish exports to individual bilateral real exchange rate shocks are not uniform across countries.

JEL: F17, F31

KEYWORDS: Turkish Exports, Foreign Exchange, Vector Autoregressive Method

INTRODUCTION

The relationship between movement in the real exchange rate and the trade volume is an important one in international trade. According to the Mundell-Fleming Model, for small open economies with an assumption of rigid nominal wages, an exchange rate appreciation would be detrimental to exports and conversely stimulate imports, while exchange rate depreciation would stimulate exports and adversely affect imports. There are a large number of empirical studies that investigate the effect of real exchange rate movements on trade flows (Arize, 1994; Bahmani-Oskooee, 1998; Aydin et al., 2004; Chou, 2004; Alam and Ahmed, 2010; Neyapti et al., 2007; Saygili and Saygili, 2011; Wong and Tang, 2011, Erdal et al., 2012, to name a few). Most of these studies rely on the real effective exchange rate measure, which is a weighted average of a basket of several bilateral exchange rates of a specific currency. The way that the real effective exchange rate is computed does not reveal how each bilateral exchange rate movement affects the bilateral exports. Therefore, the use of real effective exchange rates does not help determine whether country specific characteristics can distort the effect of real exchange rate movements on bilateral exports (Berthou, 2008).

Our study follows the same line of though at Berthou (2008). We argue that the responses of Turkish exports to individual bilateral exchange rates are inconsistent because the bilateral exchange rate is greatly distorted by the characteristics of importing and exporting countries, such as geographical distance, tariffs, and non-tariff barriers. Ignoring these characteristics biases the true impact of exchange rate movements on export (Auboin and Rutal, 2011). It is also noted that the composition of Turkish exports varies by country (Saygili and Saygili, 2011). Therefore, the price elasticities of exports are different, which could be another reason for the inconsistent behavior of Turkish export demand to bilateral exchange rate movements. The Turkish economy offers several interesting economic characteristics in the context of examining the responsiveness of exports to real exchange rate shocks. First, Turkey is a small and open economy, with total trade making up half of its GDP (OECD, 2011).

Starting in 1980, Turkey changed its inward-oriented development strategies to and export-led, outward-oriented growth policy, which led to sustained export growth (Arslan and Wijnbergen, 1993). Thus, high volatility in exports decreases the chance of a type II error – and error made when an incorrect null hypothesis is not rejected. Second, Turkey has experienced high and persistent inflation along with an unstable economic and political environment since the mid 1970s. A high volatility of exchange rate has been prevalent in the Turkish economy. Therefore, the effect of the exchange rate is visible, which minimizes the type II error, as well. Third, Turkey has relatively well-developed money market, foreign exchange, and bond markets that operate without any heavy distortionary regulations. Finally, Turkey is an important emerging country with the goal of becoming a member of the European Union.

The objectives of this study are twofold. First, this study investigates how a one-standard deviation shock to the aggregate real exchange rate affects the Turkish export demand by employing a Vector Autoregressive model (VAR). Second, utilizing data on Turkey's 15 major trading partners, we examine the effects of a bilateral real exchange rate between Turkey and each trading partner in relation to the aggregate real exchange rate on the Turkish export demand. To the best of our knowledge, this is the first study to examine this. The paper proceeds with a literature review. Section III presents the estimation methodology and data used in this study. The empirical estimation results are tabulated in section IV. We conclude with a discussion of the main findings and their implications.

LITERATURE REVIEW

According to a study by Berthou (2008), the characteristics of the exporting and importing countries can distort the bilateral exchange rate movements. Therefore, the reaction of a country's export demand to each bilateral exchange rate movement can be different. The study employed a gravity model for disaggregated trade data at the industry level (27 industries) for 20 OECD exporters and 52 developed and developing importing countries. The study by Berthou (2008) empirically shows how the geographical composition of exports, trade cost, transportation costs, tariffs and non-tariff barriers such as the quality of institutions, and the efficiency of customs can be contributing factors to the differences in the effect of real exchange rate movements on bilateral exports across exporting countries. The study confirms that the effect of real exchange rate movements on bilateral exports is reduced when the destination country is more distant. In particular, Australia exports to more distant countries than Belgium, which mainly exports to neighboring countries. Therefore, it is found that the reaction of Belgian exports to real exchange rate movements is 50% larger than the reaction of Australian exports, given their differences in the geographical structure of their exports. Thus, the real exchange rate affects trade differently depending on the distance of the country. The study by Flam and Nordstrom (2003) uses bilateral real exchange rate variable in a gravity equation to estimate the effects of the creation of the European currency union on the trade volume. Using a panel date with 20 exporting and importing OECD countries for the period 1989-2002, the study confirms that the elasticity of exports with respect to the bilateral real exchange rate is close to unity, while the elasticity of exports with respect to competitors' real exchange rate is less than one.

DATA AND METHODOLOGY

The benchmark model is a three-variable VAR model including the aggregate real exchange rate, real export values of Turkey, and real-world income. These variables are expressed in natural log form. The Schwarz criterion is used to determine the appropriate lag length for the benchmark VAR. The lag length of 5 was chosen for the estimation. Therefore, the benchmark VAR system consists of these three variables, namely aggregate real exchange rate, real export values of Turkey, and real-world income, the five lags, and a constant term. We have also used a set of dummy variables in our equations to account for seasonal variations in the model. Later, we extend the benchmark model to a four-variable model, including a relative real exchange rate for each trading partner. The relative real exchange rate is the ratio of the bilateral real exchange rate between Turkey and each trading partner used in this study to the aggregate real exchange rate. This variable is also expressed in a natural log form.

The VAR model is estimated by using quarterly data covering the time span from 1987:Q1 to 2011: Q2. The data, except the aggregate real exchange rate and the bilateral real exchange rates between Turkey and each trading partner are obtained from the IMF's International Financial Statistics (IFS) and the DataStream database. The data are provided in current US dollars. To express the Turkish export values in Turkish Lira, the domestic currency, the data on export values in dollars are multiplied by the nominal exchange rate of Turkish Lira (TL) per US dollar. The data on the Turkish export in Turkish Lira and world income in dollars are deflated by the Turkish consumer price index and the US consumer index to define them in real terms, respectively. This study utilizes data on the Turkey's 15 major trade partners to calculate the aggregate real exchange rate as well as the real bilateral exchange rates between Turkey and the 15 trading countries. Among the Turkey's 15 major trade partners, Germany has the biggest share in the Turkish total exports. It is followed in descending order by Italy, the United Kingdom, Russia, France, Spain, the Netherlands, Romania, Bulgaria, Belgium, Egypt, China, Poland, Switzerland, and Japan. First, the aggregate real exchange rate, RER, is calculated following the approach developed by Togan and Berument (2007). The formula used to estimate the RER is the following:

$$RER = \Pi\left[\frac{CPI_i / E_i}{CPI / E}\right]^{w_i} \tag{1}$$

Where ∏ is the product sign, CPI_i is the consumer price index of country *i* and E_i is the nominal exchange rate defined as domestic currency per unit of US dollar of country *i*. CPI represents the Turkish CPI, E is the TL (Turkish Lira) per US dollar and w_i is the competitiveness weight attached to country *i*. Second, the real bilateral exchange rate calculated between Turkey and each trading partner used in this study is defined as the following:

$$RER_{TURKEY,i} = \left(\frac{E_{TURKEY,i} * CPI_i}{CPI_{TURKEY}}\right)^{w_i} \tag{2}$$

Where $E_{TURKEY,i}$ is the nominal exchange rate between Turkey and *i*, trading partner country, CPI_i and CPI_{TURKEY} are the consumer price indices of country *i* and Turkey, respectively. Among Turkey's 15 trading partners used in this study, Belgium, France, Germany, Italy, the Netherlands, and Spain adopted the EURO as the local currency after the year 1999. So we used the TL/EURO nominal exchange rate for the Euro period. However, in order to eliminate any possible confusion, the study keeps the pre-Euro period currency names for those countries where relevant (e.g. the German Mark). Finally, we use a measure of the relative real exchange rate for each trading partner, in addition to the aggregate real exchange rate to assess whether the relative real exchange rate affects exports. The relative real exchange rate, RRER, can be defined as a ratio of the bilateral real exchange rate between Turkey and each trading partner to the real aggregate exchange rate. After expressing in the logarithm form, the logarithm form of RRER can be expressed as the following:

$$RRER_i = RER_{TURKEY} - RER \tag{3}$$

Where all variables in equation 3 are in the natural logarithm form, RRER captures how each individual real exchange rate in relation to aggregate RER affects the Turkish export demand.

EMPRICAL RESULTS AND DISCUSSION

The impulse responses are reported in Figures 1 and 2. In Figures 1 and 2a-2b, we plot the median of impulse responses, as well as the upper and lower bounds representing a one-standard deviation confidence band. Specifically, Figure 1 reports the impulse response function of the Turkish export demand to one-standard deviation shock to the aggregate real exchange rate (RER). If the confidence band includes the horizontal line for a value of zero, the null hypothesis that, there is no effect of the aggregate real exchange rate shock on the Turkish exports demand cannot be rejected. The evidence suggests that the Turkish export demand increased for eight periods when the aggregate real exchange rate depreciated. However, the effect is statistically significant for only three quarters.

Figures 2a and 2b present the results of the impulse response functions of our benchmark VAR model with the relative real exchange rate for each country as an additional variable. The null hypothesis of no effect of one-standard deviation shock to each country's relative real exchange rate on the Turkish export demand cannot be rejected if the confidence band includes zero. We include the relative real exchange rate to assess how each individual real exchange rate in relation to the aggregate RER affects the Turkish export demand. The RRER positive response suggests that the depreciation of individual real exchange rate in question relative to the aggregate RER increases more or less. Figures 2a and 2b demonstrate that the Turkish export demand responds more to the deprecations of both the Japanese Yen and the Russian Rubble in relation to the aggregate RER. On the other hand, the Turkish export demand responds less to the depreciation of this individual exchange rate namely, the Belgian Franc, French Franc, Italian Lira, Netherlands Gulden or Spanish Peseta relative to the aggregate RER.

For example, the contribution of the Belgian Franc depreciation to an increase in the Turkish export demand is less than the contribution resulting from the depreciation of the aggregate RER. Therefore, after accounting for the effect of the aggregate real exchange rate, the responses of exports to individual bilateral real exchange rate shocks are not uniform. Especially, the Turkish exports respond more to a one-standard deviation shock to the Japanese Yen and then Russian Rubble than to the Belgian Franc, French Franc, Italian Lira, Netherlands Gulden, and Spanish Peseta. Finally, each of these currencies, namely the Bulgarian Lev, Chinese Yuan, Egyptian Pound, German Mark, Polish Zloty, Romanian Leu, Swiss Franc and UK Pound shows a very similar pattern to the aggregate RER, concluding that the impulse response function of the Turkish export demand to a one-standard deviation shock to each country's relative real exchange rate is not statistically significant.

Figure 1: The Effects of Aggregate Real Exchange Rate on the Turkish Export Demand

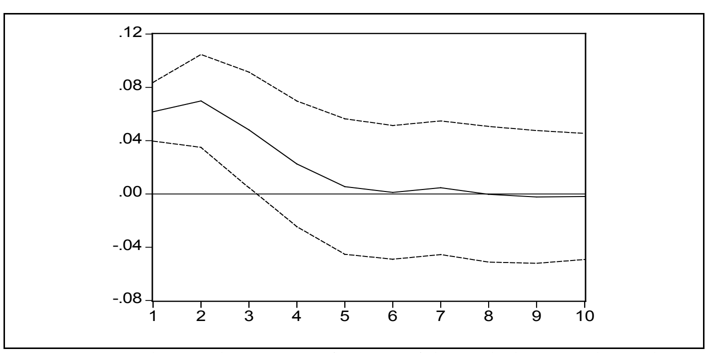


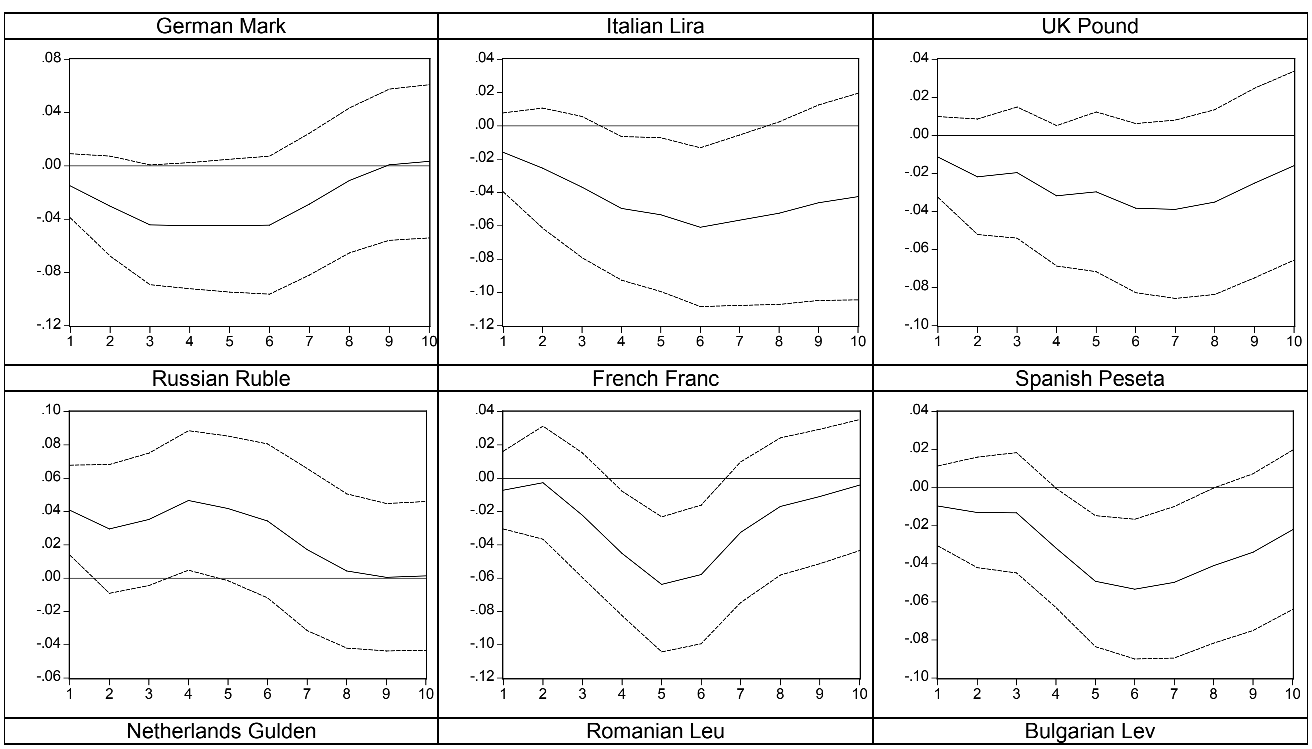
Figure1 reports the impulse response function of the Turkish export demand to one-standard deviation shock to the aggregate real exchange rate (RER). The middle line in figure 1 represents the impulse response. The upper and lower dotted-lines around the impulse response line represent a one-standard deviation confidence band.

It is important to note that the impulse function of the Turkish export demand to a one-standard deviation shock to the German Mark relative to the aggregate RER is insignificant which is not surprising. The aggregate RER is computed by choosing weights for each country used in this study. The weights are determined based on the importance of these trading partners on the Turkish export demand. Since Germany has been an important market for the Turkish exports, it makes up a big part of the index value. Thus, its deviation from the aggregate RER should be small. Therefore, this is one reason that we could not observe the effect.

CONCLUDING REMARKS

The study analyzes the responsiveness of Turkish exports to the real exchange rate shocks for different countries. Employing a Vector Autoregressive (VAR) methodology, the effects of different real exchange rate shocks on the Turkish export demand is examined by using quarterly data from the Turkey's 15 major trade partners over the period from 1987:Q1 to 2011:Q2. The empirical results are summarized as follows. The depreciation of the aggregate real exchange rate affects the Turkish export demand positively and significantly for three quarters. After accounting for the effect of the aggregate real exchange rate, the response of exports to individual bilateral real exchange rate shocks are inconsistent. The Turkish export demand responds differently to a one-standard deviation shock to the Japanese Yen, Russian Rubble, Belgian Francs, French Franc, Italian Lira, Netherlands Gulden and Spanish Peseta, respectively. The Japanese Yen and Russian Rubble shocks have greater impacts on the Turkish export than shocks to Belgian Franc, French Franc, Italian Lira, Netherlands Gulden and Spanish Peseta.Following the spirit of Berthou (2008), we show the inconsistencies of responses through the real effective exchange rate, which is one of the limitations of this paper. It is possible that inconsistencies might be coming from the import countries' income level. However, the existence of inconsistencies through the real exchange rate as well as the income, makes estimates less reliable.

Figure 2 a: The Effects of Individual Real Exchange Rate on the Turkish Export Demand



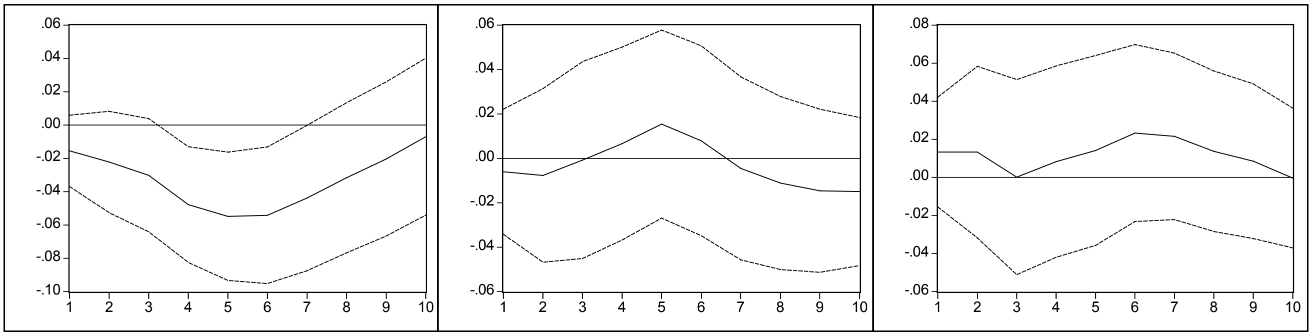


Figure 2a reports the impulse response function of the Turkish export demand to one-standard deviation shock to each country's relative real exchange rate. The middle lines in figure 2a represent the impulse responses. The upper and lower dotted-lines around the impulse responses line represent a one-standard deviation confidence band.

Figure 2b: The Effects of Individual Real Exchange Rate on the Turkish Export Demand (continued)

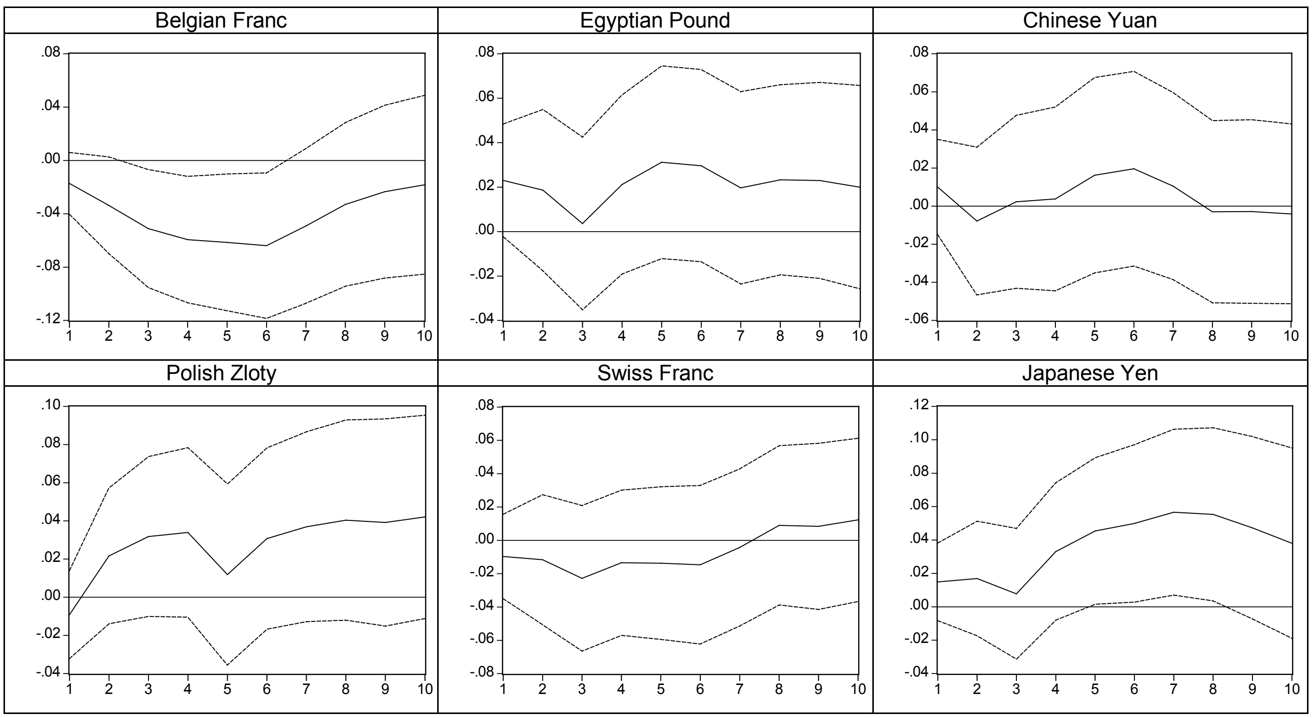


Figure 2b reports the impulse response function of the Turkish export demand to one-standard deviation shock to each country's relative real exchange rate. The middle lines in the figure 2a represent the impulse responses. The upper and lower dotted-lines around the impulse responses line represent a one-standard deviation confidence band.

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ESTIMATING THE EFFECTIVE COST OF BORROWING TO MICROCREDIT CLIENTS IN GHANA

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ABSTRACT

This study estimates the effective cost of borrowing to microcredit clients in Ghana. A simple open-ended questionnaire is administered to 35 microfinance institutions. The study finds that the major costs of borrowing are interest rates and processing fees. The study also finds that the minor costs of borrowing are registration fees, commitment fees, insurance and compulsory savings. In terms of effective cost of borrowing, the study finds that microcredit customers effectively pay at least 8.0 percent interest rate in excess of the stated interest rate.

JEL: E43, E51

KEYWORDS: Effective Cost, Microcredit, Ghana

INTRODUCTION

Microfinance can be defined as the provision of financial and non-financial services to the poor and financially excluded with the aim of empowering them both socially and economically. ADB (2000) defines microfinance as the extension of a broad range of financial services such as loans, deposits, payment services, money transfers, and insurance to poor and low-income households and their microenterprises. The above definitions of microfinance view the concept as pro-poor. Indeed, Aach (2008) succinctly asserts that microfinance is hailed as a "silver bullet" approach to development because of its supposed ability to renovate the poor and marginalized. Therefore, in developing countries like Ghana, microfinance programmes offering financial services to low income households specifically targeting women are vigorously pursued. The skewed pursuit of these microfinance progarmmes towards women is predicated on the premise that women in poor households are more likely to be credit constrained, and hence less able to engage in income- earning activities (Swain & Wallentin, 2009).

Microcredit (basically the small loans given to the poor and financially excluded for consumption and production), as an integral part of microfinance, has gained a lot of attention because of its known impact on poverty reduction or alleviation. In Ghana, in the last decade microcredit activities have skyrocketed with the quantum leap in the number of microfinance institutions (MFIs) in the country. Surmised from the promotional campaigns of these mushrooming MFIs is their microcredit methodology which is fashioned on the 'susu' model of microfinance. The microcredit methodology of MFIs in Ghana (save emergency, commercial and other loans) is that a prospective borrower should provide proof that they have one-third of the amount requested from the MFI as savings with the MFI. Such capital accumulation is made possible through a 'susu' scheme in which the prospective borrower is given the opportunity to make daily or weekly small fixed contributions for a stipulated number of months. Upon making such small fixed savings for the stipulated number of months, the client is advanced a loan which is usually equivalent to three times the accumulated amount. Thus, for instance, if after the stipulated number of months the client has been able to save GH¢200 they are given GH¢600 loan. Interestingly, not until the last pesewa of the loan has been repaid the client is denied access to their savings account with the MFI. This freezing of savings coupled with other charges make MFIs clients pay more for their loans than the interest rate stated in the loan agreement.

Concerns have been expressed over the astronomical interest rates charged by these MFIs. Unfortunately, studies on MFIs in Ghana seem to have neglected this dimension of microfinance (Adusei, 2013; Adusei and Appiah, 2012; Afrane and Ahiable, 2011; Aboagye, 2009; Aryeetey, 2008; Asiama and Osei, 2007. Filling this gap is the motivation behind the current study. What is the average interest rate on microcredit in the Kumasi metropolis? What is the effective interest rate paid by microcredit borrowers in the Kumasi metropolis? The effective interest rate takes into account certain financial charges the client pays in addition to the stated interest rate which is frequently announce. This highlights the actual cost of borrowing. Therefore, answering the above questions constitute the focus of this study.

REVIEW OF LITERATURE

The change in nomenclature from microcredit to microfinance was necessitated by the realization that saving services— and not just loans—could facilitate improvement in the wellbeing of the poor in general and of women in particular (Vonderlack & Schreiner, 2001). This presupposes that microcredit predated microfinance.

Microcredit Summit (1997) defines microcredit programmes as "extending small loans to poor people for self-employment projects that generate income, allowing them to care for themselves and their families". Guha and Gupta (2005, p.1470) refer to microcredit as "a small-scale financial service (including savings, credit, insurance, business services and technical assistance) provided to rural people who operate small or micro-enterprises, provide services, work for wages or commissions and other individuals and groups working at local levels." Swaminathan (2007) summarizes the features of microcredit as (a) very small loans, (b) requires no collateral, (c) usually undertaken through formation of borrower groups, (d) beneficiaries from among the rural and urban poor, (e) the loans are for income generation through market-based self-employment, and (f) the loans are administered through the mechanism of NGO control over disbursement and determination of the terms and conditions attached to each loan.

Generally, microcredit has been pursued in many countries including India through nongovernmental organizations (NGOs). In 1996, the World Bank made some recommendations concerning NGOs in Bangladesh: Integrate NGOs with commercial finance markets by: (a) developing an appropriate regulatory framework for the financial operations of the NGO sector; (b) encouraging large NGOs to establish themselves as banks; (c) encouraging wholesaling of credit to established NGOs; and (d) using smaller NGOs as brokers to mobilize self-help savings groups (World Bank, 1996). However, Swaminathan (2007) seems to have serious reservations on NGO-controlled microcredit, arguing that not only does it not offer solution to the general problems of rural credit but also lack what it takes to be an instrument for mobilizing large-scale funds for technological change in the countryside.

The value of microcredit lies in its ability to overcome three problems faced by the formal financial sector: (1) screening problem which is the difficulty in correctly estimating the extent of risk of a prospective borrower; (2) incentive problem which is the difficulty involved in ensuring that the borrower takes those actions which make repayment most probable; (3) enforcement problem which is the difficulty inherent in compelling repayment of a loan (Guha & Gupta, 2005). Basher (2007) investigates the empowerment of microcredit participants and spillover effects with data from the Grameen Bank of Bangladesh and shows that the Grameen Bank converts its participants from passive recipients of credit to more active agents who get involved in economic and non-economic activities. However, Swaminathan (2007) seems to share a contrary view, asserting that microcredit is neither a successful anti-poverty approach nor is it anti-sufficient answer to the gigantic unsatisfied credit needs of the rural population. There have been concerns on the possibility of microcredit exacerbating poverty among borrowers. Jahiruddin et al. (2011) argue that microcredit borrowers wallowing in abject poverty with little or no surplus financial capacity to absorb contingencies are susceptible to adverse effects of microcredit.

To the best knowledge of the authors no study on interest rates charged by MFIs has been done in Ghana. However, evidence from outside Ghana suggests that interest rates charged by microcredit organizations are higher than the corresponding rates charged by commercial banks or other financial institutions (Swaminathan, 2007; Chavan & Ramakumar, 2005). Harper (1998) reports that the common annual interest rates fall within the range of 24 to 36 per cent. However, microcredit Self-Help Groups (SHGs) could charge as high as 50 or 60 per cent per annum (Harper 1998).

METHODOLOGY

We use survey data collected from 35 microfinance institutions in Kumasi in the Ashanti region of Ghana in the year 2013. The institutions are selected such that there is a fair representation of each category of institutions providing microfinance was captured (see Table 1). Simple random approach has been used to select cases for data collection. This presupposes that all MFIs in a particular in the study area have equal chance of being selected. One advantage of random sampling approach over non-random sampling approach to data collection is that it ensures fairness to all units within the study population. The second advantage is that is makes it possible for the researcher to generalize his or her findings.

Data are collected using an open-ended questionnaire which allows the institutions to indicate actual interest rates charged. To estimate the effective interest rate on a microloan, we adopt the Christen (1990)' model. The new model is given as:

Effective Interest Rate (EIR) = $\frac{Total\ interest\ payable}{Net\ principal\ \times time}$

Where,

1. Net principal = original principal less commission charged
2. Time = the term of loan
3. Total interest payable = $(P \times T \times R)$
   Where P = original principal, T = time (3 months), R = rate charged

RESULTS

The analyses dealt with the categories of the institutions and loan products, cost of borrowing and methods of computing interest rate, and computations of effective interest rates.

MFIs and Products

Table 1 shows the categories of financial institutions studied. As evident in the table, 40 percent of the respondents are 'susu' companies; 14.3% are savings and loans companies; 17.1% are rural banks; 17.1% are credit unions whilst 11.4% are financial NGOs. It is obvious that the "susu" companies dominate the sample. This is because they are considered as traditional MFIs and their number in the metropolis outweighs other MFIs.

Several innovative loan products have been developed by these institutions to meet different needs. For purposes of this study, the various products are classified into four: personal, group loans, small and medium enterprises or commercial loan, and emergency or special loan, including funeral loans (see Table

2). Not all the financial institutions provide loans under each category. For instance, Financial NGOs consider all loans as either personal or group loan. No differentiation is made regarding what the loan is used for.

Table 1: Financial Institutions Providing Microfinance Services

	Frequency	Percent
'Susu' Companies	14	40.0
Savings & Loans Companies	5	14.3
Rural Banks	6	17.1
Credit Unions	6	17.1
Financial NGOs	4	11.4
Total	35	100.0

This table provides the breakdown of the sample for the study. Source: Field Survey, 2013

MFIs and Cost of Borrowing

There are several financial cost elements associated with borrowing from microfinance institutions. The survey of 35 MFIs in Kumasi revealed the following costs: interest rate, processing charges, commitment fees (including cash lien, compulsory savings), application or registration fees, insurance charges. Not all the institutions charged each of these costs of borrowing. The predominantly charged costs of borrowing are interest rate and processing fees, where all institutions charged at least one of them.

Interest rates: For effective loan recovery, most microloans are usually on short-term basis, and as such the interest rate is charged on monthly basis. The survey has shown that different interest rates are charged for different loan products as shown in Table 2. For each loan product, the minimum, maximum and mode interest rates charged by each category of institutions providing microfinance have been presented.

Table 2: Interest Rate by Institution and Product (in % per Month)

Institutions	Personal/Normal Loan (N=30)			Group Loan (N=18)			SME Loan (N=19)			Emergency/Special Loan (N=16)		
	Min	Mode	Max	Min	Mode	Max	Min	Mode	Max	Min	Mode	Max
'Susu' companies	3.2	4.0	6.5	3.3	4	6.5	4.0	4.0	10	4.0	10.0	20.0
Savings & Loans	3.0	3.5	4.0	3.0	3.5	3.5	3	3.5	4	6	6	8
Rural banks	2.3	2.3	2.6	2.3	2.3	2.8	-	-	-	2.5	2.5	2.5
Credit unions	1.6	3.0	5.0	-	-	-	2.3	2.5	3	3.5	3.5	10
Fin. NGOs	4.5	4.5	5.5	4	4	6	-	-	-	-	-	-

This table summarizes the interest rate by institution and product per month. Source: Field Survey, 2013

In all, 30 out of the 35 institutions covered in this study offer personal loans. The key feature of this loan is that it is granted on individual basis and the requirements include being a member of the institution for a certain timeframe. With this type of loan, the minimum interest rate charged among all the institutions is 1.6 percent, which occurs among the credit unions. The maximum interest rate charged is 6.5 percent which relates to the MFIs. It can be seen that the rural banks have the smallest maximum interest rate charged of 2.6 percent. Group loans, which appear to be more secured (apparently due to 'group monitoring) than the personal loans has interest rates not too different from the former in terms of average and maximum rate charged. Among the loan products, emergency or special loans attract relatively high interest rates. The rate can rise as high as 20 percent depending on how urgent the loan is needed and the risks involved. The exception is rural banks which maintain low interest rates of 2.5 percent. The "Susu" companies, savings and loan companies, and credit unions which grant such loans apply relatively high interest rates.

Method of calculating interest: Another dimension of borrowing cost to clients is the method of calculating interest rates. The survey has shown that the methods of computing interest rates among the institutions are the straight line and reducing balance. In all 72.7 percent of the institutions surveyed use the straight line method (see Table 3), more than half of which are the "Susu" companies. In fact, only one of such institutions applies the reducing balance method. Interestingly, all the credit unions use reducing balance apparently because such institutions are owned by members who collectively contribute the funds, and as such are not-for-profit making; therefore, they do not intend to take too interest from members. There are two out of the savings and loans companies which use both methods.

Table 3: Methods of Computing Interest Rates

Institutions	Straight Line		Reducing Balance		Both		Total	
	Frq	%	Frq	%	Frq	%	Frq	%
'Susu' companies	13	39.4	1	3.0	0	0.0	14	42.4
Savings & Loans	3	9.1	0	0.0	2	6.1	5	15.2
Rural banks	4	12.1	2	6.1	0	0.0	6	18.2
Credit unions	0	0.0	4	12.1	0	0.0	4	12.1
Fin. NGOs	4	12.1	0	0.0	0	0.0	4	12.1
Total	24	72.7	7	21.2	2	6.1	33	100

This table shows the methods used by MFIs in computing interest rates Source: Field Survey, 2013

Other financial charges: Apart from the interest rate, there are other charges which are normally deducted from the principal loan amount before disbursement. The study finds processing fees, commitment fees, application or registration fees, insurance, as well as a certain proportion of compulsory savings in order to qualify for loan. Some of the institutions charge these extra costs as a proportion on the principal loan amount, whiles others charge a fixed amount.

More than 70 percent of the institutions interviewed charge processing fees as a proportion on the principal loan amount. Among all the institutions, the minimum processing fees is 1 percent with the maximum being 5 percent as shown in Table 4. It is also realized that one microfinance institution charge GH¢5.00 for whatever loan applied as processing fees. It is noteworthy that only one credit union charges processing fees. Majority of them charge only the interest rate since they do not exist with profit motive.

Table 4: Processing Charges (in %)

Institutions	Freq	Processing Fees		
		Min	Mode	Max
'Susu' companies	11	1.0	3.0	5.0
Savings & Loans	5	2.0	2.5	3.0
Rural banks	6	3	4	5
Credit unions	1	2.6	2.6	2.6
Fin. NGOs	2	1.5	1.5	2.0
ALL	25	1	3.0	5.0

This table shows the processing charges of MFIs. Source: Field Survey, 2013

Response rate for commitment, registration/application fees and insurance fees is relatively low with 8 percent, 37 percent and 20 percent respectively. Thus, these charges are not predominant among the MFIs. However, it is important to note that commitment and application fees can be fixed at as high as GH¢50 per each loan applied. In terms of proportion on principal loan amount, commitment and application fees are 3 and 5 percent respectively. For insurance, the maximum charge is 1.3 percent.

Effective Interest Rates

Effective interest rate is the actual rate of borrowing when all other financial charges are factored into the calculation of the interest rate. It expresses the relative cost of borrowing arrangements with different conditions (Christen, 1990). One purpose of this study is to calculate effective interest rates of microcredit and that clarifies the broader discussion of cost of borrowing of microfinance clients.

For purposes of computing the effective interest rate, the mean, minimum and maximum rate of each loan product is derived as shown in Table 5. As stated above, the institutions charge several fees such as processing, application, registration, commitment, insurance, etc. in addition to the interest rate. In this analysis, however, only the processing fees is applied since more than 70 percent of the institutions surveyed charge it. The response rates of the remaining types of fees are below 40 percent and it is disproportionate to apply in all cases. The minimum and maximum processing fees charged are 1 and 5 percent respectively. The mean processing fees is 3.0 percent, with a standard deviation of 0.9 percent.

For purposes of this computation, the following typical loan conditions are used. The loan size is taken to be GH¢ 1000.00 with six (6) months term, amortizing monthly using the straight line method. Applying a simple method for calculating effective interest (see Appendix) as given in Christen (1992), the rates charged by the institutions are given in Table 5.

Table 5: Effective Interest Rates

Institutions	Interest Rates/Other Chargers (%) Per Month				Effective Interest Rate (% Per Month)		
	Min	Max	Mean	Stdv	Min	Max	Mean
Personal/Normal Loan (N=30)	1.6	6.5	3.8	1.2	1.8	7.7	4.4
Group loan (N=18)	2.3	6.5	4.0	1.3	2.5	7.7	4.6
SME loan (N=19)	2.3	10.0	4.1	1.8	2.5	11.4	4.7
Emergency/Special loan (N=16)	2.5	20.0	8.1	4.6	2.7	21.9	8.9

This table shows the effective interest rates. Source: Field Survey, 2013.

The above table indicates that when a client takes a personal loan of GH¢1000 payable monthly for six (6) months with an interest rate of 3.8 percent monthly for instance, he will effectively be paying about 4.4 percent (GH¢44.0) as effective interest rate, which is about 15.8 percent more than what he should have paid (GH¢38.0). The difference is as a result of the up-front deduction 3.0 percent processing fee. Similarly, an amount obtained under the SME loan product with a minimum interest rate of 2.3 percent, will end up attracting 2.5 percent effective interest rate, which is also about 8.5 percent more. In fact, comparing the stated interest rate to that of effective interest, in all cases, the customer pays at least 8.0 percent more. On the high side, a client who takes a loan with stated interest rate of 6.5 percent monthly for six months, effectively pays 7.7 percent, which is about 18.5 percent more. The point clearly is that effective interest rates show that the borrowers pay relatively higher interest rates than the stated interest rates regularly reported by these financial institutions.

It must be stressed that this analysis takes into consideration only the processing fees. However, there are other charges some of the institutions apply. For instance, in addition to the processing fees, an institution may charge application or registration fee of about GH¢20, which will further result in increase in the effective interest rate. This is because the principal actually disbursed will be reduced further by this amount. Another significant cost which result in even higher effective interest rate is the compulsory savings before a client qualifies for a loan. Also, there are transactional costs such as the transport cost to and from the MFI's office, opportunity cost of time spent in training programs organized by the institution, etc.

Although the survey does not specifically capture such data, there is a particular institution which requires that the client save an amount equal to 30 percent of whatever loan intended to be applied. Thus for instance, before a loan of GH¢100 can be granted, the client must have saved GH¢20 to the financial institution within a specific time span, usually three months. This amount does not yield any interest to the client. However, when the loan of GH¢100 is granted, the interest is computed on the total sum as if there were no savings supporting the loan. Besides, the amount in the savings account (compensating balance) is frozen pending repayment of the loan.

DISCUSSIONS

The above results call to question whether microfinance is indeed pro-poor concept in the Kumasi metropolis. We have grounds to argue that microcredit is becoming increasingly expensive for clients, who are undoubtedly the poor, not only in terms of the high stated interest rate, but also the method of computing the interest. Although the main reason for microcredit charging commercial interest rates is to ensure sustainability of the MFIs (Yunus, 2003), the interest rates of these institutions as observed from this study are certainly very high. Harper (1998) reports that the common annual interest rate of microcredit ranges from 24 to 36 percent. Contrary to this, our results show that, depending on the loan type, the average monthly interest rate ranges between 3.8 and 8.1 percent a month translating into 45.6 and a hooping 97.2 percent per annum respectively. Ironically, commercial banks that have been tagged as anti-poor due to their unfriendly lending standards charge average market interest rate of 30% per annum. This has raised concerns as to whether the plight of the poor is not worsened by microfinance (Jahiruddin *et al.,* 2011; Khan, 2008). However, this has been countered with the argument that "what really matters to the poor people is not the interest rate but access to credit" (Varley, 1995). As old as this argument in favour of microfinance may seem, it still appears valid because first, the number of MFIs keeps increasing and yet each has appreciable client base to support its operations; and second, the greater proportion of the informal sector still needs access to credit; and third, there are emerging frontiers of microfinance such as water and sanitation infrastructure provision where microfinance has proved viable (Afrane and Adjei-Poku, 2013).

CONCLUSION, POLICY IMPLICATION AND LIMITATIONS

The aim of this study to explore the effective cost of borrowing to microfinance clients with data from 35 MFIs in the Kumasi metropolis. The study has shown that microfinance institutions charge interest rates depending on loan products that interest rates of microcredit have become higher than commercial rates. The study finds that the effective interest rates range from 45.6 percent to a hooping 97.2 percent depending on the loan product. The study shows that cost of borrowing is higher than what the MFIs frequently state. In fact it has been shown that the clients effectively pay at least 8.0 percent or more than the stated interest rate.

This study recognizes the immense contributions of microfinance in poverty reduction; therefore, our adverse findings do not negate relevance of the microfinance concept. Instead, our findings draw attention to the high interest rates and other associated costs of borrowing presently charged by MFIs which obviously require immediate policy intervention. Our candid position is that the fact that the poor needs access to credit cannot justify worsening their plight with that same credit.

One limitation of this study is that it uses data from one administrative region in Ghana. Thus, the findings may not be representative of Ghana. It is, therefore, recommended that future research should investigate the effective cost of borrowing to microcredit clients in other regions so as to present a broader picture of effective cost of borrowing to microcredit clients for policy formulation. Another limitation of the study is that it relies on data provided by MFIs. Therefore, the validity of its findings depends on the extent to which these data are valid. Notwithstanding these shortcomings, it is the belief of the authors that the publication of the results of the study will renew the interest of both researchers and policy makers in the modus operandi of MFIs in Ghana.

APPENDIX

Appendix: Computation of Effective Interest Rate

Loan Conditions:

Loan size: GH¢1000
Loan term: 3 months
Interest rates are shown in the table below
Method of calculating interest: Straight line method

Up-front commission (Processing fees):
Maximum = 6.5% on loan size
Minimum = 1.0% “
Average = 3.0%
Assumption: a maximum interest rate matches with maximum processing fees charged

Method applied for Effective Interest Rate (EIR) = $\frac{Total\ interest\ payable}{Net\ principal \times time}$

Where:
1. Net principal = loan size less commission charged.
2. Time = the term of loan
3. Total interest payable = $(P \times T \times R)$
   Where P = original principal, T = time (3 months), R = rate charged, and C = Processing fee charged.

Illustration

1. Calculating minimum EIR for personal/normal loan using the above information
   Interest payable = 1000 x 6 x 1.6/100 = GH¢96.00
   Processing fees (use minimum) = 1/100 x 1000 = GH¢ 10
   Therefore EIR = $\frac{96+10}{990\times6}$ = 0.01953 = 2.0% 0.0178 = 1.8%
   Repeat this process for minimum interest rate for all loan products

2. Calculating maximum EIR for personal/normal loan using the above information
   Interest payable = 1000 x 6 x 6.5/100 = GH¢390
   Processing fees (use minimum) = 5/100 x 1000 = GH¢50
   Therefore EIR = $\frac{390+50}{950\times6}$ = 0.0772 = 7.7%
   Repeat this process for maximum interest rate for all loan products

3. Calculating average EIR for personal/normal loan using the above information
   Interest payable = 1000 x 6 x 3.8/100 = GH¢228
   Processing fees (use minimum) = 5/100 x 1000 = GH¢30
   Therefore EIR = $\frac{228+30}{970\times6}$ = 0.044 = 4.4%

Repeat this process for average interest rate for all loan products

Table 6: Total Results

Institutions	Interest Rates/Other Chargers (%) Per Month				Effective Interest Rate (% Per Month)		
	Min	Max	Mean	Stdv	Min	Max	Mean
Personal/Normal Loan (N=30)	1.6	6.5	3.8	1.2	1.8	7.7	4.4
Group loan (N=18)	2.3	6.5	4.0	1.3	2.5	7.7	4.6
SME loan (N=19)	2.3	10.0	4.1	1.8	2.5	11.4	4.7
Emergency/Special loan (N=16)	2.5	20.0	8.1	4.6	2.7	21.9	8.9

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SOVEREIGN DEBT, AGING POPULATIONS, AND ECONOMIC GROWTH: DIFFERENCES BETWEEN OECD AND LESS DEVELOPED NATIONS

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ABSTRACT

This paper examines whether there is any linkage between high levels of sovereign debt and the size of the elderly population. It is primarily a descriptive study which utilizes simple correlations and regressions. One might expect, based on precepts of prudent management of finances, that nations with large populations of elderly would have lower sovereign debt relative to GDP. However, our results show that the opposite appears to be more prevalent among OECD nations. We find a positive and significant correlation between the percentage of people 65 and older and the sovereign debt/GDP ratio. On the other hand, there is no significant relationship among non-OECD countries which are generally less developed. We then analyze whether economic performance among countries is related to sovereign debt levels and measures of the elderly population. We find that economic growth tends to be lower in nations with a higher percentage of elderly. This statistically significant correlation applies to both OECD and non-OECD countries. A negative relationship also applied to sovereign debt burdens and economic growth. However, that negative correlation was significant only with the OECD nations.

JEL: H63, J10

KEYWORDS: Sovereign Debt, Aging, Economic Growth

INTRODUCTION

The fact that the percentage of retired people has been growing in the developed world has been known for years, but have governments been financially diligent in managing public funds given the expected challenges? Government leaders in developed nations understand that ample public funds must be available for increased numbers of retirees. They know that excessive sovereign debt, coupled with unfunded pensions and other retirement benefits, will lead to financial distress, possible defaults of obligations, and subsequent economic hardship. Yet, it is very common for governments to make decisions that are financially dangerous. At the same time, less developed countries have had rapid economic growth in recent years and life expectancy has been increasing in those nations. Therefore, those countries are also experiencing increases in the size of their elderly population. In this paper we update and extend previous research on whether there are significant correlations between sovereign debt burdens and the extent of aging among developed countries as well as less developed nations. If, in fact, governments were pursuing high sovereign debt policies, and given their obligations to the aged, do we observe negative consequences such as weaker economic growth? Following this introductory section, we present a review of recent literature on the subject area of our paper. Next Data and Methodology examines the sources and scope of the data utilized in the study, along with the methodology applied in deriving the results. The Results section details the various hypotheses we tested, the findings of those tests, and the implications and importance of those findings. Concluding Comments summarizes the previous sections and the significance of our results. Those comments also discuss limitations of the findings and areas of inquiry for future research.

LITERATURE REVIEW

Challenges Posed by Government Obligations in the United States

There are many studies and research papers which examine issues relating to financial distress in the public sector. Each year the Social Security Administration provides a projection estimating when various Social Security trust funds are scheduled to be depleted [See Social Security Administration (2013)]. Some of these dates are in the relatively near future. For example, the Disability Income fund has incurred continued deficits for years and is expected to be depleted by 2016. The numbers of recipients of disability income grew by approximately 50% from 5.9 million in 2003 to 8.9 million individuals in 2013. (See Social Security Statistical Tables, 2013)

The impact of the Affordable Healthcare Act has made it more difficult to assess the financial status of programs such as Medicare. Future decisions on doctor and hospital reimbursements are uncertain and the total magnitude of unfunded benefits is unclear. However, while estimates of the unfunded short-fall may vary, they are placed in double digits of trillions of dollars. In recent years the Treasury debt of the United States has grown rapidly, and in August 2014 the total was approximately $17.7 trillion (compared to a GDP of $17.3 trillion in the second quarter of 2014). Although the federal deficit has been falling, Treasury debt still increased by over $900 billion between August 11, 2013 and August 13, 2014. (Treasury debt increases have been greater than the federal deficit because of borrowing due to other items in addition to that deficit.) A source of government financial problems on the state and local level relates to financial inadequacy of state and local retirement funds. According to one study, the actuarial gap between benefits and revenues for states amounts to over $1 trillion [See Pew Center study (2010)].

Healy, Hess, and Nicholson (2012) report that the projections for unfunded state, county and local retirement benefits range from a low of $730 billion to as high as $4.4 trillion. This sizable financial gap does not include $2.7 trillion of bonds and short term securities issued by state and local governments as of 2009 [See U.S. Census report (2011)]. Debt obligations, as well as unfunded retirement benefits, are also causing governments on the federal state and local level to cut back on services even though they are not in current danger of defaulting. On a regular basis one can read news reports on topics such as reduction of funds available from the federal government or lack of money for education and other services in states and localities. [See Davey and Walsh (2013).] In addition, several local governments have defaulted on their debt obligations. Some of the notable examples are Detroit, Michigan, Harrisburg, Pennsylvania, and Jefferson County, Alabama.

Global Studies on Aging and Economic Performance

Bloom, Canning and Sevilla (2002) and Johnson (2004) look at population projections and discuss a variety of issues including economic growth, pension systems, world trade and capital flows. Potential policy responses by governments in both developed and underdeveloped countries are discussed in detail. Some papers on the impact of demographic changes are principally concerned with financial implications including stock market returns. [See Randall and Suk (2012).] England (2002) examines the effect of global aging on pension funds and how the demand for different asset classes will change in the future. Jackson (2002) has written that in Japan and the major countries of Europe public retirement systems are quite generous. Retirees generally rely on government support to a greater degree than retirees in the United States, where many individuals have retirement funds outside of the Social Security system. Therefore, the retirees in Europe are particularly vulnerable to governments which have mismanaged their finances and accumulated unsustainable levels of sovereign debt. Greece has been one of the nations whose retirees have been particularly adversely affected by their government's mismanagement of finances [Dendrinou (2014)]. This paper extends previous international studies in several ways. It makes the contribution of explicitly linking the sovereign debt management issue with the challenges of an aging population.

Specifically, do countries with high levels of older people tend to have relatively high or relatively low public debt burdens? Are the findings contingent on whether the sample consists of relatively more developed (OECD) nations or less developed (non-OECD) countries? Our study also adds to previous research in its use of a very recent set of data that span through the year 2012.

DATA AND METHODOLOGY

The paper commences with an analysis of whether the ratio of sovereign debt to GDP (D/GDP) in a country is correlated to the percentage of population who are 65 and older (Pop65). Tests are performed with international data that examine whether there is a significant correlation. The data in the study come from the OECD and the World Bank and the statistics are summarized in Table 1. Of the 34 OECD nations, 2 were excluded, Luxemburg and Iceland, due to their very small populations (each well under 1 million). One might observe that in Table 1 the "count" or number of observations in the non-OECD countries differs depending on which variable is listed. For example Debt/GDP has 29 observations while population 65 or older has 161. The major factor for such differences is that fewer countries reported statistics for certain data-categories than for other categories to the World Bank (our source of the data). As a result the number of observations in the non-OECD tests was constrained and contingent on the basis of which variables appeared in the tests. The statistics utilized by the study are quite recent. Specifically:

Percent of population 65 or older: the most recent number available for 2010-2012.
Sovereign debt as a percent of GDP: 2012.

Real GDP growth: cumulative percentage change during the 10 years from the end of 2003 to the end of 2012.

Table 1 Descriptive Statistics

Variable	OECD Government Debt as % of GDP[1] (2012)	Non-OECD Government Debt as % of GDP[1] (2011)	OECD Population Ages 65 and Above (%) (2010-2012)	Non-OECD Population Ages 65 and Above (%) (2012)	OECD Cumulative GDP Growth[2] (2003-2012)	Non-OECD Cumulative GDP Growth[2] (2004-2012)
Mean	76.12	45.48	15.40	6.28	21.02	44.75
Median	68.45	43.54	16.49	4.71	17.77	40.95
Standard Deviation	44.00	25.51	3.87	4.16	14.06	24.84
Minimum	12.20	9.31	6.28	0.36	-0.46	-6.53
Maximum	214.07	113.25	23.87	18.92	50.59	130.68
Count	32	29	32	161	32	135

Central government debt. Debt is the entire stock of direct government fixed-term contractual obligations to others outstanding on a particular date. It includes domestic and foreign liabilities such as currency and money deposits, securities other than shares, and loans. (Source: World Bank) Annual percentage growth rate of GDP at market prices based on constant local currency. Aggregates are based on constant 2000 U.S. dollars. (Source: World Bank)

Note: Two OECD nations, Iceland and Luxembourg, were excluded because their populations were under one million. The summary of data presented in Table 1 provides a useful perspective. In general, OECD countries have higher ratios of elderly population and higher Debt/GDP. However, with respect to total GDP growth, the non-OECD nations had superior performance.

RESULTS

While the statistical methodology utilized in the analysis is relatively simple, it is quite adequate in providing useful results. Since there is no well-established theory that D/GDP and Pop65 are correlated, the purpose of the first set of tests is to determine if there is any significant relationship. To examine this question the following least-squares regression equation is utilized:

$$D/GDP = a_0 + a_1 \ Pop65 + e \tag{1}$$

a_0 and a_1 are constants and e is the disturbance term. We then observe whether the a_1 coefficient is statistically significant. A significant positive sign would provide evidence that governments with relatively larger elderly populations have accumulated high levels of sovereign debt, placing their country in a more risky financial position. A significant negative sign would provide support that governments are, in general, being prudent in managing national debt in light of their financial obligations to the elderly. It is also possible that there is no significant relationship in which case there is no evidence to support a general conclusion. The findings of the test are shown in Table 2.

Table 2: Debt / GDP the Dependent Variable Measures Government Debt as % of GDP. The Data Are from the OECD and World Bank

Variable	OECD (2012)	Non-OECD (2011)	World
Constant terms	-20.84 (-0.76)	48.28 (4.49)***	19.56 (1.67)*
% of 65 or older	6.30 (3.65)***	-0.30 (-0.29)	3.36 (3.88)***
Adj-R^2	0.28	-0.03	0.19
F-stat	13.30 (0.00)***	0.08 (0.77)	15.03 (0.00)***
Observations	32	29	61

*, **, *** *significant at the 10%, 5% and 1% level, respectively.*

The tests with OECD countries show that a very strong positive statistical relationship, significant at the 1% level, exists between the 2 variables. The adjusted R^2 was also quite high, at 28%. These findings are consistent with the hypothesis that governments have not been good stewards of the finances of their nations. In the context of the percentage of people over 65, there is evidence to believe that many governments have placed their nations in a vulnerable position with regard to financing their sovereign debt. The default of Greece in 2012 and lingering (although much less severe in 2014) financial and economic problems in Portugal, Spain and Italy, are consistent with this observation [See Brat and Zampano (2014)]. In contrast, there is no significant correlation between sovereign debt and aging among the non-OECD nations. One can hypothesize several possible reasons for the divergence of the results. Since they have less developed capital markets, they have not been able to borrow as much as OECD countries and their elderly burden is not as great. Moreover, a different set of economic and cultural forces may be impacting those countries. The third set of results in Table 2 is based on a combined sample of the OECD and non-OECD countries. In those results, we again observe a significant positive correlation between the percentage of elderly and the sovereign debt burden. The strong results relating to the OECD countries appear to dominate the findings.

Economic Implications

Given that there is a positive relationship between D/GDP and Pop65, what might be some of the economic consequences? Higher debt levels can increase the tax burden on a nation. According to conventional macroeconomic theory, consumption is a function of after-tax national income (and other variables which include the ability to borrow). Investment spending is also linked to taxes since investors are concerned about the level of future after tax cash flows generated by those investments. Therefore, either the imposition or even the imminent expectation that higher taxes would be enacted can adversely affect both consumption and investment. [Reinhart and Rogoff (2009)]

If D/GDP reaches excessive levels, the scenarios that have plagued citizens in places such as Greece and Detroit might ensue. Governments would have difficulty obtaining borrowed funds to pay for basic government services. Consumers and small businesses in distressed countries would also find that borrowed funds would be less available for them and there would be further downward pressure on their consumption and investment. An additional complicating factor is the banking system which holds substantial quantities of sovereign debt. If the debt is in danger of default, the banks are also placed in jeopardy. The analysis of Reinhart and Rogoff (2009) provides an in-depth discussion of linkages between banking crises and sovereign debt crises based on many cases that have occurred over the past 200 years.

If the financial system experiences losses, the reduction in bank capital may impair the ability of financial institutions to make loans. In other words, regulators will not allow such lending if capital ratios fall below required minimums. This scenario was a major factor in the recession of 2008-2009 and subsequently, in the weak recovery. [See Kowalik (2011)]. Aging alone can have an adverse effect on economic performance. A relatively large population of older and retired people would likely be associated with a relatively smaller labor force. Although some older people are working, they may be more subject to health issues that would reduce their productivity and the amount of work that they perform. In addition, higher taxes might be required to pay for government pension and medical benefits allocated to support those who have retired. Furthermore, since retired people would tend to liquidate rather than accumulate financial assets, there could be less saving and capital formation available to generate economic growth. The purpose of the second set of tests is to examine some of the above issues. Is the combination of high debt coupled with a sizable population of older people associated with negative economic growth? To investigate this question, the following model was utilized:

$$\text{GDP Growth} = b_0 + b_1 \text{ Pop65} + b_2 \text{ D/GDP} + e \qquad (2)$$

In those regressions b_0, b_1, and b_2 are the regression constants, and e is the disturbance term.

Table 3A: 10-Year Cumulative GDP Growth of the OECD Countries the Dependent Variable Measures Cumulative Real GDP Growth over the Past 10 Years (2003-2012). The Data Are From Oecd.Org (2013). Two Independent Variables Are Included

Variable	Model 1	Model 2	Model 3
Constant terms	0.63 (8.46)***	0.34 (8.31)***	0.65 (6.79)***
% of 65 or older (Average of 2000 and 2012)	-2.83 (-5.78)***		-2.43 (-3.50)***
Debt / GDP (Average of 2007-2012)		-0.21 (-4.08)***	-0.11 (-2.31)**
Adj-R^2	0.51	0.36	0.55
F-stat	33.45 (0.00)***	16.69 (0.00)***	17.96 (0.00)***
Observations	32	29	29

*, **, *** *significant at the 10%, 5% and 1% level, respectively.*

Table 3B: 9-Year Cumulative GDP Growth of Non-OECD Countries the Dependent Variable Measures Cumulative Real GDP Growth over the Past 9 Years (2004-2012). The Data Are From World Bank (2013). Two Independent Variables Are Included

Variable	Model 1	Model 2	Model 3
constant terms	54.00 (14.88)***	51.09 (9.24)***	63.70 (8.30)***
% of 65 or older (average of 2004-2012)	-1.59 (-2.96)***		-1.43 (-2.22)**
debt / gdp (average of 2004-2011)		-0.14 (-1.52)	-0.14 (-1.66)
adj-r^2	0.05	0.05	0.17
f-stat	8.74 (0.00)***	2.31 (0.14)	3.79 (0.04)**
observations	135	28	28

*, **, *** *Significant At The 10%, 5% And 1% Level, Respectively.*

Tables 3A and 3B contain the results of 3 regressions in which the 10-year annual GDP growth from the beginning of 2003 to the end of 2012 is the dependent variable. The use of a 10-year period eliminates some of the statistical noise inherent in shorter time periods. This is especially true given the economic turbulence over the past decade. There have been wide swings at different times for different nations attributable to various financial crises from 2007 into 2012. In Model 1 of Table 3A (OECD countries) Pop65 is the sole explanatory variable, and it is statistically significant at the 1% level. The sign, as expected, is negative and suggests that larger numbers of older people, due to more retirees and the other factors cited earlier, may be acting as a drag on economic growth.

In Model 2 D/GDP is the explanatory variable and it, too, is significant and has the expected negative sign. The stresses of higher taxes and possible financial crises associated with excessive sovereign debt may be hindering the generation of economic growth. In Model 3 both Pop65 and D/GDP are utilized as explanatory variables. Both variables have the expected negative sign and both are significant. The results are also interesting because multicollinearity among the 2 explanatory variables could have affected the results reducing or eliminating the observed significance of one of the variables.

In Table 3B the same statistical tests are performed with the non-OECD countries. In this set of results only the percentage of elderly population was significantly negatively correlated with economic growth. While there was also a negative correlation with D/GDP and growth, it was not significant. As noted in the discussion of Table 2, with less borrowed funds, sovereign debt may not be a major issue in non-OECD nations and other factors may be far more important in determining their growth rates. For example, investment in education is often cited as one of the main ingredients in the rapid growth of China and Korea. Other developing countries which neglected the education of their population were likely hampered in their efforts to generate growth.

CONCLUDING COMMENTS

This paper examines whether there is any linkage between high levels of sovereign debt and the size of the elderly population. It is primarily a descriptive study which utilizes simple correlations and regressions. One might expect, based on precepts of prudent management of finances, that nations with large populations of elderly would have lower sovereign debt relative to GDP. However, our results show that the opposite appears to be more prevalent among OECD nations. We find a positive and significant correlation between the percentage of people 65 and older and the sovereign debt/GDP ratio. On the other hand, there is no significant relationship among non-OECD countries which are generally less developed. We then analyze whether economic performance among countries is related to sovereign debt levels and measures of the elderly population. We find that economic growth tends to be lower in nations with a higher percentage of elderly. This statistically significant correlation applies to both OECD and non-OECD countries. A negative relationship also applied to sovereign debt burdens and economic growth. However, that negative correlation was significant only with the OECD nations. Among the limitations of the paper is that other potential variables that might influence growth were not included and could potentially affect some of the findings that we report. Other relevant variables might include measures of regulation, tax policies, and indexes of corruption and property rights as driving forces in economic performance. Future research could include an examination of the impact of such variables. While sovereign debt has grown more slowly in recent years, the ratios continue to remain high in many European countries and in Japan. Similarly, the aging of their populations and low fertility rates indicate that slow population growth is likely to continue for some time. Based on correlations presented in this paper, it would seem that those countries will continue to encounter challenges that both impede economic growth, and diminish the benefits that retirees are scheduled to receive [See Brat and Zampano (2014)].

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THE IMPACT ON SWITCHING INTENTION OF E-TRADING SYSTEMS FOR THE SECURITIES INDUSTRY

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ABSTRACT

It is an important issue focused on how to improve e-service quality to gain competitive advantage among diverse securities industries. The investors have the positive perceived value, e-satisfaction and e-trust through the improvement of e-service quality for online trading systems to create an unique online service environment of the securities industry in order to reduce switching intentions of them. This study explored the impacts among e-service quality, perceived value, e-satisfaction and e-trust, and switching intention in Internet trading systems of the securities industry. The object of this study was online traders who had used Internet trading systems of the securities industry in Taiwan. The collected data were analyzed by using statistical methods. The findings of this study indicate that there were significantly positive correlations among e-service quality, perceived value, e-satisfaction and e-trust, and all of which had a negative correlation with switching intention; e-service quality had a significantly positive and direct impact on perceived value and e-satisfaction, but there was no significantly positive impact on e-trust. E-service quality affected switching intention through two intervening variables as perceived value and e-satisfaction. These results also can provide insights into the effect on switching intention and thus offer improvable and strategic suggestions for the securities industry to provide better e-trading systems to the investors.

JEL: M1, M15

KEYWORDS: E-service Quality, Perceived Value, E-satisfaction, E-trust, Switching Intention

INTRODUCTION

With the increasing maturity and prevalence of the Internet, e-commerce has become a new channel for transaction. Many foreign and domestic securities companies have therefore established online transaction platforms, such as online stock brokerage and e-bank, to expand their business. Compared with manual trading of securities, online trading of securities is simpler, faster and less likely to cause errors. Investors are enabled to obtain the latest information on certain stocks from the Internet at anytime and anywhere. Moreover, they can also get an instant report when they trade any stock (Cheng, 1999; Chiang, 2000). The statistics provided by Taiwan Stock Exchange Corporation (2012) show that the number of new accounts for online stock trading (including telephone trading) increased from 1,022 in July 1997 to 401,887 in November 2012, with an increase in percentage of value of stocks traded online to total trading value from 0.01% to 27.31%. By December 2013, 63 stock brokers in Taiwan have started to offer online trading services. The increasing prevalence of online trading services has also intensified the competition between brokerage firms and posed a serious threat to those that still rely on manual trading. In this highly competitive financial market, electronic service quality (e-service quality) has virtually become the primary area of competition among securities brokers and also one of the keys to their survival. E-service quality had been recognized as an important factor affecting the success or failure of e-commerce (Yang, 2001).

Therefore, how to enhance e-service quality to retain existing customers and attract new ones has emerged as an important goal for all businesses. Lee *et al.* (2007) mentioned that business managers and researchers paid particularly more attention to perceived value because perceived value affected not only customers' perceptions during purchase but also their post-purchase satisfaction, repurchase and recommendation.

Ruiz *et al.* (2008) pointed out that most businesses with a competitive advantage in this extensively competitive market were characterized by a greater focus on consumer perceived value. Consumers perceive higher value of a product or service when they think they can get more benefits from the product or service than from its alternatives.

For securities brokers, providing online services and quality expected by investors can result in higher investor satisfaction. The empirical evidence in Yen (2009) suggested that securities brokers with limited resources had to constantly improve factors with lower investor satisfaction to deliver better services to investors and increase their satisfaction. By doing so, they can not only retain existing investors but also have opportunity to attract new investors and turn all the investors into their loyal customers. Customer satisfaction is always one of the goals that businesses should endeavor to achieve. A 2011 report on satisfaction with online banking (ForeSee Results, 2011) showed that most highly satisfied online banking customers were profitable businesses. This report also revealed that satisfaction surveys could help businesses predict the needs and behavior of online banking customers. Friedman *et al.* (2000) had empirically confirmed that online trust (e-trust) had a significant effect on customer intention to disclose private information and make financial deals on the website.

If customers have little trust in online transactions, online services providers may be confronted with serious obstruction in their development towards greater market penetration. Hence, customers' e-trust plays an essential role in e-commerce. Their trust in the service system also affects their online behavior and attitude. So far, many customers still refuse to use e-commerce for a variety of reasons, most of which are associated with a lack of safety and trust in the virtual environment. How to develop customers' trust in e-commerce (e-trust) is therefore of high importance. Under consideration of resource limitations, most businesses view customer creation and retention a cornerstone to long-term sustainability. One of their main goals is to lower customers' switching intention and minimize customer loss. According to Keaveney and Parthasarathy (2001), customer switching was especially serious in service industries, such as insurance, banking, public services, medical and insurance and mobile communication. Ganesh *et al.* (2000) stated that customers' repurchase or switching intention was directly affected by their post-purchase evaluation of a product or service. Despite the abundance of surveys and studies on online transactions, most extant research is focused on online shopping or key factors of online trading, and little research has addressed the needs, satisfaction, value perception and e-trust of online traders of securities. Therefore, this study surveyed the various dimensions of online trading among securities traders, including electronic service quality (e-service quality), perceived value, electronic satisfaction (e-satisfaction), electronic trust (e-trust) and switching intention, and explored the relations of these dimensions with switching intention. The remainder of this paper as follows. We align our work with the relevant literature in section 2. The data and methodology and results are illustrated in sections 3 and 4, respectively. Finally, concluding comments are drawn in Section 5.

LITERATURE REVIEW

The relevant literatures about E-trading of Securities(Online Trading of Securities), Electronic Service Quality (E-service Quality), Perceived Value, Electronic Satisfaction (E-satisfaction), Electronic Trust (E-trust), and Switching Intention are presented in literature review section.

E-Trading of Securities (Online Trading of Securities)

Taiwan Stock Exchange Corporation began to use the fully automated trading system for all listed stocks and launched an online supervisory system to safeguard the order of the stock market on August 2, 1993. Maggi and Nijkamp (1992) pointed out that conventional industries were not likely to achieve a rapid growth with virtually no limit as the Internet industry had achieved. The Internet is a modern trend. It saves the cost of labor and increases the value of time. Its economic benefits are recognized across all industries. In recent years, the financial industries (including the banking and securities industry) have also progressively transformed to use online trading mechanisms in place of manual trading operations. Among all the online financial services, most Taiwanese consumers were most familiar with online trading of securities mainly because of the higher information value, convenience value, service value and utilitarian value of this service (Wu, 2004).

Electronic Service Quality (E-Service Quality)

Parasuraman *et al.* (2005) defined electronic service quality (e-service quality) as the degree to which a web site facilitated efficient and effective shopping, purchasing and delivery. This definition covers service quality in the pre-purchase stage (e.g., perceived ease of use of the web site, clarity of product and order information and protection of personal data) and the post-purchase stage (e.g., product delivery, customer support and responsiveness to customers). Liao *et al.* (2011) proposed that e-service quality was the experience of service providers and customers that arised mainly through electronic channels and without human intervention. Parasuraman *et al.* (2005) also constructed a quality scale called E-S-QUAL to measure e-service quality. This scale consists of four dimensions, including system availability, efficiency, fulfillment and privacy. Yaya *et al.* (2011) used E-S-QUAL without the fulfillment dimension to measure the e-service quality of online banking systems. Liong *et al.* (2011) probed into satisfaction of Google users and confirmed that e-service quality was positively related to e-satisfaction.

Perceived Value

The transaction utility theory propounded by Thaler (1985) could be extended to explain customer perceived value. When purchasing a product, customers usually assess the value of the product based on their perceptions. Their purchase intention increases when they perceive higher value of the product. Breuer (2006) identified two forms of value. One was the benefits that customers got after using the product, and the other was the relative benefit that they brought to the company. Turel *et al.* (2007) suggested that perceived value was measured along four dimensions, including quality value, emotional value, monetary value and social value. In a study of the relationship between product and perceived value, Lee *et al.* (2010) proposed six dimensions of perceived value, including social approval, price/quality, craftsmanship, aesthetic beauty, and product influence. Chen and Chen (2010) examined the relationship among experience quality, perceived value, customer satisfaction and behavioral intention in the tourism industry. Their findings showed that perceived value had a direct and positive effect on customer satisfaction.

Electronic Satisfaction (E-Satisfaction)

Szymanski and Hise (2000) defined e-satisfaction as customers' overall feeling of their online shopping experience. According to Anderson and Srinivasan (2003), e-satisfaction was the contentment of the customer with respect to his or her prior purchasing experience with a given e-commerce firm (Fahim *et al.*, 2010). Yen (2008) evaluated user satisfaction with web-based self-services in three dimensions, including system, information and service. Lee *et al.* (2009) mentioned that e-satisfaction was the satisfaction of the customer with his or her prior purchasing experience or behavior with a web site. In a study of online consumers of apparels, Lin (2009) found that delivery efficiency and web site design had a significant impact on e-satisfaction. The findings in Ghane *et al.* (2011) also indicated that service quality, e-satisfaction and e-trust had a relatively stronger and more direct association with e-loyalty.

Electronic Trust (E-Trust)

Electronic trust (e-trust) could be defined as an attitude of confident expectation in an online situation of risk that one's vulnerabilities will not be exploited (Corritore *et al.*, 2003; Horppu *et al.* 2008). Tsai (2011) concluded after a review of literature related to online stores that e-trust was customers' belief in the reliability of the product, information and services provided by the web site. Dabholkar and Sheng (2012) found that consumers had more satisfaction, greater trust, and higher purchase intentions by using recommendation agents (RAs) of online shopping. Shankar *et al.* (2002) proposed four dimensions of e-trust, including reliability, emotional comfort, competence and benevolence. Chiu *et al.* (2010) showed four items of bidding justice which affected consumers' e-trust. They mentioned that consumers with e-trust would consider the product, information and service provided by the seller as reliable. Chen and Liu (2010) integrated service quality and TAM perspectives to explore factors affecting e-trust and purchase intention. Their findings suggested that higher e-trust led to higher purchase intention.

Switching Intention

Keaveney (1995) defined switching intention as one's attitude toward replacing the current brand with another. Shen and Li (2010) pointed out that switching intention was the intention to betray or exit an existing relationship. It depended primarily on customers' decision to stop buying or receiving the primary services from a service provider. Chih *et al.* (2012) showed that initial (discrepancy between service failure expectation and service performance) and recovery (discrepancy between recovery expectation and recovery performance) disconfirmations could affect switching intentions through satisfaction. Kim *et al.* (2006) proposed four items of consumers' intention for email switching. They suggested that intention for email switching depended on consumers' decision to terminate or cancel their subscription to the primary service of a company and use the alternative service of another company. Shen and Li (2010) explored the antecedents to switching and their relationship with customer loyalty. They found a negative relation between switching intention and customer loyalty.

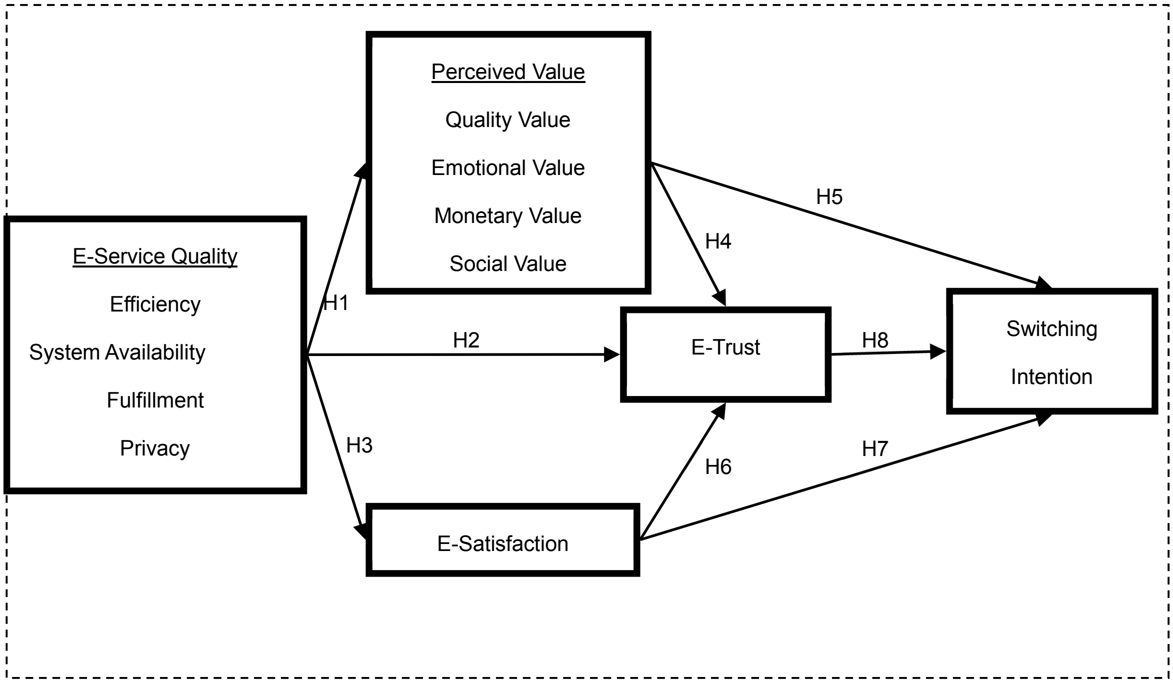
DATA AND METHODOLOGY

This study investigated the online securities trading systems in Taiwan from customer perspective. Based on previous literature, this study attempted to explore the effects among e-service quality, perceived value, e-satisfaction, e-trust and switching intention in the context of online securities trading. In this study, e-service quality was measured using E-S-QUAL introduced by Parasuraman *et al.* (2005). This scale comprises four dimensions, including efficiency, system availability, fulfillment and privacy. Perceived value was measured using four dimensions including quality value, emotional value, monetary value, and social value proposed by Turel *et al*. (2007). E-satisfaction was measured using the satisfaction of the consumers with purchase experience and behavior on the Web site developed by Lee *et al.* (2009). E-trust was measured using the correctness and reliability of products, information and services provided by online seller on customer's trust proposed by Chiu *et al.* (2010). Finally, switching intention was measured using consumers' decision to terminate or cancel their subscription to the primary service of a company and use the alternative service of another company developed by Kim *et al.* (2006). The research structure was developed based on the variables discussed in literature review. In this structure, e-service quality was set as an antecedent variable. In addition to the effects of perceived value, e-satisfaction and e-trust on switching intention, this study would also explore the differences in each of these variables across demographic variables. The research framework is as illustrated Figure 1.

The definition and measure of the variables in this study referred to the relevant literature reviews. The research hypotheses were developed by the objectives of this study, literature reviews, and research framework. They are described as follows.

*E-service Quality is Related to Perceived Value***:** Fassnacht and Köse (2007) stated that the perceived value of an online service increased with its e-service quality. Kuo *et al.* (2009) obtained a positive relationship between perceived value and e-service quality in a study of mobile value-added services. Lai and Chen (2010) explored factors affecting people's use of mass transit systems. Their empirical findings showed that service quality had a significant and positive effect on perceived value, overall satisfaction and behavioral intention. From the above-mentioned findings, it can be inferred that e-service quality affects perceived value positively. Thus, this study proposes the following hypothesis:

Figure 1: Research Framework



This figure shows the research framework of the effects among e-service quality, perceived value, e-satisfaction and e-trust, and switching intention.

H1: E-Service Quality Is Significantly and Positively Related to Perceived Value

E-Service Quality Is Related To E-Trust **:** Gefen (2002) pointed out in a research of customer loyalty in the e-commerce context that the reliability, responsiveness and assurance dimensions of e-service quality had a positive effect on consumers' e-trust. Gefen *et al.* (2003) argued that e-service quality affected consumers' trust in a web site, suggesting that online stores with better e-service quality could win more consumer trust. Kim *et al.* (2009) further showed that safety and fulfillment of e-service quality were determinants of e-trust.

H2: E-service quality is significantly and positively related to e-trust.

*E-service Quality is Related to E-satisfaction***:** Zeithamal *et al.* (2002) highlighted the importance of e-service quality for consumers, suggesting that e-service quality was a determinant of consumers' repurchase intention. E-service quality affected satisfaction, repurchase intention and actual purchase. Rodgers *et al.* (2005) investigated service quality in the online environment. Their findings warranted the positive association between e-service quality and customer satisfaction. Liong *et al.*'s (2011) research of user satisfaction with Google services also confirmed that e-service quality was significantly related to e-satisfaction.

H3: E-service quality is significantly and positively related to e-satisfaction.

*Perceived Value is Related to E-trust***:** In a study of relationship quality and perceived value, Moliner *et al.* (2007) found that perceived value was an antecedent to trust and had a positive effect on trust. Kim *et al*. (2008) investigated the relationship between perceived value, satisfaction and trust in a context of online CRM. Their empirical findings showed that perceived value had a positive effect on trust.

H4: Perceived value is significantly and positively related to e-trust.

Perceived Value is Related to Switching Intention: Hess *et al.* (2003) and Bell *et al.* (2005) had mentioned that higher perceived value helped reinforce the relationship between customers and suppliers. Therefore, higher perceived value could lead to higher customer loyalty and lower switching intention. Chiu (2009) explored the relationship between perceived value and switching intention in the securities industry. Her findings revealed a negative relationship between perceived value and switching intention. In other words, investors had lower intention to switch to other securities brokers when they perceived higher value of the services provided by the current one.

H5: Perceived value is significantly and negatively related to switching intention.

E-satisfaction is Related to E-trust: Flavián *et al.* (2006) proposed that e-satisfaction influenced e-trust, and e-trust depends on the company's ability to satisfy customer needs. Lin (2009) investigated the antecedents and outcomes of e-satisfaction and e-trust. His findings showed that e-satisfaction had a significant effect on e-trust, and the effects of e-satisfaction and e-trust on e-loyalty were statistically significant.

H6: E-satisfaction is significantly and positively related to e-trust.

E-satisfaction is Related to Switching Intention: Zeithaml et al. (1996) pointed out that any decline in perceived service quality would result in a decline in satisfaction and an increase in customers' switching intention. Athanassopoulos *et al.* (2001) found a negative relationship between customer satisfaction and switching intention in the banking industry. Huang (2005) studied customer switching intention from the perspective of relationship commitment. Her findings indicated that satisfaction had a negative effect on customer switching intention.

H7: E-satisfaction is significantly and negatively related to switching intention.

E-trust is Related to Switching Intention: Ranaweera and Prabhu (2003) indicated that satisfaction and trust had a strong negative relation to switching intention. Yen (2009) probed into the factors affecting industrial customers' intention to switch suppliers. His findings also revealed a negative relationship between trust and switching intention. Kuo (2004) had the same finding in a research of consumers' switching intention and behavior.

H8: E-trust is significantly and negatively related to switching intention.

Sampling Design and Survey: Gorsuch (1983) argued that the number of question items and the sample size should be in a ratio of 1:5 and preferably in a ratio of 1:10, and the sample size should be greater than at least 100. The number of question items in this research is 51 (excluding demographic variables), thus the optimal sample size is 510. In fact, we distributed a total of 625 copies of the questionnaire across the nation. Based on the statistics of population by region released by Directorate-General of Budget, Accounting, and Statistics, Executive Yuan in December 2013, we calculated the minimum size of samples from each region and excluded duplicate responses or responses with incomplete answers. All the acceptable responses were coded and filed. At last, 515 acceptable responses were obtained, 234 of which came from northern Taiwan, 133 from central Taiwan and 148 from southern Taiwan. The acceptable response rate was 82.4%. The data were collected for the period 5/1/2014 until 9/26/2014.

RESULTS

The data of this study were collected in the research survey based on the total of 515 usable questionnaires to describe and analyze by using the SPSS statistical package and linear structural relationships AMOS.

Reliability Analysis

In this study, internal consistency of the questionnaire was tested using Cronbach's α and correlation coefficient. The higher the two coefficients, the more consistent and reliable the measurement results. Before proceeding to the subsequent analysis, we first analyzed the overall reliability of the questionnaire. The result showed a Cronbach's α coefficient of 0.967, which met the 0.7 requirement recommended by Devellis (1991). In other words, the questionnaire was developed with high reliability.

One-Sample T Test Analysis

One-sample t test analysis was used in this study. The null hypothesis of $H_0: \mu \leqq 3$ and the alternative hypothesis of $H_1: \mu > 3$ were used to test and show there were almost significantly higher agreement (satisfaction) levels on e-service quality, perceived value, e-satisfaction, e-trust, and switching intention.

Factor Analysis of E-Service Quality

Based on Parasuraman *et al.* (2005) scale, we performed principal component analysis to extract three dimensions of e-service quality, respectively named "efficiency and privacy", "system availability" and "fulfillment". After factor rotation, these three dimensions had an eigenvalue of 10.038, 2.810 and 1.378 respectively. All of these values were greater than 1, indicating the classification was appropriate and meaningful. Besides, the cumulated variance explained was 64.662%. This value was greater than the standard level of 60%, indicating that the extracted dimensions were reliable. All the factor loadings were also greater than the standard level of 0.4, meaning that the items were relevant to the dimensions. The three dimensions are explained as follows: Dimension 1: Items in this dimension mainly describe how customers can easily and quickly access the web site and how the web site can protect customers' personal data. We named dimension as "efficiency and privacy". Dimension 2: Items in this dimension measure that the web site has sufficient technical abilities to ensure smooth and zero-fault trading of securities. We named this dimension as "system availability". Dimension 3: Items in this dimension describe how the web site can correctly process orders and deliver information or product to customers on time. This dimension was therefore named "fulfillment".

Factor Analysis of Perceived Value

Based on the dimensions proposed by Turel *et al.* (2007), we performed principal component analysis to extract three dimensions of perceived value, respectively named "monetary and emotional value", "social value" and "quality value". After factor rotation, these three dimensions had an eigenvalue of 7.557, 2.188 and 1.183 respectively. All of these values were greater than 1, indicating the classification was appropriate and meaningful. Besides, the cumulated variance explained was 64.279%. This value was greater than the standard level of 60%, indicating that the extracted dimensions were reliable. All the factor loadings were also greater than the standard level of 0.4, meaning that the items were relevant to the dimensions. The three dimensions are explained as follows: Dimension 1: Items in this dimension describe that customers can get enjoyment and pleasure while using the web site and perceive the value of the service or product they pay for. This dimension was named "monetary and emotional value". Dimension 2: Items in this dimension describe that customers think that the overall value of the product or service is acceptable and recognized by the society. We named this dimension as "social value". Dimension 3: Items in this dimension are mainly about customers' judgment of the consistency of products or services offered on the web site. We named this dimension as "quality value".

Factor Analysis of E-satisfaction: Based on the dimension proposed by Lee *et al.* (2009), we performed principal component analysis to extract one dimension of e-satisfaction, named "e-satisfaction". After factor rotation, the one dimension had an eigenvalue of 3.711. The value was greater than 1, indicating the classification was appropriate and meaningful. Besides, the cumulated variance explained was 74.217%. This value was greater than the standard level of 60%, indicating that the extracted dimension was reliable. The factor loadings were also greater than the standard level of 0.4, meaning that the items were relevant to the dimension. The one dimension is explained as follows: Dimension 1: Items in this dimension mainly measure customers' satisfaction with their online trading experiences to understand their overall perception of the web site's online services. This dimension was named "e-satisfaction".

Factor Analysis of E-trust: Based on the dimension proposed by Chiu *et al.* (2010), we performed principal component analysis to extract one dimension of e-trust, named "e-trust". After factor rotation, the one dimension had an eigenvalue of 2.891. The value was greater than 1, indicating the classification was appropriate and meaningful. Besides, the cumulated variance explained was 72.282%. This value was greater than the standard level of 60%, indicating that the extracted dimension was reliable. The factor loadings were also greater than the standard level of 0.4, meaning that the items were relevant to the dimension. The one dimension is explained as follows: Dimension 1: Items in this dimension mainly describe that customers consider all the information, products and services provided by the online retailer as correct and reliable. This dimension was therefore named "e-trust".

Factor Analysis of Switching Intention: Based on the dimension proposed by Kim *et al.* (2006), we performed principal component analysis to extract one dimension of switching intention, named "switching intention". After factor rotation, the one dimension had an eigenvalue of 2.347. The value was greater than 1, indicating the classification was appropriate and meaningful. Besides, the cumulated variance explained was 78.225%. This value was greater than the standard level of 60%, indicating that the extracted dimension was reliable. The factor loadings were also greater than the standard level of 0.4, meaning that the items were relevant to the dimension. The one dimension is explained as follows: Dimension 1: Items in this dimension mainly describe that customers are planning or have decided to terminate or cancel subscription to the primary service of a company and subscribe the service provided by another company. This dimension was named "switching intention".

Structural Equation Modeling Analysis: This study tested whether there were significantly causal relationships between the factors or not, and how many differences between the data of the theoretical model and the actual observation were through structural equation modeling AMOS 17.0 package. Assessment indices and results of the goodness-of-fit of the overall model are shown in Table 1. The analysis for direct effect shows that e-service quality had a direct effect of 0.986 and 0.459 on perceived value and e-satisfaction respectively, indicating that e-service quality had a direct and positive impact on perceived value and e-satisfaction; perceived value had a direct effect of 0.480 on e-trust, meaning that perceived value would directly and positively affect e-trust; e-satisfaction had a direct effect of 0.600 on e-trust, meaning that e-satisfaction was positively and directly related to e-trust; e-satisfaction had a direct effect of -0.145 on switching intention, suggesting that e-satisfaction had a direct but negative effect on switching intention; e-trust had a direct effect of -0.273 on switching intention, indicating that e-trust and switching intention were also directly but negatively related. The analysis for indirect effect shows that e-service quality affected e-trust through two paths, with an indirect effect of 0.459×0.600 (e-satisfaction as the mediator)+0.986×0.480 (perceived value as the mediator)=0.749; perceived value affected switching intention through e-trust, with an indirect effect of 0.480×(-0.273)= -0.131; e-satisfaction affected switching intention through e-trust, with an indirect effect of 0.600×(-0.273)= -0.164.

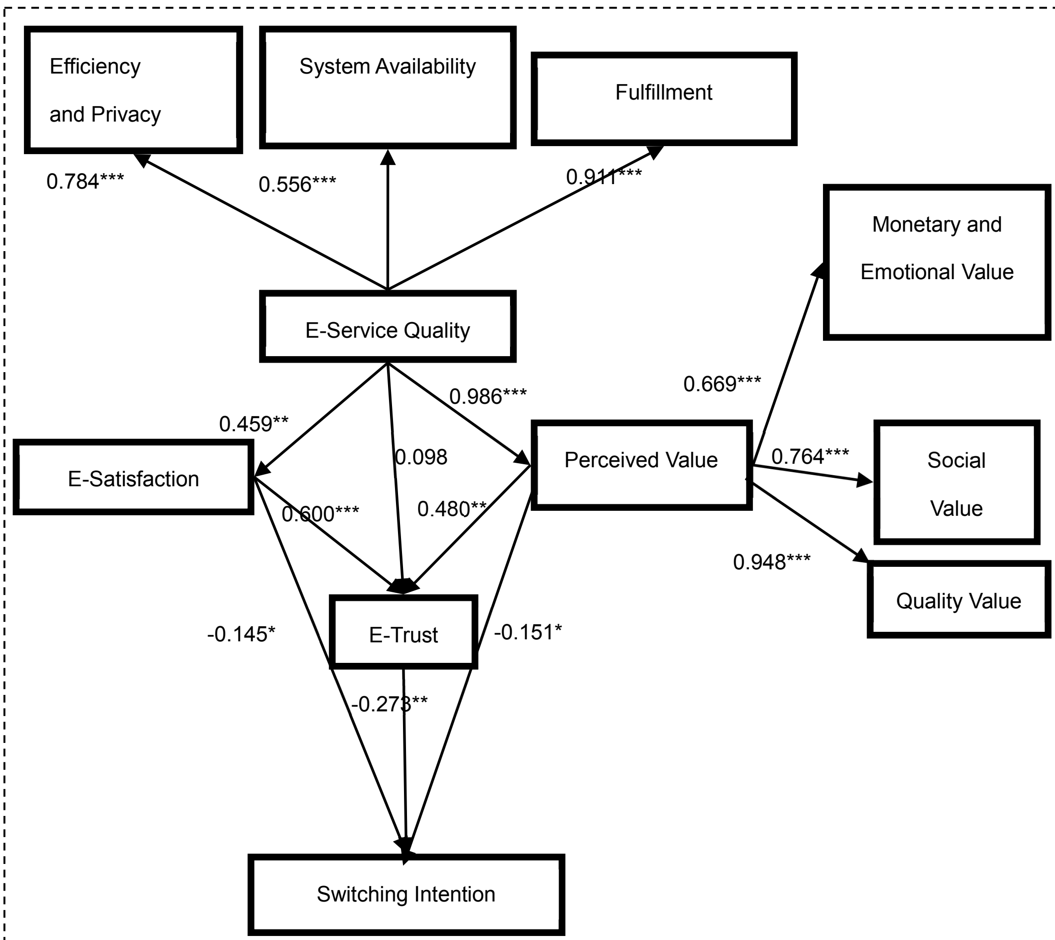
The analysis for total effect of switching intention shows that the key factor of the most significantly negative effect was e-satisfaction, with a total effect of -0.309. The second significantly negative effect was e-trust, with a total effect of -0.273. The final significantly negative effect was perceived value, with a total effect of -0.183. The results of effect analysis are shown in Figure 2. According to the above analytical results, e-service quality could significantly and positively affect perceived value and e-satisfaction. Perceived value and e-satisfaction could significantly and positively affect e-trust. Moreover, e-satisfaction and e-trust could significantly and negatively affect switching intention. Therefore, the results of this study supported hypotheses 1, 3, 4, 6, 7, and 8, but hypotheses 2 and 5 were not supported.

Table 1: Assessment Indices and Results of the Goodness-of-Fit of the Overall Model

Index	Test Statistics	Index Values	Analytical Values	Test Results
	χ^2/df	<3	2.958	Accept
	GFI	>0.9	0.910	Accept
Absolute goodness-of-fit index	AGFI	>0.9	0.902	Accept
	RMR	<0.05	0.045	Accept
	RMSEA	<0.05	0.042	Accept
	NFI	>0.9	0.924	Accept
	RFI	>0.9	0.911	Accept
Relative goodness-of-fit index	IFI	>0.9	0.948	Accept
	TLI	>0.9	0.940	Accept
	CFI	>0.9	0.949	Accept
Parsimony goodness of fit index	PGFI	>0.5	0.676	Accept
	PNFI	>0.5	0.758	Accept

This table shows the three kinds of goodness-of-fit index, test statistics, Index values, Analytical values, and Test results.

Figure 2: The Effect Analysis of the Goodness-of-Fit Structure of the Overall Model



*This figure shows the regression estimates of the equation. **indicates significance at the 1 percent level, ***indicates significance at the 0.1 percent level.*

CONCLUDING COMMENTS

The objective of this study is to examine the impacts among e-service quality, perceived value, e-satisfaction and e-trust, and switching intention in Internet trading systems of the securities industry. We conclude results of this research and propose implications for the management practice and directions for future researchers, in hope of providing some substantive assistance to securities brokers in understanding the behavior of online traders and factors affecting their switching intention. The statistical methods including reliability analysis, one-sample *t* test analysis, factor analysis, and structural equation modeling analysis are used to test research hypotheses. The findings of this study show that there were significantly positive effects among e-service quality, perceived value, e-satisfaction, and e-trust, but a significantly negative impact on switching intention. Perceived value was positively related to e-satisfaction e-trust, but it was negatively related to switching intention. E-satisfaction was positively related to e-trust, but it was negatively related to switching intention. E-trust was negatively related to switching intention.

It is not only good for the securities industry to retain the old customers, but also it can develop new market opportunities to enhance their business performance. Moreover, the securities industry also should pay attention to e-service quality and perceived value and reduce users' switching intention through improvement of e-satisfaction and e-trust. As shown in this study, e-service quality had a significant positive and direct effect on perceived value and e-satisfaction and was also positively related to e-trust. Hence, securities brokers can improve their e-service quality based on the three dimensions extracted in this study. In the aspect of efficiency and privacy, they can pay more attention to the accessibility of the system and security of personal data. In the aspect of system availability, their web site administrator should endeavor to ensure that all the financial products shown in the system are correct and valid, allowing users to make online deals with no error. Finally, in the aspect of fulfillment, the web site administrator should ensure effectiveness and accuracy of transmission for each deal. Improvement in these aspects can lead to higher user satisfaction, which in turn can lower users' switching intention.

In addition, securities brokers can refer to a variety of assessments of e-service quality conducted by market survey companies or leading magazines. From the assessment results, they can learn some innovative services of other broker companies and also have a direction on how to improve their own services. Besides, due to the fact that perceived value is positively and directly related to e-trust and has a negative effect on switching intention, we suggest that securities brokers improve the perceived value of their services in the three dimensions extracted in this study. In the aspect of emotional and monetary value, they can add background music to their web site or work with other brokers to find a fair and commonly acceptable amount of transaction fees to maximize user satisfaction. In the aspect of social value, they can use more propaganda to promote the advantages of online trading.

Finally, in the aspect of quality value, they can reinforce their security mechanisms and offer reliable information to win user trust. Improvement in these three aspects can increase the perceived value of online trading, motivating users to use and rely on the various services of their online trading system. Any increase in users' perceived value and e-trust can lead to a decrease in their switching intention. On the other hand, securities brokers can also adopt CRM mechanisms to increase the perceived value of their online services. They can collect customer data for analysis and use the results for predicting customer needs and developing marketing strategies. This study has a limitation in collecting the data of the questionnaires by the convenient sampling method because of limited time, cost, and labor. Although sampling and empirical methods of this research strive to be perfect, but there are still some improvements for extending or more widely explored studies at the future research directions for subsequent researchers. Future research may use other e-service quality scale or expand the scope of the study to other financial institutions (such as banking and insurance industry, etc.) to explore whether there are significant differences and effects or not between perceived value, e-satisfaction, e-trust, and switching intentions for the different e-service quality scale and various types of financial institutions. Other dimensions such as corporate image, brand and product involvement can be explored to analyze whether they would significantly affect e-service quality, perceived value, e-satisfaction, e-trust, and switching intention or not for securities trading systems in the future research model.

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THE EFFECTS OF CERTIFIED NURSE ASSISTANTS' SOCIALIZATION, ONBOARDING AND TURNOVER

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ABSTRACT

This study investigates certified nurse assistants' perceived belongingness, attachment to their organizations, and intentions to leave their jobs. The theoretical foundation is Tajfel and Turner's social identity theory. Public policy guiding this study is the Patient Protection and Affordable Care Act. Using a cross-sectional design, we found affective commitment to the organization partially mediated the relationship between organizational identification and turnover intentions. This finding is consistent with prior studies investing the antecedents of commitments to the organization. Data were collected from a random sample of 117 certified nurse assistants' who worked in nursing homes in a Midwest state and who completed a demographic questionnaire and six behavior and attitudinal questionnaires. Data were analyzed using hierarchical multiple regression. We recommend employers develop a formal process to train and retrain certified nurse assistants, and establish formal workgroups to enhance relationships and decrease job turnover. The implications for social change include using this analysis to inform employers and policymakers about strategies to train and stabilize the certified nurse assistant workforce for the benefit of nursing home residents, employees and employers.

JEL: H5, I110

KEYWORDS: Policy, Policy Making, Caregiving, Health Care, Health Professional, Healthcare, Nurse

INTRODUCTION

Certified nurse assistants' (CNAs) are integral to the care provided to nursing home residents. The CNA is the principal caregiver of residents in the nursing home. States require CNAs to go through paraprofessional training prior to caring for nursing home residents. Nursing home administrators balance the challenges of retaining staff, CNAs in particular, to comply with the Patient Protection and Accountable Care Act (PPACA). The policies stipulated in PPACA require long-term care institutions to maintain the safety and wellness of patients (Robinson, 2010). In doing so, long-term care institutions must be transparent about their performance. In 2010, there were 65,700 nursing positions that needed to be filled in nursing homes across the United States (American Health Care Association, 2011). CNA job positions represented 43,700 of the total 65,700 jobs vacant in 2010. A vast body of research has explored the factors contributing to CNA turnover, however, little is known of how CNAs identify with the organization (Castle, 2008; Miller, 2009). Data were collected from a cross sectional group of CNAs in a Midwest state to investigate the processes through which CNAs are socialized into the workplace and influencers of turnover. Results show significant relationships among organizational identity, affective commitment, and intention to leave their jobs (Henry, 2014). The next section of this paper is a literature review. Following is the discussion of the data and methodology used in this study. Next is the results section. The last section is the concluding comments.

LITERATURE REVIEW

This section is a synthesis of the studies that examined the Patient Protection and Accountable Care Act (PPACA) pertaining to long-term healthcare. Additionally, this section contains extant studies on organizational identity, organizational commitment, affective commitment to the organizations and employee turnover. The policies stipulated in PPACA require long-term care institutions to manage nursing home residents' health outcomes through care coordination to receive reimbursement incentives (Briesacher, Field, Baril, & Gurwitz, 2009; Haywood, 2010; Paraprofessional Healthcare Institute Policy Work, 2011). However, there are major concerns of policymakers that center on certified nurse assistants' (CNAs) staff turnover, which is upwards of 93% (American Health Care Association, 2010). Researchers have warned that CNAs are needed to care for an aging population, and the baby boomers born between the years 1946 and 1964 entering into traditional retirement (Buerhas, 2008; Kinghorn, 2012).

There have been numerous studies focusing on in-group behaviors, which provide the social cues that an individual can identify with and conform to the in-group norms (Boros, 2008; Edwards & Peccei, 2010; Marique & Stinglhamber, 2011). These group norms aid in conformity with the company, organization, individual and workgroups. In social identity theory, the individual associates with the company, (organizational socialization) through the process of organizational identification. Socialization strategies to integrate newcomers in the organization play a significant role in how employees identify with their work environment. Ashforth and Mael (1989) defined organizational identification as the perception of one with or belonging to an organization. Ashforth and Mael's reconceptualization states the individual defines him or herself in terms of the organization in which he or she is a member (Mael & Ashforth, 1992).

Their re-conceptualization based on the premises of relational factors indicates identification with the organization presents the foundation for attitudes and behaviors (De Moura, Abrams, Retter, Gunnarsdottir, & Ando, 2009). Sluss, Ployhart, Cobb and Ashforth (2012) explored the condition in which 1,101 new employees identified with the organization. This same study explored generalization of relational and organizational identification using the supervisor as a prototypical mediator to a new employee identifying with the organization. The findings from their study supported the hypothesis that each variable partially mediated the relationship between the newcomers' relational identification and organizational identification (Sluss et al., 2012). Additionally, findings from this same study suggested the newcomers' relational identification generalized to organizational identification when the supervisor was a prototype (Sluss et al., 2012). Marique and Stinglhamber (2011) expanded organizational identification research in a cross-sectional study investigating employee identification to proximal targets of affective commitment. Affective commitment is defined as an emotional attachment to, identification with, and involvement in the organization (Meyer & Allen, 1991). Results of their study showed affective organizational commitment mediated the effect of organizational identification on job satisfaction and turnover intentions. The present study theoretically extends the work of Tajfel and Turner, Ashforth and Mael, and Myer and Allen, by examining the components of organizational commitment. Second, it expanded the research on the mediating role of organizational identification, (socialization) organizational commitment (affective) and turnover intentions of CNAs. We found when CNAs intent to leave the organization increases, their attachment to the organization decreases.

DATA AND METHODOLOGY

The present study used a quantitative design to collect data and analyze respondents' self-reports on the outcome turnover intentions. This population included certified nurse assistants' (CNAs) with part-time or full-time work experience in for-profit and nonprofit facilities. In 2013, each CNA received an informed consent form, paper survey and postage-paid return envelope through the U.S. Postal System. A reminder card to complete the survey was mailed 7 days after the initial mailing. The researcher mailed follow-up reminder cards at the third and fourth week to the nonrespondents. The surveys were available for CNAs to complete for 6 weeks from the date of IRB approval. One hundred seventeen surveys were completed and returned through the U.S. Postal System yielding a response return rate of 11%. The researcher performed all data analysis using Predictive Analytic Software (PASW) 18. To investigate the correlations of CNA turnover, this study examined the mediator relationship of, affective commitment to an organization, on predictor variables organizational tenure, occupational tenure, workgroup tenure and organizational identity, and dependent variable turnover intention. A test of mediation examines the relationship between the predictor and the mediator variable, and the relation between the mediator and the criterion variables (Baron & Kenny, 1986). In essences, the mediator explains the relationship between two variables (Baron & Kenny, 1986).

<u>Model</u>

To test the hypothesis: Affective commitment to an organization will not mediate the relationship between organizational identity and turnover intention we conducted a hierarchical regression analysis.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + e \quad (1)$$

RESULTS AND DISCUSSIONS

Most of the respondents were female, 95.7%, with 3.4% male respondents, which is consistent in the nursing home industry, yielding a representative sample (Kostiwa, Meeks, & Meeks, 2009). Sixty-nine respondents were currently working in a nursing home facility, 39 responded as not currently working in a nursing home, with 9 not providing a response. All 117 respondents had nursing home experience with 67.5% working full-time, 20.5% part-time and 4.3% agency employees. CNAs working in for-profit nursing home facilities represented 49.6% of respondents, with 27.4% working in nonprofit nursing home facilities. The majority of the respondents worked for a nursing home licensed for Medicaid, Medicare and private insurance, 54.7%. Respondents also worked for nursing homes licensed for private insurance, 7.7%; Medicare, 6%; Medicare and private insurance 6%; Medicaid and Medicare, 5.1%; private insurance and Medicaid, 2.6%; and Medicaid, .9%, respectively. Almost all of the respondents, 82.9%, worked as a CNA, 11.1% as Something Else, 1.7% as Executive Directors/Administrators (with .9% as a licensed nurse assistant). The summary statistics of the demographics measured on a continuous scale were tenure to the organization, tenure to the occupation, and tenure to the workgroup. As indicated in Table 1, the respondents' tenure to the organization was M = 8.27 years. Tenure to the occupation of the respondents was M = 14.23, and tenure to the workgroup was M = 8.72.

While the CNAs responding to this study have worked in the occupation for over 14 years, the results indicated turnover has occurred during the span of their professional careers. Affective commitment, organizational identification, job satisfaction and turnover intention were measured on a continuous scale. Table 1 presents the respondent's affective commitment (ACORG) results as M = 19.69 and organizational identity (IDORG), M = 15.87 on a scale ranging from 6 to 30, respectively. Affective commitment to the workgroup (ACWG_1 SMEAN) had a reported M = 15.67, and affective commitment to an occupation M = 17.44 on a scale ranging from 4 to 20, respectively. Job satisfaction (JS) had an M = 9.40 on a scale of 5 to 20. Turnover intention (TI_1SMEAN) had an M = 7.81 on a scale of 3 to 15.

The results of the hierarchical regression to test affective commitment to an organization (ACORG) mediation relationship between organizational identity (IDORG) and turnover intention (TI_1SMEAN) are presented in this section. Four steps were performed to test mediation in the variables of interest. The first model examined the relationship between the independent variable IDORG and dependent variable TI_1SMEAN. The first model showed a correlation between the independent variable organizational identity and predictor variable turnover intentions (r =0.280, p =0.056). In model two, we tested the relationship between the independent variable IDORG and the mediator ACORG. Results indicated a significant effect of (r = 0.277, p =0.061). Model three explored the relationship between the mediator ACORG and dependent variable TI_1SMEAN. ACORG and TI_1SMEAN were also found to have a significant effect (r =0.535, p =0.000). The fourth model and final test investigated the mediator relationship to the dependent variable after controlling for the independent variables.

Table 1: Summary Descriptive Statistics of Participant (N = 117)

Variables	Mean	Std. Deviation	N
Tenorg_1smean	8.27	5.61	117
Tenocc	14.23	3.93	117
Tenwg_1smean	8.72	5.81	117
Acorg	19.69	5.94	117
Idorg	15.87	3.38	117
Acocc	15.67	3.40	117
Acwg_1smean	17.44	3.13	117
Js	9.40	4.51	117
Ti_1smean	7.81	3.51	117

Note: TENORG_S1MEAN = organizational tenure; TENOCC = occupational tenure; TENWG_S1MEAN = workgroup tenure; ACORG = affective organizational commitment; IDORG = organizational identity; ACWG_S1MEAN = affective workgroup commitment; ACOCC = affective occupational commitment; JS = job satisfaction; TI_S1MEAN = turnover intention. The mean respondents' tenure to their organization was 8.27 years. The mean respondents' tenure to the occupation was 14.23 years, and the reported mean tenure to the workgroup was 8.72 years.

The fourth model, which included organizational identity (IDORG) and affective commitment organization (ACORG), indicates significant changes in R^2 (0.253). This regression was significant with an F (5, 111) = 11.005, p = 0.000. The predictor variable has a positive and significant influence on turnover intention (TI_1SMEAN) with R^2 equaled 0.331 and the adjusted R^2 0.301. Further visual inspection reveals that this model accounted for 58% of the explained variance in the organizational identity score.

The coefficients affective commitment to an organization (ACORG) and organizational identity (IDORG) contained in the final model were evaluated to analyze the individual contribution of the predictor variable. One factor had significant beta weights. Affective commitment to an organization (B = -0.524, p = 0.000) had a significant negative relationship to turnover intention. It is important to note that an inspection of the ANOVA statistics revealed organizational identity was statistically significant; however, it was not significant in predicting turnover intention. It is concluded the hypothesis concerning affective commitment to an organization, organizational identity, and turnover intention was partially supported. Therefore, the null hypothesis was rejected. Results infer as turnover intention increases affective commitment to the organization decreases. All other relationships are depicted in Table 2.

Table 2: Hierarchical Regression Results for Affective Commitment Mediate Relationship between Predictor Organizational Identity and Turnover Intention

Model 4	R	R^2	Adjusted R^2	R^2 Change	PF Change	P ANOVA
1	0.280	0.078	0.045	0.078	2.374	0.056*
4	0.576	0.331	0.301	0.253	42.046	0.000***
Coefficients for Final Model						
	B	***β***	***t***	***p***	**Bivariate *r***	**Partial *r***
Step 1						
IDORG	0.150	0.144	1.584	0.116	0.130	0.148
Step 2						
(Constant)	13.583		6.805	0.000***		
IDORG	0.123	0.119	1.524	0.130	0.130	0.143
ACORG	-0.309	-0.524	-6.484	0.000***	-0.535	-0.524

*Note. IDORG = Organization Identification Scores; ACORG = Organization Affective Commitment Scores *p <.05, ** P <.01, *** p < .000*
**This table shows the regression equation. Organizational identity (IDORG) and affective commitment organization (ACORG) had significant changes in R^2 (.253). This regression was significant with an F (5, 111) = 11.005, p = .000. The predictor variable has a positive and significant influence on turnover intention (TI_1SMEAN) with R^2 equaled .331 and the adjusted R^2 .301.*

CONCLUDING COMMENTS

The purpose of this study was to identify the correlations of CNA turnover in nursing homes operating in a Midwest state. Researchers have cautioned the likelihood of the nursing facilities retaining a CNA from start to year-end is dismal (American Health Care Association, 2008; Miller, 2009). Correlations were identified by testing Tajfel and Turnover's grand theory of social identity. To investigate the correlations of CNA turnover, this study examined the mediator relationship of organizational identity, affective commitment to an organization, job satisfaction, and turnover intention. Turnover intention examines how employees feel about their organizations. Employees who become dissatisfied with their job may experience turnover intentions (Henry, 2014). It is possible that the dissatisfaction with the job can result from the inability to achieve a person's identity standard (Hogg, 2006). When examining the intent to leave employment, researchers find interest in how often an employee thinks about quitting the organization (Jaros, 1997). Researchers have indicated commitment and organizational identity can influence employee turnover intention and job satisfaction (Marique & Stinglhamber, 2011).

We hypothesized affective commitment to an organization would not mediate the relationship between organizational identity and turnover intention. Affective commitment is defined as the employees' emotional attachment to identify with the organization (Meyer & Allen, 1991). Marique and Stinglhamber (2011) posited the behavior aspect of affective commitment is an exchange where individuals become committed to an organization to receive favorable treatment. To investigate the correlations of CNA turnover, hierarchical analyses were performed to test the mediator relationship of organizational identity, affective commitment to an organization, and turnover intention. This hypothesis was partially supported. As the model predicted, the null hypothesis was rejected. Based on the results of this study, as turnover intention increases, affective commitment to the organization should decrease.

This finding indicates an employee will not be as emotionally attached to the organization when there is a decision to leave the organization. The findings of this study are supported in extant research that the form of commitment influences turnover intentions and behaviors (Jaros, 1997). Researchers have confirmed that employees with affective commitment choose to remain with the organization (Meyer, Allen, & Smith, 1993). The manner in which the employee identifies with the organization's identity precipitates how the employee relates to the company (Zagenczky, Gibney, Few & Scott, 2011). When employees have a strong identity to the organization, they will remain with the employer even when the conditions of the organization are unfavorable (Henry, 2014). Researchers have indicated employees who identify with the organization have cognitions, affections, and desire that manifest in dimensions of pride, categorization and cohesion (Romeo, Yepes, Berger, Guardia, & Castro, 2011). These dimensions are exhibited as self-esteem, group identity, and desire to remain with the organization (Romeo et al., 2011).

Employers concerned with improving organizational commitment should focus on the people aspect of the company. Employers who develop a formal process to onboard and socialize CNAs can enhance the perception of belonging to the company. Implementing consistent assignments is a positive social change for the nursing home resident as it improves clinical outcomes. The scope of this study included turnover intentions of CNAs working in nursing homes that operate in a Midwest state. As typical in research, this study had limitations. The first limitation centers on the survey design used to collect data. The self-reported affective commitment, organizational identity, job satisfaction, turnover intentions, measures may have caused inflation in relationship between the variables. A second limit of this study was combining attitudinal and behavior theoretical concepts using a cross-sectional design with data collected at one point in time. As with all research, bias was another limitation of note in this study. The present researchers minimized these limitations by comparing the present results to the test-retest reliability, reliability and validity of prior studies for consistency in the replication of the research studies.

This study used a multifocal design to fill a gap in the literature by combining attitudinal and behaviors scales to investigate CNAs. The variable in this study related to CNAs' turnover intention. It is recommended future research examine the moderator effects of affective commitment, organizational identity, job satisfaction, and turnover intentions. This study looked at the proximal targets of turnover to gain an understanding if the respondents identified most with their workgroup or occupation. Using a qualitative study, the identification with proximal targets can expand on the findings of this study. A mixed-method design is an excellent method to investigate quantitative and qualitative responses on the proximal targets of job satisfaction and turnover.

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SECOND TIME IS A CHARM? REHIRING THE EX-CEO

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ABSTRACT

There have been many Chief Executive Officers (CEOs) of public companies who have come back to lead the firm they once gloriously lead. Since 2005, among S&P 100 companies in the U.S., there have been six CEOs who have returned as CEOs at the same company, with Steve Jobs of Apple being an exemplary 2nd term CEO. This paper analyzes whether these two term CEOs have been successful in their second tour of duty based on changes in share price of their companies during their second tour. The data shows that overall; there is no clear pattern in terms of better performance for second term CEOs. Although the analysis of share prices shows that 2nd term CEOs outperform the CEOs they replace by a wide margin, that number is very highly skewed by astronomical success of Steve Jobs at Apple. Additionally, the analysis of this paper shows that with the exception of two returning CEOs all others were either founders or member of the Board of Directors. Finally, this paper briefly discusses measuring performance of CEOs using Environmental, Sustainability and Corporate Governance matrices.

JEL: M1, G1

KEYWORDS: Stock Performance, S&P 500, 2nd term CEOs, ESG

INTRODUCTION

For baseball and movie aficionados, Billy Martin and Elizabeth Taylor respectively are well- known figures. Billy Martin was named manager of NY Yankees baseball team a record five times and was poised to become manager for a sixth time before his untimely death (Salfino, 2014). Elizabeth Taylor was an Oscar award winner who was married eight times, which included two marriages with actor Richard Burton (Taraborrelli, 2011). In corporate world, the opportunity to come back as CEO at the same firm has gone through its ups and downs. From 1993 to 2003, there was an average of 10 ex-CEOs who came back at the largest 1500 companies (Jones, 2007). However, the rehiring of CEOs cooled slightly during the 2000s. Usually, only persons who have been able to come back as CEOs have been the founders or member of the Company's Board of Directors.

CEOs are the face of an organization and set the strategic direction for the organization. Today, CEOs face "enormous pressure to deliver outstanding performance investors demand--and to satisfy other, often conflicting constituencies." (Nadler, 2007). These conflicting and urgent goals have contributed to the frequent turnover in the C-suite. A study by Booz Allen Hamilton showed that in the United States in 2005 as compared to 1995, 54% more CEOs left their office, and third of those leaving left prematurely due to performance problems (Nadler, 2007). More recent data--from 2000 to 2007--shows that CEO turnover has increased by 16.7% and the average CEO tenure is slightly under 6 years (Kaplan & Minton, 2012). The selection of the CEO is probably the most important decision that a corporate Board of Directors makes. An improper selection can cost an organization money and lost market share. This decision becomes even more acute, when a poor performing CEO is a successor to a very high performing CEO. When the successor does not perform to stock market expectations, the tenure of the successor is abruptly cut short and if the prior CEO is on the Company Board, most likely the prior CEO becomes a very good attractive candidate. The ex-CEO seems to be a good bet for many reasons including: (i) prior superior performance, (ii) well versed in the company culture, (iii) held in high esteem throughout the organization, (iii) knowledgeable about the industry the company operates in, and (iv) for the experience of being a CEO. Additionally a former employee "offers companies a known quantity, and of course, valuable experience. They 'know the lingo. They know the market. They know the ropes.' " (Lublin, 1996). Furthermore, some studies have shown that it is better to hire from within the organization (Adams, 2012). Usually, the only downside to the ex-CEO becoming a 2nd term CEO is a tarnished legacy (ChiefExecutive.net, 2013). This study shows that hiring the ex-CEO at the same organization does not necessarily lead to better financial performance for the organization. Of the twelve 2nd term CEOs analyzed in this study, six of them improved the firm's performance compared to their predecessors. In comparison to their predecessors, the increase in share price (as compared to the S&P 500) for the 2nd term CEOs was by 10,642 percentage points. However, this outsize number is heavily skewed by the extraordinary performance of Steve Jobs in his second avatar as Apple CEO. Additionally, there were few 2nd terms CEOs who did not meet the S&P 500 returns, but rather helped their shareholders by reducing the steep rate of stock price decline. Except for two 2nd term CEOs, all of the 2nd term CEOs were either founders or member of the Board of Director and or Chairman of the Board. The ex-CEO being member of the Board of Directors has important implication for a successor CEO. The successor CEO is in a very difficult situation since the Board closely monitors the CEO's performance and also he has to meet high standards set by the predecessor. The successor CEO can be replaced anytime because the ex-CEO is available to take over when the successor CEO stumbles.

As discussed later, today's CEOs are not only being evaluated based on financial performance, they are also being ranked on how their firms manage the other stakeholders, such as employees, environment, customers, and corporate governance issues (together "social" rankings). Although, for the purposes of this study the social rankings are too recent to make a meaningful comparison of social performance for the predecessor and 2nd terms CEOs. The remainder of this paper is organized as follows: a survey of literature is followed by a discussion of the data and its analysis, followed by concluding remarks.

LITERATURE REVIEW

Interestingly, there is little or no literature on 2nd term CEO performance. More specifically, there is a single study by Fahlenbrach, Minton, & Pan (2006) that examines the performance of 65 rehired CEOs from 1993-2005 (Jones, 2007). Fahlenbrach et al., provide many useful insights regarding 2nd terms CEOs. They conclude that 2nd term CEOs do as well as other new hires, 2nd term CEOs are rehired mainly due to poor performance of their predecessors, and 2nd term CEOs are likely to have strong connection with the firm, such as shares owned and Chairman of Board status. This paper is similar to Fahlenbrach et al., in that it analyzes an organization's stock performance prior to and during the tenure of 2nd term CEO. It differs from Fahlenbrach et al., in two significant ways. First, this study examines data that are more recent and second, it only analyzes performance of 2nd term CEOs of S&P 100 companies in beginning of 2014.

Other researchers have studied CEO performance, with different matrices. Jalal & Prezas (2012) suggest that firms pay more, link compensation to stock performance, and get more benefit from hiring CEOs outside of their organization and from a different industry than their own. Kaplan & Minton (2012) discuss the increasing rate of turnover, and shorter tenure for CEOs for U.S. corporations, and the Board of Directors very high sensitivity to firm's stock performance. Hansen, Ibarra, & Peyer (2013) have compiled a list of top performing CEOs worldwide. Their ranking is based on long-term financial performance of their organizations and corporate social performance. According to Hansen et al., the best performing CEO in last 17 years was Steve Jobs, and highest ranked women CEO is Meg Whitman of HP. Their findings are impressive because Hansen et al. do not just analyze performance during the CEO's tenure but three years afterward. This metric ensures that CEOs create a pipeline of future managers and make decisions that benefit shareholders in the long-term. Their research also shows that in U.S., CEOs hired from outside the company usually do not perform better than internally hired CEOs.

Fahlenbrach, Minton & Pan (2011) conclude that firms with former CEOs as directors do better than firms without them. Eckbo & Thorburn (2003), argue that after bankruptcy CEOs that invested conservatively have a better probability to be rehired by the new owners than the CEOs who invested aggressively. Efendi, Files, Ouyang & Swanson (2012) find that CEOs are less likely to be rehired when involved with option backdating. Finally, a study by Hamori & Koyuncu (2013) shows that CEOs with non job-specific experience surprisingly outperform their peers who had prior job-specific CEO experience. Dennis, Ramsey, & Turner (2009) discussed the performance of Co-CEOs and state that Co-CEOs are unrelated to past or future performance and there is a weak positive stock price rise with Co-CEO management structure announcement. Dissolving of a Co-CEO structure correlates with decrease in the firm's stock price.

DATA AND METHODOLOGY

The starting point for determining the 2nd term CEOs list was to review Form 10-K SEC filings for 2005-2014 of all S&P 100 listed companies (Price-Data, 2014) as of January 23, 2014. This review identified six CEOs who had been rehired as CEOs at the same corporation. They are Mike Ullman at JC Penney, Alan Lafley at Proctor & Gamble, Howard Schultz at Starbucks, Steve Jobs at Apple, Charles Schwab at Charles Schwab, and Michael Dell at Dell. In an effort to expand the number of CEOs analyzed, a BusinessWeek article (2009) identified four additional 2nd term CEOs who are included as part of this study. They are Stephen Luzco of Seagate Technology, Jerry Yang of Yahoo, Ted Waitt of Gateway, and Ken Lay of Enron. Although, E. Neville Isdell of Coca- Cola, Kirk Kerkorian of MGM, and David Duffield of PeopleSoft are included in the BusinessWeek article, they were not included in this study. E. Neville Isdell was CEO of Coca-Cola Beverages in Britain in his first term, and not the CEO of parent Coca-Cola; 10-K filings do not show Kirk Kerkorian as the CEO of MGM even though he may have been the de-facto owner; and David Duffield came back to PeopleSoft only for about two months to prevent hostile takeover by Oracle Corporation. Paul Allaire at Xerox and James Houghton at Corning complete the list of 2nd term CEOs. Thus, a total of twelve 2nd term CEOs' performance is analyzed in this paper.

It was determined that the performance of the CEOs would be based on stock performance because the stock price usually reflects all publicly available information about the organization and due to the increased sensitivity to firm's stock price by Board of Directors (Kaplan & Minton, 2012). Researchers usually use (i) stock performance relative to industry, (ii) performance of the industry relative to the stock market, and (iii) performance of overall stock market (Kaplan & Minton, 2012) when determining a corporation's financial performance based on stock price. In this study, and as shown in Table 1, performance is measured by first analyzing the direction of stock price (during the tenure of prior CEO, and during the tenure of 2nd time CEO), and also by comparing the change in stock price with the movement of S&P 500 index. Unfortunately, for some CEOs an increase the firm's stock price during his tenure does not guarantee continued employment. They are forced out because the stock price does not meet market expectation or lags the market or industry indices.

Traditionally the success (or failure) of a CEO was based on financial performance. However, recently specially after the banking troubles of 2008 there has been a determined effort towards measuring CEO performance by analyzing a company's social activities. Now companies are also evaluated on their relationship with other stakeholders and the environment. Companies need to work towards the well-being of the communities in which they operate, the environment, and their employees (Hansen et al., 2013). Some of the popular organizations that measure the environmental, sustainability, and corporate governance of organizations are: (i) MSCI KLD 400 Social Index, (ii) Newsweek Green Rankings, (iii) Global 100 Index, and (iv) Global RepTrak 100. Terms such as ESG (Environmental, Social, Corporate Governance), and SRI (socially responsible investing) are prominently used to describe organizational efforts in this arena (What is ESG, n.d.). Of the organizations analyzed in this study, Apple (48th place), Xerox (101st place), Proctor & Gamble (246th place), Starbucks (283rd place), and Charles Schwab (328th place) are included in Newsweek's Green Rankings for 2014 (Newsweek, 2014). Unfortunately, Newsweek and other rankings do not go as far back as necessary to compare the social performance of CEOs in prior tenure. Study by Hansen et al. shows that there is no correlation between financial and social & environmental performance; however, many companies have been able to accomplish high numbers in both the financial and social/environmental matrices. Hansen et al also do not foresee the social performance measures to be as objective as financial matrices in near term.

RESULTS

In his first term, Mike Ullman of JC Penney was dismissed because he could not provide the stock price appreciation that an activist shareholder sought. After Ullman's departure, Ron Johnson—who had led Apple's retail stores—was hired as the CEO. During Johnson's tenure, JC Penney stock price declined 58% while the S&P 500 gained 22%. This information and stock performance data for 2nd term CEOs appears in Table 1. Mr. Ullman was rehired and has been able to reduce the rate of JC Penney stock price decline. During Ullman's 2nd term, JC Penney stock price has declined by 39% while the S&P 500 has increased by 25% during the same period. Essentially, Mr. Ullman has not found an enduring formula for the ailing JC Penney. Mr. Ullman was not on the JC Penney Board prior to being asked to come back.

At Proctor & Gamble (P&G), Alan Lafley came back about a year ago. So far, the P&G stock has increased by 0.73% while the S&P 500 has increased by 21.38%. Clearly, he has not provided the returns the investors have sought. Surprisingly, Lafley's picked successor and predecessor—Robert McDonald—had increased the stock performance under his watch by 53.28% while the S&P returned 82.05%. This is an example of the extremely high standards set by Mr. Lafley, whereby any of his successor would have difficulty matching his performance. Another reason for Mr. McDonald losing his position was the presence of an activist investor/board member. Prior to his comeback, Mr. Lafley was not a member of the P&G Board of Directors.

Howard Schultz of Starbucks is also a super 2nd term CEO, who changed the way Americans drank coffee. He created an experience where coffee was much more than just a hot beverage for the average American coffee drinker. His predecessor oversaw a decrease of 20.13% in Starbucks' stock price, while the S&P 500 increased by 25% during the same period. On his return Mr. Schultz has engineered a stock price increase of over 336% while the S&P increased by 41%. Clearly, a very good performance for Starbucks and Mr. Shultz in his 2nd tenure. Mr. Schultz was a member of the Starbucks Board of Directors when he made his comeback.

Steve Jobs is also legendary as a CEO because he practically started a new industry. He popularized the personal computers via iPhone and iPad. Prior to his comeback, the Apple Corporation had fallen on hard times and lost close to 50% of its stock price while the S&P had gained 43%. Most remarkably in his 2nd tenure, Apple share price increased by a whopping 9,932%, in comparison, the S&P 500 increased by only 46%. Mr. Jobs was not member of the Apple Board of Directors prior to him being named the Interim CEO (and eventually the CEO for his 2nd term).

Charles Schwab was a founder of Charles Schwab and member of its Board of Directors prior to coming back as 2nd term CEO. Prior to his return, the company had lost about 3% of its stock price while the S&P 500 had returned about 18% during this time. In his 2nd tenure, the company stock price increased by 104% while the S&P 500 decreased by 104%. Mr. Schwab was a member of the Charles Schwab Board of Directors when he returned for his 2nd tour as the CEO.

Ken Lay was a founder of Enron. Due to crippling accounting and other irregularities, neither Mr. Lay's nor his predecessor could stop the continued downward spiral (and bankruptcy) of Enron stock price. Mr. Lay was a member of the Enron Board of Directors when he came back the second time.

Michael Dell is also a founder of the Dell Corporation and was a member of Board when he came back as the CEO. The predecessor CEO had overseen a decline of approximately 33% of Dell stock price. In his 2nd term, Mr. Dell has increased the company stock price by 33% and beat S&P 500 return of 21.63%. Unfortunately, due to continued challenges, Dell Corporation was taken private in October 2013. Paul Allaire was a member of the Xerox Board when he came back, but stayed on until a permanent replace could be found.

Even though many of the founders like Howard Schultz and Steve Jobs have flourished when they came back as CEO, the same was not true with Jerry Yang, CEO of Yahoo. In his 2nd tenure, under Mr. Yang's leadership, Yahoo's stock price declined by 60% while the S&P 500 declined by 46%. This is the second instance where the prior CEO had had done well but due to failure of meeting market's expectation he lost his job to the founder. Prior to his return as the 2nd term CEO, Mr. Yang's was member of the Yahoo Board of Directors.

Ted Waitt--a founder of Gateway--was unable to stop the declining stock price of the company. Acer acquired Gateway in 2007. Mr. Waitt was member of the company Board of Directors prior to his comeback as 2nd term CEO. Alternatively, James Houghton of Corning was able to rescue the company in his return. Mr. Houghton was member of the company Board of Directors when he came back.

Taken together, the twelve CEOs shown in Table 1 had an average index of 48.68 below S&P 500 during their first term compared with the average of 936.37 above the S&P 500 during their second term. This difference is accounted for by improved performance of Shultz, Jobs, Schwab and Houghton although Jobs accounted for most of this improvement. A paired sample t-test was conducted in Table 2 below to determine the significance of this improved performance in the index. The results shown below indicate that with the t-statistic of -1.16 with a p-value of 0.16, the difference in the paired sample of 12 companies was insignificant.

A common thread among all 2nd term CEOs was that they were either founders, members of the board or an iconic figure for the company. Moreover, the successful 2nd term CEOs were very transformational and visionary leaders. The two comeback CEOs who succeeded in remaking their companies to compete aggressively were Steve Jobs and Howard Schultz. This is explained by the fact they understood the competitive environment, and made necessary changes that were sorely needed. Others, while had similar backgrounds were unable to do so. Jerry Yang also a founder of Yahoo could not make necessary changes to counter his rivals. Two CEOs who are also facing a very difficult competitive environment are Michael Dell and Myron Ullman (JC Penney). Dell is "racing to the bottom of commodity barrel." (Jones, 2007). Only time will tell whether they will be able to make the changes that will help their companies compete again. Few CEOs also comeback to just stop the bleeding—at Xerox, P&G and JC Penney—which unnecessarily delays the critical steps that are needed to be taken in the first place.

Any successor CEO who follows the founder or the iconic CEO who is a member of the Board of Directors, should be very concerned. Any deficiency on the part of these successor CEOs can lead to very quick dismissal. A very fitting example of this situation is the recently hired (Satya Nadella) CEO of Microsoft. Two previous CEOs of Microsoft--Steve Ballmer and Bill Gates—sit on the Microsoft Board. Essentially, companies should avoid having the ex-CEO on its Board if it wants its newest leader to succeed.

Table 1: Comparison of Changes in Company's Stock for the First Term, 2nd Term and Versus S&P 500 Index Return

CEO	Company	Avg. Company Stock performance prior to return	Avg. S&P 500 Index performance prior to return	Performance compared to S&P 500	Avg. Company Stock performance during the 2nd term	Avg. S&P 500 Index performance during the 2nd term	Performance compared to S&P 500
Myron "Mike" Ullman	J.C. Penney	01/2012-03/2013	01/2012-03/2013		04/2013-06/2014	04/2013-06/2014	
		-57.74%	22.33%	80.07 below S&P 500	-38.85%	25.48%	64.33 below S&P 500
Alan G. Lafley	P&G	07/2009-06/2013	07/2009-06/2013		07/2013-06/2014	07/2013-06/2014	
		53.28%	82.05%	28.77 below S&P 500	0.73%	21.38%	20.65 below S&P 500
Howard Shultz	Starbucks	04/2005-12/2007	04/2005-12/2007		01/2008-06/2014	01/2008-06/2014	
		-20.13%	24.85%	44.98 below S&P 500	336.55%	40.65%	295.9 above S&P 500
Steve Jobs	Apple	02/1996-06/1997	02/1996-06/1997		07/1997-06/2011	07/1997-06/2011	
		-49.78%	42.60%	388.28 below S&P 500	9,932.14%	46.11%	9886.03 above S&P 500
Charles Schwab	Charles Schwab	06/2003-06/2004	06/2003-06/2004		07/2004-10/2008	07/2004-10/2008	
		-3.22%	17.98%	21.2 below S&P 500	104.27%	-17.27%	121.54 above S&P 500
Ken Lay	Enron	02/2001-07/2001	02/2001-07/2001		08/2001-01/2002*	08/2001-01/2002	
		-49.96%	-11.21%	38.75 below S&P 500	-98.69%	-5.58%	93.11 below S&P 500
Michael Dell	Dell	08/2004-01/2007	08/2004-01/2007		02/2007-10/2013	02/2007-10/2013	
		-32.51%	29.97	62.48 below S&P 500	33.40%	21.63%	11.77 above S&P 500
Paul Allaire	Xerox	04/1999-04/2000	04/1999-04/2000		05/2000-08/2001	05/2000-08/2001	
		-48.21%	12.07%	60.28 below S&P 500	-66%	-22.79%	43.21 below S&P 500
Stephen Luzco	Seagate	07/2004-01/2009	07/2004-01/2009		02/2009-06/2014	02/2009-06/2014	
		-13.67%	-22.82%	9.15 above S&P 500	1213.97%	128.58%	1085.39 above S&P 500
Jerry Yang	Yahoo	04/2001-06/2007	04/2001-06/2007		07/2007-11/2008	07/2007-11/2008	
		265.91%	35.63%	230.28 above S&P 500	-60.10%	-46.28	13.82 below S&P 500
Ted Waitt	Gateway	01/2000-01/2001	01/2000-01/2001		02/2001-02/2004	02/2001-02/2004	
		-41.58	-6.13%	35.45 below S&P 500	-21.59%	-16.64%	4.95 below S&P 500
James Houghton	Corning	01/2001-03/2002	01/2001-03/2002		04/2002-04/2005	04/2002-04/2005	
		-83.92%	-10.65%	73.27 below S&P 500	76.74	0.90%	75.84 above S&P 500
Total				594.41 Below S&P 500			11236.4 Above S&P 500

Column 3 of Table 1 above shows the average stock return (for the same duration) for the company prior to the CEO's second term. Column 4 shows the average stock return of the S&P 500 for the same duration and period as column 1. Column 5 compares the company stock performance (column 3) with S&P 500 (column 4) to show whether the stock performance of the company was better or worse than the S&P 500 returns. Moreover, column 6 shows the stock return of the company during the CEO's second term, while column 7 shows the returns for the S&P 500 during CEO's second term. Finally, column 8 shows the difference between company stock performance (columns 6) and S&P 500 returns during CEO's second term. This table shows that as group the second term performance of CEOs was higher that their first term.
**Enron filed for Bankruptcy Dec. 2, 2001. #The stock returns and dates don't align exactly, they may be off by few days due to weekend or holidays. All stock and S&P 500 performance data from Yahoo Finance and Google Finance.*

Table 2: T-Test Paired Sample for Means

	Before	After
Mean	-48.680	936.37
Variance	18,195	8,046,710
Observations	12	12
T-State	-1.160	
P Value	0.1400	

This table shows the t-test paired sample for means analysis to determine the significance of this improved performance in the index. The results indicate that with the t-statistic of -1.16 with a p-value of 0.16, the difference in the paired sample of 12 companies was insignificant. There are 12 observations for this t-test.

CONCLUDING COMMENTS

The proposition of this research paper was to determine whether it is a good business decision to rehire a CEO who was previously a CEO at the same company. This paper reviewed the 2005 to 2014 SEC filings of S&P 100 companies to determine how many companies had a 2nd term CEO. Then a comparison of stock performance before and during the term of 2nd CEO was conducted. Research findings show that the company stock performance is higher for 2nd term CEOs than their predecessors. This research is limited by the fact that the data sample is small. Future research should analyze the stock performance data of S&P 500 firms and with a longer time span to give more validity to the findings.

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