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Editorial

Information Management and Business Review (IMBR) provides a unique platform to scholars around the world to share their knowledge and publish research work in the fields of information management, business, management and related disciplines. The work submitted for publication consideration in IMBR should address empirical and theoretical developments in the subjects related to scope of the journal in particular and allied theories and practices in general. Scope of IMBR includes: subjects of finance, accounting, auditing, cost & management accounting, financial psychology, financial literacy, marketing, information management, human resource management, knowledge management, innovation, change management, enterprise management, e-commerce and information system. Author(s) should declare that work submitted to the journal is original, not under consideration for publication by another journal, and that all listed authors approve its submission to IMBR. It is IMBR policy to welcome submissions for consideration, which are original, and not under consideration for publication by another journal at the same time. Author (s) can submit: Research Paper, Conceptual Paper, Case Studies and Book Review. The current issue of IMBR comprises of papers of scholars from Malaysia, Indonesia, Thailand, Taiwan, Nigeria and Ghana. Performance-based budgeting, institution performance accountability, brand perception, social media as a tool of media promotion, marketing communication model, performance of unit trust industry, celebrity credibility & consumer's purchase intention, Logistics Information Systems (LIS), buyers' perceived risk & exhibitors' brand equity, foreign direct investment & economic growth, price discovery in bond market and rural entrepreneurs were some of the major practices and concepts examined in these studies. Journal received research submission related to all aspects of major themes and tracks. All the submitted papers were first assessed by the editorial team for relevance and originality of the work and blindly peer reviewed by the external reviewers depending on the subject matter of the paper. After the rigorous peer-review process, the submitted papers were selected based on originality, significance, and clarity of the purpose. Current issue will therefore be a unique offer, where scholars will be able to appreciate the latest results in their field of expertise, and to acquire additional knowledge in other relevant fields.

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PAPERS

The Effect of Performance-Based Budgeting Implementation towards the Institution Performance Accountability (Case Study: Wajo)

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Abstract: This study aimed at finding out empirical evidences whether the application of performance-based budgeting affected the performance accountability of Wajo government, seeing the effects of the application of performance-based budgeting to performance accountability of government agencies using four variables, namely, the budget planning (X1), the implementation of the budget (X2), the budget reporting/accountability (X3), and the performance evaluation (X4). In this study, the samples were 100 people. They are from 33 regional work units (SKPD) which consists of a team of Local Government Budget (TAPD) who involved in formatting the government budgets of Wajo regency. Data were collected through direct observation and survey obtained by distribution of questionnaires to the respondents. This study used multiple linear regression models with software SPSS. The study results showed that the budget planning and the budget reporting / accountability gave positive and significant impacts on performance accountability of government agencies, the implementation of the budget and the performance evaluation. It is shown from the results of multiple linear regression test which showed Y = 7.904 + 0.223 X1 + 0.222 X2 + 1.433 + 0.227 X3 X4. In conclusion, the application of performance-based budgeting gave positive effects on performance accountability of government agencies.

Keywords: *Performance Based Budgeting, Budget Planning, Budget Implementation, Reporting/Budget Responsibility, Performance Evaluation, Accountability of Government Performance*

1. Introduction

Background: The Formation of the draft budget in the Government Wajo started with the formation of KUA and PPAS written in a PPA memorandum of understanding between the head of regional and the local parliament. After that a letter from the head of regional about guidelines for the formation of RKA-SKPD to be spread out. Every SKPD makes RKA-SKPD on proposed programs and activities during the year. Then do drafting local regulations on the budget and the draft regulation on the translation of regional heads budget and delivery, after the evaluation of the budget, when in this evaluation process proposed budget is accepted, the next step is the establishment of local regulations on the budget and regulations on the elaboration of regional heads Budgets. Wajo government has gradually adjusted the structure of the budget in accordance with applicable regulations, especially the traditional budget system shift to performance-based system in accordance with Government Regulation No. 105 of 2000, as amended by Government Regulation No. 58 of 2005 on regional financial management. In 2003 and previous budgeting system Wajo using MAKUDA (line items and incremental) which was formatted simplier. In 2005 the formation of APBD in Wajo regency adapted to performance-based budgeting system.

Wajo government has implemented a performance-based budgeting in the formation budget 2012. By implementing the performance-based budgeting, it is expected the budget prepared by the government can be realized properly in accordance with the objectives and targets wants to be achieved by the government. Total expenses estimated for financing programs / activities show that between the budget planning and the realization of activities budget is not appropriate. This can be seen from the difference between the budgets with expenses realization which excess the budgets. It showed that in formatting the APBD budgeting, it is not in accordance with the applicable regulations and indicated the existence of programs / activities that have not been fully implemented. Based on APBD data from 2011 - 2012 of the government of Wajo showed that direct expenses estimated to finance programs / activities have increased but the increase of the budget was not accompanied by an increase in the wrok performance. It can be seen from the achievements of the program as stated in the LAKIP. In LAKIP Wajo in 2011 showed that the performance of the program in 2011 amounted to 87.67%, while the achievement of the program's performance in 2012 amounted to 84.07%, it

indicated that there was a decrease of 3.6% although according to the Guidelines for the Preparation Accountability Reports Performance the achievement was very good and well categorized.

Problem Formulation: Based on the background described above, the formulations of the problem in this research are:

- What are the impacts of the Budget Planning to the Performance Accountability in Wajo Government?
  What are the impacts of the Budget Implementation to the performance accountability in Wajo Government?
  What are the impacts of the Reporting / Budget Responsibility to the performance accountability in Wajo Government?
- What are the impacts of the Evaluation to the Performance Accountability in Wajo Government?

Hypothesis: Based on the fundamental issues stated above, the hypotheses are:

- The Budget Planning had positive and significant impacts to the Government Performance Accountability.
- The Budget Planning positive and significant impacts to the Government Performance Accountability.
- The Reporting / Budget Responsibility had significant impacts to the Government Performance Accountability.
- The Performance Evaluation had significant Impacts to the Government Performance Accountability.

Research Objectives: Based on the background and issues that have been mentioned previously, the purposes of this study are:

- To explain the impacts of the budget planning to the Performance Accountability in Wajo government.
- To explain the impacts of the budget implementation to the Performance Accountability in Wajo government.
- To explain the impacts of reporting / budget responsibility to thePerformance Accountability in Wajo government.
- To explain the impacts of the budget implementation to the Performance Accountability in Wajo government.

- **Goal and Objectiv:** The targets of this research were stated in to the following expectations: The results of this research can be used as a reference in analyzing the performance-based budgeting and performance accountability of government agencies and science subjects in particular management Budgeting.
- The results of this research are used as consideration to local governments to improve the performance accountability of government agencies.
- The results of this research are published by scientific journals and used as a teaching material.

2. Literature Review

Agency Theory: The concept of accountability can be explained using agency theory, which in the wide meaning accountability can be viewed as people obligations in this case the government (agent) to provide accountability, serving, reporting, and disclosing all activities which became his responsibilities to the society represented by the Parliament (principal) who has the right and authority to hold accountability. The concept of agency theory supports variable accountability for performance in this research.

Theory of Policy Implementation: The approach used in analyzing the implementation of Performance - Based Budgeting is the theory proposed by George C. Edward III in (Widyantoro, 2009). There are four variables in the implementation of public policies. They are: Communication, Resources, Dispositions or Attitude and bureaucratic structure. According to Edwards (1980), the four variables must be carried out simultaneously as all of them have a close relationship. The Explanations to the four variables are as follows:

A. Communication: The Implementation will be effective if the measures and policy objectives understood by individuals who are responsible of the policy objectives achievement. The clear measures and policy objectives need to be communicated appropriately with the implementers. The Consistency or uniformity of both need to be communicated so that implementors know the exact measures and purposes of the policy.
B. Resources: This resource component includes the number of staffs, the capabilities of the implementers, the relevant and sufficient information to implement policies and fulfill related resources in the implementation of the program, the authority which ensures the programs can be directed as expected, as well as the supporting facilities. It can be used to carry out activities such as funding programs and infrastructures. Inadequate human resources (number and capabilities) can not result in the implementation of the program perfectly because they can not supervise them properly.
C. Disposition or attitude: One of the factors that affacts the effectiveness of policy implementation is the attitude of the implementors. If the implementors agree with parts of the contents of the policy then they will execute them happily but if their views are different from the policy makers, it can affect the implementation process will encounter many problems. Besides, the support of the implementing authorities is needed to achieve program objectives. The realization of this support are included putting policies into priority programs and the provision of sufficient funds to provide incentives for program implementers in order for them to support and work in implementing policies / programs totally.

Structure of Bureaucracy: Discussing about a policy implementing agencies, it can not be separated from the bureaucratic structure. Bureaucratic structure is characteristic, norms and patterns of relationships that occur repeatedly in the executive agencies that have a potential or real relationship with what they have in carrying out the policy. Complex policies require the cooperation of many people. Elements that may affect the organization in the implementation of such policy-level hierarchical control of the decisions of the sub units and processes within the executing agency.

New Public Management: Since the mid-1980s, there has been changes in public sector management quite dramatically from the traditional management systems that seem to be rigid, bureaucratic, and hierarchical become a model of public sector management which is more flexible and accommodative the market. The changes are not just small and simple, but the major changes that have transformed the role of government, especially in terms of the relationship between government and society. The new paradigm emerges the management of the public sector is the approach of New Public Management (NPM). Model NPM focuses on public sector management performance-oriented, rather than on policy. The use of the new paradigm causes some consequences on the government, they are the demands for efficiency, cut costs (cost cutting), and the tender competition. One model of governance in the era of NPM was a governance model proposed by Osborne and Gaebler (1995) in Mardiasmo (2002) are as follows:

- The government of the catalyst (focuses on providing public services directives not public services productives)
- The government belongs to the people (more empowering people than serving the public
- The Competitive government (encouraging competitive enthusiasm in providing public services
- The government is driven by the mission (changing the organization driven by regulation in to driven by the mission)
- The results-oriented government (finance result not input)
- The Customer – oriented government (fulfilling the needs of the customer, not the bureaucracy)
- The entrepreneurial government (able to create income and not just spend)
- Anticipatory government (attempting to prevent rather than to cure)
- The government decentralization (from hierarchy to participation and teamwork)
- Market – mechanism oriented government (making changes with the market mechanism / system of incentives and not the administrative mechanism / procedure systems and compulsion).

New Public Management purpose is to change the administration so the public administration functioned as a service provider for the public to be aware of their duty to produce an efficient and effective service, but not oriented to profit (Osborne and Gaebler, 1995) in Mardiasmo (2002).

Definition of Public Sector Budget: According to the National on Governmental Accounting (NCGA) which now has become the Governmental Accounting Standards Board (GASB), the definition of the budget (the budget) is a financial operating plan, which includes estimation of proposed expenses and expected sources of revenue to finance it in a certain time period (Bastian, 2006: 164). The Public budget contains a plan of activities presented in the form of revenue and expense plans in monetary units. In its simplest form the public budget is a document that describes the financial condition of an organization which includes information on revenues, expenditures, and activity Mardiasmo (2002).

Performance-Based Budgeting

Definition of Performance-Based Budgeting: Performance-based budgeting is basically an organisation system of output oriented budgeting and closely linked to the vision, mission and strategic plan of the organization Bastian (2006; 171). Performance-based budgeting is a method of budgeting for management to associate each funding as outlined in the activities with outputs and expected results, including efficiency in the achievement of these outputs Kurniawan (2009). Programs on performance-based budgeting is defined as a policy instrument that contains one or more activities to be undertaken by government agencies to achieve the goals and objectives as well as budget allocations or community activities coordinated by government agencies. Budget Performance is basically a system of local budget preparation and management oriented on achieving results or performance. The performance reflects the efficiency and effectiveness of public services, which means oriented public interest (Mardiasmo, 2002: 105).

The processes of drafting local budgets are to select in advance and to accommodate community needs to be fulfilled within a certain period so that the figures stated in the budget is equal with the needs of the community. Performance-based budgeting requires the creation of new programs and activities (innovation) and a strategy to get around the limitations of resources. Performance-based budgeting approach developed to overcome the weaknesses in the traditional budget; in particular weaknesses are due to the absence of benchmarks that can be used to measure performance in achieving the goals and objectives of public service. The Budgets with performance approach strongly emphasizes the concept of value for money and supervision over the performance output. This approach also prioritizes mechanisms for determining and prioritizing goals and systematic and rational approach in the decision making process (Mardiasmo, 2002: 84).

Principles and Objectives PBK: The principles used in the performance based budgeting include:

- Budget Allocation on performance-Oriented (output and outcome oriented). The budget allocation arranged in the work plan and budget document is intended to get benefit as much as possible by using resources efficiently. In this case, the program / activity should be aimed at achieving results stated in the plan.
- Flexibility in budget management to achieve results by maintaining the principle of accountability (let the manager manages). The principles describe the work unit manager flexibility in carrying out activities to achieve the outputs as planned. The flexibility includes determining the manner and stages of an activity to achieve the outputs and results on the current implementation of activities, which allow different action plans. Ways and stages of activity and budget allocation at the time of the planning is the basis for the implementation of activities. In the framework of accountability in the management of state finances, a work unit manager is responsible for the use of funds and achievement of predetermined performance (outcomes).

Money Follow Function, Function Followed by Structure: Money follow function is a principle which illustrates that the allocation of the budget to fund an activity based on the tasks and functions and the purpose in founding work units (usually expressed in the applicable legislation). Furthermore, the principle is associated with the principle of Function Followed by Structure, which is a principle that describes the organizational structure established in accordance with the functions carried. Duties and functions of an organization are divided out in work units that exist in the organization, so the double duplication of tasks and functions doesn't happen. Based on the principles mentioned above, the purposes of the application of PBK are expected to:

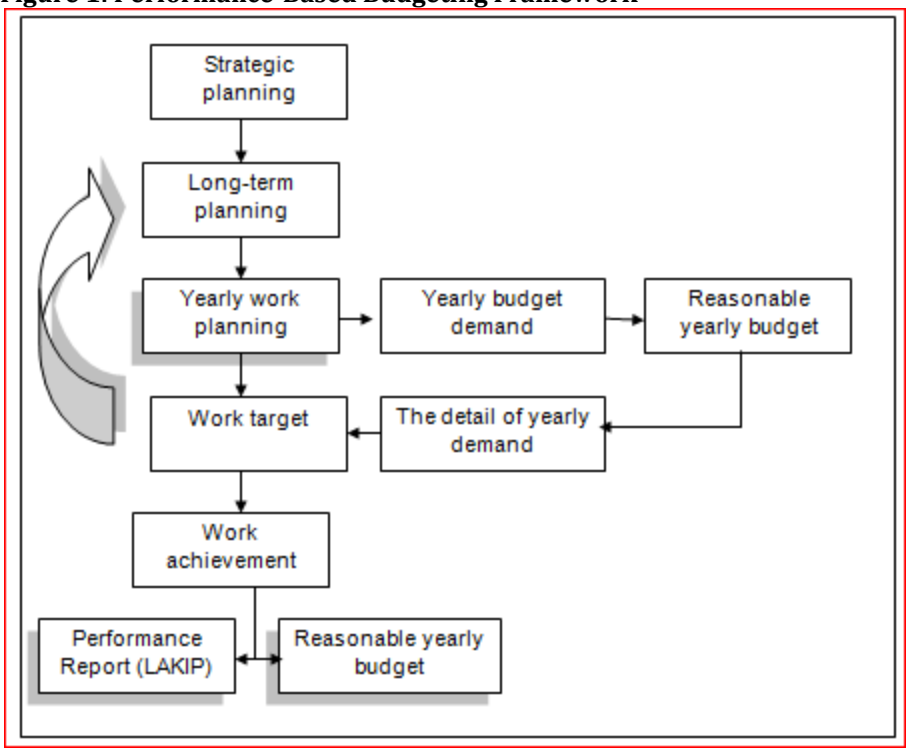
- Showing the link between funding and achievement of performance to be achieved (directly linkages between performance and budget)
- Improving the efficiency and transparency in the implementation (operational efficiency);
- Increasing flexibility and accountability unit in carrying out the duties and budget management (more flexibility and accountability).

According to the Guidelines on Performance-based Budgeting (Deputy IV BPKP), the conditions to be prepared as a trigger factor of the successful implementation of performance-based budgeting, namely:

- Leadership and commitment of all components of the organization.
- Focus on continuous improvement of the administration.
- Sufficient resources for the business improvement (money, time and people).
- Award (reward) and sanctions (punishment) is clear.
- A strong desire to succeed.

Performance-Based Budgeting Framework: Performance-based budgeting system has a framework that it is built systematically to produce a performance-based budgeting. In general, the framework of performance-based budgeting system performance according to the Guidelines for Performance Based Budgeting Deputy IV BPKP (2005: 16) who explained that basically performance-based budgeting can not be separated from the cycle of planning, implementation, reporting / accountability on the budget itself. The strategic plan as outlined in the annual targets is always evaluated and continuously improved in the end. Planning cycle described below shows how the Performance-Based Budgeting is used as a feedback within the overall strategic plan. This can be seen in the figure below:

Figure 1: Performance-Based Budgeting Framework



Source: Guidelines for the Performance-Based Budgeting Deputy IV BPKP (2005: 16).

Based on the picture above, it can be explained that the initial budget planning process begins with the drafting of the strategic plan of the organization. The plan is the process to determine visions, missions, goals, and strategic objectives of the organization and to establish strategies that will be used to achieve the goals and objectives. Strategic planning made should be oriented desires and needs of the community as the main

stakeholders. In general, strategic plans generally have a period of a few years that has component at least contains the visions, missions, goals, objectives and strategies in the form of policies and programs to achieve them as well as providing performance indicators as a measure of success / failure of a program / an activity. Based on the strategic plan that has been set, it is annually poured in an annual performance plan. The performance plan is a further elaboration of the strategic plan which includes the entire performance indicators and targets to be achieved within one year. The performance plan is a benchmark that will be used to assess the successes and failures of government organizations in organizing agency for the annual period. Based on the performance plan, agencies draft the budget that is necessary to realize the results (outcomes) to be achieved in the year. The budget drafted by the approach of performance because in this budget, it can reflect the relationship between the financial aspects of all activities and strategic objectives and annual performance plan.

The annual budget plan submitted to the legislatures for approval. After obtaining the approval of the annual budget plan terbitlah approved by the legislatures. Based on the annual budget plan approved by each agency, they set annual operational plans. The Annual budget plan is the plan of activities implementation which will be carried out in order to achieve program goals and objectives that have been set forth in the annual performance plan. An Operational plan usually includes a schedule of activities and the provision of resources. Based on the annual performance plan, a plan which has been approved annual budget and annual operating plans, the agencies formulate the performance agreement. The deal's performance is basically an agreement between the principals to the party that received the messages about the target- performance will be achieved within a certain time based on a predetermined budget allocation. The Document agreement between the legislatures and the executives, namely the performance of the contract documents. The end of the fiscal year, the performance management conducts review, evaluation, and assessment after the program and activities completed in one fiscal year. The Accountability success or failure in achieving the performance targets in performance agreements are reported in an annual performance report. The Performance report includes financial and performance reports and reports of non-financial performance that can be used as input to make improvements next year.

Local Financial Management

A. Budget planning: To ensure that the development of activities are effective, efficient, and targeted, it is necessary to have National Development Planning and uniformity of regulations in order to achieve the objectives of the state and to avoid imbalances between regions. Provisions concerning the National Development Planning System, which includes the implementation of macro planning or planning to be at the level of national policy for all government functions and covers all areas of life in an integrated manner in the territory of the Republic of Indonesia stipulated in Law No. 25 of 2004 on National Development Planning System. Overall local budget planning includes the drafting of Public Policy budget up to the formulation of the draft budget consists of several stages of the local budget planning process. Based on Law No. 17 of 2003 and Act No. 32 and 33 of 2004.

B. Implementation of the Budget: All the local reception and local expenditures in the implementation of local government affairs are managed in the APBD budget. The Implementation of the budget includes the implementation of the budget revenues, expenditures, and financing. Budget execution by the Head SKPD implemented after the Budget Implementation Document SKPD (DPA-SKPD) is determined by PPKD with the approval of the Regional Secretary. The Implementation of the budget involves more people than preparations and considers feedbacks from actual experiences. Therefore, the implementation of the budget must: (a) ensuring that the budget will be implemented in accordance with the authority given in both the finance and policy aspects; (b) adjusting the implementation of the budget with the significant change in the macro economy; (C) deciding any issues that mat occur in the implementation; (D) handling the purchases and the use of resources efficiently and effectively. The Budget execution system should ensure adherence to the budget authority and the ability to conduct surveillance and reporting which can be directly aware of any problems implementing the budget and to provide flexibility for managers.

C. Reporting / Accountability 0f the Budget: The Accountability of SKPD budget reportr is carried out periodically that include
a. SKPD budget realization report
b. Balance SKPD
c. Notes on the SKPD financial statements
The SKPD head compiles and reports cash flows periodically to the head of region. The report prepared and presented based on the government regulations which manage the government accounting standards.

D. Performance Evaluation: Performance evaluation is to assess the activities or to see the success and failure of an organization or unit of work in carrying out the duties and functions assigned to him. The purpose of performance evaluation is the organization know realization achievement, progress and constraints encountered or causes of failure in order to achieve the missiosn that have been planned so that expected institution can improve its performance in the future.

Government Performance Accountability (AKIP)

Definition of Government Performance Accountability: Accountability can also mean a responsibility manifestation of any person or organization unit, in managing the resources that have been granted and controlled in order to achieve the goals, through a medium that is performance accountability reports periodically. The resources are a mean of support given to a person or organization unit in order to facilitate the implementation of the tasks that have been assigned to him. The realization of these resources generally is human resources, funds, infrastructure, and working methods. While the definition the resources in the context of the country could be government officials, natural resources, equipment, money, and the rule of law and politics. The Decree of the Head of the LAN 239 / IX / 6/8/2003 on Guidelines for Preparation of Reporting Accountability Government Performance, explained that the performance accountability of government agencies is the realization of the obligation of a government agency to account for the success and failure of the implementation of the organization's mission in achieving the goals and objectives that have been determined through periodic accounts system periodically. From the description above, it can be said that accountability is a manifestation of one's duties or organizational unit to account for the management and control of resources and implementation of policies entrusted to him in order to achieve the goals or objectives that have been set out in the planning document through accountability media periodically.

Implementation principles of Government Performance Accountability: Based on Guidelines for Preparation of Reporting Accountability Government Performance set by the Head of State Administration Institute, AKIP implementation should be based on the principles as follows:

- The commitment of the leaders and the entire staff agenciesconcerned.
- Based on a system that can ensure proper use of resources consistently with the applicable laws and regulations.
  Showing the level of achievement of goals and objectives that have been set.
- Oriented on achieving the visions and missions, as well as the results and benefits which are obtained.
- To be honest, objective, transparent, and accurate.
- Presenting the success / failure in achieving objectives and purposes have been set.

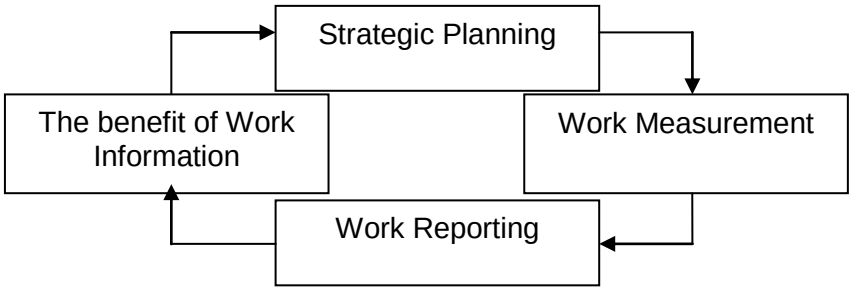
In addition to the principles mentioned above, to make the implementation of the accountability system more effective, it is required a strong commitment from the organization that has the authority and responsible for monitoring and evaluating the performance accountability of government agencies.

A Cycle of Government Performance Accountability: Performance accountability system is an order of government agencies, instruments, and methods of accountability that essentially includes the steps as follows:

- Determination of strategic planning.
- Measurement of performance.
- Reporting of performance.
- The use of performance information for continuous performance improvement.

The Cycle of government performance accountability can be described as follows:

Figure 2: The Cycle of Government Performance Accountability



Source : Pusdiklatwas BPKP, 2007

The Cycle of government performance accountability as shown in the picture above, starting from the drafting of the strategic plan (Plan) which includes the preparation of the visions, missions, goals, and objectives and defines the strategy to be used to achieve the goals and objectives set. Strategic planning is then translated into an annual performance plans made each year. This performance plan reveals the whole performance targets to be achieved (output / outcome) from all strategic objectives in the current year as well as strategies to achieve it. The performance plan is a benchmark that will be used in the assessment of governance performance for certain period. After the performance plans are set, the next step is measuring performance. In doing the activities, the collection and recording of performance data are carried out. The performance data is performance achievements expressed in units of performance indicators. With the need for performance data to be used for performance measurement, government agencies need to develop a system of data collection performance. They are: the order, instruments, and performance data collection method. At the end of a period, the performance achievements are reported to interested parties or the ones who request in the form of Government Performance Accountability Report (LAKIP). The last stage, the information outlined in LAKIP used for ongoing improving agency performances.

Previous Research: The issuance of Law No. 17 of 2003 which stipulates that the local budget (APBD) must be drafted based on approach to performance achievement makes SKPD as a unit of budget users are required to apply for the Work Plan and Budget SKPD (RKA-SKPD) were really good in accordance with the needs, economical , efficient, and effective.The Research on the effect of the application of performance-based budgeting to performance accountability of local government agencies have been investigated by several researchers, including:
Sugih Meaning (2005) has conducted a research with entitled the Influence of the Budget Implementation on Performance Based Accountability towards Depok City Department of Education. The results of the research indicated that the economic variable performance-based budgeting did not significantly influence the level of accountability of Depok City Department of Education and a variable performance-based budgeting efficiency and effectiveness significantly affected on the level of accountability of Depok City Department of Education. Kurniawan (2009) conducted a research entitled The Effect of Performance-Based Budgeting Accountability Performance towards Local Government Agencies in Region IV Priangan.The results of the research showed that the performance-based budgeting gave significant and positive effects on performance accountability of government agencies. Harjanti (2009) conducted a study entitled The Effect of Implementation of the Performance-Based Budgeting Performance Accountability on Government Agencies. The results of the research indicated that the adoption of Performance Based Budgeting had very little influences on the accountability of government agencies.

Herawati (2011) conducted a study entitled The Clarity Budget Target, Accounting Control and Reporting System for Local Government Performance Accountability Jambi. The results showed that simultaneously the effects of budget goal clarity, accounting controls and reporting systems for performance accountability government agencies in the city of Jambi has a significant positive effects. Partially it had negative effects, namely variables X1 (Clarity budget targets) and X2 (Accounting Control). Variables that have a positive effect

were reporting system variable (X3). Muda (2005) conducted a study entitled The Effects of Budget Planning and Budget Execution of the Performance Accountability of Government Agencies in South Jakarta State Secretariat. The Research results indicated that there are significant Budget Planning effects towards the Government Performance Accountability in South Jakarta City Secretary and there are significant Budget Implementation effects on Government Performance Accountability Secretariat Jakarta Municipality City Selatan. From hypothesis testing results obtained that t 27.697> t table 1.645. There is the influence of Budget Planning and Budget Execution together towards the Government Performance Accountability in South Jakarta City Secretary.

Putra (2010), examined the Implementation Effects of Performance-Based Budgeting and Fiscal Management Information System Performance towards SKPD In Simelungun District Government with the independent variables Performance-Based Budgeting and Financial Management Information System, and the dependent variable SKPD performance. He concluded that either simultaneously or partially, the implementation of performance-based budgeting and financial management information systems affected the performance of SKPD in Simelungun District Government.

Yusriati (2008), examined the Effect of Performance-Based Budgeting SKPD implementation in Mandailing Natal regency by using the independent variable and the Performance-Based Budgeting dependent variable SKPD performance. From the results of the research showed that there were influences of the implementation of performance-based budgeting to performance on education, on the other hand the implementation of performance-based budgeting in SKPD in Mandailing Natal regency was still relatively low. Julianto (2009) examined the Effects of Performance-Based Budgeting implementation to SKPD performance in Regency Cliff High by using the independent variable and the Performance-Based Budgeting dependent variable SKPD performance. From the results showed there were effects of the application of performance-based budgeting to SKPD performance in Regency Cliff High. Nina (2009) examined the Effects of Implementation of the Performance-Based Budgeting Accountability Local Government Agencies by using the independent variables Performance-Based Budgeting and Accountability of Government Agencies dependent variable. The research results showed that the implementation of performance-based budgeting had positive effects but it did not have significant effects on the accountability of local government agencies.

3. Methodology

Research Design: The design of this study is to determine whether the application of performance-based budgeting as independent variables affect the Accountability of Government Performance Wajo as the dependent variable.

Location Research: This research was conducted in the scope of government Wajo. Wajo is a city that is bounded on the north by Sidrap, Luwu district in the east, in Bone in the south, and the west side Soppeng. The total area of 129.33 km2 Wajo recorded, which includes 4 districts (District of Tempe, Sabbang lung, Pammana, Maniang Pajo, Gilireng, Sajoanging, Majauleng, Ball, and Penrang) and 145 villages. In addition, the scope of government Wajo has 31 work units (SKPD).

Population and Sample: The population in this study are all working units (SKPD) within the scope of the Government Wajo the number SKPDs total of 33 consisting of 3 organizations Secretariat, 8-shaped Organization Board, 14 shaped Organization Department, 4-shaped Organization Office, and the District of 4 shaped Organization . The number of samples in this study were 100 respondents, sample selection methods using purposive sampling because respondents who selected only relates to the Local Government Budget Team (TAPD). The study sample consisted of head office, secretary, one of the chief part of sector departments, and some staff SKPDs.

Types and Sources of Data: Source of data used in this research was primary data. The type of data in this study was the type of subject data obtained in the form of opinions, attitudes, experiences and characteristics of respondents who became the subject of research.

Data Collection Techniques: The Communication mode to obtain data from respondents in this study using a questionnaire.

Research Variable Operational Research Definitions

A. Implementation of Performance-Based Budgeting

1. Budget Planning (X1)

Budget Planning is estimated expenditures step for executing activities must be in accordance with the visions, missiosn, goals, objectives, and policies that have been formulated in the strategic plan of the organization.

- Implementation / Budget Execution (X2): During the implementation phase, the chief of the agencyis responsible for monitoring the implementation of activities and the accounting department records of the use of the budget (input) and output in the financial accounting system.
- Reporting / Budget Responsibility (X3): Reporting includes the amount of budget allocation unit, the size of the budget that has been removed together with the achievement of the work or activities or programs that have been implemented.
- Performance Evaluation (X4): The performance evaluation is done based on the performance report. The leader could do evaluation that can determine and analyze the efforts to achieve the goals set. When he saw the irregularities or obstacles in the implementation of the budget, then the leaders can take steps or policies to face the irregularities or obstacles.

The Accountability of Government Performance (Y): Performance accountability of government agencies is the embodiment of the obligation of a government agency to account for the success and failure of the mission of the organization in achieving the goals and objectives that have been established through periodic accountability system.

Data Analysis

Descriptive Analysis: This descriptive analysis is the data analysis shows self-respondents, obtained from respondents through questionnaire. Then the data obtained from the respondents' answers was calculated the percentage (Nugroho, 2011: 22).

$Y = \beta 0 + \beta 1X1 + \beta 2X2 + \beta 3X3 + \beta 4X4$

Explanation:

Y: Accountability of Government Performance

X1: Budget Planning

X2: Budget Implementation / Execution

X3: Budget Reporting / Accountability get

X4: Performance Evaluation

β0: Constants

β1, β2, β3, β4: coefficient regression

4. Results

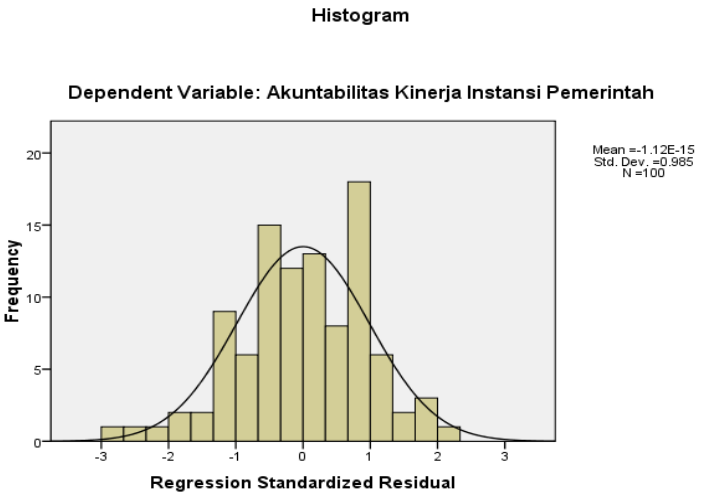
The Reliability test was conducted to measure whether or not reliable questionnaires used to measure the research variables. The method used to measure the reliability of each variable was Cronbach Alpha method. A research instrument said to be reliable if the value of alpha> 0.600.

Table 1: Reliability Test Result

Variable	Koefisien *alpha*	Keterangan
Budget planning	0,716 > 0,600	Reliable
Budget Execution	0,775 > 0,600	Reliable
Budget Reporting/Responsibility	0,830 > 0,600	Reliable
Performance Evaluation	0,761 > 0,600	Reliable
Accountability of Government Performance	0,742 > 0,600	Reliable

Based on the reliability of the test results above, all of the variables used as instruments in this study were reliable or powerful because it showed a high degree of reliability, it is proved by the value of the alpha coefficient is more than 0.60 so it can be used as a measuring device that can be reliable or trustworthy. A Normality test aims at testing whether in the regression model, both dependent and independent variables have a normal distribution or not. In the normality test used the histogram graph and spread curve P-Plot.

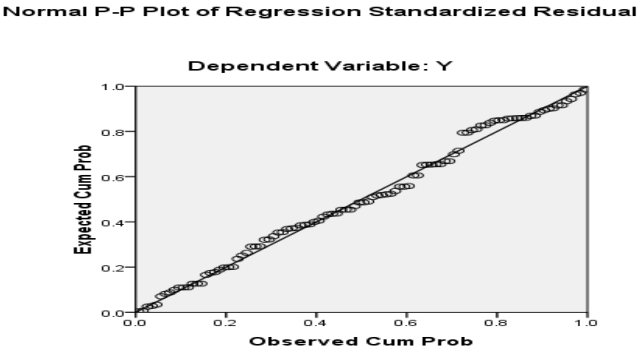
Figure 3: Histogram Graph



Source: Output SPSS 16.0, 2014

By looking at the histogram graph, it can be concluded that the histogram showed that the histogram provided distribution patterns close to normal; this is proved by looking at chart symmetrical form and follow the diagonal line. But this histogram graphs the results were not very accurate especially when the small number of samples used. More accurate method to see whether the data are normally distributed is normal probability plot

Figure 4: Normal Probability Plot



By looking at the normal chart plot, we can see that the point spread around a diagonal line and spread following the diagonal line, so it can be said that the distribution pattern is normal. By looking at the two charts above, we can conclude that the regression model in this study can be used because it can meet the assumption of normality. This test is intended to detect the symptoms of correlation between the independent variables and other independent variables. In the good regression model there should not be correlation between the independent variables. One way to do multicollinearity test is by looking at the value of VIF (Variance Inflation Factors). If the value of VIF> 10 then multicollinearity occurs.

Table 2: Test of Multicollinearity- coefficients[a]

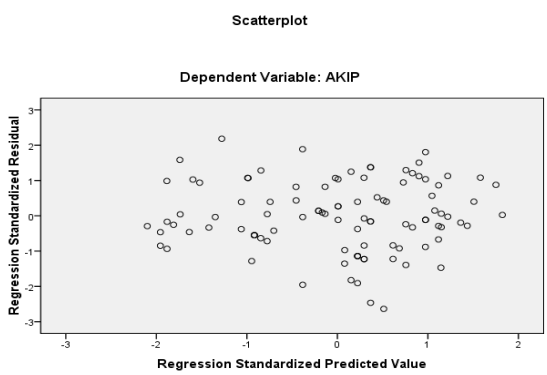
Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	X1	.716	1.397
	X2	.446	2.241
	X3	.396	2.523
	X4	.470	2.127

a. Dependent Variable: Y
Source: Output SPSS 16.0, 2014

Based on the table above, the proposed regression model for the independent variables are all free from multicollinearity. It can be seen from the data processing which showed the independent variable has a value of VIF <10, so it can be concluded that the independent variables can be used to determine its effect on performance accountability of government agencies. Heteroscedasticity test aimed at testing whether the regression model occurred inequality variance from residual one observation to another observation. If the variance remains then it is called homoscedasticity and if it is different then there is a problem of heteroscedasticity. A good regression model results homoscedasticity or the heteroscedasticity did not happen. To detect the presence of heteroscedasticity, the method used is the method chart (scatterplot diagram). If:

- If there is a particular pattern of dots is registered that forms a specific pattern that is irregular (wavy, widened, then narrowed), then there is heteroscedasticity.
- If there is no clear pattern, and the dots spread above and below the 0 on the Y axis, then there is no heteroscedasticity.

Figure 5: Scatterplot Diagram



Source: Output SPSS 16.0, 2014

Based on the scatterplot diagram above, the data scattered randomly without forming a certain pattern, and the dots spread above and below the 0 on the Y axis, this is the evidence the heroscedicity did not happen. It can be concluded that in the regression model, there are differences in the variance of the residuals from one observation to another observation.

Test of Multiple Linear Regressions: The Multiple linear regression test to determine whether there is influence of independent variables on the dependent variable or not. The magnitude of the effects of the independent variable on the dependent variable together can be calculated through a multiple regression equation.

Table 3: Test of Multiple Linear Regressions

Model		Unstandardized Coefficients B	Std. Error
1	(Constant)	7.904	3.595
	X1	.223	.097
	X2	.222	.310
	X3	1.433	.262
	X4	.227	.301

a. Dependent Variable: Y
Source: Output SPSS 16.0, 2014

From the table above can be obtained regression formula as follows:
$Y = 7{,}904 + 0{,}223\ X_1 + 0{,}222\ X_2 + 1{,}433\ X_3 + 0{,}227\ X_4$

In the above regression equation, the constants (β0) were equal to 7.904. It means that if there is no change in the budget planning variables (X1), the implementation of the budget (X2), reporting / accountability of the budget (X3), and performance evaluation (X4) that affect, then performance accountability of government agencies that occurred in government Wajo is equal to 7.904. While the results of multiple regression test for independent variables can be explained as follows:

- The coefficient value of budget planning (X1) is 0.223. It has positive effects on performance accountability of government agencies (Y). This implies that any increases in budget planning one unit then the variable performance accountability of government agencies arise by 0.223 with the assumption that the other variables remain independent.
- The coefficient value of implementation of the budget (X2) is 0.222. IT has positive effects on performance accountability of government agencies (Y). This implies that any increases in budget planning one unit then the variable performance accountability of government agencies arise by 0.222 with the assumption that the other variables remain independent.
- Coefficient value of budget accountability reporting (X3) is 1,433. It has positive effects on performance accountability of government agencies (Y). This implies that each increase in budget planning one unit then the variable performance accountability of government agencies increases by 1,433 with the assumption that the other variables remain independent.
- The coefficient value of performance evaluation (X4) is 0.227. It has positive effects on performance accountability of government agencies (Y). This implies that each increase of one unit of the performance evaluation variable performance accountability of government agencies increase by 0.227 with the assumption that the other variables remain independent.

The coefficient of determination (R2): Coefficient of determination analysis performed to see how big a percentage of variables influence of the budget planning, budget implementation and reporting performance against performance accountabilityof government agencies.

Table 4: The coefficient of determination (R^2)
Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.773[a]	.597	.580	2.60436

a. Predictors: (Constant), X4, X1, X2, X3
Source: Output SPSS 16.0, 2014

Based on the table above, it shows that the value of R square obtained is 0,597 which showed that the performance accountability of government agencies that exist in government Wajo influenced by variables of budget planning, implementation / execution of the budget, and reporting / accountability budgeting, and

performance evaluation is 59.7 %, and the remaining 40.3% is influenced by other variables that have not been examined in this study. By looking at the high coefficient indicates the effect of variables - the independent variable on the dependent variable was also high at 59.7%.

Simultaneous Testing (Test F): The testing was conducted to test whether there is a significant difference among the budget planning, budget implementation and reporting performance towards the performance accountability of government agencies altogether.

Table 5: Simultaneous Testing Results (Uji F)

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	953.804	4	238.451	35.156	.000[a]
	Residual	644.356	95	6.783		
	Total	1598.160	99			

a. Predictors: (Constant), X4, X1, X2, X3

b. Dependent Variable: Y

Source: Output SPSS 16.0, 2014

Based on the table above, it shows the significant value F is 0000. Based on testing criteria that if the probability value is <0.05, then Ha is accepted. It can be concluded that the variable of budget planning, implementation / execution of budget, reporting / accountability of the budget and performance evaluation simultaneously significant affect the performance accountability of government agencies. It is shown on a significant value F = 0.000 <0.05. So if the budget planning, implementation / execution of budget, reporting / accountability and performance evaluation of budget altogether increases, the performance accountability of government agencies will also increase.

Partial Test (Test t): Partial test (t test) was performed to determine whether a variable budget planning, budget execution, reporting / accountability of budget, and performance evaluation affect the performance accountability of government agencies partially.

Table 6: Partial Test Results (Uji t)

Coefficients[a]

		Unstandardized Coefficients		Standardized Coefficients		
Model		**B**	**Std. Error**	**Beta**	**t**	**Sig.**
1	(Constant)	7.904	3.595		2.199	.030
	X1	.223	.097	.178	2.309	.023
	X2	.222	.310	.070	.716	.476
	X3	1.433	.262	.566	5.468	.000
	X4	.227	.301	.072	.753	.453

a. Dependent Variable: Y

Source : Output SPSS 16.0, 2014

The table above shows the t test results are:

- The Budget planning had significant and positive effects on performance accountability of government agencies partially. It is is evidenced by the level of significance <0.05 and Ha1 hypothesis is accepted.
- The Implementation of the budget had positive and no significant effects on performance accountability of government agencies partially. This is evidenced by the significance level obtained> 0.05 and Ha2 hypothesis is rejected.

- The Reporting / Accountability of budget had positive and significant effects on performance accountability of government agencies partially. This is evidenced by the level of significance <0.05 and HA3 hypothesis is accepted.
- The Evaluation of performance had positive and and no significant effects on performance accountability of government agencies partially. This is evidenced by the significance level obtained> 0.05 and Ha4 hypothesis is rejected.

Discussion

A. Test Results of Budget Planning effects (X1) towards Government Performance Accountability (AKIP) (Y): Based on the partial test results that have been done between the budget planning as X1 on performance accountability of government agencies as a variable Y indicates that **t** is at 2.309 with a significance value is 0.023 <0.05 and regression test results indicated the coefficient value is 0.223 indicated that the variable budget planning had positive and significant impacts on performance accountability of government agencies. It can be concluded that when the budget planning done better or bigger, the bigger the performance accountability of government agencies. So as to improve the accountability performance, it should be done good budget planning because it is the foundation in determining the success or failure of an organization or agency. The results are consistent with the research conducted by Young (2005) entitled The Influence of Budget Planning and Budget Execution towards The Accountability of Government Performance In South Jakarta City Secretary. The Research results indicate that the positive effect on the Budget Planning had positive impacts on Accountability of Government Performance.

B. Test Results Effect of Implementation of the Budget (X2) Against Government Performance Accountability (AKIP) (Y): Based on the partial test results that have been made between the implementation of the budget as X2 for performance accountability of government agencies as a variable Y indicates that t is at 0.176 with a significance value of 0.476> 0.05 and regression test results indicate the coefficient value of 0.222 indicates that the variable implementation of the budget but not significant positive effect on performance accountability of government agencies. It can be concluded that when the implementation of the budget is done the better or greater, the greater the performance accountability of government agencies, but does not occur significant influence of implementation / execution of the budget and performance accountability of government agencies because of the possibility of variable execution / implementation of the budget is affected by the variable budget planning. Results of the study are not consistent with research conducted by Young (2005) with the title Influence Budget Planning and Budget Execution Against Accountability of Government Performance In South Jakarta City Secretary. Research results indicate that the Budget Implementation positive effect on Accountability of Government Performance.

C. Test Results 0f Reporting / Budget Responsibility effects (X3) towards Government Performance Accountability (AKIP) (Y): Based on the partial test results that have been conducted between the budget reporting / accountability as the X3's performance towards the performance accountability of government agencies as a variable Y indicated that **t** is at 5.468 with a significance value is 0.000 <0.05 and the regression test results indicated the coefficient value is 1.433 indicated that variable of budget reporting / accountability had positive and significant impacts on performance accountability of government agencies. It can be concluded that when the reporting / accountability of the budget done is better or bigger, the bigger the performance accountability of government agencies. So as to improve performance accountability, it should be done reporting / accountability of the budget in accordance with predetermined rules associated with the budget reporting / accountability.
The Reporting / accountability of the budget is done to strengthen the pillars of accountability and transparency. In the framework of financial management that is accountable and transparent, the Government Regulation No. 58 of 2005 mandated accountability Local Government shall submit the form:

- The Budget Realization Report,
- Balance Sheet,
- Statements of Cash Flows, and
- Notes on Financial Statements.

D. Test Results of Performance Evaluation effects (X4) towards Government Performance Accountability (AKIP) (Y): Based on the partial test results that have been carried out between X4 performance evaluation as X4 towards the accountability of the performance of government agencies as a variable Y indicatesd that **t** is at 0.753 with a significance value is 0.453> 0.05 and the regression test results indicated the coefficient value is 0.227 indicated that the variable budget reporting / accountability had positive and no significant effects on performance accountability of government agencies. It can be concluded that when reporting / accountability of the budget done is better or bigger, the bigger the performance accountability of government agencies. But it has no significant impacst on performance accountability of government agencies because the variable of performance evalution is perhaps affected by the variable of the reporting / accountability of the budget. The purpose of doing the performance evaluation is the concerned organizations know the realization achievement, progress and constraints encountered or reasons for not achieving performance in order to achieve the mission that has been planned so that expected institution can improve its performance in the future.

5. Conclusion

Based on the data analysis that has been described in previous chapters, it can be concluded as follows:

- Based on the simultaneous testing (test F), it showed that the budget planning, the implementation / execution of the budget, the reporting / accountability of the budget and the performance evaluation affect simultaneously on performance accountability of Wajo government agencies.
- Based on the test results of multiple regression showed that the variables of budget planning and budget reporting / accountability had positive and significant impacts on performance accountability of government agencies and the variable of budget implementation and performance evaluation had positive and no significant effects on performance accountability of Wajo government agencies.
- Based on the coefficient of determination or R square is 0.597 indicated that 59.7% of performance accountability of government agencies affected by the budget planning, execution / implementation of the budget, the budget reporting / accountability, and the performance evaluation. While the rest is 40.3% is influenced by other variables that have not been examined in this research.
- Based on the results of testing all the variables namely the budget planning, execution / implementation of the budget, the budget reporting / accountability, and performance evaluation of the indicators in the implementation of performance-based budgetingshowed that four variables had positive effects on performance accountability of government agencies so that it can be concluded that when the application of performance-based budgeting increase, then the performance accountability of government agencies also increase. This is in line with the statement of Bastian (2006: 54) stated that the relevance of the performance-based budget performance accountability of government agencies is that the effort to create a performance-based budget management system which is expected to be able to meet the various demands and needs of the community, namely the forming of the spirit of decentralization, democratization, transparency, and accountability in the governance process in general and financial management processes in particular.

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Relationship between Brand Perceptions and Satisfaction: Empirical Study on Skin Products in Malaysia

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Abstract: In the highly competitive marketplace, marketers for the skin care product are facing challenges with identifying the consumer's brand perception and brand satisfaction. Brand satisfaction is perceived as an important issue on skin care industry. Obviously, customers are the important stakeholders in organizations and their satisfaction is a priority to the company. This study aims to investigate the relationship between brand perceptions and brand satisfaction on skin care products with four independent variables (quality, promotion, image and preference). This study employed the statistic software of SPSS version 19.0 to evaluate 200 sets of questionnaires which collected from students, undergraduates, working adults and other respondents. The findings in this study shows that the brand perceptions on quality, image and preference have positive and significant relationship with brand satisfaction on skin care products. However, the relationship between brand perception on promotion and brand satisfaction is being rejected. Thus, the marketers can focus on perception on quality, image and preference to increase customers' brand satisfaction to capture and retain them.

Keywords: *Brand satisfaction, brand perceptions, skin care, image, preference*

1. Introduction

Branding is an important aspect in marketing. Consumer is one of the factors that influence the brand perceptions toward brand satisfaction particularly in skin care industry. However, this industry is too wide. Thus, this research focuses on a specific area of the industry, namely "skin care products". Besides products, skin care industry also includes treatment services performed to uplift or keep optimal hygienic conditions, excluding medical treatment. Interestingly, beauty and skin care nowadays not only associated with young ladies but both female and male of all ages. Euromonitor International (2011) claimed that Malaysian leading brand is L'Oreal, with market share of 12%. This is followed closely by Procter and Gamble with share of 11% and others like Estee Lauder, Shiseido, Amway and Unilever. On one hand, there are a lot of brands in the market for consumers to choose. On the other hand, trying new brand of skin care products may be high risk hat include allergy, rashes to skin as well as other health and cosmetic issues. Lacking of consideration of advantages of skin care products may also cause consumers being trapped by advertisements that may inspire them spend too much money and may not meet their requirements. These have caused brands perceptions on skin care products become more important than reality because it is associated with brand recognition, where consumers able to recall and differentiate the brand in variety conditions (Wonglorsaichon and Sathainrapabayut, 2008). Customer mind is more significant than ever in determining brand perceptions. Dodds, Monroe & Grewal (1991) stated that when brand perception is more favourable, consumers attribute higher quality to the product, and their perception of the product's value and the overall willingness to purchase is greater. A loyal consumer will most probably be having experience with the brand while experienced buyers are more possible to test new concept from the brand (Swaminathan, 2003). In order to have a brand preference, the consumer must learn about the brand from their past experience with the brand they consume (Sheth & Partvatiyar, 2002). After experience consumers can determine their preferences (Hoch and Deighton, 1989). Yet, it is unknown of which aspects of brand perception are important to customers' satisfaction. Therefore, this research aims to identify the brand perceptions and brand satisfaction on skin care products in Malaysia. It seeks to examine and understand the relationship between four independent variables, namely brand perceptions on (i) quality, (ii) promotion, (iii) image and (iv) preference to brand satisfaction on skin care products.

2. Literature Review

The first step of corporate learning to compete in the world market is to understand the consumer perceptions (Craig & Douglas, 1996). We found that most of the people like to observe stimulus that relate to their existing needs while they are conscious and purposeful allocation of attention. So, there are four dimensions which may include in brand perceptions on skin care products that comprise (i) quality, (ii) promotion, (iii) image and (iv) preference which have the relationship with the brand satisfaction.

Quality: Quality is a continuous process to make and retain satisfaction of needs, both affirmed and required. Applying to the scope of this study, knowing the skin care product is from a good quality brand can affect the experience of using it. Therefore, better perception on quality leads to higher success possibility of brand (Allenby & Rossi, 1991; Chang & Wildt, 1994; Dawar& Parker, 1994). Keller (1993) explained that attributes are expressive features which distinguished a product or service that shape the potential buyer's idea of what a product or service is or has. Thus, attributes of a product is related to its physical properties or service's requirements. For the value, it grouped into certain definitions which are value is low price, whatever I need in a product, the price that I pay from the quality, and what I get for what I give (Zeithaml, 1998). Besides, quality assurance plays an important role in the skin care products. It is a guaranteed offer by the product or service provider to meets certain quality level. Meanwhile, ISO 9000:2006 stated that quality assurance is an assurance of the product-specific requirements, test specifications, general requirements and legal compliance. This required identifying the meaning of "quality"; specifying the system to ensure its existence; and specifying the measurement of its conformance (Eurostat 2012). Furthermore, SERVQUAL is commonly used as service quality framework to measure the level of quality on service sector. Its components are reliability, capability, responsiveness, access, politeness, believability, communication, safety, knowing or understanding the customer and tangibles. In this study, this framework has been modified into RATER model, which measurement consist of reliability, assurance, tangibles, empathy and responsiveness.

Promotion: Brand promotion is concerned with the active and positive communication of the brand and its value. Brand promotions observe that some consumers actively seek out promotion for preferred brands (Shankar and Krisnamurthi,1996). Brand implies a mark (symbol or sign) or design or their combination used to distinguish the product from its competitors. There are four major types of promotion on skin care products. First, advertising is the process of using a wide range of promotional tools working together to create a brand satisfaction. It can change the purchase attitudes of a person toward the targeted product (Evans & Lindsay, 2010). Second, free samples or gifts are one of significant promotional tools in marketing. It influences the consumers and motivated the likelihood of purchase after trying (Heilman, Lakishyk, and Radas, 2006). Therefore, samples are one of the brand promotion methods that will have relationship with the brand satisfaction on skin care products. Third, according to Arens (1985), offer in-store display or testimonials materials able to build additional store traffic, exhibit and advertise the product, and promote impulse buying with use of designed advertising like device. Fourth, price discounts showed the immediate reduction of the regular price on a product's label on package (Kotler, 2003; and Pride and Ferrell, 1997). Brand perception on promotion like price discounts are used to favourably sway consumer's opinion of the promotional product's fair price, improve perceived value, and boost brand satisfaction for a purchase or intentions to purchase (Darke and Dahl, 2003).

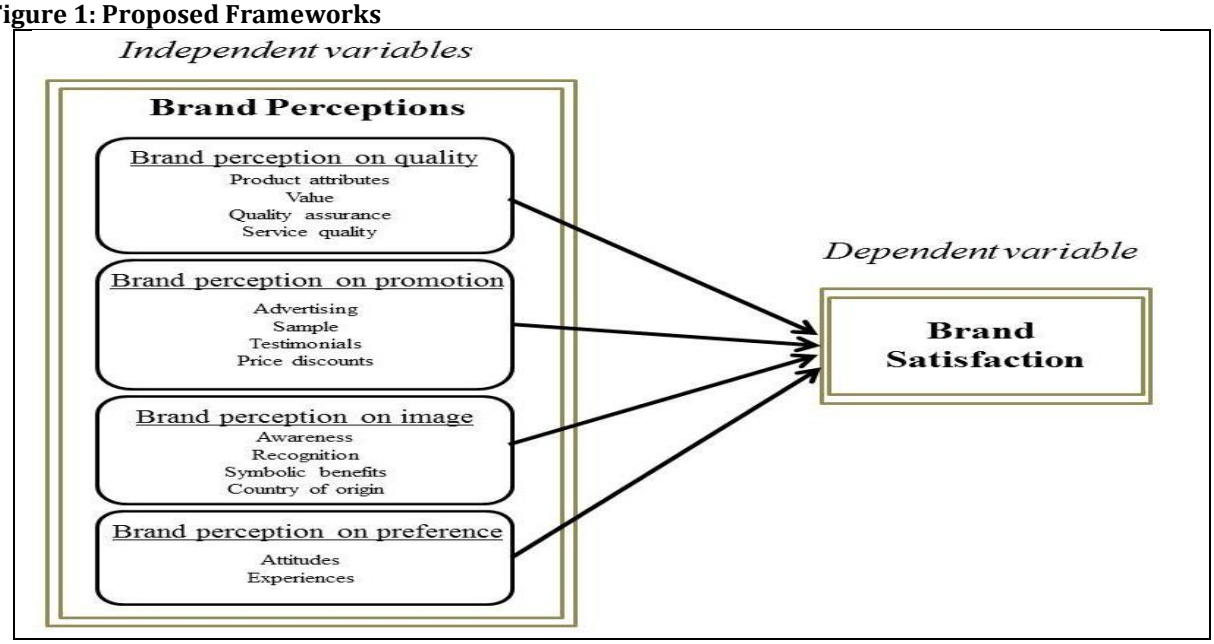
Image: Brand image is vital as consumers are believed to conclude the product quality through brand image that subsequently stimulates purchasing behaviour. Based on Herzog (1963) and Newman (1957) and others, brand image adopted is perception on the brand as reveals by its associations in customers' thought. So, in our study, the brand image perception includes four dimensions which are awareness, recognition, symbolic benefits and country of origin with brand satisfaction. Brand awareness influence consideration about brands. For instance, customers have been revealed to accept a judgment instruction to purchase merely recognizable, well-established brands (Jacoby, Syzabillo and Busato-Schach, 1977; Roselius, 1971). Brand awareness also affects people decision consideration by affecting the structure and strength of band association within brand image, which include recognition. It refers to the act of identifying someone or something about the skin care products because of previous knowledge or to formally acknowledge so that it will lead to higher brand satisfaction. Keller (1993) claimed brand image could be categorized into functional,

experiential and symbolic benefits. These symbolic benefits were allied with fundamental needs for individual expression, societal endorsement and external-directed self-esteem, which is mainly correspond to non-product linked attributes. According to Stephen, Maznah Wan Omar, Nabsiah Abdul Wahid Ishak Ismail and Amran Harun (2007), symbolic benefits are positively related to brand satisfaction. Paswan and Sharma (2004) recommended that favourable perceptions about a country lead to favourable perception to brands originated in that country. Therefore, the impacts from reputation country image should be considered in marketing actions for bi-national products. Researcher should also take note that Na, Marshall, and Keller (1990) noted that "image also comprise the dimensions of buyers' insights of assessment and benefits gain from utilize the brand".

Preferences: Brand preference is how far consumer favours particular brand or company relative to others within the set of choices (Hellier, 2003: 1765). Our research includes attitude and experience in the brand perception on preference. According to Kotler & Keller (2009), attitude is a lasting and pleasing emotion, the appraisal tendency toward a plan or thing. These implied that attitude is highly resistant to change because of the present of sensitive nature. It is manifested in consumer's preferences. Brand preference also influenced greatly by earlier consumer's experiences (Keiningham, Perkins-Munn, Aksoy & Estrin, 2005). Thus, a good consumer experience leads buyer to custom a preference for a brand, buyer's overall assessment of all brands' stimuli and it resulted from the buyer's perceptions and satisfaction with their experience to the dimensions of service brand (Grace and O'Cass, 2005; Hellier, 2003). Therefore, this research comes out with the dependent variable of brand satisfaction on skin care products. Brand satisfaction is means that keeping existing customers who already have satisfied and loyal to the brand is just as important to volume of sales. Also, satisfaction is the fulfil response of customer about the service and product (Oliver, 1997).

Brand satisfaction: Brand satisfaction is the fulfill response of customer about the service and product (Oliver, 1997). Brand attitudes and satisfaction are viewed as different concepts in the customer satisfaction literature (Oliver, 1980; Yi, 1990). Based on Oliver (1980), consumer's satisfaction is rather transient and consumption specific, but attitude is rather enduring. Westbrook and Oliver (1980) claimed that satisfaction is a valuation, while brand attitude is a fondness for the product. Furthermore, determining consumer satisfaction allows the firm to obtain many benefits (Evans & Lindsay, 2010). Likewise, Andreassen and Lindestad (1998) argued that consumer satisfaction is the collected experience of a customer's purchase and consumption experiences. It is usually understood that a satisfied consumer has higher probability for repeat buy and keen to spread positive words of mouth (Taylor, 1998: Bennett & Rundle- Thiele, 2004; Shultz, 2005). Deriving the gaps from the literatures, Figure 1 summaries the proposed framework.

Figure 1: Proposed Frameworks



The theoretical framework or conceptual framework that proposed as above is modified based on Kerry M. Lanza (2008) and Ahmad Jamal & Goode (2001). We focus on the skin care product of brand perception on product quality, promotion, image and preferences as independent variables and brand satisfaction as dependent variable.

3. Methodology

Quantitative is design in our study because it is to quatify the data by applying statistical analysis. Primary data are collected through questionnaire survey to the respondents. According to Malhotra and Peterson (2001), sampling design is the outline of the study target population, sample size, sampling technique, and methods of selecting respondents. Selecting the target population is also according to the convenience of the researcher in order to distribute and collect the questionnaire from the target population. Sampling location of this study has chosen Klnag Valley area to conduct the sampling process. This is because the area in Klang Valley gathers the most differences people around the country and it is Malaysia's most attractive economic hotspot. In a nutshell, sampling element defined as the item from which information is favored (Malhotra et al., 2002). Respondents consist students, undergraduates, working adults and others users of skin care products. Total of 50 copies of pre-test sample (pilot-test) have been distributed and carried out before conducting formal survey which is 200 in sample size. This is to make sure the correctness and quality of the questionnaire survey. Roscoe (1975) found that rule of thumbs is that sample size of more than 30 but less than 500 are more suitable for the study. The questionnaire is designed in English language and was divided into two parts which are Demographic Information and General Information (Part A) like age, gender, race, marital status, level of education, occupation as well as income level and Construct Measurement (Part B) such questions are all about the relationship between brand perceptions and brand satisfaction on skin care products. Empirical analysis was conducted using Statistical Package for Social Science (SPSS) version 19 programs. Cronbach's Alpha (reliability test) has been exercised to determine the internal reliability of pilot test and actual samples to determine the consistency of measuring of a certain concept (Cavana, Delahaye and Sekaran 2001). According to Malhotra et al. (2002), reliability was considered weak when alpha coefficient was lower than 0.6 but considered as strong if range between 0.8 and 1.0.

The construct measurement adapted from Sekaran (2003). In Section A, we was designed using nominal and interval scale. In Section B, the four variables are being measured on the five-point Likert scale range which are "Strongly Disagree" "Disagree", "Neutral", "Agree", and "Strongly Agree". These is to analyses the level of agreement or disagreement on the dependent variable (brand satisfaction), and independent variables (brand perception on quality, brand perception on promotion, brand perception on image and brand perception on preference). Missing value is being treated as incomplete responses and will be rejected. The descriptive statistics (frequencies analysis) is performed on independent variables which consist of brand perception on quality, brand perception on promotion, brand perception on image, and brand perception on preference. Result will be show in mean and ranked in position of 1 to 5. The highest result in Mean would determine that respondents are more likely to agree into particular variable on skin care products toward brand satisfaction. Pearson's correlation coefficient analysis is applied to describe the link between two continuous variables. The correlation coefficient ranges from -1.00 to 1.00, with zero value implying completely no systematic association between two variables (Hair, Bush & Ortinau, 2003). Pearson's correlation analysis method is chosen because correlation can be compared without regarding to amount of variation exhibited by each variable separately at 1% significance level. Multiple linear regressions (MLR) is used to analyze the linear relationship between dependent variable and independent variables, which are the four hypothesis in this study. The general equation for multiple linear regressions in this study is as followed:

$$BS = \alpha + \beta_1 Q + \beta_2 P_O + \beta_3 I + \beta_4 Pe + e$$

Where, BS=Brand satisfaction (dependent variable); Q=Brand perception on quality; Po=Brand perception on promotion; I = Brand perception on image; Pe= Brand perception on preference; e = error term.

4. Results and Discussion

Demographic profile is asked in Section A of the survey questionnaire. There are total of nine questions on the respondent's demographic profiles (see Table 1).

Table 1: Frequency Table on Demographic Profiles

Category	Frequency (N)	Percentage (%)
Do you use skin care product?		
Yes	200	100.0
No	0	0.0
Gender		
Male	104	52.0
Female	96	48.0
Race		
Malay	0	0.0
Chinese	195	97.5
India	3	1.5
Others	2	1.0
Age		
18-22 years old	94	47.0
23-27 years old	90	45.0
28-32 years old	11	5.5
33-37 years old	1	0.5
38-42 years old	0	0.0
43-47 years old	1	0.5
48 years old and above	3	1.5
Marital status		
Single	191	95.5
Married	9	4.5
Divorced	0	0.0
Widowed	0	0.0
Level of education		
SPM	13	6.5
STPM or PRE-U or Diploma	41	20.5
Bachelor's Degree	141	70.5
Master's Degree	3	1.5
Doctoral Degree	2	1.0
Other	0	0.0
Occupation		
Employed	43	21.5
Unemployed	20	10.0
Homemaker	1	0.5
Student	132	66.0
Free-lance	4	2.0
Retired	0	0.0
Monthly income or allowance per month		
Less than RM1,000	149	74.5
RM1,000-RM2,000	18	9.0
RM2,001-RM3,000	24	12.0
RM3,001-RM4,000	4	2.0
Above RM4,000	5	2.5
Brand of skin care product		
The Body Shop	27	13.5
Garnier	21	10.5
Nivea	20	10.0
Clean & clear	18	9.0
Artistry	16	8.0
Clinique	13	6.5
L'oreal	10	5.0

Neutrogena	7	3.5
Biotherm	5	2.5
L'ancome	3	1.5
Avon	2	1.0
Other	58	29.0

Table 2: Descriptive Statistics on Variables

	N	Mean	Standard Deviation
Quality	200	3.60	0.47
Preference	200	3.55	0.57
Image	200	3.55	0.46
Promotion	200	3.21	0.66

Three independent variables used to measure brand satisfaction, namely quality, preference, image and promotion. The measurement scale ranged from "strongly disagreed" (rating of 1) to "strongly agree" (rating of "5"). Table 2 shows that quality has highest mean of 3.60 whereas promotion has lowest mean of 3.21. Therefore, on average, respondents give highest satisfaction rate to quality perception with brand satisfaction on skin care product while lowest satisfaction rate to promotion perception with brand satisfaction.

Table 3: Summary of the Reliability Test

Construct	Cronbach's Alpha	Number of Item
Quality	0.848	15
Promotion	0.906	13
Image	0.830	12
Preference	0.902	11
Brand Satisfaction	0.838	5

This test is applied to examine reliability of all 56 items used to measure the five constructs. Referring to the reliability test as in Table 3, promotion had the highest level of Cronbach's Alpha which is 0.906 (number of items measure are 13). Second highest is preference which is 0.902 (number of items measure are 11), followed by quality which is 0.848 (number of items measure are 15). The lowest of Cronbach's Alpha value is image which is 0.830 (number of items measure are 12). Brand satisfaction which is the dependent variable had the Cronbach's Alpha of 0.838 (number of items measure are 5). In summary, the reliability analysis for the five constructs indicates high level of internal consistency for the scale due, where the reliability statistics is more than 0.80. Therefore, all the items in measuring the five variables are reliable.

The respective correlation pairs of quality, promotion, image and preference with brand satisfaction are all significant with positive correlation (see Table 4). Each of the quality, image and preference has correlation of more than 0.70, implying a strong correlation with brand satisfaction. Only promotion has a weak correlation with brand satisfaction, which is 0.251. Therefore, promotion is not significant on 1% level. Preference has a significant, strong and positive correlation with the brand satisfaction on skin care products which is 0.740, followed by image (0.727) and quality (0.715). Thus, brand perceptions on preference, image and quality have strong and positive correlation with brand satisfaction on skin products at 1% significant level.

Table 4: Pearson's Correlation Analysis

		Q	Po	I	Pe	BS
Q	Pearson Correlation	1	.251**	.764**	.731**	.715**
	Sig. (2- tailed)		.000	.000	.000	.000
Po	Pearson Correlation	.251**	1	296**	.227**	.251**
	Sig. (2- tailed)	.000		.000	.001	.000
I	Pearson Correlation	.764**	.296**	1	.742**	.727**
	Sig. (2- tailed)	.000	.000		.000	.000
Pe	Pearson Correlation	.731**	.227**	.742**	1	.740**
	Sig. (2- tailed)	.000	.001	.000		.000

BS	Pearson Correlation	.715**	.251**	.727**	740**	1
	Sig. (2- tailed)	.000	.000	.000	.000	

(Note: Sample size (N) is 200 for all variables)

As showed by the Table 5a, correlation coefficient, R = 0.800. High R value implies that brand satisfaction on skin care product (predicted variable) has strong relationship with observed or independent variables (quality, promotion, image and preference). Besides that, the adjusted R square is equal to 0.639. This indicates 63.9% of the variance in brand satisfaction on skin care products has been explained by brand perceptions on quality, promotion, image, and preference. This implies that the model has work well in explaining the variation in brand satisfaction toward skin care products.

Table 5a: Model Summary of Multiple Regression Analysis

Model	R	R square	Adj. R Square	Std. Error of the Estimate
1	.800[a]	.639	.632	.3136

Table 5b: ANOVA of Multiple Regression Analysis

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	34.005	4	8.501	86.441	.000[a]
Residual	19.178	195	.098		
Total	53.183	199			

Table 5c: Coeficient of Multiple Regression Analysis

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	.461	.194		2.376	.018
	Quality	.267	.080	.242	3.359	.001
	Promotion	.024	.036	.030	0.669	.504
	Image	.304	.084	.267	3.605	.000
	Preference	.322	.063	.357	5.149	.000

Table 5b ANOVA shows the significant of overall model. The ANOVA test result shows the F-test statistic value of 86.441, thus the model is proven to be statistically significant at 1% level. This implies that at least one of the independent variable does explain the dependent variable. For t-test, three significant values (α) are used, which are 1%, 5% and 10%. Table 5c indicates that quality is significant at 1% level (with t-value = 3.359, p = 0.001 < 0.01), image is also significant at 1% level (t-value = 3.605, p = 0.000 < 0.01). Preference is significant at 1 % level (t-value = 5.149, p = 0.000 < 0.01). Highly significant coefficients (at α =1%) for quality, image and preference statistically supported their relationship with brand satisfaction on skin care product. However, promotion is not significant even at α=10% level (t-value = 0.669, p = 0.504 > 0.10). Therefore, there is no significant relationship between brand perception on promotion and brand satisfaction on skin care product.

5. Conlusion

Results are summaried according to their respective hypothesis in Table 6 and revealed that there is significant relationship between brand perception on quality and brand satisfaction on skin care products (H1). Fornell et al. (1996) recommended brand perception on quality have a relationship with the satisfaction of the customer receives that subsequently affects future buying patterns. Despite agreeing that value is positively related to customer's satisfaction, Bryant's (1996) research results showed that the impact of quality on overall satisfaction is greater than value.

Table 6: The summary of research question hypothesis and result

Hypotheses		Result	Supported
H1:	There is a significant relationship between brand perception on quality and brand satisfaction on skin care products.	β = 0.267 Sig = 0.001 (< 0.01)	YES
H2:	There is a significant relationship between brand perception on promotion and brand satisfaction on skin care products.	β = 0.024 Sig = 0.504 (> 0.01)	NO
H3:	There is a significant relationship between brand perception on image and brand satisfaction on skin care products.	β = 0.304 Sig = 0.000 (< 0.01)	YES
H4:	There is significant relationship between brand perception on preference and brand satisfaction on skin care products.	β = 0.322 Sig = 0.000 (< 0.01)	YES

The second hypothesis (H2) about relationship between brand perception on promotion and brand satisfaction is not supported. Based on literatures, brand promotion serve as persuasive communication tools as well as economic incentive to entice consumer to purchase (Honea and Dahl, 2005). Therefore, promotion merely has a more sub-role as compare to quality, image and preference. Furthermore, some of the promotional aspect like free sample is to stimulate trial product or speed up the adoption of new products (Block, 1996). Besides that, Ruckman (2005) stated that the promotion of a product can help the company to reposition their brand in the season. Next, he also found out that a brand promotion can help increasing the brand awareness before the consumer have knowledge on the particular product with their benefit and feature (Ruckman, 2005) and not directly aiming to increase brand satisfaction.

The third hypothesis (H3) about relationship between brand perception on image and brand satisfaction is supported. This is consistent with Hsieh, Pan, and Setiono (2004) who stated that good brand image helps customers to recognize the needs for brand to fulfill and distinguish the brand from its substitute, as well as enhancing the probability that customers will buy the brand. According to Reichheld (2001), desirable brand image may influence people to consider a view of a firm's public relationship exercise that consistent with the firm's reputation. The forth hypothesis (H4) about relationship between brand perception on preference and brand satisfaction is also found significant. Russell and Lane (1993) found attitude to be an important predisposition and a strong relationship of brand preference and loyalty. The consumer's preference for one certain brand in term of attitude (Wang, 2003). Bolton and Drew (1991) has also studied the attitudes of people on the brand has the relationship in making brand preferences as well as comparative consumer share of visit or purchase. The people attitudes originated through accessing brands after using it. Therefore, this research study can help those marketers and company to improve their customer satisfaction by enhancing customers' brand perception on quality, image and preference. With a good brand satisfaction, consumer will have a repeat purchasing and word of mouth to increase the brand revenue. Nonetheless, we suggest the future researcher to expand this framework by adding more independent variable which can help the researcher has a better way to discuss the brand perceptions toward the brand satisfaction for the skin care product.

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Use of Social Media as a Media Promotion for Small and Medium Enterprises

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Abstract: Era of information technology extremely dynamic, fast growing as it is now, allows us to communicate with anyone, anytime, anywhere cheaply and quickly crossed the line geography. Especially with social media or social media, which increasingly plays an important role in communicating and socialize? Social media is not just used by the individual. In fact there are many large companies, small and medium enterprises (SMEs), even the candidates, presidential candidates, even use it as a medium of communication and media promotion. Social Media is an online media, the users can easily participate, share and create contents include blogs, social networks, wikis, forums and virtual worlds. Blogs, social networking and wikis are forms of social media are most commonly used by people around the world. Conclusions that can be drawn is very important to use social media as a promotional medium for Small and Medium Enterprises (SMEs) in a systematic and structured, because in addition to not require huge capital, and does not require an office, could be anywhere, anytime due to real time. Range is not limited to the Internet reaches all regions and even countries. With so many current Social Media, Small and Medium Enterprise Social Media can choose which one is suitable for their products. Utilization of Social Media, can be establish communication with customers, build emotional bounding. And in this era of social media gave birth to a new customer segment called customer social (social customer), thus giving birth to new ways or practices of a business, product or service in the interaction with the market.

Keywords: *Social Media, media promotion, SMEs*

1. Introduction

Era of information technology extremely dynamic, fast growing as it is now, allows us to communicate with anyone, anytime, anywhere cheaply and quickly crossed the line geography. Especially with social media or social media, which increasingly plays an important role in communicating and socialize? Social media is not just used by the individual. In fact there are many large companies, small and medium enterprises (SMEs), even the candidates, presidential candidates, even use it as a medium of communication and media promotion (Marketing Magazine, 10 edition 10, 2013). Passive customer's current era has passed. Social media has transformed them into active customers, and even tend to be hyperactive. In addition to changing the way customers communicate with business, also facilitates the adoption of social media paradigm shift in customer relations - a brand or company. Customers who used to be static, silent, suddenly now dynamic. Customers of this dynamic can be clustered or grouped into customer social (social customer). The birth of this new customer segment spawned new ways or practices of a business, product or service to interact with the market. (Majalah Mix Marketing Communication, 02, 2012, hal 28). Based on the data of Fortune, 90% of companies already have an account with at least one social media. This means that the role of social media in motion the company's business cannot be overlooked. Indonesian State thrives with social media. The country has 65 million Facebook users, about 33 million active users that it is opening up every day; 28 million are also open through mobile devices. (Majalah Marketing, edisi 10, 2013).

Internet users in Indonesia have reached 63 million people. Of that number, 95 percent use the Internet to access social networking. Director of International Information Services Directorate General of Information and Public Communication (IKP), Selamatta Sembiring said, social networking sites are the most widely accessed Facebook and Twitter. Indonesia ranks fourth largest Facebook users after the USA, Brazil, and India. "Indonesia ranks fifth largest in the world of Twitter users. Indonesia's position only lost from the USA, Brazil, Japan and the UK, "he said. According to data from Webershandwick, corporate public relations and communications services provider, for Indonesia, there are about 65 million active Facebook users. A total of 33 million active users per day, 55 million active users who use mobile devices in accessing per month and approximately 28 million active users who use mobile devices per day. In addition to Twitter, other social networks, known in Indonesia is the Path to the number of 700,000 users in Indonesia. Line of 10 million

users, 3.4 million Google+ users and Linkedlin 1 million users. Twitter users, based on data from PT Bakrie Telecom, has 19.5 million users in Indonesia of a total of 500 million global users. Twitter is one of the biggest social networks in the world so as to reap profits reached $ 145 million.

Social Media: Social Media is an online media, the users can easily participate, share and create contents include blogs, social networks, wikis, forums and virtual worlds. Blogs, social networking and wikis are forms of social media are most commonly used by people around the world. Andreas Kaplan and Michael Haenlein define social media as "a group of Internet-based applications that build on the ideological and Web 2.0 technologies.

Social media has traits - traits as follows:

- The message conveyed is not just for one person, but can control every aspect of many people. for example a message via SMS or internet
- The message conveyed freely, without having to go through a Gatekeeper
- The message conveyed tends to be faster compared to other media
- Recipients of messages that determine the interaction time

The development of social media: *The development of Social Media itself as follows :*

- 1978 Beginning of the invention bulletin board system that allows it to be able to connect with others using electronic mail, or upload and download software, all this is done is by using a phone line connected to the modem
- 1995 Birth of GeoCities site, this site serves Web Hosting namely data storage rental services - the data page of the website is a website that can be accessed from anywhere, and the emergence of GeoCities is a milestone of the establishment of the website - other website.
- 1997 comes the first social networking site that is Sixdegree.com even though in 1995 there is a site that Classmates.com is also a social networking site however, is considered more Sixdegree.com offers a social networking site Classmates.com appeal
- Appeared in 1999 to create a personal blog site, namely Blogger. This site offers its users to be able to create their own Web page. So that the user of this Blogger can contain any thing about. Including personal matters or to criticize the government. So can say this blogger become a milestone in the development of social media.
- 2002 Establishment Friendster, a social networking site which at the time was a boom, and the existence of a social media is phenomenal.
- 2003 Establishment of LinkedIn, is not only useful for sociable, LinkedIn is also useful to find a job, so the function of a Social Media is growing.
- 2003 Establishment MySpace, MySpace offers ease of use, so in saying MySpace social networking site that is user friendly.
- 2004 The birth of Facebook, the famous social networking site up to date, is one of the social networking sites that have the most members.
- 2006 Birth of Twitter, a social networking site that is different from the others, because of Twitter users can only update the status or named Tweet this that only in the limit of 140 characters.
- 2007 Birth of Wiser, the first social networking sites once launched to coincide with Earth Day (April 22), 2007. The site is expected to become an online directory of environmental organizations worldwide including both the environmental movement is done individually or in groups.
- 2011 Birth of Google+, Google launched a social networking site called Google +, but at the beginning of the launch. Google + is limited to people who have been in the invite by Google. After that Google + launched in general.

The Growth of Social Media: The rapid development of social media now because everyone could have their own media like. If to have a traditional media such as television, radio, or newspaper required substantial capital and labor that much, then another case with the media. Social media users can access using social media to the Internet network to which access is slow even though, without great expense, without expensive tools and conducted themselves without employees. Social media users can freely edit, add, modify text, images, video, graphics, and a variety of other content models. According to Antony Mayfield from iCrossing,

social media is about being a human being. Ordinary people who share ideas, cooperate, and collaborate to create creations, thinking, arguing, find people who can become good friends, find a mate, and build a community. In essence, using social media to make us as ourselves. In addition to the speed of information that can be accessed in seconds, be yourself in social media is the reason why social media is growing rapidly. Not least, the desire for self-actualization and the need to create personal branding. The development of social media is really fast, it can be seen from the large number of members who owned each - each of these social networking sites, the following table the number of members of each - each site in the quotation from (Grant & Meadows, 297) at 1 may 2010:

No	Social Media	Member
1	facebook	250.000.000
2	MySpace	122.000.000
3	twitter	80.500.000
4	LinkedIn	50.000.000
5	ning	42.000.000

Social networking is a site where everyone can create a personal web page, then connect with friends to share information and communicate. Largest social networking, among others Facebook, MySpace, Plurk, and Twitter. If traditional media use print and broadcast media, the social media using the internet. Social media invite anyone who is interested in berpertisipasi to contribute openly and feedback, comment, and share information in a fast and unlimited. When the Internet and mobile phone technology more advanced then social media, too, is growing rapidly. Now to access facebook or twitter for example, can be done anywhere and anytime just by using a mobile phone. So fast people can access social media resulted in a major phenomenon of the flow of information not only in developed countries, but also in Indonesia. Because the speed of social media also began to appear replace the conventional mass media role in spreading the news..

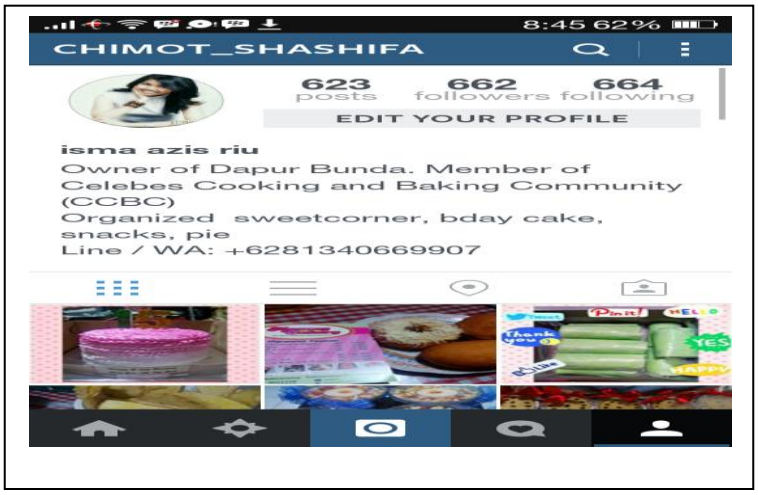
2. Some media potential is used as a Media Promotion

A. Facebook is a social networking service launched in February 2004, is owned and operated by Facebook, Inc. In September 2012, Facebook has more than one billion active users, [7] more than half using a mobile phone. Users must register before you can use this site. After that, the user can create a personal profile, add other users as friends, and exchange messages, including automatic notifications when they update their profile. Additionally, users can join a group of users with the same interests, sorted by workplace, school or college, or other distinctive characteristics, and categorize their friends into lists such as "Partners" or "Close Friends". Facebook was founded by Mark Zuckerberg with his college roommates and fellow students of Harvard University, Eduardo Saverin, Andrew McCollum, Dustin Moskovitz and Chris Hughes. This web site membership was initially limited to Harvard students, then expanded to other colleges in the Boston, Ivy League, and Stanford University. This site is slowly opening up to students at various other universities before opening to high school students, and ultimately for each person aged 13 years. Even so, according to Consumer Reports survey of May 2011, there were 7.5 million children under the age of 13 years who have a Facebook account and another 5 million are under 10 years old, thus violating the terms of service of this site. January 2009 Compete.com study puts Facebook as a social networking service that is most widely used according to the number of monthly active users worldwide. Entertainment Weekly put it on the list of "best" end of the decade with the comment, "How did we stalk our former lover, remembering the birthday of our co-workers, friends annoy us, and playing Scrabulous before Facebook was created?". Quantcast estimates Facebook has 138.9 million monthly visitors in the US in May 2011. According to Social Media Today, in April 2010, approximately 41.6% of the US population has a Facebook account Nevertheless, the growth of Facebook market began to fall in some areas with a loss of 7 million active users in the United States and Canada in May 2011. The service name is derived from the name of books given to students at the start of the academic year by university administrations in some of the United States to help students get to know each other. Facebook allows anyone aged 13 and over become a registered user on this site.

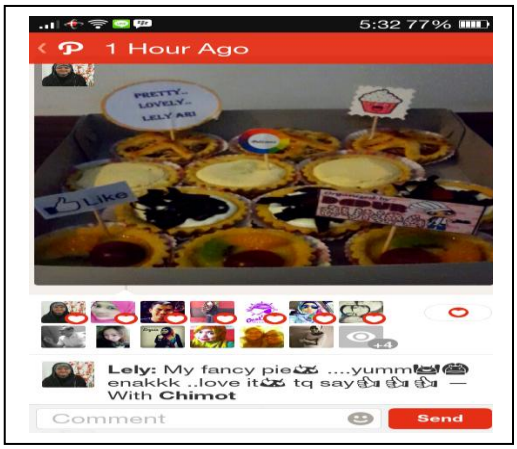
B. Twitter is a social networking and micro-blogging service that enables online users to send and read text-based messages of up to 140 characters, known as tweets (tweet). Twitter was founded in March 2006 by Jack Dorsey, and a social networking site launched in July. Since its launch, Twitter has become one of the top ten most visited sites on the Internet, and dubbed the "short message from the Internet." On Twitter, unregistered users can only read chirp, while registered users can posting chirp through the web site interface, short messages (SMS), or through a variety of applications for mobile devices. Twitter has grown rapidly and quickly gained popularity throughout the world. Until January 2013, there were more than 500 million registered users on Twitter, 200 million of whom are active users. The surge in the use of Twitter in general took place during the events popular. In early 2013, Twitter users send more than 340 million tweets per day, and Twitter handles more than 1.6 billion search queries per day. This causes Twitter position up to second as social networking sites most visited in the world, of which previously was ranked twenty-two. The high popularity of Twitter is causing this service has been used for various purposes in various aspects, for example as a means of protest, political campaigns, learning tools, and as an emergency communication media. Twitter is also faced with various problems and controversies such as security and user privacy issues, lawsuits, and censorship. Twitter is owned and operated by Twitter, Inc., based in San Francisco, with offices and additional servers are in New York City, Boston, and San Antonio.

C. Instagram is a photo sharing application that allows users to take photos, apply a digital filter, and distributed to various social networking services, including those of its own Instagram. One unique feature in Instagram is a photo cut into a square shape, so it looks like the result of Kodak Instamatic and Polaroid cameras. This is different from the aspect ratio of 4: 3 which is commonly used by the camera on mobile devices. Instagram can be used on iPhone, iPad or iPod Touch with any version of the operating system iOS

3.1.2 or later and any camera phone with the operating system Android 2.2 (Froyo) or later. This application is distributed through Apple's App Store and GooglePlay. On April 9, 2012, it was announced that Facebook agreed to take over Instagram with a value of approximately $ 1 billion. Instagram The name comes from the understanding of the overall function of this application. The word "insta" comes from the word "instant", like the Polaroid camera in his time better known as "instant photo". Instagram also can display the photos in an instant, like a Polaroid in zoom. As for the word "gram" is derived from the word "telegram", which telegram own way of working is to send information to others quickly. Similar to Instagram to upload photos using the Internet network, so that information can be conveyed quickly accepted. Therefore Instagram comes from instant-telegram.



D. Path is a social networking application on a smart phone that allows users to share images and messages. The use of Path targeted to be a separate place for users to share with family and closest friends. Dave Morin, one of the founders of Path and CEO of the company said: "That became our main vision is to create a network with high quality and makes users comfortable to contribute every time." The company started with the application on the iPhone and the website also released the Android version later. The company is competing with other social networks like Instagram. Headquartered in San Francisco, California, the company was founded by Shawn Fanning and former executive of Facebook, Dave Morrin. Path was founded with the purpose of making an interactive journal for its users. Use a different path than other social networks where only approved users can access the page Path someone. Privacy status of this application makes more exclusive Path from different social networks. The path can be used on iPhone, iPad, iPod Touch, and Android versions of any kind. This application is distributed through the Apple Application Store and various other application sites.



Five years ago, the social networking users in Indonesia is not too significant, is still in the range of millions of people. Large spikes emerge from the latest data reported by the Association of Indonesian Internet Service Provider (APJII). In accordance APJII survey last year, 63 million people of Indonesia are connected to the Internet. As many as 95 percent of the population activity when accessing the virtual world is open social media. Indonesia predicted soon be the country of origin of the most active users of social media, and of course, the biggest in terms of number. The reason of course, because the price of smart mobile phones (smartphones) are increasingly affordable for all circles. The smartphone market in 2013 is predicted to grow 44 percent, or the equivalent of 40,000 units added. Of all citizens of this country who have a mobile phone, 15 percent have a smartphone. Director of International Information Services Administrator, Selamatta Sembiring, judge, people in the country are very crazy for exist in cyberspace. As a result of other functions of the Internet in this country rather marginalized. "Advances in Internet technology is used to simply update the status or mutual also chimed comments or photos uploaded to Facebook and Twitter," he said in a seminar in Bogor last month.

Global Web Index Survey data also confirms that Indonesia is a country whose citizens infatuated with social media. The percentage of social networking activities Indonesia reached 79.72 percent, the highest in Asia, beating the Philippines (78 percent), Malaysia (72 percent), China (67 percent). Even Asian countries with advanced Internet technology social media utilization is low, for example, South Korea (49 percent) or Japan (30 percent). In particular, the survey institute Brand24 even ordain Jakarta as the capital city in the world of social media. In various social networks, the amount of activity of Jakarta per day, on average, greater than any other country. Not less, social media company officials famous as Path, already monitor how Internet users in the country infatuated with the concept of online friends. This is why Indonesia so coveted companies around the world as a social media business market. "I noticed a lot of social networking users in this country makes various accounts to attract more friends. Residents and Indonesian culture I noticed quite innovative with social networking. The country is certainly going to be a big market for us," said CEO Dave Morin Path. Then, in social media any Indonesian citizens become one of the largest and most active users? Here summarized as merdeka.com collected from various sources.

Indonesia is one of the major markets for the social networking site Facebook. According to the data from the survey up, every day, 33 million inhabitants of this country open social media-made Mark Zuckerberg was on the computer. Active users access Facebook from his cell phone about 28 million people.? While the monthly recap, 65 million citizens of Indonesia opened up. That is, the number of users of social networking was more than the total Internet users in Indonesia version APJII survey. Globally, Facebook users from Indonesia the third highest in the world. In fact, in 2011, the actual users of social media it was familiarly called Fb exactly was second after the United States. According to Eileen, currently too many people involved in the internet. They interact with each other socially, based on mutual trust and communal. This phenomenon makes the explosion of digital interactivity and the relationship became so Kual. In this situation, social networking at the heart of this connection is successful when it is able to create, maintain and grow a valuable interaction. If it's successful business network can grow and thrive. This means that companies that have effective social engagement strategy with implementation planning is managed by the timescale and structured, will be able to find their customers, identify who the movers and shakers, as well as effectively connected with them. (Brown, 2010).

The advantage of using Social Media to promote:

- Does not require major capital today cukupmenggunakan Laptop or Mobile with Internet network. No need to rent an office. You could be anywhere to go online.
- Can reach infinite market. Internet reaches into all areas, even across the State.
- Reach indefinitely. Can run 24 hours a day, 7 days a week. Provided that we've built a business on the internet, then the system will continue to run our business. Because it is a real time then in a matter of hours alone can be a response back from the social media user.
- Easy on the run and bring promising material benefits. Save time and effort

Shortage in Social Media Promotion:

- If the products and services offered by the manufacturer has a quality that let the users of social media can be very easily expressed disappointment via social media, even to revile the product or service. This course will only damage the image of the product or service being offered.
- The products and services offered in the social media should also be specially managed and not arbitrary. It is important to maintain the image of the products and services offered in the social media.
- Sometimes abused by customers who say it transfers while yet, and ask for the goods shipped.
- Customers can not hold or select items directly, only through photographs.

Promotion: Well, to reflect on these facts, it is no wonder that social media is an opportunity to bring a product or service as a solution to the problems they have. With an approach that tends to "soft", is expected to lead a consumer opinion will be a brand that is offered by the business owner. Not only in terms of sheer business, they are engaged in social even have taken advantage of social media prowess. In fact, an artist can feel the benefits of networking sites that they have to get closer to his fans. However, like two sides of a coin where the advantages offered tucked deficiency to watch. If not, then be prepared to face all the things that are lower levels of trust for online media prefers it. Promotion methods that are too forced and often unrecognized by businesses are also suspected to be able to lose a sense of ownership of the products or services which led to the deletion of your account. For those who want to use social media as a marketing tool that is fairly powerful and effective, it is necessary to understand the technique or approach of each social site. Whether it's facebook, twitter to other social media to deliver the results as expected. Promotion is one of the factors determining the success of a marketing program. However berkualitasnya a product, if consumers have never heard of and are not sure that the product that will be useful to them, then they will never buy it (Tjiptono, 2008 : 219). According Sistaningrum (2002) campaign is an effort or activity affecting the company in the "current customers" or "potential customers" in order for them to make purchases of products offered, present or future.

According to Belch and Belch (2009) promotion as coordination of all efforts from the seller to open lines of information and persuasion in order to sell goods and services. According Grewal and Levy (2008) as a promotional communications made by marketers to inform, persuade and remind potential buyers of the products or services to influence the opinion of buyers and elicit a response from the buyer. According to Kotler (2006) is the promotion of the activities undertaken between companies to communicate the benefits of its products and to ensure that the target consumers buy. Of the various definitions of the above, it can be stated promotion is one of the variables in the marketing mix should the firm to provide information about products or services, as well as persuade and remind consumers to make purchases of goods and services. According Tjiptono (2008) the main goal of the campaign is to inform, influence and persuade, and remind target customers about the company and its marketing mix. The detailed objectives of the campaign can be described as follows:

A. Inform can be:
- Inform the market about the existence of a new product
- Introducing a new way of use of the existence of a product
- Delivering changes to the market price
- Explains the workings of a product
- Inform the services provided by the company services
- Align the mistaken impression
- Reduce fears or concerns buyers
- Building a corporate image

B. Persuade targeted customers to:
- Establish brand choice
- Switch the option to particular brands
- Changing customer perceptions of product attributes
- To encourage shoppers to spend that time also

- To encourage the buyer to receive a visit salesperson

C. Reminding, may consist of:

- Remind buyers that the products concerned are needed in the near future
- Remind pembeliakan places that sell products company
- Make buyer still remember though no advertising campaign
- Keeping the memory of the first buyers fall in the company's products.

3. Small and Medium Enterprises (SMEs)

Definition of medium-sized businesses: Medium referred Instruction No.10 of 1998 was productive businesses that meet the criteria of net wealth greater effort than Rp200.000.000,00 (two hundred million dollars) up to the maximum amount of Rp10,000,000,000.00, (ten billion dollars), excluding land and buildings, and can receive credit from the bank for Rp.500.000.000,00 (five hundred million rupiah) s / d Rp.5.000.000.000,00 (five billion dollars).

The characteristics of medium-sized businesses:

- In general, management and organization have to have a better, more organized and even more modern, with a clear division of tasks among others, finance, marketing and production;
- It has been doing financial management by implementing accounting systems regularly, making it easier for auditing and assessment or inspection, including by banks;
- Have done the rules or management and labor organizations, has no Social Security, health care etc;
- It has all the legal requirements among other neighbors permits, business licenses, permits spot, TIN, environment management etc;
- It has access to bank financing sources;
- In general, human resources have been trained and educated.

Examples of medium-sized businesses: Types or kinds of medium-sized enterprises working almost commodities of almost all sectors might almost evenly, namely

- Agriculture, animal husbandry, agriculture, forestry medium scale;
- Trade (wholesale) including export and import;
- EMKL business services (Sea Cargo), garment and taxi and bus transportation services between proponsi;
- Industrial enterprises of food and beverage, electronics and metals;
- Mining the mountain stone for construction and artificial marble.

Criteria for small businesses, according to Law No. 9 1995 are as follows:

- It has a net worth of Rp. 200.000.000, - (Two Hundred Million) excluding land and buildings
- It has annual sales of Rp. 1,000,000,000, - (One Billion Rupiah)
- Owned Indonesian citizen
- Stand-alone, not subsidiaries or branches of companies that are not owned, controlled by, or affiliated directly or indirectly with Medium or Large Business
- Shaped individual business, business entity that is not a legal entity, or a business entity with legal status, including cooperatives.

4. Conclusion

Social Media is very important to use as a media campaign for the Small and Medium Enterprises (SMEs) in a systematic and structured, because in addition to not require a large capital, and does not require an office, could be anywhere, anytime due to real time. Range is not limited to, the Internet reaches all regions and even countries. With so many current Social Media, Small and Medium Enterprise Social Media can choose which one is suitable for their products. Utilization of Social Media, can be establish communication with customers, build emotional bounding. And in this era of social media gave birth to a new customer segment called

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Marketing Communication Model in Social Network Facebook

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Abstract: The limited funds made small and medium enterprise attempt to do marketing communication activities by finding ways of marketing communication that does not require substantial funds.The emergence of social networking media, such as Facebook is an opportunity for small and medium enterprises (SMEs) as a cheap marketing communication media, but not many SMEs are successfully doing marketing communications with social networking media, such failure due to a lack of knowledge in utilizing the social networking media. Indonesia have many small and medium enterprises, and most of them found difficulties in marketing communication, this study was held with purpose to examine the marketing communication activity in social networking media facebook. The study used a qualitative approach, that used interview ,observation and documentation, to assess the activity of SMEs marketing communications in facebook page, the setting of the research was the SMEs who success performed marketing communication in social networking media facebook. The results of this study resulted in a model of marketing communication through social networking media facebook page, which is useful as a guide for SMEs who will do the marketing communications.

Keywords: *Marketing Communication, Social Networking Media, Facebook Page, Small and Medium Enterprise*

1. Introduction

The limited funds made small and medium enterprise attempt to do marketing communication activities by finding ways of marketing communication that does not require substantial funds. The problems faced by many small and medium enterprise are marketing their products in their business. Small entrepreneurs as an entrepreneur is always trying to find ways to solve the marketing problems. The success of an entrepreneur in the marketing activities can be categorized in entrepreneurial marketing, which is a combination of traditional marketing and behavior of an entrepreneur. The emergence of social networking media, such as Facebook is an opportunity for small and medium enterprises (SMEs) as a cheap marketing communication media. Facebook users in Indonesia has become the fourth largest users in the world with 42,272,040 users (http://allfacebook.com. May. 14, 2012). The number of users is the potency for marketers to promote the products or services globally. Facebook today has attracted many parties to use as media for online marketing communications. The emergence of facebook is interesting, because in the beginning facebook as social network media intended as a place for interaction among its members, then viewed by the people have the opportunity to be marketing communications media.

Small and medium entrepreneurs have limited marketing budgets (Zontanos and Anderson, 2004, Harris and Rae, 2009). Therefore, it can use this social networking media, as the cheapest means of marketing communication for products and services. Employers can also interact directly with customers and potential prospects who are members of Facebook. The rising of facebook user and many people use the smart mobile phone, it make them easy to get information about the product or service they need, this condition as good opportunity for small and medium entrepreneurs to communicate or inform the products or services. Herman (2011) which examined the effectiveness of the facebook page as a marketing communication media, indicating that the facebook page is very effective for disseminating presence information of a product. Facebook as a cheap and effective marketing communication media, that able to expand market reach. The study shows facebook as a cheap promotional media for small and medium enteprises who have limited funds to conduct the promotion. From the background of the problems stated above, the researcher can determine the research problem. Research problem in this study is "What effective marketing communication model in the social media facebook". This research needs to be done because of marketing communications with social networking media is not widely known and published in scientifically, and the results of the initial survey authors found that SMEs still do a bit of marketing communications with social networking media. In

addition there are many SMEs that have not succeeded in doing marketing communications in social networking media, because they dont know the knowledge, how to do marketing communication in social networking media.

2. Literature Review

Rapid development of Internet technology, the rise of social media is one of the development of Internet technologies that able to facilitate two-way communication. Previously confined to one-way communication. The presence of social media make marketers have direct access to consumers and caused a bit depending on traditional media (Thackeray et al., 2008). Keenan and Shiri (2009) define social networking sites as sites that provide services to facilitate socialization or interaction for the user. while Lake (2009) defines this social networking media is a tool of low cost that combine technology and social interaction the use of words and usually based internet and mobile phones that help spread the message by way of conversation. Belch and Belch (2009, 482) state that social network has become a very popular destination on the internet and mobile phones, especially for young people (18-34 years) as heavy user. the popular of facebook is an opportunity for Marketers to utilize this media as a marketing communication media. The Facebook as a marketing communication media is unique in comparison with other means of marketing communication means, because of the nature of social networking media is user generated content, where on the social network user will engage directly to the web and able to affect in content creation. Different to other means of marketing communication, content will not affected because the audience is not able to involved in the process of creation the material presented by the company. Meanwhile, according to Palmer (2009) The advantages of social networking media for the company is able to involve himself with the consumers and be able to learn the needs of consumers.

Herman (2011) shows the behavior of the fan is very influential in the dissemination of information on these social networking media. Fans would always be connected (connect) to the facebook page, and has the potential to disseminate information to a friend who has.According to Belch and Belch (2009, 482) which makes the popular facebook is an opportunity to maintain and tracking the user's friends by sending them a message and share it in a variety of things such as ideas, images and news. There is a new name of these social sites ie "hangout sites" and its members spend a lot of time to get in touch with her friends in these social networking sites. The discussion of the user or fan in facebook caused a viral Effect (word of mouth) that give advantage to spread information because all user connected with other friends in Facebook. Thackeray et al. (2008) also stated, that the increase of facebook users and easy to disseminate information in the social networking media can increase the viral effect. Herman (2011) also stated that the behavior of the fan can affect cognitive stage (learn) from the model hierarchy, namely the effects of marketing communications (awareness and knowledge) and the Affective stage (feel) that (preferences and beliefs).

3. Methodology

Type of the research is exploratory research. Sources of data taken from the Facebook pages of small and medium companies which successfully do marketing communications, data collection is done by interview, observation, and documentation. Interview with the owner of the facebook page and the fans. Observation and documentation of activities and conversations carried on between the small and medium enterprises as the page owner with the fans going on the facebook page. Data analysis is the process of organizing and sorting data into patterns and categorization of data in order to obtain comprehensive information. Once the data is collected, then analyzed using qualitative analysis techniques. The process of analysis of the study include: (1). Review of all the data that has been collected through observation, documentation, and interviews; (2). Perform data reduction by abstraction, which is a summary of principal and process namely: (a). Making the units or unityzing; (b). Categorization; (c). Examination of the validity of the data; (d). Interpretation of the data.

4. Results and Discussion

The results of the analysis found some marketing communication activities in facebook page, researchers found four categories of marketing communications activities, that are : advertising, sales promotion, publicity and direct marketing, which can be seen in table 1.

Table 1: Marketing Communication Activity in facebook page

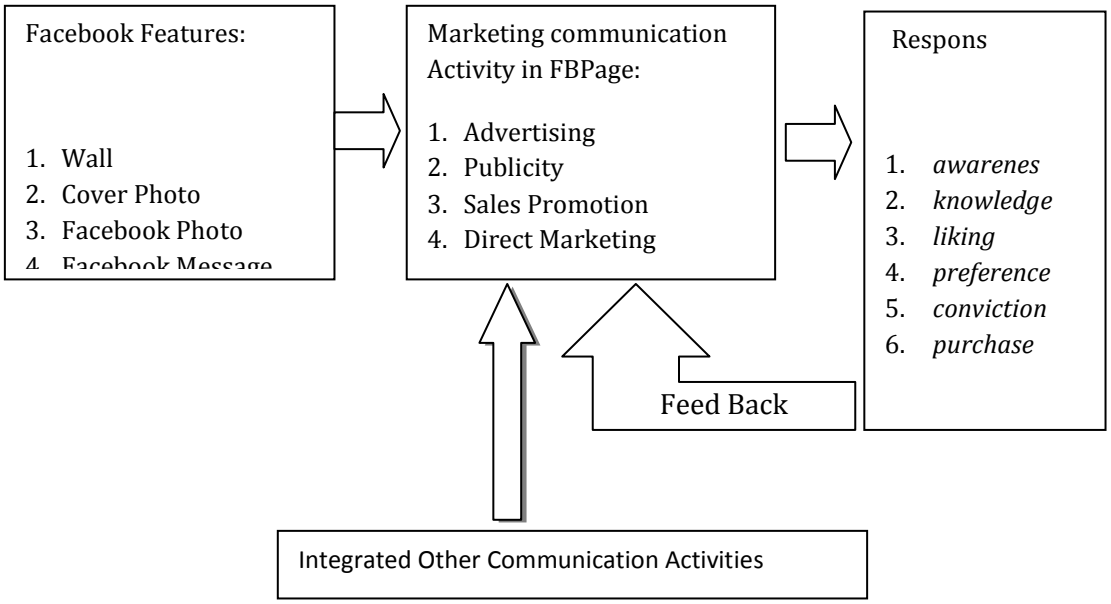
No	Activity
1	Advertising
2	Publicity
3	Sales promotion
4	Direct marketing

Source: finding of research

Facebookpage owner stated that marketing communication activities undertaken in the facebook page is very effective. Marketing communication activities conducted in facebookpage also not costly, and makes the product is known by many people. The success of marketing communication activities are also integrated with other communication activities, the results of the analysis indicate that SMEs do a variety of other marketing communications activities such as: 1 Using a Blog and website adv free (eg. OLX, berniaga, Tokopedia etc..) 2 . Advertisements in print media 3. other social media (Twitter, Instagram, Youtube,) and messenger (Whatsapp, BBm, SMS, and Email). Activity outside of facebook marketing communications is also increasing the number of fans in facebook page.

Models in Marketing Communications Facebook page: The result of analysis and discussion of the researcher can construct a Model Marketing Communication in the facebook page, which is shown in figure 1 which is the total of all activities performed by the owner of facebook in marketing communication.

Figure 1: Model of Marketing Communication in a Facebook Page



Source: finding of research

Before doing the marketing communication activities SMEs understand facebook features that can be used for marketing communications activities, to understand the features that exist in facebook can implement marketing communications activities such as Advertising, Publicity, Sales Promotion, and Direct Marketing. Facebook marketing communication activities within the expected response of fan. will be a feedback for SMEs as a basis to make improvements so as to satisfy the desires of fans or potential consumers. Responses and questions in facebook fan page must be answer as fast as possible because the response speed is one factor in the success of marketing communications in facebook page. Marketing communication activities outside facebookpage also be integrated with marketing communications activity in the facebookpage to improve the effectiveness of marketing communications SMEs. Audience response is the result desired by marketers in an attempt to do a marketing communications program. The model consists of a hierarchy of effects on audience response to specific marketing communications programs, namely: Awareness, Knowledge, liking, preference, belief (conviction), and Purchasing.

5. Conclusion

This research come to a conclusion that the marketing communication activities undertaken at the Facebookpage, the activity consists of Advertising, Publicity, Sales Promotion and Direct Marketing. Facebook page features which is used in the marketing communication activities consist of a status update, facebook Pictures, Photos Cover the front page, and Facebook messages. Marketing communication activities are most often performed is a direct marketing, which offers products to the fans by update the status and product photos. Other marketing communications activities are also integrated with marketing communication activity in facebookpage to improve the effectiveness of SME marketing communications.

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The Performance of Unit Trust Industry in Malaysia

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Abstract: This study measured the efficiency of fixed income unit trust funds and equity unit trust funds for the period of January 2004 to December 2014. A total of 36 fixed income funds and 109 equity funds were evaluated using stochastic frontier analysis (SFA) technique with three inputs (expense ratio, portfolio turnover ratio, and fund management stated fee) and one output variable (return). The econometric technique was used to measure the portfolio efficiency score as well as to compare the efficiency of fixed income funds and equity funds. The results indicated that the average efficiency score for equity unit trust funds was higher than fixed income unit trust funds. Nevertheless, when the samples were categorized into panel data, the average efficiency score for fixed income funds increased throughout ten years. Meanwhile the average score for equity funds was consistent over the years. It shows that time is invariant for equity funds. However, this means that the performance efficiency for both types of funds was considered excellent and efficient. The results indicate that the mean efficiency achieved in unit trust industry is almost 100% of its potential output.

Keywords: *Stochastic frontier, efficiency, fixed income fund, equity fund, and unit trust performance*

1. Introduction

The performance of unit trust funds has received a lot of attention from both, industry and academic fields. This is due to the percentage of net asset value of unit trust funds to Bursa Malaysia market capitalization of 20.69% and 21.07% for 2014 and 2015 respectively (Securities Commission). In Malaysia for instance, the equity market and debt market are relatively large compared to the size of its economy. As shown by the nominal GDP percentage, the equity market capitalization and outstanding debt securities account for approximately 165% and 97%, respectively in 2010. Outstanding debt securities in Malaysia have contributed 97% to the nominal GDP despite showing an increasing upward trend. The 97% contribution is also a sign that the demand for fixed income unit trust funds investments should continue to be positive and significant in the near future. Moreover, in terms of growth in equity market, the market size was RM2.0 trillion in 2010 as compared to RM717.5 billion in 2000 (Securities Commission).

Most of the unit trust funds performance experts have been investigating and synthesizing the new methods that are significantly improving the unit trust funds performance. Presently, stochastic frontier analysis (SFA) has become the focus of studies among researchers. In addition, they are aiming to estimate group frontiers, and decompose the differences of performance into two components namely technical efficiency and technology gap effects. The purpose of this study is to show how a group frontier can be estimated using the SFA techniques. This study employs SFA techniques to estimate the group frontiers, and decompose the differences in performance into technical efficiency and technology gap effects. The researchers use firm-level data drawn from the fixed income unit trust firms and equity unit trust firms in Malaysia to make the inter-firms comparisons of unit trust efficiency. The second most addressed factor is to confirm that the estimation methods can be extended to deal with issues namely time-varying inefficiency effects. Thus, the importance of unit trust funds efficiency of is one of the major concerns to guide their investment decision-making, especially in choosing between fixed income unit trust funds and equity unit trust funds. The information about portfolio investment efficiency is also important to all fund managers, namely Employee Provident Fund (EPF), Permodalan Nasional Bhd (PNB), and insurance companies, to help them decide which funds should be included to improve their portfolio performance. Therefore, the researcher intends to investigate the efficiency of fixed income unit trust firms and equity unit trust firms in Malaysia.

However, to the best of researcher knowledge, there is a lack of documented evidence from previous studies to focus on the comparative analysis of both types of unit trust funds using the SFA. Most of the previous

studies about the performance of Malaysian unit trusts industry focus on CAPM. These are proven according to the work done by Abdullah et al. (2002), Leong & Aw (1997), Shamsher & Annuar (1995), and Tan (1995). The results disclose no significant difference in funds return among actively and passively managed funds. Therefore, this study fills this gap. The rest of this paper is structured as follows. Section 2 describes the theoretical underpinning and performance. This is followed by research methodology in section 3. Section 4 presents the results based on some statistical tests performed. Finally, section 5 concludes the paper and discusses some future research.

2. Literature Review

Nowadays, the efficiency of unit trust funds is considered to be a proven technique of investment decision-making, which has gained an important place among retail investors in Malaysia. The evidence of unit trust performances from previous literature are solely based on the risk-adjusted return under non-parametric technique namely Treynor index, Sharpe index, and Jensen index. However, this paper is directed towards focusing on the comparison of the performance of fixed income unit trust funds with equity unit trust funds. Abdullah & Abdullah (2009); Taib & Isa (2007); Low (2007); Rozali & Abdullah (2006) addressed the unit trust funds performance in Malaysia by using a traditional risk-adjusted return techniques. Meanwhile, Li & Lin (2011), Ross et al. (2010), Mahreen et al. (2011), Fama et al. (2010), and Swinkels et al. (2009) addressed the unit trust funds performance in the international market. Recently, a study conducted by Norma et al. (2010) applied a new perspective of unit trust performance analysis by using the data envelopment analysis (DEA) technique to investigate the efficiency of selected conventional and Islamic unit trust companies in Malaysia. The empirical evidence in Western countries on the application of DEA analysis to measure the unit trust performance were conducted by Murti et al. (1997), Land et al. (1993) and Banker & Thrall (1992).

In terms of comparative performance, many studies have been done on Islamic and conventional unit trust funds as proven by Saad, Majid, Kassim, Hamid, & Yusof (2010), Rubio, Hassan, & Merdad (2012), Ahmad & Haron (2006), Alam, Tang, & Rajjaque (2013), Taib & Isa (2007), Chen, Ferson, & Peters (2010), Cao, Chang, & Wang (2008), Tenk (2012), Abdullah, Hassan, & Mohamad (2007), Kaminsky, Lyons, & Schmukler (2001), and Nur Azura Sanusi (2013). The main focus of the comparison in the previous studies were solely based on equity unit trust funds performance by using various methods including risk-adjusted return and data envelopment analysis (DEA). Therefore, this study intends to fill the gap by applying the SFA method to investigate the performance efficiency of fixed income unit trust funds and equity unit trust funds. This comparison is important and relevant to bond the market due to the liberalization which took place in fixed income securities. More fixed income securities instruments are expected to be launched in future. A study conducted by Saad et al. (2010) have used the DEA technique and discovered that Islamic unit trust performs better than their conventional counterparts. This is supported by Rubio et al. (2012), while their work added the value in terms of different economic condition, they also demonstrated that Islamic funds perform better than conventional funds. Abdullah et al. (2007) have measured the performance of both types of funds in different economic condition and demonstrated that there was over performance indicated by Islamic fund during the financial crisis period and post-crisis periods.

To our knowledge, lack of studies has been conducted on the comparison of the fixed income unit trust funds to the equity unit trust fund based on the efficiency. Two questions have motivated the study; (i) Can a group of frontiers be estimated using SFA techniques? (ii) Can the estimation techniques be extended to deal with the issue of time-varying inefficiency effects? Hence, this study is employing the SFA because of some limitations of the DEA technique which are: (i) DEA does not requires any assumption regarding the distribution of the variables (normality and linearity assumption) on the analysis, (ii) DEA analysis does not separate the noise from the overall inefficiency, and (iii) DEA does not consider time-varying inefficiency effects. Meanwhile, the noise separation identifies the existence of any inconsistent data if they are presented in the analysis. Since the non-parametric technique is more general and more flexible Norma et al. (2010); Rubio et al. (2012); Basso & Funari (2001) and Cullinane, Wang, Song, & Ji (2006)), the application of the SFA in measuring the unit trust performance has been contracted. For instance, the SFA has been used by researchers in unit trust industries abroad namely Babalos, Philippas, Doumpos, & Zopounidis (2012); Wong,

Phoon, & Lean (2008), Annaert, Van den Broeck, & Vennet (2003); Babalos, Caporale, & Philippas (2012), and Daraio & Simar (2006).

3. Methodology

This study adopted SFA approaches to estimate group frontiers, and to decompose the differences in performance into two components: technical efficiency and technology gap effects. The purpose of this study was: (i) to show how group frontiers can be estimated using the SFA techniques and (ii) to confirm that the estimation methods can be extended to deal with issues namely time-varying inefficiency effects. Sample selection was referred to the prospectus of the asset management companies that issue unit trust funds in Malaysia and the website of all asset management companies that provide the information on the list of funds under the management by each of the 41 registered asset management companies in Malaysia for the year between 2005 and 2014. The parametric econometric approach was used to measure the portfolio efficiency score as well as to compare the efficiency of the fixed income unit trust funds and equity unit trust funds. This study utilized the data from the prospectus of the asset management companies that issue unit trust funds in Malaysia in which provide the information on the inputs covering from the year 2005 until 2014. The annual data of the net asset value of fixed income funds and equity funds for this study were gathered from the Bloomberg Terminal at Bursa Malaysia.

The study employs a parametric econometric approach namely SFA to estimate the technical efficiency score of the particular funds. The likelihood ratio test was conducted to ensure that the inefficiency problem did exist. Technical efficiency is the firm's ability to produce maximum output from a given sets of inputs or to measure the degree to which a firm could minimize its inputs used in the production of given outputs. It is measured using a mathematical model known as SFA. This study employed three input variables (expenses ratio, portfolio turnover ratio, and fund management stated fee) and one output variable (return) to measure the efficiency level of Malaysian unit trust industry. Hence, the technical efficiency was estimated using the software program frontier Version 4.1, which was developed by Coelli (1996). This likelihood ratio test was conducted to ensure the SFA was valid. The samples were 41 registered asset management firms in Malaysia for the year between 2005 and 2014. In selecting the sample, the researcher gathered the information from the prospectus and the website of the asset management companies that issue unit trust funds. A thorough discussion of the input and output variables is described as follows:

Table 1: Input and output variables

	Variable	Explanation
Input	Expense Ratio	Nor Azlida Aleng Mohamad (2010); Daraio & Simar (2006); Babalos, Caporale, et al. (2012); Kerstens, Mounir, & De Woestyne (2011); Polwitoon (2006)
	Portfolio Turnover ratio	Nor Azlida Aleng Mohamad (2010); Daraio & Simar, (2006); Babalos, Caporale, et al. (2012); Kerstens et al. (2011)
	Fund Management Stated Fee	Nor Azlida Aleng Mohamad (2010); Polwitoon (2006)
Output	Return	Nor Azlida Aleng Mohamad (2010); Kerstens et al. (2011); Alexakis, Dasilas, & Grose (2013); Annaert et al. (2003); Wong et al. (2008)

To date, various methods have been developed and introduced to measure the efficiency performance namely DEA and Malmquist index. The SFA was chosen because this analysis provides a better estimation of efficiency scores according to the data's stochastic nature. Syrjänen, Bogetoft & Agrell (2006) identified several advantages of the study, this techniques separate noise from the overall efficiency analysis and provide a strong theory of significance testing by its gamma value.

Stochastic Frontier Analysis (SFA): This analysis was first introduced by Aigner, Lovell, & Schmidt (1977). A strong theory of significance testing by its gamma value and a noise separation make this analysis very valuable (Syrjänen, Bogetoft & Agrell, 2006). The efficiency functions for a firm to be generally formulated as in Equation 1.

$y_i = f(a_i, p_i, \varepsilon_i)$ $\quad i = 1, \dots, n$ (Equation 1)

Where y_i is the observed cost and profit of the firm, a_i represents the vector of the quantity of output variables, p_i represents the vector for the quantity of input variables, and ε_i is the factor of composite error. Hence, this function gives a specification to minimize the cost in order to produce the output vectors, given cost-consuming factors, such as market price, management inefficiency, some economic exogenous factors, or perhaps just plain luck. The expression of ε_i, on the other hand, could be further split into two parts as below:

$\varepsilon_i = v_i + u_i$ (Equation 2)

With v_i refers to the endogenous factors and u_i refers to exogenous factors that affect the firm's operational costs. Endogenous factor refers to a continuous internal factor, while exogenous factor refers to a continuous external factor. By that, v_i will show the increase in cost and profit that is caused by inefficiency factors which might have been caused by management mistakes, such as the quantity of employment is less than optimum, or various inputs that are based on pricing factors. Likewise, u_i represents the temporary increment or decrement of the cost and profit that is caused by random factors that might emerge from measurement errors or unpredicted factors that could not be controlled by firm's management, such as weather, luck, or war. Both the variables v_i and u_i represent the standard normal distribution, $N|(0, \sigma^2)|$.

Model Specification: An SFA can be expressed as in Equation 3, using a profit function model by Battese & Coelli (1992), where the technical efficiency of firm *i* is u_i and non-negative variable, whereas the error term component v_i is a random variable that can be either positive or negative.

$\ln Y_i = \beta_0 + \beta_1 \ln x_{1i} + \beta_2 \ln x_{2i} + \beta_3 \ln x_{3i} + (v_i - u_i)$ $\quad i = 1, \dots n$ (Equation 3)

Where y_i is the output technical efficiency, β are the vectors for input and output parameters, namely x_{1i} which represents an expense ratio, x_{2i} which represents portfolio turnover ratio, x_{3i} which represents fund management stated fee , v_i which represents the random stochastic variable that is assumed to have normal distribution, and u_i which represents the random variable that refers to technical inefficiency that could affect the unit trust fund's return and is usually assumed to have normal distribution.

4. Results and Discussion

Analysis/Results: The technical efficiency of the panel data which consists of 360 observations of fixed income funds and 1090 observations of equity funds were generated using Frontier Version 4.1 software through the maximum likelihood technique according to Coelli (1996). The model verification test result is as follow:

Model verification test: To ensure the appropriateness of utilizing the maximum likelihood estimation (MLE) to fit the stochastic frontier model, the likelihood ratio test was implemented. The results of the stochastic frontier estimation are reported in Table 2 and Table 3. The table below presents the log function specified above fits the data well. The results obtained from the SFA can be compared to the fixed income funds and equity funds. Table 2 and Table 3 show the gamma test of the hypothesis of stochastic frontier model. There was a technical inefficiency effect in model 1 (panel data) and model 2 (pool data) of fixed income funds with the γ_1 score was 0.002364 and γ_2 score was 0.0000001, respectively. Moreover, the equity funds also produced the same results as γ_1 score which was 0.00010085 and γ_2 score which was 0.0000001, respectively. Hence, both models showed that the null hypothesis of no technical inefficiency that exists in the model could be rejected. The finding of this study is consistent with the work by Nor Azlida Aleng Mohamad (2010), and Basnayake & Gunaratne (2002).

Table 2: Gamma test of hypothesis of the stochastic frontier model of fixed income funds

Model	Null Hypothesis	γ -value	Decision
Model 1	$H_0 : \gamma = 0$	0.00236372	Reject H_0
Model 2	$H_0 : \gamma = 0$	0.00000001	Reject H_0

Table 3: Gamma test of hypothesis of the stochastic frontier model of equity funds

Model	Null Hypothesis	γ -value	Decision
Model 1	$H_0 : \gamma = 0$	0.00010085	Reject H_0
Model 2	$H_0 : \gamma = 0$	0.00000001	Reject H_0

Descriptive Analysis: Table 4 shows the efficiency score computed by this model. The average profit efficiency scores in fixed income funds and equity funds were 98.30% and 99.84% respectively. The mean efficiency scores for both types of unit trust funds for ten years were 90% and above. This score suggested that the unit trust funds industry has been in high demand among investors. It also means that the unit trust funds are able to reduce their inputs costs by 2% without reducing the profit, a level that is viewed as impressive as supported by (Nor Azlida Aleng Mohamad, 2010).

Table 4: Descriptive analysis for firms' technical efficiency estimates (2005-2014)

	Mean	Minimum	Maximum
Overall fixed income funds	0.98303317	0.9644458	0.9928530
Overall Equity funds	0.99836571	0.9982404	0.9984545

Results: The results shown in Table 5 indicated that the average of technical efficiency score of fixed income funds and equity funds from 2005 to 2014 slightly increased throughout the years. From the efficiency scores in Table 4, the firm's average efficiency increased slightly from 2005 to 2014 from 97.25% to 99.07% for fixed income funds.

Table 5: Descriptive analysis for overall fixed income funds and equity funds technical efficiency estimates for individual years

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Fixed Income Funds	0.96441	0.9756	0.9784	0.9808	0.9830	0.9849	0.9866	0.9882	0.9895	0.9907
Equity Funds	0.99824	0.99827	0.99829	0.99831	0.99834	0.99836	0.99838	0.99840	0.99842	0.99844

Based on the results, it can be concluded that the performance of unit trust industry in Malaysia is considered optimal efficient as they showed to waste only 2% of their inputs based on SFA throughout ten years. The mean of efficiency scores for ten years were 90% and above. In terms of comparative analysis, the fixed income funds score ranges from low mean efficiency of 0.94 in 2005 to a high value of 0.99 in 2014 compared to equity funds which produced almost constant mean efficiency scores during the period of analysis. The score also suggested that equity funds had achieved almost 100% efficiency. Further analysis showed the confirmation of the existence of technical efficiency.

From our findings, it showed that the fixed income funds with superior mean is Kenanga Bond with an annual mean of 98.69%. These results indicated that this fund manage to reduce their input cost (expense ratio, portfolio turnover, and management state fee) by less than 2% without reducing their output. It is revealed that this fund is very attractive among investors and is considered very efficient in terms of managing their cost. Meanwhile, Amanah Mutual Bhd Income trust fund indicated the lowest average efficiency score of 97.80%. On top of that, the overall efficiency scores resulted by 36 fixed income funds showed that the funds were able to maintain the profit efficiency over the years. From the equity funds analysis, it can be concluded that the efficiency scores provided by 109 equity funds showed slightly the same results year after year. On the other hand, the score remained in increasing order from 2005 to 2014.

Table 6: Maximum-likelihood estimates of the stochastic frontier model (Panel Data) for fixed income funds and equity funds

Variables	Coefficient		t-ratio	
	Fixed Income	Equity	Fixed Income	Equity
Intercept (β_0)	1.30361	1.71144	17.084621	61.53806
Expense ratio (β_1)	0.09584	0.050253	0.5058710	1.080556
Portfolio Turnover ratio (β_2)	0.01137	0.016415	0.3969302	0.777475
Fund Mgt Stated Fee (β_3)	-0.007727	-0.104631	-0.038281	-0.001365
Gamma, (γ)	0.0023637	0.0000102	0.068481	0.6012311

The results of the maximum-likelihood estimation (MLE) for both types of unit trust funds are reported in Table 6. The value of the log likelihood function for OLS and MLE allow to test whether the technical inefficiency exists or not. In the case where technical inefficiency does not exist, then technically there will be no difference in the parameters of OLS and MLE. From the panel data output, it showed that the expense ratio, portfolio turnover ratio, and fund management stated fees were not significant to returns for both types of unit trust funds. None of these differences was statistically significant. A strong relationship between return and expense ratio has been reported in the literature. The present study was designed to determine the relative efficiency of fixed income funds and equity funds in Malaysia. The results of this study did not show any significant values. However, the observed difference between return and the inputs in this study were not significant. It is encouraging to compare this figure with a study by Nor Azlida Aleng Mohamad (2010) who found that both types of unit trust funds were highly efficient. There were similarities between the input used (management fee, expense ratio) in this study and those described by (Nor Azlida Aleng Mohamad, 2010). These findings support the idea that the of type of funds do not influence the efficiency much through the years and most important findings indicated that time does not affect the technical efficiency score.

Discussion: From the overall statistical results, it showed that the efficiency score was more or less the same from 2005 to 2014. It showed that time does not affect the technical efficiency score or it can be said that the entire fund's technical inefficiency were constant during the period of analysis. Our findings of time-varying model were not taken into account in which some firms may be relatively inefficient initially but become relatively efficient in subsequent periods. The basic model of the time-varying model is presented below.

Fixed Income Funds Likelihood Ratio: To choose whether we should select the panel data or pool model for our analysis, we need to perform another test that is called likelihood ratio test was conducted by Kodde & Palm (1986) and Coelli, Rao & Battesse (1998). From the estimations, it was found that the likelihood ratio test of Model 1 (Panel Data) was 338.7254 and likelihood ratio test of Model 2 (Pool Data) was 338.1312. Therefore, we put all the information in this formula to find the likelihood ratio for both models. Therefore, the null hypothesis is not rejected at 99% of confidence level.

$$LR = -2\ (338.1312 - 338.7254)$$
$$= 1.1884$$

Equity Funds Likelihood Ratio: To choose whether we should select the panel data or pool model for our analysis, we need to perform another test that is called likelihood ratio test was conducted by Kodde & Palm (1986) and Coelli, Rao & Battesse (1998). From the estimations, it was found that the likelihood ratio test of Model 1 (Panel Data) was 15.744687 and likelihood ratio test of Model 2 (Pool Data) was 15.718774. Therefore, we put all the information in this formula to find the likelihood ratio for both models.

$$LR = -2\ (15.718774 - 15.744687)$$
$$= 0.051826$$

From Table 7 below, since the likelihood ratio calculated was 1.1884 and 0.0518 for fixed income funds and equity funds respectively, and the t-value that was obtained from Kodde & Palm (1986), at 99% of confidence level with a degree of freedom of 1 for the model, the value of likelihood ratio obtained from the analysis significantly fail to reject the null hypothesis. It indicated that we should use the Model 2 Pool Data instead of Model 1 Panel Data because it has time-invariant inefficiency effects. It gives almost the same technical efficiency score regardless the time and it allows variations in technical inefficiency effects over time.

Table 7: Likelihood ratio test of hypothesis of the stochastic frontier model

Model	Null Hypothesis	Likelihood-Ratio	t-value	Decision
Model 3 (Fixed Income)	$H_0 : \gamma = 0$	1.1884	5.412*	Fail to Reject H_0
Model 4 (Equity)	$H_0 : \gamma = 0$	0.0518	5.412*	Fail to Reject H_0

*significant at 1% level
The critical values are obtained from the table of Kodde & Palm (1986).

5. Conclusion

This study has provided the evidence about the fixed income funds and equity funds in Malaysia. The results indicated that the average efficiency score for equity unit trust funds was higher than fixed income unit trust funds. Nevertheless, when the sample was categorized into panel data, the average efficiency score for fixed income funds increased throughout ten years. Meanwhile the average score for equity funds was consistent over the years. It showed time-invariant for equity funds. However, this means that the performance efficiency for both types of funds was considered excellent and efficient. The results indicated that the mean efficiency achieved in unit trust industry was almost 100% of its potential output. The results were very similar to those obtained by Annaert et al. (2003) who also found higher efficiency scores where it deviated from their expected return into a noise component and efficiency scores. However, comparative analysis results suggested time-invariant for equity funds.

Recommendations: The results fail to find a link between all inputs and unit trust performance. Further studies on different variables will need to be considered to obtain more robust findings. In future investigations, it might be possible to use different output in which will produce significant results rather than focusing on the input costs of the management perspective that do not directly influence the efficiency of unit trust industry.

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The Impact of Celebrity Credibility on Consumer's Purchase Intention toward the Footwear Industry in Malaysia: The Mediating Effect of Attitude toward Advertisement

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Abstract: Practices of using celebrities as spokespeople for commercialized products are continuously favoured toward the effort of marketing and positioning. The popularity of celebrity advertising is founded upon advertiser's belief on message credibility by well-known personalities to achieve greater attention, recall and behavioural intention among consumers. The present study assesses the impact of celebrity credibility on the underlying purchase intention of Malaysian consumers toward the footwear industry, by exploring the mediating role of attitude toward advertisement between celebrity credibility and purchase intention. The influence of endorser's characteristics and cultures on consumer's behavioural intention is explained through the applications of the Theory of Identification (Kelman, 1961, 2006) and the Meaning Transfer Model (McCracken, 1989) in this study. Descriptive findings collected from 200 potential consumers have suggested attitude toward advertisement as the catalyst of endorser's identification, for cultivating dimensions of celebrity credibility (trustworthiness, expertise and attractiveness) into transactional intention. The phenomenon of integration approaches of single phenomenon, with two theoretical perspectives (Mayer & Sparrowe, 2013) is demonstrated in this product marketplace.

Keywords: *Celebrity Endorsement, Credibility, Attitude toward Advertisement, Purchase Intention, Footwear*

1. Introduction

The footwear industry has been prevailing across the Asia Pacific region, with an average yearly consumption of 25.02% between 2008 and 2013 (Euromonitor International, 2014). Uniqueness in consumption patterns and product characteristics further placed celebrity credibility as a determinant for this industry. Successful business achievements place attitude toward advertisement and attitude toward brand as sequential stages between celebrity credibility and purchase intention (Chaiken, 1979; Muda, Musa, Mohamed & Borhan, 2014; Ohanian, 1990; Schouten, 2008). Massive endorser, advertising and administrative expenses uncover attitude toward advertisement to precede purchase intention. Yet, the direct influence of celebrity endorsement is vaguely supported. Therefore, this study specifically investigates celebrity credibility by Ohanian (1990) as an advertising effort toward favourable behavioural intentions in the footwear industry.

2. Literature Review

Theory of Identification & Meaning Transfer Model: Two main theories have acted as the foundation for the current study. First being the Theory of Identification by Kelman (1961, 2006) in discussing the process upon adopting of opinions from external social influence. This theory explains the direct relationship between attitude formations from past social experience, personal attributes and upbringings, following intended individual behaviours. Subsequent being the Meaning Transfer Model by McCracken (1989) which outlines the process of a common celebrity endorsement stages within the marketplace (culture → endorsement → consumption) with the adoption of endorsed products through acceptance of endorser's values. Yet, noted that both theories manage to explore the impact of celebrity credibility on consumer's purchase intention through the process of opinion adoptions and development behavioural intention. Explaining similar phenomenon, the Theory of Identification discusses the direct influence of external stimuli on attitudinal change that entail potential actions. The Meaning Transfer Model further strengthens the current phenomenon through determining the process of adoption, specifically in celebrity endorsement. Therefore, the integration approach of single phenomenon, two theoretical perspectives is anchored within the current study (Mayer & Sparrowe, 2013). In view of the social context, the three social influence processes by Kelman (1961, 2006) are deemed essential determinants toward behavioural predictions (power for compliance, attractiveness for identification, credibility for compliance). Given the practical

dimensions of celebrity credibility: trustworthiness, expertise and attractiveness; Ohanion (1990) operationalizes the concept in assessing the norm of celebrity endorsement, as adopted within this study.

Celebrity Credibility: Celebrity's Trustworthiness, Celebrity's Expertise, Celebrity's Attractiveness: Beaulieu (2001) defines source credibility as the ability of acceptance through delivered claims from a specific party. Diversified applications imply ambiguous operational dimensions for source credibility in view of advertising and promotion, including trustworthiness by Nan (2013) and expertise by Pornpitakpan (2003). Previous studies encounter endorser's credibility as a combination of trustworthiness, expertise and attractiveness (Ohanian, 1990; Bhatt, Jayswal & Patel, 2013; Rossiter & Smidts, 2012).The concept of source credibility is often argued in having the tendency to persuade (Nan, 2013). Greater persuasiveness demands higher credibility within sources. Credibility transferred toward celebrity-endorsed products forms consumer's attitude, further behavioural intention (Subhadip, Varsha & Pragati, 2013). Thus, the effectiveness of source credibility toward behavioural intention should not be overlooked in the footwear industry, hypothesized that:-
H_1: Celebrity credibility has a positive impact on consumer's purchase intention of footwear in Malaysia

Trust toward dependable guidance is formed when the sender is believed to be truthful and reliable (Tsai, Chin & Chen, 2010). Mentioned by Chong, Yang & Wong (2003), the perceived trustworthiness of an individual is significantly dependent over the individual's level of knowledge and skills. Trustworthiness further possesses greater potential in driving attention toward opinion change (Tormala & Clarkson, 2008). Additional findings prove that trusted opinions induce positive purchasing behaviours (Chong et al., 2003; Yoon, Kim & Kim, 1998). Therefore, hypothesis is predetermined that:-
H_{1a}: Celebrity's trustworthiness has a positive impact on consumer's purchase intention of footwear in Malaysia

Source expertise indicates the degree of perception regarding a person's ability to generate valid affirmation (Pornpitakpan, 2004). This concept presents the perceived competency in making accurate statements. Findings from numerous studies present leveraged persuasiveness from greater expertise (McGuire, 1969; Stemthal, Dholakia & Leavitt, 1978). With attitudinal change as an antecedent, the degree of congruency between the expertise of source and personal ideas of consumers deemed influential (Clark, Wegener, Habashi & Evans, 2011). Likewise, expertise toward followership is attainable through greater congruency. Supported by Lafferty, Goldsmith & Flynn (2005) in positive relationship between expertise, willing and intention to purchase, this study hypothesized that:-
H_{1b}: Celebrity's expertise has a positive impact on consumer's purchase intention of footwear in Malaysia

The concept of physical attractiveness is based upon society's evaluation of credibility by virtue that attractive sources hold greater likability toward favourable attitude change and product assessments (Joseph, 1982). Mentioned by Mills & Aronson (1965), attractiveness is able to raise concession, under the condition that the message delivered is intended on influencing others' opinions. Higher physical attractiveness tends to boost persuasiveness due to the distinguishable characteristics (social context, interpersonal skills) that perceived the source as competent (Chaiken, 1979). Nevertheless, alignment between physical appearance, endorsed product and marketing effort would present credibility in attractive personals (Guido, Peluso & Moffa, 2011; Liu, Huang & Jiang, 2007). Herewith, the hypothesis is reviewed that:-
H_{1c}: Celebrity's attractiveness has a positive impact on consumer's purchase intention of footwear in Malaysia

Attitude toward Advertisement as the Predictor: Attitude is a general and permanent assessment of objects, affairs, people and behaviours (Hoyer & MacInnis, 1997).Attitude is consistent and acts as a basis to individual's willingness in behaving under a specific manner (Fishbein & Ajzen, 1975). This shows potential toward reviewing consumer's behavioural intention. The concept of attitude has been vastly applied in marketing research since the 1960 (Sallam & Wahid, 2012). Gresham & Shrimp (1985) have proposed the independent impact of attitude toward brand and attitude toward advertisement on purchase intention. This study specifically investigates the direct influence of attitude toward advertisement on consumer's purchase intention. Mackenzie, Lutz & Belch (1986) refers attitude toward advertisement as the tendency of reacting specifically to advertising stimulants under the conditions of exposure. The attitude toward advertisement is

shown to have significant impact on brand choice (Biehal, Stephens & Curlo, 1992). Positive consumer's brand selection is deemed the consequent of favourable attitude toward advertisement. Surpassing the indirect relationship through attitude toward brand, Goldsmith, Lafferty & Newell (2000) suggests direct relationship is significant between attitude toward advertisement and purchase intention. Therefore, hypothesized in this study that:-
H_2: Attitude toward advertisement has a positive impact on consumer's purchase intention of footwear in Malaysia

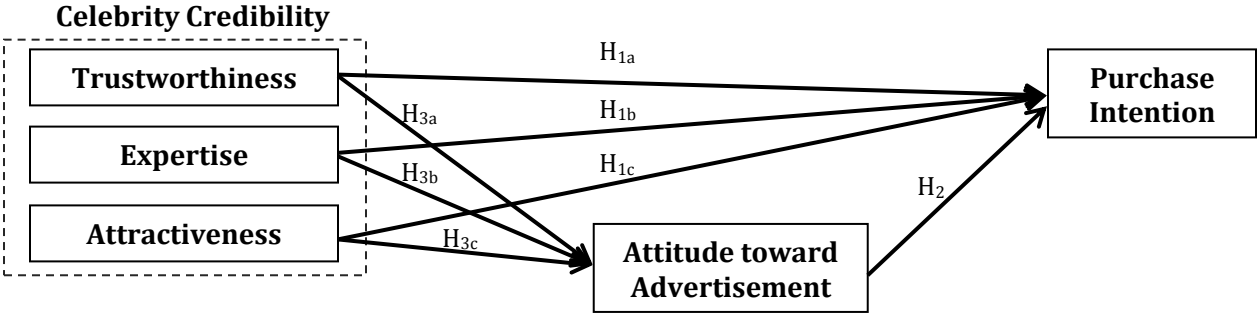
Attitude toward Advertisement as the Mediator: Erdogan, Baker & Tagg (2001) proposed that effective advertisement through celebrity endorsements possess positive impact on actual purchases and sales. Thus, indirect relationship between celebrity endorsement and potential behaviours within the marketplace is present through favourable advertising effect. Demonstrated by Wu, Linn, Fu & Sukoco (2012), direct influential relationship is significant between perceived advertisement credibility and attitude toward advertisement, and attitude toward advertisement and intention for purchase. Further studies supports that purchase intention can be affected through effective advertising (Sallam & Wahid, 2012). Supportive results through the direct relationship between attitude toward advertisement and purchase intention is also demonstrated by Goldsmith et al. (2000), as well as Khairullah & Khairullah (1999), bypassing the intervention of brand effect. Extend upon Banwari's (1990) findings between perceptions and behavioural intention, the mediating role of attitude toward advertisement on the footwear product market is reviewed within the current study:-
H_3: Attitude toward advertisement mediates celebrity credibility to consumer's purchase intention of footwear in Malaysia

Attitude toward advertisement is integrated within the indirect effect of celebrity credibility and consumer's purchase intention. With purchase intention constructed through advertising appeal and advertising effect, celebrity endorsement has played central role as an effective advertising tool (Wang, Cheng & Chu, 2012). Sales of endorsed products indicate direct effectiveness of celebrity-based advertisement (MacInnis, Rao & Weiss, 2002). Celebrity credibility has played a crucial role in connecting goods and services to the potential customers in both publicity and promotions. As suggested by Ohanian (1991) on trustworthiness, consumer's purchase intention is an extended process, through far-fetch evaluation process. Therefore, this study presents the hypothesis that:-
H_{3a}: Attitude toward advertisement mediates celebrity's trustworthiness and consumer's purchase intention of footwear in Malaysia

However, Ohanian (1991) capitalizes on the direct relationship between expertise and purchase intention with vague influence from celebrity's trustworthiness and attractiveness. While celebrities' characteristics play a role in determining consumer's purchase intention, the embedment of the qualities upon advertisement effectiveness is accounted (Goldsmith et al., 2000; Lafferty & Goldsmith, 1999; Lafferty et al., 2005).The mediating effect of attitude toward advertisement between celebrity's expertise and consumer's purchase intention is defined in this study. This entails the hypothesis that:-
H_{3b}: Attitude toward advertisement mediates celebrity's expertise and consumer's purchase intention of footwear in Malaysia

Findings by Comiati & Plăias (2010) suggested significant relationship between attractiveness consumer's reactions toward advertisement, based upon different circumstances that the celebrity endorsement approach is applied. Sallam (2011) further proposed the indirect relationship between the dimensions of celebrity credibility on purchase intention, through attitude toward advertisement and attitude toward brand. Therefore, this study accounts for attitude through advertising between celebrity's attractiveness and purchase intention. Hypothesis in this product market is determined that:-
H_{3c}: Attitude toward advertisement mediates celebrity's attractiveness and consumer's purchase intention of footwear in Malaysia
Based on reviews of the aforementioned past studies, this study proposes the conceptual framework as shown in Figure 1.

Figure 1: Conceptual Framework for the Study



3. Methodology

This study is descriptive in nature as it seeks to examine the impact of celebrity credibility on purchase intention, through the formation of attitude toward advertisement in Malaysia's footwear industry. A quota sampling approach composed of even distribution of gender is adopted for the sake of convenience, efficiency and administrative effectiveness (Moser, 1952). Hinkin (1995) has recommended a question-to-sample ratio of 1 to 4 and 1 to 10, which determines a minimum of 90 respondents at 23 questionnaire items (90 to 230). 200 respondents among undergraduate students are surveyed due to their homogeneity and suitability toward wider product classes for unbiased and reliable findings. Questionnaire survey method is used for the purpose of data collection in this study, as it allows the gauge of insightful information, including beliefs, viewpoints and assessments simultaneously (Aaker, Kumar, Day & Leon, 2011). The questionnaire is consisted of five sections, namely celebrity's trustworthiness, celebrity's expertise, celebrity's attractiveness, attitude toward advertisement and consumer's purchase measured through 7-point Likert scale (1 = Strongly Disagree; 7 = Strongly Agree), as shown in Table 1. General open-ended questions and demographic information are included to assess respondent's opinions and backgrounds.

Table 1: Source of Instruments & Cronbach's Alpha

Variable	Source	No. of Items	Chronbach's Alpha
Celebrity's Trustworthiness	Choi & Rifon,2012	5	0.901
Celebrity's Expertise	Lafferty & Goldsmith, 1999	5	0.922
Celebrity's Attractiveness	Ohanian, 1990	5	0.928
Attitude toward Advertisement	Sallam & Wahid, 2012	5	0.898
Purchase Intention	Janssens & De Pelsmacker, 2005	3	0.855

4. Results & Findings

Findings from a bivariate correlation analysis suggest the existence of weak positive relationship between the elements of celebrity credibility and purchase intention, with Pearson's correlation (r) valued between 0.278 and 0.343 (significance level of $p < 0.01$). Attitude toward advertisement and purchase intention are shown to have a moderate positive relationship, with a Pearson's correlation (r) of 0.390 (significance level of $p < 0.01$). An F-value of 35.519 is obtained from the multiple linear regression analysis for H_{1a}, H_{1b}, H_{1c} and H_2 at a significance level of 0.000 (significance level of $p < 0.01$), which indicates the presence of causal relationship between variables in this study. Given an R-squared value (R^2) of 0.152, about 15.2% of the outcome variance is explained by the adopted construct. The findings suggest that celebrity's trustworthiness (p=0.378, β=0.720, t=0.883), celebrity's expertise (p=0.960, β=0.137, B=, t=1.674) and celebrity's attractiveness (p=0.640, β=0.158, t=1.860)possess insignificant impact on purchase intention (significance level of $p < 0.01$).On the case of H_2, attitude toward advertisement (p=0.000, β=0.390, t=5.960) is shown to possess significant impact on purchase intention (significance level of $p < 0.01$). This constructs the regression equation as below. Figures in this study indicate that attitude toward advertisement being the sole direct predictor to purchase intention in this product market.

$$\text{Purchase Intention}_{(\text{predicted})} = f\,(\text{Attitude toward Advertisement})$$
$$PI = 3.273 + 0.390\,(Aad)$$

Findings from multiple linear regression analysis for H_{3a} indicate significant causal relationships for all total effect, direct effect and indirect effect as shown below (significance level of $p < 0.01$). A conducted Sobel Test presents positive support with z=3.951, p=0.000 (significance level of $p < 0.01$). Attitude toward advertisement is determined to be a partial mediator on celebrity's trustworthiness and purchase intention.

Table 2: Coefficient of the Mediation Model (H_{3a})

Total Effect (CT → PI)					Direct Effect (CT, Aad → PI)					Indirect Effect (CT → Aad)				
B	β	SE	t	p	B	β	SE	t	p	B	β	SE	t	p
0.242	0.278	0.059	4.067	0.000	0.348	0.347	0.081	4.275	0.000	0.515	0.593	0.050	10.350	0.000

Findings from multiple linear regression analysis for H_{3b} indicate significant causal relationships for all total effect, direct effect and indirect effect as shown below (significance level of $p < 0.01$). A conducted Sobel Test presents positive support with z=3.553, p=0.000 (significance level of $p < 0.01$). Attitude toward advertisement is determined to be a partial mediator on celebrity's expertise and purchase intention.

Table 3: Coefficient of the Mediation Model (H_{3b})

Total Effect (CE → PI)					Direct Effect (CE, Aad → PI)					Indirect Effect (CE → Aad)				
B	β	SE	t	p	B	β	SE	t	p	B	β	SE	t	p
0.265	0.322	0.055	4.786	0.000	0.308	0.308	0.082	3.770	0.000	0.495	0.602	0.047	10.621	0.000

Findings from multiple linear regression analysis for H_{3c} indicate significant causal relationships for all total effect, direct effect and indirect effect as shown below (significance level of $p < 0.01$). A conducted Sobel Test presents positive support with z=3.277, p=0.001 (significance level of $p < 0.01$). Attitude toward advertisement is determined to be a partial mediator on celebrity's attractiveness and purchase intention.

Table 4: Coefficient of the Mediation Model (H_{3c})

Total Effect (CA → PI)					Direct Effect (CA, Aad → PI)					Indirect Effect (CA → Aad)				
B	β	SE	t	p	B	β	SE	t	p	B	β	SE	t	p
0.286	0.343	0.056	5.134	0.000	0.289	0.289	0.085	3.413	0.001	0.534	0.641	0.046	11.740	0.000

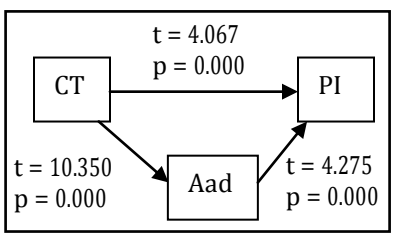


Figure 2: Mediation Model (H_{3a})

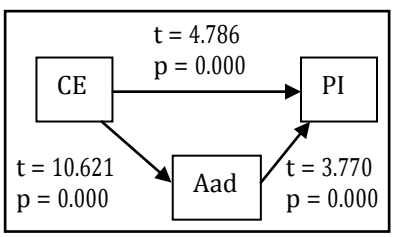


Figure 3: Mediation Model (H_{3b})

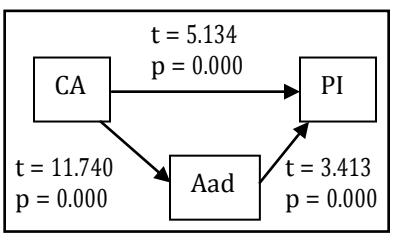


Figure 4: Mediation Model (H_{3c})

Discussion: This study extends upon Ohanian's (1990) assessments on celebrity credibility. The findings partially support Nan (2013) and Ohanian (1991) with insignificance of trustworthiness, expertise and attractiveness on consumer's intention to purchase. Potential impact of celebrity credibility presents insufficient direct behavioural significance. The findings rebut the phenomenon of previous studies which present direct influence of celebrity credibility on behavioural intention (Daneshvary & Schwer, 2000; Ilicic & Webster, 2011; Matthew, Huang & Jiang, 2007; Morin, Ivory & Tubbs, 2012; Tran, 2013; Wang et al., 2012). Van der Waldt, de Beer & du Plessis (2007) supports a positive association between celebrity endorsement and likability toward endorsed products, consider high alignment between the marketing strategy and the endorsed products. Nevertheless, studies of similar concept places emphasis on the indirect influence of attitude toward brand, attitude toward advertisement, attitude toward appeal and product congruence (Yan, Ogle & Hyllegard, 2010; Wang & Lin, 2011; Choi & Rifon, 2012). Thus, this study rebuts the direct causal relationship between celebrity credibility and purchase intention.

The results further supports attitude toward advertisement as a predictor toward purchase intention (Goldsmith et al., 2000; Khairullah & Khairullah, 1999; Sallam & Wahid, 2012). Within the context of celebrity endorsement, study by Van der Waldt et al. (2007) has supported effective advertising as a significant predictor toward influencing purchase intention. Positive attitude toward advertisement is regarded alongside preferred product brands (Beihal, Stephens & Curlo, 1992). Gresham & Shrimp (1985) have also proposed the existence of causal relationship between attitude toward advertisement on attitude toward brand, with a peripheral statement regarding independent relationship of attitude toward advertisement and attitude toward brand on purchase intention. While the sequential effect of attitude toward advertisement and attitude toward brand is established, Goldsmith, Lafferty & Newell (2000), Sallam & Wahid (2012) and Yoon et al. (1998) have supported the causal effect of attitude toward advertisement on behavioural intention. In view of the study's focus, perceptions toward advertisement entail significant impact on positive behavioural intention.

Attitude toward advertisement is extended to the mediating role in this study, as supported by Banwari (1990) and Shrimp (1981). Indirect relationship between celebrity credibility and behavioural intention is constructed in this study, through attitude formed. Goldsmith et al. (2000), as well as Lafferty & Goldsmith (1999) have also emphasized the sequential relationship under the influence of attitude toward advertisement within celebrity endorsement (celebrity credibility → attitude toward advertisement → purchase intention).In absent of direct relationship between celebrity credibility and purchase intention, Schouten (2008), Chaiken (1979) and Wu et al. (2012) have proposed positive attitude toward advertisement with high credibility of endorsers and advertisements. Choi & Rifon (2012) further justified the causal relationship of attitude toward advertisement on purchase intention. Thus, attitude formed toward advertisement acts as a medium in the influence of celebrity credibility on purchase intention. Likewise, Muralidrahan & Xue (2014) suggests the importance of marketplace conditions, advertised products, and celebrity's and viewer's attributes in determining advertising effectiveness on purchase intention.

Following the Theory of Identification, the study explores the implications of power, attractiveness and credibility on behavioural intentions and concept adoptions (Kelman, 1961, 2006). Access to external social stimuli further identifies the information in predicting consumer's potential behaviours (Lewisch, 2003). Extended by the Meaning Transfer Model (McCracken, 1989), the theory outlines the process of attitude formation and adoption with advertisement as the medium upon the influence of celebrity credibility, prior to behavioural intention. Meaning transfer influences the development of perceptions and evaluations on product brands, with alignment between endorsers and the endorsed products (Elina & Leila, 2010; Miller & Allen, 2012). Single situation in this study is explained through the application of both social science theories. This is outlined by Peak (2005) with celebrity characteristics alongside well-aligned advertising effort are key criteria toward potential consumptions. In congruence, the construct has justifies Mayer & Sparrowe's (2013) rationale, with the integration approaches of single phenomenon, with two theoretical perspectives.

5. Conclusion, Limitations & Implications

Reviews on the relationship between celebrity credibility and purchase intention recognize vague implication. Cultures and characteristics among celebrity endorsers exert substantial influence on consumerism within the footwear product market, yet, not directly. The sequential effect of celebrity credibility places high regards on developing positive attitude toward exposed advertising for underlying behavioural intention. Significant indirect effect of celebrity endorsers supports and extends meaning transfer between endorsers and consumers' potential purchases within this product market. Practicality of the findings acknowledges celebrity credibility as a factor to positive marketplace positioning through the

process of attitude change, as to support the theoretical integration between cultural identification and meaning transfer. While limitations lie within the study's focused nature, exploring wider range of social communities and areas in future research would entail targeted implications. Noted, that individual uniqueness in perceptions regarding celebrity credibility may entail dissimilar intentions and behaviours. Therefore, potential congruency between endorser and product holds essentiality to effective marketing within the marketplace.

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Logistics Information Systems (LIS) on the Go-Mobile Apps and Social Media

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Abstract: Logistics has evolved over the past few decades from transportation and warehousing to global Supply Chain Management (SCM). This requires the coordination of the flow of material, money and information. The velocity of doing business has increased and manual operations have been automated. Modern Logistic Information Systems (LIS) with all its logistics related sub systems are replacing muscle power with brain power and pencil and paper with smart phones and social media. The virtual aspect of logistics has become equally important to the physical realm of transportation and warehousing. Supply Chain Management (SCM) deals with getting the right stuff to the right people at the right time in the right amount. To accomplish this task there are a number of more or less integrated logistics software application. Demand forecasting models based on historical data from data marts and data warehouses with built in seasonality and pricing models. Load planning software to appropriately palletize, containerize and load trucks, trains and vessels. Route planning software with real time traffic and weather updates combined with Global Positioning Systems (GPS) to reduce transportation time and fuel costs. Warehouse Management Systems (WMS) to receive, put-away, store, receive and marshal the shipment. Electronic documents accompany the shipment from purchase order, letter of credit to customs clearing and back-haul charges. While these applications in the past have been mostly desktop applications used in the office at the management level, the move is to mobile applications. The footprint of LIS is getting smaller and is moving from the desktop to the Smartphone. At the core of any logistic information systems (LIS) is electronic communication. With the advent of the internet and social media personal communication has taken on other forms. With smart phones and tablets like the I-Phone and I-Pad e-commerce advanced to m-commerce. While technology enables the global supply chain, how do future logistics professionals feel about applying this cutting edge communication technology in their personal and professional lives? This quantitative study compares the aptitude of Thai logistics management students towards the use of social media and modern mobile telecommunication technology in their personal lives and in the context of professional use in connection with logistics information systems (LIS).

Keywords: *Logistics information systems (LIS); social media, supply chain management (SCM)*

1. Introduction

Logistics has changed over the past few decades and moved from transportation and warehousing to integrated logistics solutions which cover the entire life cycle of the supply chain starting with demand forecast and close with reverse logistics and recycling of the good created on the farm or factory which were received by the personal or industrial end users. Logistics as a profession moved from loading dock workers and teamsters to logistics management professionals. Where once physical labour dominated today the driving force which often is more critical than the movement of the goods itself is the electronic information flow. Having said that it is clear that today's logistics professional have to have a keen awareness of the capabilities of logistics information system (LIS) and how to apply them. In the old days computers were connected through a sneaker network carrying floppy disks from desktop to desktop and later through local network cables that often ran on the office floor before finding their way into the suspended ceiling. The internet changed all that and hard wired local area networks connected the office computers to each other and the rest of the world. The next step were wireless networks which not only allow smaller foot prints of devices to be used such as I-phones and I-pads but also allow computing 24/7 your space and place without being hard wired.

Logistics Information Systems (LIS) and its subsystems can be divided into the following categories:

- Electronic Data Interchange (EDI) introduced in the 1960s allows real-time data exchange mostly used back then among financial institutions and for commodity trading, EDI was the forerunner of the internet.
- Enterprise Resource Planning (ERP) deals with integrating the enterprise as a whole this applies in particular to third party logistics providers 3PL.
- Supply Chain Management (SCM) deals with getting the right stuff to the right people at the right time in the right quantity.
- Supplier Relationship Management (SRM) this software tries to accurately forecast the demand thereby reducing transportation and holding costs.
- Transportation Management Systems (TMS) what equipment and staff to use to ship it the fastest way and most cost efficient, selecting the right mode of transportation (land, water, air) loading the box, the crate, the container and the vehicle the most efficient way.
- Fleet Management software for all types of land, air, water based vehicles monitoring and managing every aspect of the vehicle and overall fleet performance.
- Marine Applications - shore based and vessel based, planning (cargo/vessel), chartering (voyage), operations (vessel/bunkers), post fixing (lay time, hire payable, claims).
- Aviation Applications - crew and equipment scheduling.
- Global Positioning System (GPS) allow the real time tracking of shipments around the globe through inexpensive mounted in various transportation systems.
- Warehouse Management Systems (WMS) how to manage warehouses of various forms and shapes with various special functions such as climate controlled warehouses, automated warehouses, as well as container yards, distribution centers and cross docking facilities.
- Automated Storage & Retrieval System (ASRS or AS/RS) consists of a variety of computer-controlled systems for automatically placing and retrieving very high volumes of loads from high density defined or variable storage locations. Man-aboard systems are not true AS/RS.
- Radio Frequency Identification (RFID) and its various form factors Electronic Product Code (EPC) are replacing barcodes and allow the tracking of individual items - Stock Keeping Units (SKU), cartons, pallets, containers and movement vehicles (trailer, wagon/train, vessel).

Without a doubt the computer literacy of elementary and high school students and in particular incoming undergraduate logistics management students is higher than ever before. Since early childhood even before they could talk, Asian kids are playing electronic games seemingly independently of the income level of parents. The question remains how does generation-y feel about applying their more or less intrinsic computer and electronic communication skills beyond the personal roam to the professional setting and in particular in connection with logistics information systems (LIS). Social media in an extended sense for the discussion in this paper includes the following:

- E-mail
- Facebook
- Line
- Skype
- SMS
- Smart Phones
- Video Phones

2. Literature Review

The secondary research and literature review for this paper looked at four main bodies of literature: management information system (MIS) literature, logistics literature, logistics information system (LIS)

literature and a new body of literature in communication that relates to social media. The logistics industry developed over centuries from a focus on transportation and warehousing to an integrated perspective on the flows of goods, money, documents and information. The global supply chain requires an integrated logistics management solution, which is technology enabled (Arnold, 2008). The scientific logistics information systems (LIS) literature is still relatively limited as it is a new academic research. Even the trade magazines for computer software and logistics have limited information when it comes to logistics software. The secondary information resources could be found on the vendors' websites, one has to be careful to distinguish between fact and hype of the software vendors. We also looked at the various categories of logistics software, Supply Chain Management (SCM), Enterprise Resource Planning (ERP), Supplier Relationship Management (SRM), Transportation Management Systems (TMS), Global Positioning System (GPS), Warehouse Management Systems (WMS), Electronic Data Interchange (EDI), and Radio Frequency Identification (RFID) for applied and theoretical research relation to what is generally referred to as Logistics Information Systems (LIS) (Baumgartner, 2001). The literature related to ERP and supply chain management (SCM) software (Gammelgaard & Larson, 2001), was most fruitful both in terms of cases studies and limited theory basses (Anderson, 2003). There has been some finding that application software related to logistics applications lack the integration across the entire enterprise spectrum, the most integrated solution also in terms of communication technology is provided by the German company SAP, but SAP for logistics applications is very expensive both in terms of licensing as well as implementation costs. The management information system (MIS) literature deals with the issues of how individuals and corporations embrace technology and modify their business processes to best make use of the changing technology or adopt technology to fit their existing processes both paper based and digital documents and communication (Markus & Robey, 1988).

Besides the technology roadmap, and technology integration a major issue in MIS is the interaction of humans and technology (Alavi & Car1son 1992). The technical issues are addressed in depth by computer engineering and computer science, the mayor problem is not technology but the human factor. Computer systems implementations following industry best practices are always a change management issue. Most people naturally resist change to a certain degree or another. MIS deals less with the technical programming and hardware issues and more with the difficulties at stake integrating the enterprise, departments and the individual stakeholders. A stakeholder analysis also contributes not only to establish user requirements but also to make the users a part of the development and implementation process of this new social media. There have been numerous studies related to MIS and change management but there are limited studies related to the use and implementation of modern communication technology and social media in the logistics industry. The literature on social media can be divided between those articles looking at the usage of social media in a personal and a business setting. For definitions and the history of social networks and media we referred to Boyd & Ellison (2007). Ahn in 2011 looked at which students participate in social media and what role the digital divide plays. What are the Differences among users and non-users of social network sites (Hargittai, 2007)? Lenhart, Purcell, Smith and Zickuhr (2010) explored social media & mobile internet use among teens and young adults.

3. Methodology

This quantitative study surveyed undergraduate Thai logistics management students in who studied in international programs at a Thai university. The survey was web-enabled based on the Moodle e-learning system of the university and available to students 24/7. The principal investigator (PI) developed a five point Likert scale survey instrument. This research measured the perception of logistics management students in regards to the usage of various kinds of information technology and social media both in a personal and profession context. The logistics management students were exposed to various logistics information systems LIS and social media throughout their undergraduate studies. The students were using the various software applications throughout the curriculum and were very familiar with the various types of social media applications as they were using them on a daily if not hourly basis The type of platform varied with the students, the majority was using Apple technology either in form of I-phone or I-pad and I-pad min. Other smart phones using android technology were less frequent and mostly limited to the Samsung brand. Only one student was using a Nokia Lumina Windows phone. The participating students were in their second year of the logistics program. The percentage of male and female participants reflects the distribution in the

logistics management workforce. There were 36 female respondents and 16 male, totalling 52 participants. The age distribution of the population was also representative of bachelor degree logistics management students. One quarter of the respondents 25% of the students were 20 years old, the majority 56% were 21 years old, and roughly 13% being 22 years of age, while only 6% were 23 years old. The data was analysed using excel and SPSS.

Table 1: Gender of Respondents

Gender of Respondents	Count	Frequency
Female	36	69.23%
Male	16	30.77%

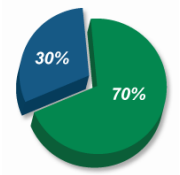


Table 2: Age of Respondents

Age of Respondents	Count	Frequency
20	13	25.00%
21	29	55.77%
22	7	13.46%
23	3	5.77%

4. Results

The results of the study can be summarized according to the following areas: i-phone ownership, i-pad ownership, and personal and business usage of e-mail, SMS, phone, video phone, Facebook, Google, LINE, Skype. It is important to point out that all participating students owned a smart-phone and or a tablet computer as well as a laptop computer and had access to WiFi.

I-Phone Ownership: The vast majority of the respondents (87%) owned an I-phone. Only 13% of the respondents did not own an I-phone. We did not ask what generation I-phone the respondents owned but from observations the majority owned the latest model I-phone 6 at the time of the survey. The rest of the I-phone owners only lacked one generation behind. I-phone owner ship is an important indicator how affluent and computer savvy the participating students were. It is obvious that access to smart phone technology was not a limiting factor and that the participants had sufficient hardware capacity to make ample use of the technologies and applications described in the following questions.

Table 3: I-Phone Ownership

I-Pad	I-Phone	Count	Frequency	Facility Index	SD	Discrimination Index	Discriminative Efficiency
	yes	45	86.54 %	86.54 %	34.46 %	9.84 %	13.36 %
	no	7	13.46 %				

Ownership: I-pad ownership is still less frequent than I-phone ownership. There may be various reasons for it. Choosing the smaller footprint of the I-phone may be more a practical preference for size than a financial limitation. Some of the respondents simply preferred a smaller size hand held device, while others may like the larger screen. Some others also opt for a laptop or an Android tablets; even so the Android tablets are less popular among the participants, price was found to be less of an issue than form factor preference and the use of the i-pad as a status symbol, despite the limited function usage on the i-pad mostly for face book and e-mail as well as the number one function taking pictures namely selfies.

Table 4: I-Pad Ownership

I-Pad	Count	Frequency	Facility Index	SD	Discrimination Index	Discriminative Efficiency
yes	28	53.85 %	53.85%	50.34 %	31.27 %	40.79 %
No	24	46.15 %				

E-Mail: The usage of e-mail for business purposes surprisingly has more positive than negative responses, one explanation might be that other social media has replaced e-mailing in the personal realm. We will explore this hypothesis in the following questions more in detail. Roughly 45% of the respondents like to use e-mail for both personal and business purposes. Only 2-5% don't like to use e-mail either for personal or business e-mails, this may be due to the fact that they either do not like to type or write, the later may be more reasonable as most students are very fast in typing on even the smallest keyboard.

Table 5: Personal E-Mail Usage

For personal use do you like to use e-mail?	Count	Frequency	Facility Index	SD	Discrimination Index	Discriminative Efficiency
love it	8	15.38%	15.38 %	36.43 %	9.65 %	16.85 %
like it	23	44.23%				
Ok	17	32.69%				
don't like it	3	5.77%				
hate it	1	1.92%				

Table 6: Business E-Mail Usage

For business use do you like to use e-mail?	Count	Frequency	Facility Index	SD	Discrimination Index	Discriminative Efficiency
love it	12	23.08%	23.08%	42.54 %	30.47 %	8.25 %
like it	24	46.15%				
Ok	14	26.92%				
don't like it	1	1.92%				
hate it	1	1.92%				

Table 7: Personal SMS Usage

For personal use do you like to use SMS?	Count	Frequency	Facility Index	SD	Discrimination Index	Discriminative Efficiency
love it	7	13.46%	13.46%	34.46 %	22.13 %	41.51 %
like it	24	46.15%				
Ok	13	25.00%				
don't like it	7	13.46%				
hate it	1	1.92%				

SMS: Roughly 5% less respondents like to use SMS for business than for personal usage. This is across the board from loving to use SMS to hating using SMS. Again over 50% of the respondents love or like to use SMS for personal uses. Often the SMS are preferred in situation where sound would disturb and voice calls could not be made such as in-class or during meetings. Many of the participants have a phone subscription package that includes a limited or unlimited number of SMS each month. Many packages allow unlimited SMS to in-network recipients. Also SMS are very cost effective when it comes to international messages around the globe and often SMS communication in writing is more efficient than voice communication especially for non-native speakers.

Table 8: Business SMS Usage

For business use do you like to use SMS?	Count	Frequency	Facility Index	SD	Discrimination Index	Discriminative Efficiency
love it	5	9.62%	9.62 %	29.77 %	23.85 %	49.04 %
like it	22	42.31%				
Ok	5	28.85%				
don't like it	8	15.38%				
hate it	2	3.85%				

Line Usage: Roughly 17% less respondents like to use LINE for business compared to personal usage. There is also a strong negative overall feeling about using LINE for business. More respondents have negative than positive feelings about using LINE aside from personal use. LINE can severely reduce the communication expenses of logistics companies and can add images and even video to the business communication. Line with photos is especially useful for shipping applications, where images of the cargo help. In addition LINE is currently free of charge except for possible Wi-Fi or data communication charges. Maybe respondents are also less interested in the potential savings for the company.

Table 9: Personal Line Usage

For personal use do you like to use LINE?	Count	Frequency	Facility Index	SD	Discrimination Index	Discriminative Efficiency
love it	34	65.38%	65.38 %	48.04 %	36.70 %	45.39 %
like it	14	26.92%				
Ok	3	5.77%				
don't like it	1	1.92%				
hate it	0	0.00%				

Table 10: Business Line Usage

For business use do you like to use LINE?	Count	Frequency	Facility Index	SD	Discrimination Index	Discriminative Efficiency
love it	25	48.08%	48.08%	50.45 %	37.72 %	49.32 %
like it	19	36.54%				
Ok	5	9.62%				
don't like it	2	3.85%				
hate it	1	1.92%				

Facebook Usage: Facebook usage appears to be less popular in the business setting than in the private setting. Company Facebook accounts are usually managed by designated company personal. Corporate Facebook accounts need to be carefully managed and monitored of any negative type of postings, which are usually quickly cleaned up.

Table 11: Personal Facebook Usage

For personal use do you like to use Facebook?	Count	Frequency	Facility Index	SD	Discrimination Index	Discriminative Efficiency
love it	19	36.54%	36.54 %	48.62 %	23.09 %	31.84 %
like it	23	44.23%				
Ok	9	17.31%				
don't like it	1	1.92%				
hate it	0	0.00%				

Table 12: Business Facebook Usage

For business use do you like to use Facebook?	Count	Frequency	Facility Index	SD	Discrimination Index	Discriminative Efficiency
love it	12	23.08%	23.08%	42.54 %	26.41 %	41.42 %
like it	21	40.38%				
Ok	13	25.00%				
don't like it	5	9.62%				
hate it	1	1.92%				

Google Usage: Approximately 5% of the users across the board feel less enthusiastic about using Google in a business setting while almost 90% of the respondents like or love to use Google for personal and assumable educational purposes.

Table 13: Personal Google Usage

For Personal use do you like to use Google?	Count	Frequency	Facility Index	SD	Discrimination Index	Discriminative Efficiency
love it	26	50.00%	50.00%	50.49 %	26.23 %	34.82 %
like it	20	38.46%				
Ok	5	9.62%				
don't like it	1	1.92%				
hate it	0	0.00%				

Table 14: Business Google Usage

For business use do you like to use Google?	Count	Frequency	Facility Index	SD	Discrimination Index	Discriminative Efficiency
love it	24	46.15%	46.15%	50.34 %	9.98 %	13.27 %
like it	19	36.54%				
Ok	8	15.38%				
don't like it	1	1.92%				
hate it	0	0.00%				

Phone Usage: It appears that for business purposes phone usage is still preferred, both mobile phone as well as land line phones. The old line don't call us we call you still applies. Even in their personal live 75% of the respondents still like or love to use the phone. Maybe the sound quality still surpasses those of other alternatives such as LINE and or Skype.

Table 15: Personal Phone Usage

For personal use do you like to make phone calls?	Count	Frequency	Facility Index	SD	Discrimination Index	Discriminative Efficiency
love it	22	42.31%	42.31 %	49.89.34 %	37.91 %	51.47 %
like it	18	34.62%				
Ok	12	23.08%				
don't like it	0	0.00%				
hate it	0	0.00%				

Table 16: Business Phone Usage

For business use do you like to make phone calls?	Count	Frequency	Facility Index	SD	Discrimination Index	Discriminative Efficiency
love it	23	44.23%	44.23%	50.15 %	31.67 %	42.50 %
like it	17	32.69%				
Ok	11	21.15%				
don't like it	1	1.92%				
hate it	0	0.00%				

Video Phone Usage: Video phone calls are more popular in the personal life than in the business life. But even in the personal setting under 50% of the participants like video calls. Most people don't want to be seen while they are making phone calls, either they are not happy with their appearance or the appearance of their surroundings. Future smart phone will allow the user to choose a backdrop for video calls. Video calls allow users share life images which are critical in a business environment for a correct situation assessment of the problem at hand. In the logistics business this allows to transmit vehicle accidents and breakdowns as well as condition of shipments at time of departure or arrival. Video calls can be made by using smart phones with line or What's UP or even Skype which brings us to the next topic.

Table 17: Personal Video Phone Usage

For personal use do you like to make video phone calls?	Count	Frequency	Facility Index	SD	Discrimination Index	Discriminative Efficiency
love it	10	19.23%	19.23%	39.80 %	32.63 %	55.27 %
like it	16	30.77%				
Ok	16	30.77%				
don't like it	8	15.38%				
hate it	2	3.85%				

Table 18: Business Video Phone Usage

For business use do you like to make video phone calls?	Count	Frequency	Facility Index	SD	Discrimination Index	Discriminative Efficiency
love it	8	15.38%	15.38%	36.43 %	26.39 %	47.93 %
like it	17	32.69%				
Ok	15	28.85%				
don't like it	11	21.15%				
hate it	1	1.92%				

Skype Usage: Skype usage is great for long distance communication. Skype is not as popular with the students as some other communication means. Skype is particular popular for communication between continents, countries and different cities. Skype is playing an increasing role in business communication, replacing travel and conference calls. Skype allows users from various locations join in a conference call. Business travel has decreased over the years since 9/11. Students have to get used to on-line interviews before being invited to an in-person on site interview.

Table 19: Personal Skype Usage

For personal use do you like to use Skype?	Count	Frequency	Facility Index	SD	Discrimination Index	Discriminative Efficiency
love it	10	19.23%	19.23%	39.80 %	35.25 %	60.47 %
like it	18	34.62%				
Ok	16	30.77%				
don't like it	7	13.46%				
hate it	1	1.92%				

Table 20: Business Skype Usage

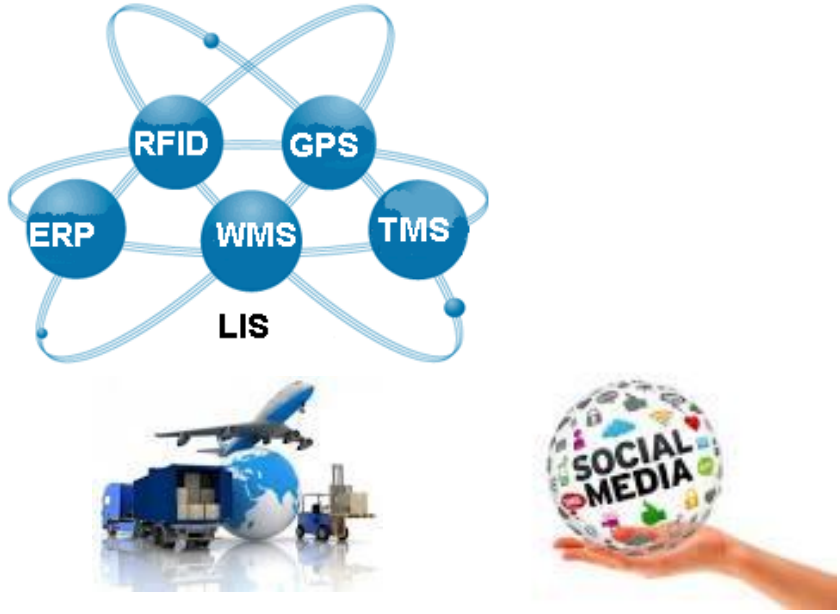
For business use do you like to use Skype?	Count	Frequency	Facility Index	SD	Discrimination Index	Discriminative Efficiency
love it	9	17.31%	17.31%	38.20 %	27.75 %	48.02 %
like it	17	32.69%				
Ok	15	28.85%				
don't like it	9	17.31%				
hate it	1	1.92%				

Discussion: The discussion of using social media outside the personal realm for business usage is continuing. Even so Generation-Y embraces communication technology and talk when and where they are not suppose to; they are less motivated to use the same technology for business use. This brings up a further discussion of to what an extent an employee is obligated to check and respond to electronic communication. In the old days employees could simple claim that they are out of the office, range or country, today everyone can be reached 24/7 anywhere around the world at least in theory. There are very few excuses why not to check or respond to e-mail and phone messages and social media in a timely fashion. This generation certainly looks at logistics information systems (LIS) differently than previous generations, and see it an integral part of the profession. Our virtual identify has taken on an important role, and it is almost more important who we are in this virtual reality than in person. So while today's logistics management students are busy managing their virtual identity and presence will they apply the same diligence in their professional lives and even increase the velocity of doing business more.

5. Conclusion

A simplified completion could be that people always do what they are not supposed to do. When in class they not suppose to use social media, when at work they should respond to calls and e-mail as well as social media for business usage. Across the board in every category about 5% less respondents like to use the various technologies for business purposes than for personal use. One could hypothesize that consistency may indicate that the 5% are the same respondents across all research questions. It certainly would be worthwhile to replicate the study with a larger population and also conduct a comparative study in terms of logistics professionals in various ASEAN countries as well as in Europe, Australia, Africa and America Web-enabled solutions which can be accessed either by PC, tablet, or smart phone are today's user preference, while desk top applications still dominate the Thai market. In conclusion the respondents still have to learn to embrace mobile communication and social media as part of Logistics Information Systems (LIS).

Fig. 1: Logistics Information Systems (LIS) & Social Media



Recommendations: It is recommended to follow-up this study with a larger population, and also over time as the students enters the profession and how their social media will change from personal to professional. It also would be interesting to see how other ASEAN countries compare. Also a comparison with European and US users would be of interest. It will be especially interesting to see what social media platforms will dominate the LIS market in the future.

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The Relationships among Buyers' Perceived Risk, Exhibitors' Brand Equity, Purchase Postponement and Switching Intention-From the Perspectives of Perceived Risk Theory and Expectancy Theory

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Abstract: This study explores the effects of buyers' perceived risk on their purchase postponement and switching intention in an international industrial fair, as well as examines the moderating effect of exhibitors' brand equity on the above relationships. This study uses the purposive sampling method to survey buyers of the famous International Woodworking Machine Fair in Hanover, Germany. Of the 200 surveys distributed, 105 valid questionnaires were returned, representing a response rate of 52.50%. Analytical results show that higher buyers' perceived risk is associated with buyers' higher purchase postponement, and stronger switching intention. Furthermore, when facing high-brand equity exhibitors' products, if buyers perceive low risk of use, they are unlikely to delay purchase and switch suppliers; in contrast, if they perceive high risk of use, they are more likely to delay purchase and switch suppliers. Finally, when buyers face low-brand equity exhibitors' products, if they perceive low risk of use, they will delay purchase and switch suppliers; in contrast, if they perceive high risk of use, they will tend not to delay purchase and switch suppliers.

Keywords: *Perceived Risk, Brand Equity, Purchase Postponement, Switching Intention*

1. Introduction

Exhibitions have become increasingly important to companies. In related studies, Kirchgeorg, Jung, & Klante (2010) noted that an increasing number of exhibitors are seeking the conditions to ensure future success, and exhibitions are a major tool for companies to achieve sales objectives and contact with buyers (Blythe, 2010). In addition, many marketing experts believe exhibitions represent a level playing field and make a small company appear to be bigger (Tanner, 2002). Therefore, if exhibitors can take advantage of each trade fair opportunity and dedicate toward marketing their own brands, their orders will increase consistently and a small company may perhaps transform to become a large company. Previous researches on exhibition mostly dealt with trade show performance (i.e., overall success, sales-related, image-buildings, information-gatherings and so on) (e.g., Dekimpe, Francois, Gopalakrishna, Lilien, & Van den Bulte, 1997; Gopalakrishna & Lilien, 1995; Gopalakrishna, Lilien, Williams, & Sequeira 1995; Hansen, 2004; Hung, Lee, & Zhuang, 2015; Kerin & Cron, 1987; Lee & Kim, 2008; Lee, Lee, & Yoon, 2013; Li, 2006, 2007; Seringhaus & Rosson, 2001;

Tanner, 2002), but none addressed the negative issues arising from trade fairs. In fact, fair visitors' purchase could be delayed because there are too many exhibitor products to choose from. Moreover, if buyers purchased an unsuitable machine prior to the fair, they could be trying to find a replacement product at the fair. As a result, they may choose to switch supplier.

If exhibitors are concerned about visitors' purchase postponement and switching intention, they have to understand the reasons affecting buyers' intention of the aforementioned behaviors. Previous studies classified perceived risk as the key factor affecting consumers' decisions and behaviors (e.g., Featherman & Pavlou, 2003; Fraedrich & Ferrell, 1992; Liao, Lin, & Liu, 2010; Mitchell, 1992; Pavlou, 2003). Therefore, if fair visitors perceive a high risk that the exhibitors' products would be unsuitable, their purchase postponement and switching intention would very likely be affected. Worth noting is that brand equity is an important factor for businesses to maintain competitive advantage and profitability (Aaker, 1991). If exhibitors possess high brand equity, they should still have competitive advantages in a hyper-competitive exhibition. Therefore, would buyers' perceived risk affect their purchase postponement and switching intention? Would there be differences caused by exhibitors' brand equity? According to the above, this study tried to fill the said research gap and surveyed the visitors of the International Woodworking Machine Fair in Hanover, Germany to discuss the effect of buyers' perceived risk on exhibitors' purchase postponement and switching intention, as well as the moderating role of exhibitors' brand equity on the above relationships.

2. Literature Review

Related Studies of Exhibition: Previous researches on exhibition mostly dealt with trade show performance (i.e., overall success, sales-related, image-buildings, information-gatherings and so on) (e.g., Dekimpe et al., 1997; Gopalakrishna & Lilien, 1995; Gopalakrishna et al., 1995; Hansen, 2004; Kerin & Cron, 1987; Lee & Kim, 2008; Li, 2006, 2007; Seringhaus & Rosson 2001; Tanner, 2002). Godar & O'Connor (2001) discussed the motivation of industrial buyers in attending trade shows and used the concept of buying centers to establish the sellers' classification of visitors. Buyers were classified into existing buyers, potential customers, and non-buyers and the motivation of these 3 groups was discussed. Kirchgeorg et al. (2010) explored the major factors turning exhibitions into a marketing tool before 2020. The study found that trade shows are an important marketing tool and that the organizers of the shows are in a highly competitive market. While the above studies focus on the perspectives of exhibitors or organizers, this study examines the effect of buyers' perceived risk on their purchase postponement and switching intention, and examines moderating role of brand equity from the standpoint of visitors.

Expectancy Theory: The expectancy theory is a motivation theory based on personal expectations. The theory proposes that a person will decide to behave or act in a certain way because they are motivated to

select a specific behavior over other behaviors due to what they expect the result of that selected behavior will be (Vroom, 1964). The individual makes choices based on estimates of how well the expected results of a given behavior are going to match up with or eventually lead to the desired results. Motivation is a product of the individual's expectancy that a certain effort will lead to the intended performance, the instrumentality of this performance to achieving a certain result, and the desirability of this result for the individual. According to the expectancy theory, (Mitchell & Biglan, 1971; Vroom, 1964), affected by two types of expectations, the individual would be encouraged to adopt a specific behavior. The first type of expectancy is the belief that one's effort will result in attainment of desired performance goals and the second type of expectancy is the belief that a person will receive a reward if the performance expectation is met. These two expectancies interact with each other and with the valence (attractiveness) of outcomes to determine the overall level of motivation (Harder, 1991).

Purchase Postponement: Greenleaf & Lehmann (1995) found that consumers would delay purchase decisions if they confront difficulties when choosing from multiple options. The reason for this is that people are sometimes unsure which alternative they prefer (because the alternatives are similar in attractiveness), thereby causing purchasing delay (Dhar, 1997). Jacoby & Morrin (1998) noted that if consumers are confused about the product choices, suboptimal purchase decision is unlikely as they need more time to formulate decisions or they would delay purchase or even abandon purchase. A research of Dutta & Biswas (2005) found that to enhance consumers' purchase value, retailers might provide a low price guarantee. As a result, consumers may defer their purchase in order to search for products with much lower prices. Walsh, Hennig-Thurau, & Mitchell (2007) discovered that consumers' confusion proneness would cause purchase delay. For international industrial fair visitors, they have to spend time evaluating and comparing products before choosing the most suitable one because there are generally a variety of products displayed by the exhibitors. In other words, purchase postponement is likely to occur in international industrial fairs.

Switching Intention: Switching intention denotes the propensity to terminate the primary supplier (buyer–seller) relationship (Ping, 1994). According to Keaveney (1995), switching intention is important toward understanding consumer behaviors. The mental inclination indicates that customers are switching to another and terminating the purchasing from the present brand. Sloot & Verhoef (2008) defined switching intention as the degree to which a consumer is likely to switch to another brand within the category in the case of a brand delisting. For international industrial fair visitors, if they are inclined to stop using products from the major supplier, they could switch to products of other suppliers. Therefore, they would prefer to search for and compare similar products displayed in the fair.

Perceived Risk, Purchase Postponement and Switching Intention: Perceived risk was originally developed from the theories of psychology by Bauer (1960), who viewed consumer behavior as an instance of "risk taking" because consumers bear some degree of risks when considering the purchase of a product if they are unable to ascertain a product's performance. Cox (1967) elaborated Bauer's conceptualization and further proposed the perceived risk theory, pointing out the consumer's uncertainty that all of his buying goals can be achieved or expectations of unfavorable purchase outcomes would lead to perceived risk. Dowling & Staelin (1994) defined perceived risk as a consumer's perceptions of the uncertainty and adverse consequences of engaging in an activity, while Sweeney, Soutar & Johnson (1999) viewed perceived risk as a subjective expectation of loss. Perceived risk is a form of uncertainty resulting from the negative results caused by individual behaviors; increasing uncertainty and higher degree of eliciting negative results are associated with higher degree of perceived risk (Campbell & Goodstein, 2001; Featherman & Pavlou, 2003). This study adopts Dowling & Staelin's (1994) conceptualization that in the international machinery trade fair setting, buyers' perceived risk is the expectation of likelihood that they would run into problems on use after they purchase an exhibitor's product.

From the perspective of the perceived risk theory (Cox, 1967), if buyers are unable to determine what type of purchase would meet their purchase goals or are concerned that the experience of product use may fail their expectations, they would perceive low value about the product (Wu, Vassileva, Noorian & Zhao, 2015) and become uncertain and be unable to place orders immediately. According to the above, we posit the following hypothesis:

H1: the higher buyers' perceived risk on exhibitors' products is, the more their purchase postponement will be.

Grewal, Iyer, Gotlieb and Levy (2007) argued that the post-purchase risk has a negative effect on repeat behavior intentions. According to the perceived risk theory (Cox, 1967), if buyers are uncertain about their purchase goals or concerned that the exhibitors' products may fail their expectations, they may wish to purchase other more suitable products. Exhibitors in trade fairs provide machinery and equipment that have different functions but achieve similar objectives. When buyers perceive these products as low-risk products, they may intend to switch supplier. According to the above, we posit the following hypothesis:

H2: The Higher buyers' perceived risk on exhibitors' products is, the more switching supplier's intention will be.

Moderating Role of Brand Equity: Brand equity is one of the most valuable intangible assets of a company. The concept of brand equity was first used in U.S.' advertising sector in the early 80s (Barwise, 1993) and then drew heated discussion in the scholastic field in the late 80s (Keller, 1993). Brand equity represents the added value with which a given brand endows a product (Farquhar, 1989; Yoo & Donth, 2001). Keller (1993) defined brand equity from the customer perspective as the differential effect that brand knowledge has on

consumer response to the marketing of that brand. Aaker (1995) defined brand equity as a set of brand assets and liabilities linked to a brand that add to or subtract from the value provided by the product or service. Brand assets include aspects like brand loyalty, brand awareness, perceived quality, brand association, and over accessory assets (like patents and trademarks). Brand equity is the added value of product and service. This added value may be revealed in how customers consider, feel and act with the respect to a brand, as well as the prices, market share and profitability that the brand commands for the company (Kotler & Keller, 2009). This study adopts Farquhar (1989) and Yoo & Donth's (2001) viewpoints, that for exhibitors of international industrial fairs, the brand can add to or subtract from the fair attendees' perception of product utility and value.

Although buyers' perceived risk would raise their purchase postponement and switching intention, these relationships depend on exhibitors' brand equity. According to the expectancy theory, high brand equity products give buyers a perception that the price and quality is higher, and it tells that product quality is fair for the price (Kim & Hyun, 2011). If buyers perceive high brand equity exhibitors' products as having high risk on use, they expect to subsequently spend more on the products. Therefore, buyers are very likely to postpone their purchase or switch suppliers. In contrast, if buyers perceive high brand equity exhibitors' products as having low risk on use, they expect to subsequently spend less on the maintenance cost. Therefore, buyers are very unlikely to postpone their purchase or switch suppliers. According to the expectancy theory, low brand equity products give buyers a perception that the price and quality are inferior. If buyers perceive low brand equity exhibitors' products as having high risk on use, they are unlikely to postpone purchase or switch suppliers due to the low price and lack of unhappy experience in the past. In contrast, if buyers perceive low brand equity exhibitors' products as having low risk on use and if other low-price machines and equipment are offered by other low brand equity, buyers are very likely to postpone their purchase or switch suppliers even though they did not have previously unhappy experience on use. According to the above, we posit the following hypotheses:

H3: exhibitors' brand equity has a positive moderating effect on the relationship between buyers' perceived risk *and purchase postponement*

H4: exhibitors' brand equity has a positive moderating effect on the relationship between buyers' perceived risk *and switching intention*

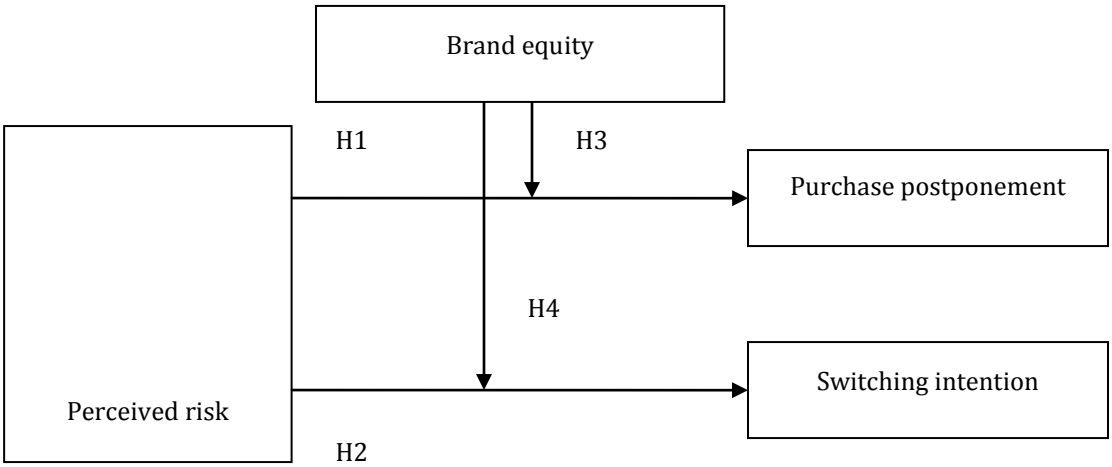
3. Methodology

Participants and Sampling Methods: Considering that LIGNA is a top-notch woodworking and wood processing industry affair, this study uses the purposive sampling method to survey buyers from around the world during the famous international woodworking machine fair in 2013. In total, 200 surveys were

distributed and 111 were returned. After eliminating 6 invalid surveys, valid surveys totaled 105 (response rate 52.50%). Among the 105 respondents, most had 5-9 years of job experience (40.00%), followed by 10-14 years (26.70%). Most respondents had a current industry in home furniture manufacturing (43.80%), followed by machine sales (18.10%) and machine manufacturing (16.20%). As for job title, most respondents were general manager (36.20%), followed by business owner (27.60%).

According to the above literature review and hypotheses, the research framework of this study is presented in Figure 1.

Figure 1: Conceptual Framework



Operational Definitions, Measurement Tools of Research Variables: Details of the operational definitions and measurement tools of the major research variables in this study are provided as follows:

Purchase Postponement: This study defines purchase postponement as "buyers at international industrial fairs have many products to choose from. They must spend time to evaluate, compare, and choose the most suitable products, which may elicit purchase postponement." Referencing Walsh et al. (2007), this study used 4 items to measure purchase postponement: "It is difficult for me to make decision on buying the same machine from the same seller in the trade fair", "When I have intention to purchase, I will like to delay this decision", "I tend to postpone purchasing the same product from the same seller in the trade fair" and "In the trade fair, there are so many choices; so to purchase will take longer than expected". The respondents were requested to indicate on a 5-point Likert scale (1='totally disagree' to 5='totally agree') the degree to which they perceived their purchase intention.

Switching Intention: This study defines switching intention as "when international trade fair buyers do not intend to continue using products from their existing supplier, they switch to other companies' products." Referencing Oliver & Swan (1989), this study used 3 items to measure switching intention: "I don't want to buy the same product from the same seller; I want to buy other product from a new seller in the trade fair", "Probably, not to buy the same product from the same seller; I will like to buy other product from a new seller

in the trade fair" and "Certainly, I don't want to buy the same product from the same seller; I will like to buy other product from a new seller in the trade fair". The respondents were requested to indicate on a 5-point Likert scale (1='totally disagree' to 5='totally agree') the degree to which they perceived their purchase intention.

Perceived Risk: In this study, perceived risk is operationally defined as the level that international industrial fair buyers perceived the risk on product use when they consider purchasing exhibitors' products. Referencing Sinha & Batra (1999), This study used 4 items to measure perceived risk: "When I choose the same brand from the same seller, it is a serious mistake if I buy a wrong machine in the trade fair;" "In the trade fair, I will go too wrong if I buy the wrong model from the same seller;" If, after I bought the same model from the same seller, if my choice proved to be wrong, I would be really upset;" and "When I choose the same model from the same seller, I still will make that choice very carefully in the trade fair." The respondents were requested to indicate on a 5-point Likert scale (1='totally disagree' to 5='totally agree') the degree to which they perceived the risks of exhibitor's products.

Brand Equity: In this study, brand equity is operationally defined as the feelings of performance and value enhancement perceived by exhibition booth visitors elicited by the exhibitor's brand name. To measure brand equity, a 4-item scale was adopted by Yoo & Donth (2001). Items included: "Although each brand is very similar, I still insist on purchasing products from this brand;" "Although other brands have similar characteristics with this brand, I still prefer to buy this brand;" If other brands are equally good as this brand, I still prefer to buy this brand;" and "If other brands are not very different from this brand, buying this brand is a smarter choice." The respondents were requested to indicate on a 5-point Likert scale (1='totally disagree' to 5='totally agree') the degree to which they perceived the exhibitor's brand equity.

Control Variables: This study controlled variables like buyers' work experience, current industry and job title as these factors are considered influential of purchase postponement and switching intention.

Reliability and Validity: Both the reliability and the validity of the measures were examined. This work used Cronbach's α to assess the reliability of the measures. Cronbach's α was <0.7 and item-total correlation was <0.45. The standards described above were used to delete items. Cronbach's α was 0.86 for purchase postponement, 0.92 for switching intention, 0.89 for perceived risk and 0.88 for brand equity. Each scale demonstrated satisfactory reliability (α exceeding 0.70). In order to minimize the common method variance (CMV) bias, Podsakoff, Mackenzie, Lee & Podsakoff (2003) had suggested the following preventive methods: (1) adding reverse items in the questionnaire, (2) randomly arranging measuring items in the questionnaire, (3) concealing the purpose of the study, and (4) concealing the relationship between questions. Thus, the questionnaire was formulated based on the principles suggested by Podsakoff et al. (2003), including reverse items, random item arrangement, anonymity, and concealing the purpose of the study.

Furthermore, this study followed the procedure proposed by Noble & Mokwa (1999), and performed a series of confirmatory factor analyses on construct measures and related items using the AMOS 6.0 software. Generally, the measures were acceptable, with all of the constructs having overall acceptable fit indices. The values of average variance extracted (AVE) were 0.61 for purchase postponement, 0.80 for switching intention, 0.69 for perceived risk and 0.66 for brand equity. All constructs exceeded a suggested critical value of 0.50 (Fornell & Larcker, 1981). The analytical results validated the convergent validity of the constructs. Discriminant validity can be established by demonstrating that the AVE by a particular construct from its indicators is greater than its squared correlation (shared variance) with another construct (Fornell & Larcker, 1981). Each squared phi coefficient between purchase postponement and every other variable was examined. The analytical results indicated that almost each construct's AVE was greater than its shared variance with purchase postponement. The shared variances between purchase postponement and perceived risk, switching intention, and brand equity were 0.06, 0.11 and 0.37, respectively. The analytical results confirmed the discriminant validity of the constructs.

4. Results

The means, standard deviations, bivariate correlations among the variables are reported in Table 1.

Table 1: Descriptive Statistics and Correlation Coefficients

Variable	Means	S.D.	1	2	3	4
1. Perceived risk	3.51	0.78	1			
2. Purchase postponement	3.04	0.78	.251**	1		
3. Switching intention	3.27	0.84	.248*	.609**	1	
4. Brand equity	3.33	0.81	.591**	.329**	.176	1

Note: n=105. *p<0.05, **p<0.01

The Effect of Perceived Risk on Purchase Postponement and Switching Intention: Hypothesis 1 concerns the relationship between perceived risk and purchase postponement. Table 2 presents the results of multiple regression analyses, with perceived risk as independent variable, purchase postponement as the dependent variable, and job experience, current industry, and job title as the control variables. Table 2 shows that perceived risk has a positive and significant effect on purchase postponement ($\beta = 0.25$, $p < .05$). Therefore, Hypothesis 1 is supported.

Table 2: Results of Multiple Regression Analysis

Dependent variable statistics Independent variables	Purchase postponement	Switching intention
Job experience	-0.25*	-0.25**
Current industry	0.05	0.27**
Job title	-0.15	-0.40***
Perceived risk	0.25*	0.28**
R^2	0.14	0.38
Adjusted R^2	0.10	0.36
F	3.80**	15.13***

Note: all statistical figures are β values; * p<.05, ** p<.01, *** p<.001.

Hypothesis 2 concerns the relationship between perceived risk and switching intention. Table 2 presents the results of multiple regression analyses, with perceived risk as independent variable, switching intention as the dependent variable, and job experience, current industry, and job title as the control variables. Table 2 shows that perceived risk has a positive and significant effect on switching intention (β=0.28, p< .01). Therefore, Hypothesis 2 is supported.

The Moderating Effect of Brand Equity: Hypothesis 3 concerns whether brand equity moderates the relationship between perceived risk and purchase postponement. Table 3 shows: the interaction between perceived risk and brand equity significantly predicted purchase postponement (β=1.98, p<.01). As shown in Figure 2, when buyers face high brand equity exhibitors' products, if they perceive high risk on using exhibitors' products, they will tend to delay the purchase; in contrast, if buyers perceive low risk on using exhibitors' products, they will tend not to delay the purchase. When buyers face low brand equity exhibitors' products, if they perceive high risk on using exhibitors' products, they will tend not to delay the purchase; in contrast, if buyers perceive low risk on using exhibitors' products, they will tend to delay the purchase. As such, Hypothesis 3 is supported.

Table 3: Moderating Effect of Brand Equity

Dependent variable Statistics Independent Variables	Purchase postponement	Switching intention
Job experience	-0.14	-0.20*
Current industry	0.07	0.27**
Job title	-0.21*	-0.42***
Perceived risk	-0.90**	-0.31
Brand equity	-0.88*	-0.59
Perceived risk × Brand equity	1.98**	1.107*
R^2	0.28	0.42
Adjusted R^2	0.23	0.38
F	6.00***	11.30***

Note: all statistical figures are β values; * p<.05, ** p<.01, *** p<.001.

Hypothesis 4 concerns whether brand equity moderates the relationship between perceived risk and switching intention. Table 3 shows: the interaction between perceived risk and brand equity significantly predicted switching intention (β=1.11, p<.05). As shown in Figure 3, when buyers face high brand equity exhibitors' products, if they perceive high risk on using exhibitors' products, they will tend to switch suppliers; in contrast, if buyers perceive low risk on using exhibitors' products, they will tend not to switch suppliers. When buyers face low-brand equity exhibitors' products, if they perceive high risk on using exhibitors' products, they will tend not to switch suppliers; in contrast, if buyers perceive low risk on using exhibitors' products, they will tend to switch suppliers. As such, Hypothesis 4 is supported.

Figure 2: Moderating Effect of Brand Equity on the Relationship between Perceived Risk and Purchase Postponement

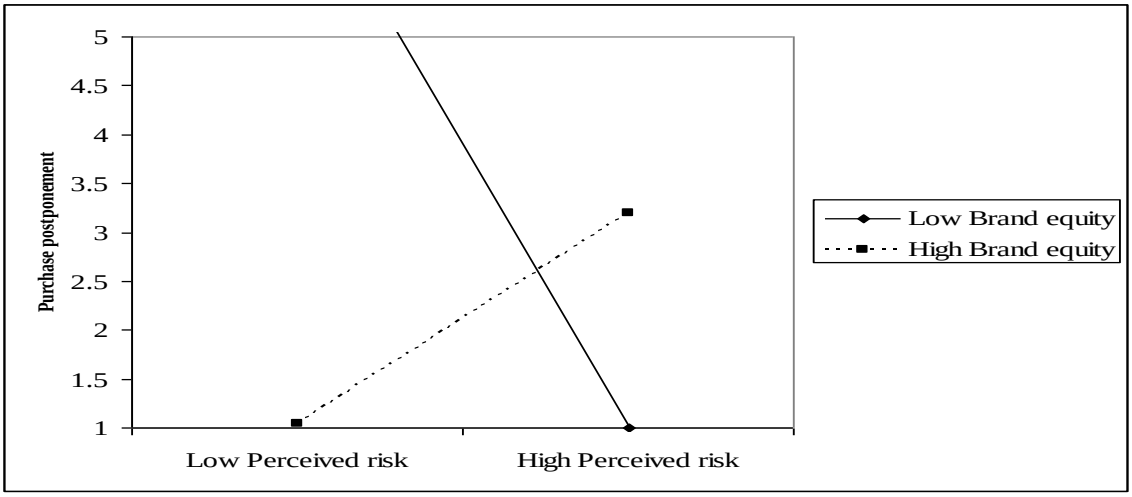
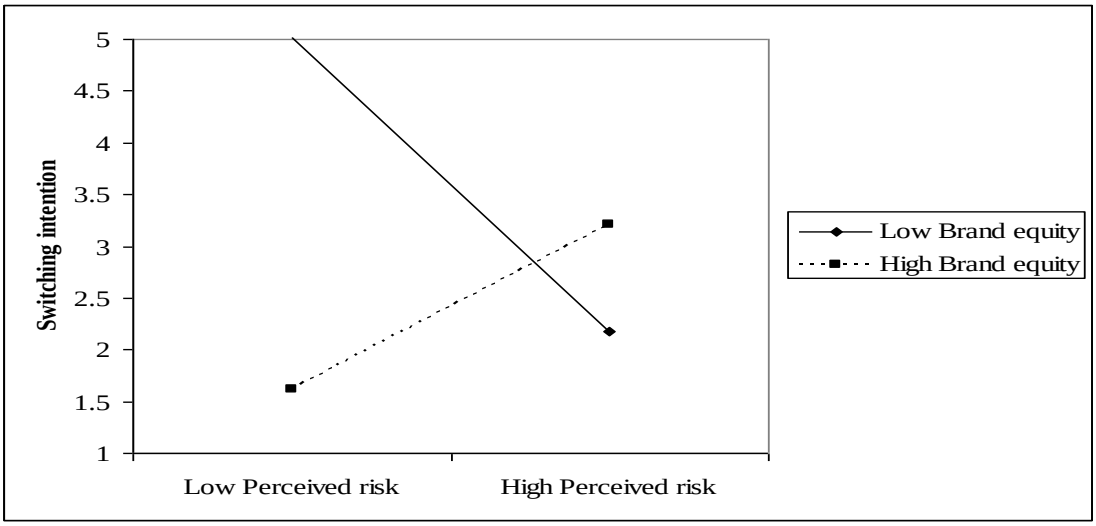


Figure 3: Moderating Effect of Brand Equity on the Relationship between Perceived Risk and Switching Intention



Discussion: Due to the fact that growing global competition has led to increasing pressure to improve the efficiency and effectiveness of both marketing and procurement efforts in business-to-business (B2B) markets (Ng, 2010). Industrial trade shows (B2B trade shows) are becoming increasingly important for sellers and buyers (Godar & O'Connor, 2001). This study contributes to the literature of trade fairs, especially industrial trade fairs. In contrast to the majority of literature on exhibition performance, this study approached the issue from the standpoint of negative factors. This study also explored the effects of fair visitors' perceived risk on their purchase postponement and switching intention, and further examined the moderating role of exhibitors' brand equity. The analytical interpretation and practical implications of this study have high reference value to exhibitors of international mechanical fairs.

5. Conclusion

As expected, the higher fair visitors' perceived risk is, the more their purchase postponement and switching intention will be. Besides, when buyers face high brand equity exhibitors' products if they perceive low risk on use, they will tend not to delay purchase and switch suppliers; in contrast, if buyers perceive high risk on use, they will tend to delay purchase and switch suppliers. Finally, when buyers face low brand equity exhibitors' products if they perceive low risk on use, they will tend to delay purchase and switch suppliers; in contrast, if buyers perceive high risk on use, they will tend not to delay purchase and switch suppliers.

Managerial Implications: Although the concept of perceived risk has received relatively less attention (Snoj, Korda & Mumel, 2004), it is an important factor influencing consumers' purchase intention. Our analytic results indicate that fair visitors' perceived risk on exhibitors' products will positively affect their purchase postponement and switching intention. Thus, exhibitors must put in extra effort to reduce buyers' perceived risk. For industrial buyers, they are often concerned about the past manufacturing experience, product sales, and after-sales maintenance service of suppliers. This study suggests that exhibitors provide the above information to visitors. In particular, they can service local buyers through local dealers or distributors with different capabilities in order to lower buyers' perceived risk and shorten the after-sales service time to meet buyers' expectation.

Moreover, this study discovered that when buyers face high brand equity exhibitors' products if they perceive low risk on use, they will tend not to delay purchase and switch suppliers. When the risk on use is low, buyers will generally have higher expectations of the high brand equity exhibitors' products and are unwilling to shoulder the higher switching risk. Therefore, buyers are less likely to have purchase postponement or switching intention. In contrast, if buyers perceive high risk on use, they are more likely to have purchase postponement and switching intention. In the case of high risk on use, buyers would consider whether it is worthwhile to pay a high price to purchase high brand equity exhibitors' products given a similar risk level.

They would look for replacement suppliers or products in the trade fair and thus their purchase postponement and switching intention are high.

Thus, this study suggests that high brand equity exhibitors design different marketing strategies for these two types of buyers. For low perceived risk buyers, high brand equity exhibitors can, given cost considerations, use discounts to respond to the competition and let buyers have room for bargain in order to raise the probability of buyers' order placement. For high perceived risk buyers, high brand equity exhibitors must proactively provide buyers with the information on the strength and weakness of their products compared to those offered by their competitors. Also, exhibitors should emphasize their comprehensive after-sales service and product warranty period in an effort to decrease these buyers' perceived risk.

In terms of customers' product use, brand equity can achieve the feelings of utility increase and added value (Farquhar, 1989; Yoo & Donth, 2001). However, this does not mean that low brand equity exhibitors do not have a chance to sell their products. This study finds that when buyers face low brand equity exhibitors' products if they perceive low risk on use, they will tend to delay purchase and switch suppliers. When buyers perceive low risk on use, they generally have low expectations on low brand equity exhibitors' products. Since the risk on use of the product is very low, buyers hope to find a replacement supplier or product in the trade show. Therefore, they tend to delay their purchase. Also, if they find products with much lower price in the trade fair, they may intend to switch suppliers. In contrast, if the risk on use is very high, the intention of purchase postponement and switching suppliers is low. When buyers perceive high risk on use, the search for high brand equity exhibitors is not without risk and buyers have to make purchases at a higher price. Therefore, they are unwilling to switch suppliers. Also, they have to bear switching risk. As a result, they are less likely to postpone purchase and switch suppliers.

Therefore, this study suggests that low brand equity exhibitors design different marketing strategies for these two types of buyers. For low perceived risk buyers, low brand equity exhibitors' products are unable to provide visitors with additional information such as past manufacturing experience and product sales results, as well as comprehensive after-sales service. Therefore, exhibitors have to focus on pricing as the main form of competition. These exhibitors have to emphasize on their past manufacturing, areas that they could be trusted, and product sales results. Also, according to buyers' needs, they should provide customized after-sales service and proactively provide information on homogenous and replaceable products in order to reduce buyers' probability of purchase postponement and switching intention. For high perceived risk buyers, low brand equity exhibitors should use a low-price strategy to attract buyers. Also, they should convince buyers through technically advanced dealers and distributors. Especially, they should lower buyers' perceived risk and shorten after-sales service time in order to meet buyers' expectations. Furthermore, they

should give buyers a feeling that the products they purchase are well worth the value so as to reduce the probability of buyers' purchase postponement and switching intention. The above research results differ somewhat from the consumer behaviors of general consumption products. Relative to consumer products, industrial products carry higher price tags and the risk associated with a wrong purchase is high and thus buyers have to strike a balance between price and risk. These are the reasons why the buyers' behaviors are different than those of general consumption.

Limitations: This study adopts Sinha & Batra (1999) single-dimension scale to measure perceived risk. However, Jacoby & Kaplan (1972) distinguished perceived risk into: performance risk, financial risk, social risk, physical risk and psychological risk. Thus, this study suggests future research to adopt the above dimensions in examining exhibitors' perceived risk in international industrial fairs. This study adopts Yoo & Donth (2001) single-dimension scale to measure brand equity. However, previous studies have used other variables such as brand associations, perceived quality, and brand loyalty to measure brand equity (e.g., Biedenbach, Bengtsson & Wincent, 2011). Therefore, this study suggests future research to adopt the above dimensions in examining exhibitors' brand equity in international industrial fairs. In addition, this study did not study the nationalities of the exhibitors and buyers. This research recommends that future studies follow the research framework of this study and conduct a pair-wise comparison between exhibitors and buyers in order to examine the differences in the research results from different nationality pairing.

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The Impact of Foreign Direct Investment on Economic Growth in Nigeria

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Abstract: The economic development performance can be used to measure the economic growth of a given country. In economic analysis, a country can attain economic growth through the growth in national income measurement. However, there were rigorous discussions on the role of foreign direct investment (FDI) on economic growth and continued to be a topic of discussion on the contemporary economy. This paper serves as an extension to the previous empirical studies on the issue by providing some evidence from time series data for the period 1971 to 2013 of Nigeria. The primary aim of this study is to analyze the impact of FDI on economic growth of Nigeria taking trade openness, Gross Fixed Capital Formation and human capital as control variables. To investigate the long run equilibrium relationship, Johansen and Juselius co-integration approach is analyzed, while the speed of adjustment in the short run is analyzed through the use of VECM method. In Nigeria, FDI, GFCF and HK have long run relationship with economic growth. However, the coefficient of ECM in Nigeria is statistically significant at 1% level of significance. Thus, 10.8% of the adjustment is achieved due to the correction of the adjustment speed in a year.

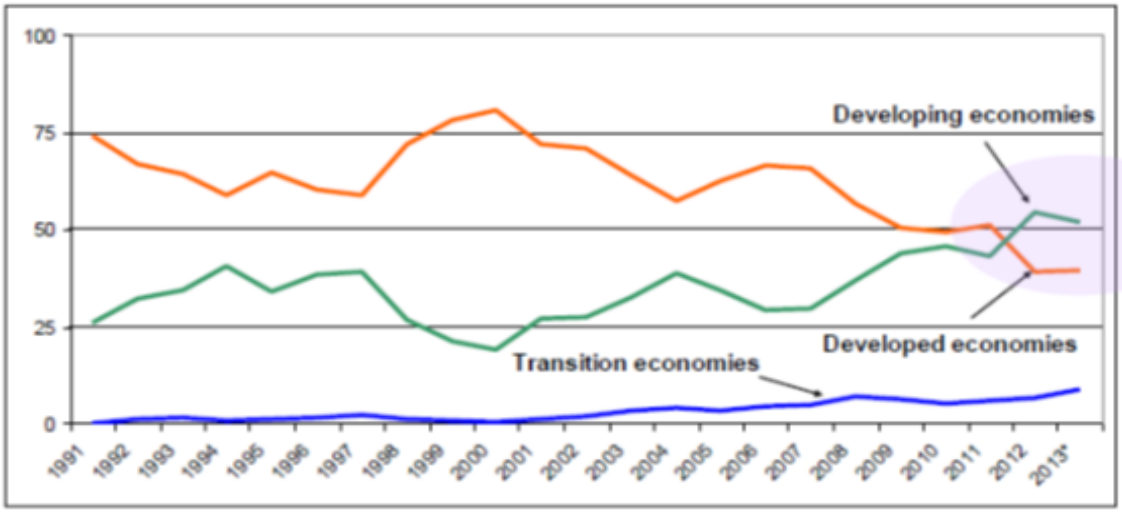
Keywords: *FDI, Trade openness, Gross fixed Capital formation, Human capital, VECM*

1. Introduction

It has been observed that most of the nations are geared towards development and gaining effective participation of international economic organization with the advent of Foreign Direct investment (FDI). FDI determine the inter-relationship between a country and another that can carry a long period of time. Normally, participation comes in the form of management, joint venture, transfer of technology and expertise (Agrawal & Khan, 2011). According to OECD (2008), FDI promotes the direct investors' interest as a class of business enterprise in another country. However, the aim of the enterprise signifies the long-run participation that will exist between the direct investment enterprise and direct investor. Thus, there is high expectation of persuasion on the management of the enterprise. Therefore, the statistical evidence of such a relationship is the 10% or more direct or indirect ownership of the voting power of an enterprise resident in one economy by an investor resident in another economy. For many years FDI has been playing a vital role on economic growth. There were lots of discussions on the relationship between FDI and economic growth in both present and past theoretical and empirical literatures. However, most of the analyses conducted on FDI and economic growth focus on the traditional neo-classical and the endogenous growth theories. In recent time with the coming of endogenous theories it has come to the notice that FDI has taken into account as one of the long run economic growth determinants (Barro & Sala-i-Martin, 2004).

Trends in FDI Flows: Figure 1 shows that FDI flows increased by 9% in developed economies to $566 billion maintaining 39% of the global flows as the developing nations acquired 54% of the total with $778 billion in 2013. The transition economies got the remaining of $108 billion. More than a decade, Africa got 26% share of the extractive industry in the value of Greenfield projects while LDCs got 36%. However, the shares of the value of announced projects in both Africa and LDCs are declining rapidly with manufacturing and services constitute 90%.

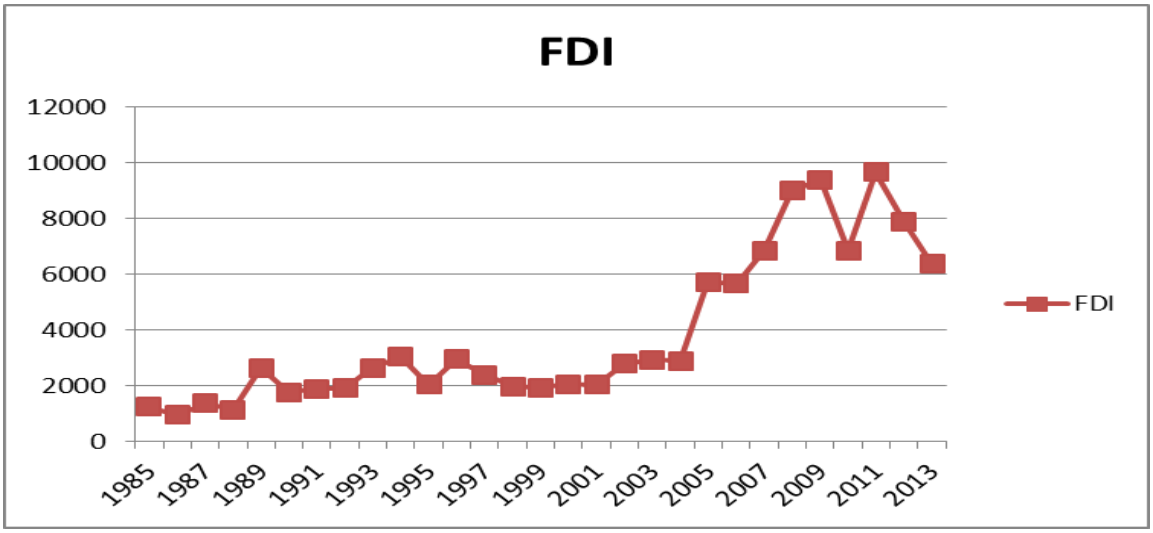
Figure 1: FDI inflow shares by major economic groupings (Percent)



Source: World Investment Report (UNCTAD, 2014).

Thus, Nigeria as was viewed to be the "giant" of Africa continues to be the focus region at which the portion of FDI flows to Africa remains an issue of concern. Hence, real foreign direct investment was said to have been fluctuating into Nigerian economy for over a period of time as shown in (Figure 2). After the implementation of "Structural Adjustment Program" (SAP) in 1986, and the subsequent liberalization of some aspects of the economy, FDI continue to be on an increasing trend ranging from $1.93 billion in 1986 to as high as $8.55 billion in the year 2009 (UNCTAD, 2014).

Figure 2: FDI inflow in Nigeria (US $ million)



Source: World Development Indicator, 2014

Foreign direct investment (FDI) into Nigeria fell to about $6.05 billion in 2010 due to the global economic crisis and uncertainty over a petroleum industry bill which is perceived as unfavorable to transnational corporations (Ojo, 2012). The Nigerian annual growth rate of GDP in 2010 fourth quarter was 8.60 percent at the high rate and 3.46 percent at the lower rate in 2012 first quarter. Thus, GDP of Nigeria was said to be persisted to 7.67 percent in 2013

last quarter as it was previously revised in 2012 as 6.81 percent and 6.99 percent in 2013 third quarter. However, the estimated growth rate of 2012 which is 6.58 percent rose to 6.87 percent in 2013. Hence, the average annual growth rate of Nigeria between 2005 and 2014 was estimated to be 6.13 percent.

Since the mid-1970s, however, developed countries have attracted the bulk of FDI and correspondingly, the developing countries failed to create an enabling environment for foreign investors. The 1980s and 1990s have seen considerable changes in the level and composition of FDI in the developing countries. Macaulay (2003) made it known that effort has been made to encourage foreign direct investment into the economy by foreign investors, yet there are some that do not show interest to come to Nigeria because of some lingering problems in the economy such as poor infrastructural facilities, corruption and insecurity. However, the recent fact depicts that the relationship between FDI and economic growth may be period and country specific which makes such relation to be inconclusive (Baharumshah & Law, 2010). Thus, the need to investigate on their relationship is highly essential. Hence, the research is set out to investigate the impact of FDI on economic growth in Nigeria.

2. Literature Reviews

The economic growth of an economy is said to be the increase in the amount of the goods and services produced over a period of time. Thus, each nation has a different economic growth. As the economists are trying to make an effort to appreciate why countries are growing at different rates; the study of economic growth models is highly essential. There are lots of researches being studied by many researchers worldwide using different approaches to analyze the relationship between FDI and economic growth. However, the findings of the researchers yielded inconsistent results. Hooi & Wah (2010) took a study on the relationships between FDI, domestic investment and economic growth in Malaysia from 1970 to 2009. In order to identify the possible long-run equilibrium relationship among the variables they employ the Johansen-Juselius multivariate co-integration test in vector autoregressive system. The findings conclude that the real output will increase in the long-run with increase in FDI. From the study of Parviz (2011) on the economic growth determinants in Canada using the Beach-Mackinnon approach in estimating his model employing annual data for the period 1976 to 2008, he found out that FDI is insignificant but has a positive relationship. This shows that FDI does not influence economic growth in Canada. However, total factor productivity and domestic investment are the main determinants of economic growth in Canada. Also, a study being examined on the impact of economic growth of Malaysia on FDI revealed that GDP and FDI have no positive relationship. Although, there is positive relationship between FDI and GDP related to manufacturing sector but there was no such relationship in financial sector (Nabi & Malarvizhi, 2014).

Zakari, Mohammed & Adamu (2012) examine the role of FDI on economic growth and make a comparison among selected countries of Africa and Asia and employ panel regression for the period 1990 to 2009 by considering 15 countries from each region making 30 countries as a whole. They made their analysis in two ways. Their first analysis was on the aggregate data and subsequently disaggregates data by taking each region into consideration so as to have a peculiar assessment on the impact of FDI on economic growth from each region. From their empirical result from both Africa and Asia, FDI has positive relationship with GDP growth. Also, there was an evidence of one-way causality to only African region but in Asia there was no evidence of such causality. Thus, FDI promotes economic growth. Ismail, Saadiah, Ridzuan & Ahmed (2014) carried out an investigation via the modification of standard Cobb Douglass production function by employing Autoregressive Distributive Lag technique on the relationship between FDI and Export on the economic growth of Malaysia for the period 1980 to 2011. Though, export promotes growth more, but FDI also contributed to the economic growth of Malaysia and both have positive correlation with growth most importantly in the long run. Similarly, a study was carried out by Zaheer & Bashir (2011) on the role of FDI and trade openness on economic growth in Pakistan and Malaysia employing Johansen co-integration test and Granger causality test to examine the relationship and determining the direction of causality respectively for the period of 1980 to 2010. In Pakistan there is no significant impact of FDI and exchange rate on its economic growth.

Agrawal & Khan (2011) examined the effect of FDI on economic growth of China and India and the result revealed that FDI impacted significantly on GDP growth in China more than that of India. The main reason at which economic growth in China is more affected by FDI is due to the large size of its market, high level of infrastructures,

labor efficiency and government support. Saqib, Masnoon & Rafique (2013) analyzed the impact of FDI on economic growth of Pakistan for the period of 1981- 2010 where the variables studied have long-run relationship. However, FDI in Pakistan impacted negatively on its economic growth. However, a comparative study between South Asian countries and China to analyze the impact of FDI and their economic growth using annual data was tested using granger causality test. The findings show that China's economy is moving faster compared to that of economic growth of Asian countries considered under study (Bashir, Mansha, Zulfiqar & Riaz, 2014). In addition to their finding, there was negative impact of FDI on economic growth in Bangladesh, India and Pakistan. Adams (2009) suggested that FDI is necessary but not a sufficient condition in determining economic growth in Sub-Saharan Africa. Jadhav (2012) analyzed the determinants of FDI in the economy of Brazil, Russia, India, China and South Africa employing panel data for the period 2000 to 20009 and suggested that the economic factors in these countries impacted more significantly on FDI than the political and institutional factors. However, analysis on the impact of FDI on Nigerian economic growth for the period 1970 to 2001 applying error correction model revealed that private capital and lagged foreign capital have little, hence the impact on the economic growth are not statistically significant. In addition, both labor force and human capital play a vital role in enhancing economic growth in Nigeria (Akinlo, 2004).

Baharumshah & Law (2010) examine the relationship between FDI, economic freedom and economic growth in 85 countries using panel data based on the Generalized Method of Moments approach for the period 1976 to 2004. From the empirical findings, economic freedom promotes and has positive impact on the economic growth, whereas FDI does not have positive impact in the host countries. Saqib, Masnoon & Rafique (2013) analyzed the impact of FDI on economic growth of Pakistan for the period of 1981- 2010 where the variables studied have long-run relationship. However, FDI in Pakistan has a negative and significant impact on its economic growth. Hassen & Anis (2012) analyzed the relationship between FDI and economic growth of Tunisia employing time series data for the period 1975 to 2009 and found that FDI can enhance economic growth of Tunisia especially in the long-run. Moreover, the economic growth of Tunisia is negatively affected by the trade openness. The negative effect of trade openness on economic growth is due to the fact that Tunisia economy is engaged mainly in the exporting primary products.

3. Methodology

This study will discuss on the empirical analysis and annual time series data of 1971 to 2013 will be applied to analyze the relationship between FDI and some other variables like Trade openness, Gross Fixed Capital Formation and Human Capital on GDP in Nigeria.
Therefore, the GDP functions above can simply be specified as model below:

$$\mathbf{Y_t = \beta_0 + \beta_1 FDI_t + \beta_2 T.OPEN_t + \beta_3 GFCF_t + \beta_4 HK_t + \varepsilon_t} \text{ --------- } \mathbf{(1)}$$

Where;

GDP	= Gross Domestic Product
FDI	= Foreign Direct Investment
T.OPEN	= Trade Openness
GFCF	= Gross Fixed Capital Formation
HK	= Human Capital
β	= the parameter for the explanatory variables
t	= time series
ε	= error term

Unit root test: Unit root test is key factor when ascertaining the stationarity of time series data of a given study. Therefore, series can be regarded as stationary if it does not have problem of unit root. However, the characteristic equation of the process of unit root 1 is said to be non-stationary in the linear stochastic process. In other words, if the characteristic equation of the other roots fall within the unit circle at which the absolute value is less than one, the process will be stationary when taking the first difference. In estimating the slope coefficients, unit root should first be tested by taken the null hypothesis as there is presence of unit root. Therefore, we can use OLS if we reject the null hypothesis. But, if we do not reject the null hypothesis, the difference operator to the series can then be applied as shown in the equation below:

$$\mathbf{\Delta Y_t = Y_t - Y_{t-1} = \varepsilon_t} \text{ ---------- } \mathbf{(2)}$$

However, the unit root test that will be used for this study to ascertain the stationarity of the variables of interest is Augmented Dickey-Fuller (ADF) test. ADF test is a test for a unit root in a time series data which serves as an augmented version of Dickey-Fuller test. Thus, the equation of ADF test specification is given below:

$$\Delta Y_t = \beta_1 + \beta_2 t + \delta Y_{t-1} + \alpha i \Delta Y_{t-1} + \varepsilon_t \text{ ---------- (3)}$$

Where Y_t is the variable of the model of the study, the differencing operator is denoted byΔ, the time trend is denoted by t and $\boldsymbol{\varepsilon}$ is the error term which is normally distributed with zero mean and constant variance. Hence, β_1, β_2 and δ as well as $\alpha \boldsymbol{i}$ are the set of parameters that will be estimated from the equation. However, the null hypothesis and the alternative hypothesis in unit root from the above equation can be as follows:

$H_o : \delta =$ ($Y_t$is non-stationary)

$H_1 : \delta =$ ($Y_t$is stationary)

Based on the test, we can reject null hypothesis if the t-test statistic has a negative values lower than the tabulated critical value. On the other hand, we do not reject null hypothesis if δ is found to be equal to zero. This shows that there is presence of unit root and therefore Y_t is non-stationary.

Johansen and Juselius (JJ)Co-integration Test: The aim of (JJ) co-integration test is to ascertain the long run equilibrium relationship that may exist among the variables of this study. Hence, if time series data are stationary, we can test for a long run relationship among variables of interest using Johansen (1988) and Johansen and Juselius (JJ) (1990) methods. This involves the test of co-integration vectors.

$$Y_t = \Pi_1 Y_{t-1} + \Pi_2 Y_{t-2} + \ldots + \Pi_k Y_{t-k} + \varepsilon_t \quad t = 1, 2\ldots, n \text{--- (4)}$$

Where $Y_t$is $N \times 1$ vector of stochastic variable, $\Pi_1, \Pi_2, \ldots, \Pi_k$ is the $n \times n$ parameter and $\boldsymbol{\varepsilon}_t$ is the random error. The matrix Π indicates the long run equilibrium relationship between ρ variables which can further be break down into two matrices, i.e. A and B, such that $\Pi = AB$.A is referred to as vector error correction parameter while B is the co-integrating vector. Therefore, the process can be used to test the existence of a long run equilibrium relationship among GDP, FDI, T.OPEN, GFCF and HK variables in equation (1).

However, this study will employ Trace (Tr) Eigen value statistic and Maximum (L-max) Eigen value statistic for the trace is written as follows:

$$Tr = -T \sum_{i=r+1}^{p-2} \ln(1-\lambda) \text{---------- (5)}$$

Where $\lambda_{r+1} \ldots \lambda_p$are the smallest Eigen values of estimated p – r. The H_o hypothesis for the Trace Eigen value test is that there are at most r co-integrating vectors (Johansen & Juselius, 1990).

On the other hand, the L-max could be calculated as:

$$\text{L-max} = -T\ln(1-\lambda_{r+1}). \text{ ---------- (6)}$$

The H_o hypothesis for the maximum Eigen value test is that r co-integrating vectors are tested against the H_1 hypothesis of r + 1 co-integrating vectors. If Trace Eigen value test and maximum Eigen value test yield different results, the results of the maximum Eigen value test should be used because the power of the maximum Eigen value test is considered greater than the power of the Trace Eigen value test (Johansen &Juselius, 1990).

Vector Error Correction Model (VECM): A Vector Error Correction Model is a dynamical system with the characteristics that the deviation of the present state will be fed into its short run dynamics from its long run relationship. Therefore, VECM is said to be a peculiar instance of the Vector Auto-regression (VAR) for the variables that have been integrated of order one I(1) which are said to be stationary when taken their first differences. Hence, VECM considers variables that have co-integrating relationships. However, we can simply say that there is existence of long run equilibrium relationship between series, if we can discover the co-integration relationship between them and therefore we can assess the short run properties by employing VECM. Moreover, VECM can be estimated by applying VAR approach. In other words, we can establish VECM by showing changes in the dependent variables which function as the level of disequilibrium in the co-integrating relationship and the independent variables through error correction term. Therefore, we can develop our vector error correction model as follows:

$$\Delta lnGDP_t = \lambda_0 + \lambda_1 \Delta lnFDI_t + \lambda_2 \Delta T.OPEN_t + \lambda_3 \Delta GFCF_t + \lambda_4 \Delta HK_t + \lambda_5 ECM_{-1} + v_t \text{ --- (7)}$$

From the above equation, ECM_{-1} is the error correction component which is also the estimation of the lagged error series and v_t is the random error term. However, the adjustment speed of the model of this study will be expressed by this method.

4. Findings

Table 1: Unit Root Test Results

Country	Variables	Augmented Dickey Fuller (ADF) Test			
		Level		First Difference	
		Constant	Constant and Trend	Constant	Constant and Trend
NIGERIA	GDP	0.1625[9] (0.9668)	-0.64139[] (0.9710)	-5.7638[9] (0.0000)***	-5.8343[9] (0.0001)***
	FDI	-1.4498[9] (0.5480)	-1.8712[9] (0.6501)	-7.8253[9] (0.0000)***	-10.1094[9] (0.0000)**
	T.OPEN	-2.6374[9] (0.0937)	-2.4728[9] (0.3393)	-8.6436[9] (0.0000)***	-8.8739[9] (0.0000)***
	GFCF	-2.8893[1] (0.0553)	-1.0853[9] (0.9190)	-3.5741[1] (0.0107)**	-5.5782[9] (0.0002)***
	HK	-2.3701[9] (0.1570)	-0.0019[9] (0.9947)	-3.3428[9] (0.0199)**	-4.2507[9] (0.0096)***

Notes: *** and ** indicate the rejection of the null hypothesis of non-stationary at 1% and 5% level of significance respectively.

[] indicates the lag specification, () indicates the t-statistic

The t-statistics for all variables in Table 1 show that they are statistically not significant which indicate that null hypothesis cannot be rejected. Hence, at level all the variables are non-stationary. In addition, unit root is said to be found in all the variables in this study. On the other hand, at first difference ADF test is used and the result show that all the variables show that all the variables are statistically significant. Therefore, null hypothesis in this case can be rejected. This result confirms that all the series in this study are integrated of order one I(1) and can therefore conclude to have no unit root. However, the Johansen and Juselius Co-integration test for the period 1971 to 2013 is shown in Table 2. The lag length of order 1 is selected on the basis of the minimum value of Shwartz Information Criterion (SIC). However, Trace test shows 3 co-integrating equations at 1% and 5% level of significance, while Max-Eigen value test shows 1 co-integrating equation at 5% level of significance. Therefore, Max-Eigen value test will be considered, as it has more power than Trace test as suggested earlier in the methodology. Thus, it will be concluded that there is one co-integrating equation in Nigeria at 5% level of significance. To put it further, there exist long run relationship among FDI, T.OPEN, GFCF AND HK and economic growth in both the countries.

Table 2: The Johansen-Juselius Co-integration Test Results

Country	H_o	H_1	Max-Eigen Statistic	Critical Value (Eigen) at 5%	Trace Statistic	Critical Value (Trace) at 5%
NIGERIA	r = 0	r = 0	31.14321***	30.43961	74.57450***	60.06141
	r ≤ 1	r > 1	17.8858	24.15921	43.43129**	40.17493
	r ≤ 2	r > 2	14.85344	17.79730	25.54540***	24.27596
	r ≤ 3	r > 3	7.06984	11.22480	10.69196	12.32090
	r ≤ 4	r > 4	3.62212	4.12991	3.62212	4.12991

Note: *** and ** indicate the rejection of the null hypothesis of non-stationary at 1% and 5% level of significance respectively.

Table 3 shows the co-integration results which reveal that FDI, GFCF and HK are the variables that are statistically significant and therefore have long run relationship with economic growth. FDI in Nigeria is statistically significant but has negative effect on its economic growth. This implies that 1% increase in FDI will lead GDP to reduce by 0.92%.

Table 3: Co-integration Result for the Growth Model

Country	Variable	Coefficient	t-statistic
NIGERIA	LFDI	-0.918455	10.3780***
	T.OPEN	-0.857724	0.4837
	GFCF	0.176975	6.84623***
	HK	2.16E-06	6.96774***

Note: *** and ** indicate significant at 1% and 5% level of significance respectively.

Perhaps, the negative impact of FDI on Nigerian economy is due to the inappropriate capital-intensive techniques. Also, the economy is characterized with labor-intensive and the foreign investors are there for the exploitation of raw materials being endowed by the economy for the finished products in their countries. It can also be attributed to fear anticipation of political instability. On the other hand, the result for GFCF is positive and statistically significant. That is to say 1% increase will cause GDP to rise by 0.18%. Therefore, the increase in GFCF will promote productive capacity of various economic units by raising the number of firms. Thus, cost of production will be minimized and productivity of factor endowments will be enhanced. Also, HK result reveals positive and statistically significant. Therefore, an increase in HK by 1% will cause GDP to rise by 0.2%. As with the study of Akinlo (2004), HK is positive with Nigerian economic growth and made a recommendation that Nigerian economy should promote the stock of human capital through an educational policy which in the long run will enhance the economic growth.

Table 4: VECM Result for the Growth Model

Country	Variable	Coefficient	t-statistic
NIGERIA	D(LFDI)	0.07466	-0.49546
	D(T.OPEN)	0.01424	0.96296
	D(GFCF)	0.64216	1.85469
	D(HK)	6.2475	1.33357
	ECM(-1)	-0.10850	-3.25984***

Note: *** and ** indicate 1%, and 5% level of significance respectively.

All the variables are not affecting GDP in the short run in Nigerian context. That is, none of the variables are statistically significant. However, the coefficient of error correction is statistically significant at 1% level of significance with -0.108497. Therefore, 10.8% of the adjustment is achieved due to correction adjustment speed in a year.

5. Conclusion and Policy Implications

The primary objective of this study is to analyze the impact of FDI on economic growth of Nigeria taking trade openness, Gross Fixed Capital Formation and human capital as control variables for the period 1971 to 2013. To analyze the long run equilibrium relationship, Johansen and Juselius co-integration approach is analyzed, as the speed of adjustment in the short run is analyzed through the use of VECM method. FDI, GFCF and HK have long run relationship with economic growth. However, FDI is found to be statistically significant but has negative effect on the economic growth. This implies that increase in FDI will lead GDP to fall. On the contrary, both GFCF and HK are statistically significant and positive. Consequently, both GFCF and HK have positive impact on the Nigerian economy. However, the result on FDI is in line with the studies of Bashir, Mansha, Zulfiqar & Riaz (2014) which found negative in Bangladesh, India and Pakistan during the period under study, Nabi & Malarvizhi (2014), Baharumsha & Law (2010) and Saqib, Masnoon & Rafique (2013). Nigeria as part of developing countries is endowed with natural resources that can be harnessed through capital formation. To this effect, dependency on foreign investment should remain limited and therefore utilize domestic investment that will benefit the country's economy. Therefore, the government of Nigeria should formulate economic policies that will encourage domestic saving and investment and therefore limiting FDI inflows into the countries. Thus, the benefits of foreign investment appear to be taken out to the investor country than re-investing in the host country.

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Macroeconomic News and Price Discovery in Indonesian Government Bond Market

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Abstract: The study of macroeconomic news impact on government bond gets little attention, especially in emerging markets. Andritzky et al. (2007) and Nowak et al. (2011) study this impact for some emerging countries, but little attention given to Asian countries. The question about whether macroeconomic news have impacts on government bond is important, considering the large amount of government bonds outstanding in Indonesia and the importance of regulation to maintain the stabilization of bond price. This research use daily returns of Indonesian government bond benchmark series over five-year period to investigate the impact of domestic and global macroeconomic news announcements. We study the relationship using event study approach. Following common literature we use surprise component of macroeconomic news announcements, which will be defined as the difference between market expectation and the actual release of the macroeconomic news. We use economic forecast survey conducted by Bloomberg as the proxy of market expectations needed to calculate domestic (Indonesia) and global (US) macroeconomic news announcements surprises. We find that, for bond returns, surprises of global macroeconomic news announcements is more important than domestic ones, especially for recent years, while both surprises of global and domestic macroeconomic news announcements affect bond returns volatility.

Keyword: *Bond pricing, Bond returns, Macroeconomic news announcements, emerging market*

1. Introduction

Returns of investments cannot be guaranteed, even for fixed income securities such as bonds. Even though the future cash streams of a bond is known, there is no 100% guarantee that all of the cash streams will be received by the investor, because there is credit risk which may lead the default of the payment. This is also applied to government bonds, despite its use as risk free asset in many financial calculations. History said there were some countries that failed to pay their debts. Investors estimate the risk using information. When an investor gets new information, he will adjust his expectation toward the investment and give a new value (price) to the investment. Investors who invest in a corporate stocks or bonds will value both financial and non-financial information of the corporate, which is the investment's underlying value. It will be the same with investors who invest in government bonds. They will value financial and non-financial information about the government of the countries so they can adjust their expectation toward the bonds.

Many studies examine the relationship between domestic or global macroeconomic factors and government bond yield or spread, such as Rozada and Yeyati (2008) or Erba et al. (2013). The studies find that the relationship is significant. These studies usually use a long period data as macroeconomic data usually available for monthly at the shortest and yearly at the longest. They cannot capture the immediate reaction of the market when the new information arrived. When new information arrived, investors immediately adjust their expectations and at that time the new value or price of the investments is being formed. This paper tries to capture the impact of the macroeconomic news announcements on Indonesian government bond price and volatility. Previous studies, which are few, mainly focus in advanced markets. Studies in emerging markets by Andritzky et al. (2007) and Nowak et al. (2011) did not include Indonesia in their sample. Indonesian government bond size has increased tremendously after the economy crisis in 1998 and the secondary market is developing fast, show the importance of studying Indonesian government bond price and volatility. The paper is organized in six parts – introduction, review of literature, data and data resources, methodology, results and discussion, and conclusions and recommendations.

2. Literature Review

Literature about impact of macroeconomic news announcements mainly focus on stocks or currencies returns instead of bonds or government bonds. And many of those researches focus on advanced markets and very few on emerging markets. Early researches capture the impact of macroeconomic news announcements on bond returns by comparing returns on days when there were macroeconomic news announcements and days when there wasn't, such as Fleming and Remolona (1999) and Andritzky et al. (2007). Recent studies use 'surprise' effect of macroeconomic news announcements and use forecast survey from Money Market Services (MMS) International or Bloomberg as proxy of market expectation, such as Balduzzi et al. (2001), Goeij and Marquering (2006), Brenner et al. (2009), Nowak et al. (2011), and Paiardini (2014).

Balduzzi et al. (2001), using intraday data of US Treasury Bill and Treasury Note, find that several announcements affects bond price, but in different manner according to maturity of the bond. Rigobon and Sack (2006) use new technique to handle noise in news found higher significance of the news on US Treasury bond returns. Brenner et al. (2009) study the impact of macroeconomic news on US Financial markets find that the news surprises have significant impact on all assets type including government bond, and especially sensitive for 'good' news surprise. Outside US, Paiardini (2014) study the effects of macroeconomic news on Italian government bond. The study use domestic, neighboring countries, regional and global macroeconomic news surprises. The results show 25 of 68 news types has significant impact on Italian government bond returns. Only 1 domestic news is significant and mostly US news has significant impact. Andritzky et al. (2007) and Nowak et al. (2011) study macroeconomic news effects on emerging bond markets. Andritzky et

al. (2007), using GARCH (1,1) and dummy variables to indicate days with news, find that domestic macroeconomic news has no significant effect on emerging bond markets spreads at the mean level, but the US interest rate news has. Nowak et al. (2011) find that global and regional macroeconomic news are the same important as the domestic news. US macroeconomic news that has large surprise found to have large effect compare to same surprise size of domestic news.

Several studies also try to capture the news effect on bond returns volatility. Balduzzi et al. (2001) find that news has significant and persistence increases on bond returns volatility. Goeij and Marquering (2006) find that macroeconomic news surprises have significant impact on daily returns of US Treasury bonds. This impact on volatility is difference between several news types as some news has longer impact and other have shorter impact. Brenner et al. (2009) find that news have significant impact and that conditional bond return volatility increase before the news released and decrease afterward. In emerging markets, both Andritzky et al. (2007) and Nowak et al. (2011) find that news have significant impact on market volatility and Nowak et al. (2011) also find that the volatility is more drawn-out compared to advanced markets. Most previous studies indicates the significance of news on government bond returns. Studies outside US always use US news as global news indicator, and find that the news significantly affects government bond markets outside US. Most news types also has significance on government bond return volatility, with emerging market volatility tend to be more drawn-out compared to mature markets.

Data and Data Resources: This study using daily average price in secondary market to get daily returns on benchmark series of Indonesian government bond. Average price is used because there is no data information about the hour and minute when the transaction done. Transactions mainly done through over the counter and then reported to the Bank Indonesia as the central registry for all Indonesian government bond. The daily return is calculated as follow:

$$R_t = \frac{(P_t - P_{t-1})}{P_{t-1}} \qquad (3.1)$$

Where R_t is daily return at time t of a benchmark series of Indonesian government bond. P_t is price of a benchmark series of Indonesian government bond at time *t*. P_{t-1} is price of a benchmark series of Indonesian government bond at time *t-1*.

The new information in macroeconomic news is proxied by 'surprise' following common literature by Balduzzi et al. (2001), Nowak et al. (2011) and Paiardini (2014). This surprise is the difference between actual macroeconomic news and the expectation of the market. For the expectation of the market I use Bloomberg forecast survey to market analysts which is also used in many previous studies such as Nowak et

al. (2011) and Paiardini (2014). This survey results is released prior to the scheduled date of the news. The surprise is calculated as follow:

$$S_{k,t} = \frac{Actual_{\ k,t} - Expectation_{\ k,t}}{\sigma_k} \qquad (3.2)$$

Where $S_{k,t}$ is surprise macroeconomic news k at time t. σ_k is standard deviation of forecast error of macroeconomic news k. We use standardized surprise following Balduzzi et al. (2001) so all news surprises can be comparable and have same units of measure.

Data of daily Indonesian government bond transactions was obtained from Bank Indonesia-Scriptless Securities Settlement System (BI-SSSS). The data is all transactions of benchmark series of Indonesia government bond for the period 2010-2014. There 21 series with breakdown 5 series for year 2010, 4 series for year 2011, 4 series for year 2012, 4 series for year 2013 and 4 series for year 2014. We use 1 year transactions data for each series. Although the data is available for longer period, but the transaction activities will be different when a series appointed as benchmark or not, so the data after 1 year is not comparable. Data of news dates, actual macroeconomic news, and market analyst survey was obtained from Bloomberg. There are 9 macroeconomic news used referred to previous literature which include 4 domestic news and 5 global news. Domestic macroeconomic news used are Indonesian CPI, Indonesian trade balance, Bank Indonesia interest rate and Indonesian GDP. Global macroeconomic news used are US CPI, US GDP, US current balance, US retail sales and US PPI (producer price index). These variables are used based on the consistent significance results on previous studies, especially in emerging markets.

3. Methodology

This paper attempts to examine the impact of surprises from macroeconomic news on Indonesian government bond price and volatility. Using the time series technique, tests of stationarity and multicollinearity needed. After the data become stationary and free of multicollinearity, equation (4.1) is estimated. Residuals are tested for autocorrelation and heterokedasticity. If there is autocorrelation, model AR (autoregressive), MA (moving average) or ARMA is used. If there is heterokedasticity, 'White Heteroskedasticity-Consistent Standard Errors & Covariance' is used to avoid bias on standard errors estimations. Following Nowak et al. (2011) and Paiardini (2014) we use linier regression to estimate the impact of news surprises on Indonesian government bond returns.

$$R_t = \beta_0 + \sum_{i=1}^{I} \beta_i \, R_{t-i} + \sum_{k=1}^{K} \beta_k \, S_{k,t} + u_t \qquad (4.1)$$

Where R_t is daily return at time t of a benchmark series of Indonesian government bond, $R_{t\ -1}$ is lagged *t-1* return of a benchmark series of Indonesian government bond $S_{k,t}$ is surprise macroeconomic news k at time *t.*

To know the impact of the macroeconomic news on returns volatility of Indonesian government bond, we apply GARCH (1,1) following Andritzky et al. (2007), but we use surprise variables instead of dummy variable in the equation. GARCH (1,1) was developed by Bollerslev (1986) to allow the conditional variance to depend on its previous own lags. We use 'Bollerslev-Wooldridge Heterokedasticity Constant Covariance' if the residuals is not following normal distribution, to avoid bias on standard errors estimations.

$$R_t = \beta_0 + \sum_{i=1}^{I} \beta_i R_{t-i} + \sum_{k=1}^{K} \beta_k S_{k,t} + u_t$$

$$u_t \sim N(0, h_t)$$

$$h_t = \alpha_0 + \alpha_1 u_{t-1}^2 + \alpha_2 h_{t-1} + \sum_{k=1}^{K} \alpha_k S_{k,t} + \varepsilon_t \qquad (4.2)$$

Where h_t is daily returns variance of a benchmark series of Indonesian government bond, h_{t-1} is one lagged daily returns variance of a benchmark series of Indonesian government bond and u_{t-1}^2 is one lagged of residual squared.

4. Results and Discussion

The result for estimation of equation (4.1) can be found below for Indonesian government bonds period 2014. The estimates for Bank Indonesia rate is not applicable because for the year 2014, there is no surprise or the actual BI rate is the same with the market expectations for scheduled news. The regression results for year 2014 in Table 1 show that no domestic macroeconomic news have significant impact on bond returns, but global macroeconomic news dominantly affect bond returns.

Table 1: Surprise macroeconomic news response on Indonesia government bond period 2014

	2014							
Series No#	**FR0068**		**FR0069**		**FR0070**		**FR0071**	
Constant	0.000174		0.000015		0.000142		0.000228	
CPI Indonesia	(0.003314)		(0.000327)		(0.002449)		(0.002830)	
T.Balance Indonesia	(0.002587)		0.000174		(0.000543)		(0.000545)	
BI Rate Indonesia	NA		NA		NA		NA	
GDP Indonesia	(0.006612)		(0.000117)		(0.000843)		(0.011602)	
CPI US	(0.005071)	**	(0.001484)	**	(0.004400)	***	(0.003496)	
GDP US	0.000115		0.000398		0.001360		0.001852	
Current Balance US	(0.013265)	***	(0.002505)	*	(0.007853)	**	(0.012157)	*
Retail Sales US	(0.006973)	***	(0.001147)	*	(0.003810)	**	(0.004130)	**
PPI US	0.004022	*	0.000673		0.003656	**	0.001010	

This table reports the regression results for each series and news of eq. (4.1) for period 2014

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

Table 2: Surprise macroeconomic news response on Indonesia government bond returns

	2010					2011				2012				2013				2014			
Series FR00 No#	27	31	40	50	52	5	54	55	56	58	59	60	61	63	64	65	66	68	69	70	71
Constant							*														
CPI Indonesia	(**)							(***)									**				
T.Balance.Indonesia	***														(**)						
BI Rate Indonesia										(***	(***		(***								
GDP Indonesia																					
CPI US																		(**)	(**)	(***	
GDP US																					
Current Balance US				(***	***										(***)		(*)	(***	(*)	(**)	(*)
Retail Sales US																		(***	(*)	(**)	(**)
PPI US					(**)											***		*		**	

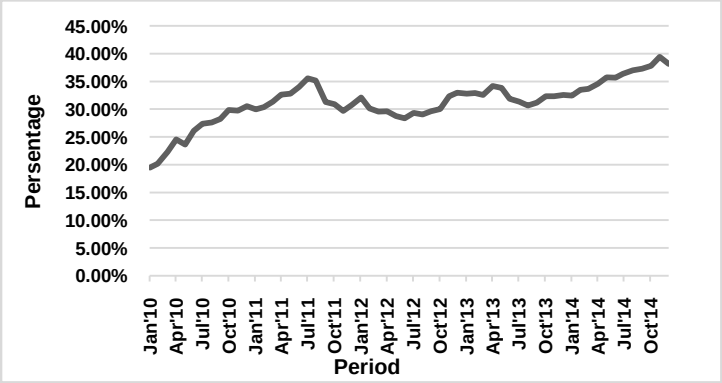
This table reports the regression results for each series and news of eq. (4.1) for period 2010-2014

*p<0.01 ** p<0.05 *** p<0.1 ( ) negative value coefficients

It is not the same case every year. The summary of regression results for year 2010-2014 is in Table 2. The coefficients number is not provided due to space limitation, but the summary is enough to show that the domestic news impact is very little, except for the surprise of BI rate news. The global news have no or little impact between 2010-2012 and starting to have impact in 2013, and become dominant in 2014.

These results in line with the share of Indonesia government bonds owned by foreign investors as can be seen in following figure.

Figure 1: Foreign investor shares of Indonesian government bonds



Sources: :http//www.djppr.kemenkeu.go.id

The foreign investor shares is quiet stagnant with tendency to decrease in 2011-2012, and starting to increase in mid 2013 until the end of 2014. This explain the dominance of global macroeconomic news impact on Indonesian government bond returns in 2014. The results for estimations of equation (4.2) can be seen in Table 3 which show that both domestic and global news have impact on bond returns volatility, but with inconsistent manner over time. For example PPI US news surprises which lessen the volatility in 2011, increase the volatility in 2012-2013, then going back lessen the volatility in 2014. This means the market response is changing overtime in processing the new information. The ARCH (1) coefficients are mostly not significant means the variance is not affected by past residual squared. All GARCH (1) coefficients are significant means the variance is affected by past variances.

Table 3: Surprise macroeconomic news response on Indonesia government bond returns volatility

	2010					2011				2012				2013				2014			
Series FR00	27	31	40	50	52	53	54	55	56	5	59	60	61	63	64	65	66	68	69	70	71
Variance Level																					
ARCH (1)		*				*	**													**	*
GARCH (1)	***	***	***	***	**	***	***	***	**	**	***	***	***	***	***	***	***	**	***	***	***
Constant	***	***	***	***	*	***	***	***	***	**	***	***	***	***	***	***	***	**	***	***	***
CPI Indonesia		(***		(***	(*)			***	*			*	**		(***		(***				
T.Balance			(***	(*)						*		*	*		(***	***	***		***	***	***
BI Rate						***	***	***	***	*	***	***	***	(***	(***	(***	(***				
GDP Indonesia	(**)	(***	***	***		(***	(***	(***	(**)	(*	(***	(***	(***	***	***	***	***			***	*
CPI US	***	***	***	***	***	(***		(***		**	***	***	*		***			(***		(***	(***
GDP US	(**)		(***			***		***	**		(***				***		***			(**)	(***
Current Balance	(***				(***	(***	(***	(***	(***	**	***	**	**		(***	(**)	(***				
Retail Sales US			*			(***	(**)				***	**	***	(**)	*	(***	(***	***	***	***	***
PPI US					(***	(***	(***	(***	(**)		***		***	**	**	***	**	(***	(***	(***	(***

This table reports the GARCH (1,1) results for each series of eq. (4.2) for period 2010-2014

*p<0.01 ** p<0.05 *** p<0.1 ( ) negative value coefficients

There were 2 unscheduled news of BI rate which surprised market in 2013 and 2014. I have re-run the estimation with data that include the unscheduled news surprises. The results show that there is no significant changes for 2013 results, but for 2014, the news affect 2 of 4 benchmark bond series returns significantly. As for volatility, the BI rate news surprises significantly affect the returns volatility in 2013 and 2014.

5. Conclusion and Recommendations

This paper study impact of the macroeconomic news on Indonesian government bond price and volatility. Using daily returns of benchmark series of Indonesian government bond period 2010-2014 as dependent variable and macroeconomic news surprises as independent variables, we find that domestic news impact is very little, except for the surprise of BI rate news. The global news have no or little impact between 2010-2012 and starting to have impact in 2013, and become dominant in 2014. While for the impact on volatility, the results show that both domestic and global news have impact on bond returns volatility, but with inconsistent manner over time. This means the market response is changing overtime in processing the new information. These results are useful for regulators, investors, and academicians. The suggestion for the regulators are to be aware of macroeconomic news that affect the government bond market, so that immediate actions can be taken if the market about to become unstable. It is also suggested to create and maintain the regulations for foreign investors' participants in the market. The regulators also need to encourage investors to do transactions in the exchange than through OTC as this may lead to better system and data of secondary market transactions. Future researches can be done by using intraday data with information about precise time the transactions happen, which is currently not available, to see more comprehensively about the instantaneous market reactions to macroeconomic news surprises.

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Influencing Rural Entrepreneurs' Participation in Training Programs in the East Mamprusi District of Ghana

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Abstract: The objective of this study is to identify the determinants of rural entrepreneurs' participation in training programs with empirical evidence from the East Mamprusi District in the northern region of Ghana. A semi-structured questionnaire was used to obtain data from 120 owners of Small and Medium Scale Enterprises via a multistage sampling process. Logistic regression was used to analyze the data. The study identifies several factors to have significant influence on the likelihood of participation. These include entrepreneur's socio-demographic features, access to services and past experience acquired in their business operations. Government, Non-governmental Organizations and Civil Society Organizations should, therefore, put more effort in widening the scope of participation in entrepreneurial skills development training. Appropriate attention should be given to gender, age, education, past experience, membership to association and media of advertisement since they are the factors that drive entrepreneurial motivation to participate in training programs. Rural entrepreneurs should develop the initiative to form associations where information on training needs can easily reach them. Any training intervention should also target young entrepreneurs to have more participants. These results have implications for entrepreneurship development in least developed countries.

Keywords: *Rural Entrepreneurs, Participation, Training Programs, East Mamprusi District, Logistic regression*

1. Introduction

In recent years, it has been acknowledged that small and medium enterprises (SMEs) can positively influence the economic growth of developing countries (Kayanula and Quartey, 2000). The concern of many development partners is therefore, to develop entrepreneurship in emerging economies. This is because entrepreneurship is one of the most important requirements for enterprise development in the 21st century (Lashgarara et al., 2011). Entrepreneurship is an individual effort of turning ideas into action (European Commission, 2009) which stimulates employment hence a key issue for poverty reduction (Hussain et al., 2014). This however, requires some kind of education or training. The role of training and development of entrepreneurship have been recognized by several studies. A number of studies (Lashgarara et al., 2011; Glaub & Frese, 2011; Vijayalakshmi, 2014; Hussain et al., 2014) believe that training programs are necessary for entrepreneurs' skills development. In Ghana, about 90% registered companies are micro, small and medium scale enterprises (Mensah, 2004). These enterprises normally employ less than 29 people as small scale or between 30 and 100 people as medium scale enterprise (Quartey, 2003). The results of the 2000 Population and Housing Census (PHC) showed that about 80% of the economically active population in Ghana work in the informal sector (Ghana Statistical Service, 2008). This consists of major trade group such as textile, apparel and furnishing, building and material moving which takes persons aged 15 and older as apprentices. Beer (2012) therefore, indicates that training is the link from having a successful business to a thriving one.

The increasing role of household enterprises in the Ghanaian economy attracted past and present governments' attention in the provision of training needs. Graduates from formal educational training often target the formal sector for employment opportunities (Baah-Boateng, 2004) hence the fundamental objective of the Ghana vision 2020 was to reduce poverty via business creation and compliment entrepreneurs' effort with apprentice training. Government has therefore, established institutions in support of this objective, (among them include the National Board for Small Scale Industries (NBSSI), GRATIS Foundation, and Rural Enterprise Project (Mark, 2012)). These interventions aim at providing training in employable skills for small business creation. Besides, there are also about 900 private consultancy firms in Ghana delivering commercial technical service to SMEs (Commonwealth Secretariat, 2010). Priority intervention for the Ghana Poverty Reduction Strategy was to increase access to education and training at all levels. The private sector and civil society organizations are expected to play the role of supportive training

and skills improvement (MoFA, 2007). This is a key strategy to mainstream gender training in the informal sector. In the East Mamprusi District, several institutions offer training for entrepreneurs with different areas of focus (see Table 1).

Table 1: Institutions and their Area of Support in East Mamprusi District

Institution	Training Service
Rural Enterprise Project (REP)	Identification, formation, registration and training of entrepreneurs
Business Advisory Centre (BAC)	Entrepreneurship training for Small Scale Enterprises
Partners in Rural Empowerment and Development (PARED)	Training of non-farm enterprises‟ entrepreneurs
Community Banks	Training and formation of groups Business advice
CARE International/ Community Initiative for Food Security (CIFS)	Training on resource mobilization, Technology transfer, Developing Business plans, Training on gender participation
Technoserve	Training on resource mobilization and Developing Business plans

Source: Joseph (2010)

Evidence from Table 1 implies that stakeholders consisting of both government and non-governmental organizations have their focus among other things on developing skills required to raise entrepreneurship in many parts of the country. Such initiatives have been extended to the hinterlands such as the East Mamprusi District. Despite Government, Civil Society Organization and Non-governmental Organizations effort to increase skills and productivity of SMEs by providing training intervention to all parts of the country, entrepreneurs' participation in these programs in the hinterland is believed to be low. It has been observed that more than 50% of women owned businesses in their respective communities but never received any business training (Beer, 2012). Besides, empirical literature on SMEs in Ghana exclusively left out what drives rural entrepreneurs' participation in training programs. The objective of this study is therefore, to identify the determinants of rural entrepreneurs' participation in training programs with empirical evidence from the Mamprusi East District in the northern region of Ghana.

2. Literature Review

The role of training in the development of the informal sector of the economy has been noticed by several empirical studies. This is because training programs help develop creativity of entrepreneurs (Bascavusoglu–Mreau et al., 2013). Cooney (2012) maintains that training can be in the form of mentoring. Such mentors train entrepreneurs to have access to networks. The mentor acts as a role model and reinforces the belief of what ambition to achieve. Audretch (2012) pinpoints the role of training and enhancement of human capital as a policy intervention that can promote high firm growth. According to him such training needs should include the development of managerial skills to successfully manage rapidly growing firms. Past studies such as Henriquez et al. (2001) support this proposition. In his view, entrepreneurs are required to follow a management training course to ensure the viability of a new business. This may include out-of-school training for entrepreneurship which has been particularly successful at the tertiary level. Ercan et al. (2010) therefore, recommend that stakeholders in SMEs development should organize certificate training programs for entrepreneurs; their content should include: teaching the use of technological devices such as computers, teaching participants to read and write and providing sales and marketing courses to potential entrepreneurs.

Failures of entrepreneurs activities often results from insufficient training needs. A number of studies in many parts of the developing world observe this. In Kenya, Hassan and Mugambi (2013) identify low level of training as a major challenge facing women entrepreneurs. Papzan et al. (2013) therefore, pinpoint the need for specific training for young entrepreneur to increase their efficiency of production. In the developing world, this basically consist of short and long term vocational courses to improve upon traditional methods. In their empirical investigation, Aremu and Adeyemi (2011) maintain that technical inefficiency of SMEs in Nigeria results from lack of training programs for entrepreneurs. As a result, entrepreneurial courses are introduced in all their tertiary institutions to provide business skills to students (Garba et al., 2013). Efforts

to identify determinants of entrepreneurs' participation in training programs in other countries yield varied successes. Heckman and Smith (2003) point out that awareness of program eligibility is what cause variation in participation. This suggests that stakeholders who offer training services to clients must first convince them on the program eligibility. Lashgarara et al. (2011) highlight the role of the participation features while Glaub and Frese (2011) concentrate on the training content. Glaub and Frese (2011) maintain that different training content have different facets of business success. This training content according to Ercan et al. (2010) should include teaching the entrepreneur to read and write and in some instances train them on the use of technological devices such as computers.

Personal characteristics sometimes influence the decision of entrepreneurs to participate in a training program. Lashgarara et al. (2011) observation in Iran supports this claim. Determinants of participation according to them include personal skills, and psychological characteristics. Besides, Turcotte et al. (2002) observation in Canada place emphasis on human capital as a significant factor. They explain that permanent workers participate more than temporary ones. This observation is cogent as it is less risky to invest in skills development in permanent work than in temporary. They also indicate that worker with post-secondary education often participate in training programs than those with no or lower educational status. Workers who use computers were observed to have relatively higher propensity of attending more than those not using computers. Xiao and Tsang (2001) observation in China confirm that educated entrepreneurs have higher likelihood of attending a job training programs than those with lower education. In Germany, Fritsche (2012) provides consistent results with previous related studies. He maintains that level of education and fulltime employment all have positive influence on participation in job training program. Huj and Smith (2001) share similar results on the effect of education. This therefore, brings to the fore the role of human capital in devising strategies for entrepreneur participation in training programs.

Other personal features such as gender play a significant influential role in participation in training programs. Turcotte et al. (2002) in their observation maintain that men in the informal sector have higher probability of participation than their women counterparts. Besides, Fritsche (2012) observes a U-shape effect of age on participation. Technically, age has a quadratic relationship with participation in training program. This implies that the desire of people to participate decreases with age to a particular point and begins to increase as the age of the person increases. An earlier study conducted by Huj and Smith (2002) maintains a definite stand on the quadratic effect of age on participation. They identify the turning point to be 20 years. They however observed an inverted U-shape effect where the ages of 11 to 13 have strong positive effect on participation but participation begins to decrease after age 20. According to Cooney (2012), the entrepreneur must be motivated to grow the business with peer mentoring from successful entrepreneurs. These are considered as necessary conditions for participation and business development. This suggests that a mentee can develop the willingness for participation in a training program if that was the habit for the mentor. Akanbi (2013) acknowledge this from his study. He indicates that parents in Africa often wish to expose their children to the line of business and occupation. Children with entrepreneur parents therefore, have relatively high propensity of imitating their fathers. The culture of participating in training programs by their parents may be handed over to them.

3. Methodology

Data: Data were obtained from a survey conducted in the East Mamprusi District in 2013. The district is located to the north- eastern part of Ghana. To the north it shares boundaries with the Talensi- Nabdam district, Bawku West and Garu Tempane districts and to the east Bunkpurugu- Yunyoo district. It is bordered to the west by West Mamprusi and the south by Gusheigu districts. The district has a land mass of 10,659 sqkm, representing 2.4 percent of the total land mass of the region (East Mamprusi District Assembly, 2012). Respondents were selected via the multi-stage sampling procedure. The selection involved two stages using simple random sampling technique. The first stage involves selection of study community. Six communities were selected and they are Jawani, Gbangu, Nagbo, Sakogu, Gbandabila and Tamboku. On the second stage, 20 respondents were selected from each of the six communities to give a sample size of 120. Questionnaires were administered to the respondents covering demographic characteristics of rural entrepreneurs and their participation in job training programs.

Analytical Framework: Participation in a training programme is conceptualised via microeconomic theory of consumer utility maximization. A rational consumer chooses to maximize his/her utility by consuming a particular commodity or service. The probability of an entrepreneur to attend a training programme is influenced by the utility derived from the training service. An entrepreneur's decision to participate or not therefore, yields a binary response variable; taking a value of 1 if an *i*th respondent ever participated in a programme and 0 if otherwise. Gujarati (2008) indicates that the logistic regression is often used to model binary choice responses. The cumulative logistic distribution function is specified as:

$$P_i = \frac{1}{1+e^{-Z_i}} = \frac{e^{Z_i}}{1+e^{Z_i}} \quad (1)$$

Where: P_i is the probability of an individual to participate in a training program

$$Z_i = \beta_0 + \beta_i X_i \quad (2)$$

Where: X_i = Vector of explanatory variables

β_0 = Vector of constant term

β_i = Vector of logistic regression coefficient

As Z ranges from $-\infty$ to ∞, P_i ranges from 0 to 1. The probability of non-participation is $1 - P_i$.

Where:

$$1 - P_i = 1 - \frac{e^{Z_i}}{1+e^{Z_i}} \quad (3)$$

Simplifying equation (3) gives:

$$1 - P_i = \frac{1+e^{Z_i}-e^{Z_i}}{1+e^{Z_i}} = \frac{1}{1+e^{Z_i}} \quad (4)$$

The odd ratio in favor of participation is:

$$\frac{P_i}{1-P_i} = \frac{e^{Z_i}}{1+e^{Z_i}} * \frac{1+e^{Z_i}}{1} = e^{Z_i} \quad (5)$$

Taking natural log of equation (5) gives:

$$ln\left(\frac{P_i}{1-P_i}\right) = Z_i \quad (6)$$

Substituting for Z_i in (6) gives:

$$ln\left(\frac{P_i}{1-P_i}\right) = \beta_0 + \beta_i X_i + U \quad (7)$$

The relative effect of each explanatory variable on the likelihood that an entrepreneur participates in a training program is given by the marginal effect as:

$$\frac{\partial(P_i)}{\partial(X_i)} = \beta_i[\bar{P}(1-\bar{P})] \quad (6)$$

Where: $\bar{P}$ is the mean of the dependent variable. An empirical specification of the model for participation in training program is expressed as:

$$ln\left(\frac{P_i}{1-P_i}\right) = \beta_0 + \beta_1 GEN + \beta_2 AGE + \beta_3\, AGESQ + \beta_4 MARID + \beta_5 HSIZE + \beta_6 EDU + \beta_7 EXP + \beta_8 EXPSQ + \beta_9 ASSOC + \beta_{10} CREDIT + \beta_{11} INFO + U \quad (7)$$

Table 2 illustrates the variables definition, measurement and hypothesized relationships.

4. Results and Discussion

Summary Statistics: The results of the survey indicate that about 60% of the sample entrepreneurs are males while 40% represent females. At least a small proportion of each category of gender has been represented thus suggesting that entrepreneurial activities are not dominated by one set of gender. Many (87.5%) of these entrepreneurs are married. About 73.3% of them have at least basic education. This will enable them to read and understand training manuals for business development. Details of the summary statistics are shown in Table 3.

Table 2: Variables definitions, units of measurement and hypothesized relationships

Variable	Definition	Unit of measurement	Expected Sign
P_i	Participation	If an *i*th entrepreneur has ever participated in a training programme then 1; else 0	
GEN	Gender	Dummy (If male then 1; else 0)	+/-
AGE	Age	Years	+/-
AGESQ	Age Square	Years	-
MARID	Marital Status	Dummy (If married then 1; else 0)	+/-
HSIZE	Household Size	Number of persons in the household	+
EDU	Educational Status	Dummy (At least basic then 1; else 0)	+
EXP	Years of Experience	Years	+
EXPSQ	Experience Square	Years	-
ASSOC	Association	Dummy (If a member then 1; else 0)	
CREDIT	Access to Credit	Dummy (If accessed credit then 1; else 0)	+
INFO	Source of Information	Dummy (If radio then 1; else 0)	+

Table 3: Summary Statistics

Variable	Statistics	
	Freq	*Percent*
Gender		
Male	72	60.0
Female	48	40.0
Marital Status		
Married	105	87.5
Single	15	12.5
Educational Status		
At least basic education	88	73.3
No formal education	32	26.7
Access to credit		
Yes	44	36.7
No	76	63.3
Membership to Business Association		
Member	24	20.0
No membership	96	80.0
Source of Business Information		
Radio	51	42.5
Television	69	57.5
Participation in Training Program		
Ever participated	18	15.0
Never participated	102	85.0
	Mean	*Std. Deviation*
Age of entrepreneur	34.58	6.92
Household size	5.71	2.59
Years of business experience	8.30	4.97

It was observed from the survey that rural entrepreneurs in the East Mamprusi District engage in different kinds of SMEs to earn a living. Fifteen (15) different kinds of businesses were identified. They include: Sale of Provisions (53.3%), Food vender (8.3%), Shea butter extraction (6.7%), Tailoring (6.6%) Barbering (5.8%), Boutique (5.0%), Mechanics (2.5%), Sale of animals (2.5%), Bakery (1.7%), Sale of Mobile phone credit (1.7%), Hair dressing (1.7%), Sale of drinks (0.8%), Sale of motor spare parts (1.7%), Cosmetics (0.8%), and Electricals (0.8%). Out of the 120 observation, only 18 entrepreneurs representing 15% of the sample ever attended a training program. This suggests that many (85%) of them are likely to be operating with

rudimentary technology and skills. Logistic regression was run to identify drivers for participation in the training programs. Entrepreneur's decision to participate or not was regressed on 11 covariates. They include: GEN, AGE, AGESQ, MARID, HSIZE, EDU, EXP, EXPSQ, ASSOC, CREDIT and INFO. The logistic regression output is presented in Table 4. The regression results in Table 4 shows a Likelihood Ratio Statistic of chi2 (11) = 52.65 which is significant at less than 1%. This implies that the decision to participate in a training program or not is jointly explained by the set of covariates. Eight (8) out of the 11 covariates were observed to have a significant influence on the probability of participation. They include GEN, AGE, AGESQ, EDU, EXP, EXPSQ, ASSOC and INFO. All the significant variables are in conformity with the *a priori* expectation.

Table 4: Logistic Regression Estimates of Participation in Training Programmes

Variable	Coefficient	Standard Error	P-value	Marginal Effect
Constant	-36.1450	13.6671	0.008	
GEN***	-4.2740	1.1966	0.000	-0.1038
AGE**	1.3760	0.6711	0.040	0.0123
AGESQ**	-0.0186	0.0092	0.042	-0.0002
MARID	-0.5397	1.7501	0.758	
HSIZE	0.0768	0.1993	0.700	
EDU***	4.0121	1.4212	0.005	0.0253
EXP*	1.5199	0.7952	0.056	0.0135
EXPSQ*	-0.0768	0.0392	0.051	-0.0007
ASSOC***	3.0972	1.1494	0.007	0.0927
CREDIT	-0.0652	0.9072	0.943	
INFO**	1.0894	0.4528	0.016	0.0097
N = 120, LR chi^2 (11) = 52.65, Prob > 0.00, Pseudo R^2 = 0.512, Log likelihood = -24.402				

, *, ** = significant at 10%, 5% and 1% respectively

Consistent with previous studies, the effect of gender was found to have a significant influence on an entrepreneur's decision to participate in a business training program. From Table 4, the coefficient of gender is negative and significant at 1%. This suggests that male entrepreneurs are associated with higher likelihood of participating in business training program than females. The marginal effect is 10.38% implying that being a male entrepreneur is associated with 10.38% probability of participation higher than a female entrepreneur. Several explanations could be given to this observation. Men generally have more passion in discovering new ideas and are associated with risk loving behaviors than females. This may entice them to participate more than females. Besides, households in East Mamprusi District share the culture of male dominance in decision making. Females can attend social programs only when they seek approval from household heads. This element of culture has the potential of limiting their participation in entrepreneurial training programs.

Age was also observed to have a significant relation with the likelihood of participating in entrepreneurial development programs. From Table 4, the coefficient of age is positive and significant at 5%. Its marginal effect is 1.23% suggesting that age of respondent moves directly with the probability of participation. Every additional year attracts 1.23% probability of participation. However, when age was squared, the effect became negative and significant at 5%. Contrary to Fritsche (2012) observation in Germany, the result of this study provides an inverted U-shape effect of age on participation. This implies that participation increases with age to a particular point and then begins to decline. The justification for this result is that participation will increase during youthful ages and will begin to fall gradually during old ages. The effect of education; measured by whether an entrepreneur has at least basic formal education has a significantly positive influence on participation in business training program. From Table 4, its coefficient is positive and significant at 1%. This implies that entrepreneurs with at least basic formal education have higher likelihood of participation than those without basic formal education. The marginal effect of education is 2.50% which implies that the probability of people with formal education to participate is 2.5% more than those without any form of formal education. This agrees with Xiao and Tsang (2001), Turcotte et al. (2002) and Fritsche (2012) people with formal education are associated with higher likelihood of participation in entrepreneurial skills development training. People with formal education can read and understand current activities from

different sources such as the media and training manuals. This has a potential in increasing their probability of participation.

In addition, the experience of the entrepreneur measured by the number of years individuals have being in their respective businesses. From Table 4, the coefficient of experience is positive and significant at 10%. This suggest that the probability to participate in a training program increase with experience. For any additional year of experience the probability of participation increases by 1.35%. The square of experience yields a quadratic and significant effect. This implies that the desire to go for skills development training increases in the initial years in business but declines thereafter. The justification is that past experiences could make them complacent, thus discouraging them from participation in skills development training programs. People often join social groups to have a common objective for their own development. Specific objectives of such association often include easy access to affordable inputs, training and marketing services. It was observed that membership to an association has a significant and positive effect on the probability of participation. From Table 4, its coefficient is significant at 1% with marginal effect of 9.27%. This implies that being a member to an association is associated with 9.27% of participation higher than non-members. Information on the time and kind of training programs may be shared at group meeting to increase participation rate.

The role of media in information dissemination is important in entrepreneurial activities. Radio announcements and Television programs constitute the main source of information. It was observed from the survey that entrepreneurs whose main source of information is radio tend to have higher probability of attending training programs than those who rely much on television (see statistics in Table 4). Many people have radios than televisions given the relatively higher cost of television. This grants people access to business information via radio. Radio announcements in the district are also presented using local languages which many of the entrepreneurs understand better. This explains the likelihood of accessing information from radio than television in the study area.

5. Conclusion and Recommendations

Small and medium scale enterprises operate in the East Mamprusi District in different fields. Fifteen of them have been identified from the findings of this study. It was however, realized that about 85% of owners of these business fail to attend entrepreneurial skills development training despite institutional efforts to deliver these services with little or no financial cost. Several factors were therefore, identified to have significant influence on the likelihood of participation. They include entrepreneur's socio-demographic features, access to services and past experience acquired in their business operations. This paper argues that despite Government, Civil Society Organization and Non-governmental Organizations' effort to sharpen skills and increase productivity of Small and Medium Scale Enterprises by providing training intervention to all parts of the country, entrepreneurs' participation in these programs in the hinterland is believed to be low. Therefore, the researchers believe that policy makers could use the factors identified in this paper in formulating and implementing strategies toward entrepreneurial skills development especially in the informal sector of least developed countries. It is therefore, recommended that Government, Non-governmental Organizations and Civil Society Organizations should put more effort in widening the scope of participation in entrepreneurial skills development training. Appropriate attention should be given to gender, age, education, past experience, membership of association and media of advertisement since they are all factors that drive entrepreneurial motivation to participate in training programs. Rural entrepreneurs should develop the initiative to form associations where information on training needs can easily reach them. Any training intervention should also target young entrepreneurs to have more participants.

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The Determinants of Employee Attitude towards e-HRM–A Study of Engineering Company in Malaysia

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Abstract: Electronic Human Resource Management (e-HRM) is "…the application of information technology for both networking and supporting at least at least two individual or collective actors in their shared performing of HR activities" (Strohmeir, 2007). Using a survey method, this study reports the determinant of employee attitude towards e-HRM in an engineering company in Malaysia. There are basically two major independent variables i.e. perceived usefulness and perceived ease of use. The overall results show that the employees had significantly positive attitude towards e-HRM as they perceived that the system is useful and easy to use. Data shows that they intend to use e-HRM and predict that they would use e-HRM in future. The findings of this research provide valuable insights for the management to create a positive attitude towards technological interventions especially in assisting human resource management. Hence, a company should enhance the employees' understanding of the system through a proper and thorough training so that they will perceive the system as useful and easy to use.

Keywords: *e-HRM; Electronic Human Resource Management; perceived usefulness; perceived ease of use; engineering company*

1. Introduction

The Electronic Human Resource Management (e-HRM) is commonly associated with HRIS and V-HRM which it is not the same. HRIS is a Human Resource Information System which refers to ICT system used within HR department (Ruel, Bondarouk & Looise, 2007). Whereas V-HRM or Virtual HRM is a network based structure built on partnerships and typically mediated by information technologies to help the organization acquire, develop, and deploy intellectual capital (Lepak & Snell, 1998). It may have been a trend in this recent years that e-HRM is an essential in increasing the efficiency of HR management and have a great cost effective compared to traditional HR management. For example, the recruitment through website has given a bigger scale of candidates that can be reached anywhere and whenever they needed to. Recruitment has become easier to coordinate as the responses were instantaneous whilst selecting and comparing good candidates are now being done by just a click. There are basically three types of e-HRM. The first one is Operational e-HRM, which it is concerned about the administrative functions that normally related to payroll, employee personal data and records. Second is Relational e-HRM that is concerned with supporting the business process for example training, recruitment and performance management. The third is Transformational e-HRM that is concerned with the strategic human resource activities such as the knowledge management. These three types of e-HRM complete all the functions of human resource management in general.

The e-HRM can be easily said than done. The system normally needs a proper guidance if it was adapted from another company that created the system. Sometimes the system might work in a company but it may not work similarly in other company because of the different needs in each company. Hence, this study focuses on the employee attitudes with regards to implementation of e-HRM and a survey was conducted in an engineering company in Malaysia who had recently just implemented the system in February 2013. The system is known as Employee Self-service System (ESS) which is a tool to help the administrative tasks of human resource personnel. This system comprises of leave application, training records, online performance evaluation and more. This system were not only used for the purposes of human resource management alone but also included other support departments such as the IT request can be made online through ESS system as well. ESS basically is an intranet and extranet site for the employees to access all the provided services. Therefore, this research paper will investigate what influence employee attitudes towards the using of e-HRM and does perceived usefulness and perceived ease of use has a positive relationship with the employee attitudes towards e-HRM.

2. Literature Review

E-HRM: Electronic Human Resource Management (e-HRM) is known as an integrated optimization of HR processes consequently using web-based technology for all aspect of HR work. "Amongst other facets e-learning in the field of continuing education, employee-self-service (ESS) in the field of HR administration and the utilization of the intra- and extranet in the field of recruitment belong to the main fields of e-HRM that are supported by the e-HRM system" (Erdoğmuş & Esen, 2011). The term "…e-HRM was first used in the late 1990s when e-commerce was sweeping the business world" (Olivas-Lujan, Ramirez & Zapata-Cantu, 2007). The e-HRM is commonly associated with HRIS and V-HRM which it is not the same. "HRIS is a Human Resource Information System which refers to ICT system used within HR department" (Ruel, Bondarouk, & Van der Velde, 2007). Whereas V-HRM or Virtual-HRM is a "…network based structure built on partnerships and typically mediated by information technologies to help the organization acquire, develop, and deploy intellectual capital" (Lepak & Snell, 1998). The e-HRM has grown as a strategic tool in managing human resource. It became an essence to all organization in achieving its goals. "The e-HRM provides the HR function with the opportunity to create new avenues for contributing to organizational effectiveness" (Yusoff, Ramayah, & Ibrahim, 2010).

Attitude towards e-HRM: Technology Acceptance Model (TAM) developed by Davis (1989) is the most adapted model in e-HRM research pertaining attitudes towards e-HRM. The goal of TAM was "…to provide the explanation of the determination of computer acceptance that is generally capable of explaining user behavior across a broad range of end-user computing technologies and user populations, while at the same time being both parsimonious and theoretically justified" (Davis, 1989). TAM model was emphasized on the two major factors i.e. perceived usefulness and perceived ease of use. These two factors are important to determine an employee's attitude towards his or her intention to use and actual usage of Information System (IS). Perceived usefulness is defined as "…the degree to which an individual believes that using a particular system would enhance his or her job performance". Whereas perceived ease of use is defined as the degree to which an individual believes that using a particular system would be free of physical and mental effort (Davis, 1989). The reason that TAM model is chosen for this research is because TAM has been tested empirically and supported through validations, applications, and replications (Venkatesh, Morris, Davis & Davis, 2003; Lee, 2010). TAM model has proved that it is one of the most powerful, robust and parsimonious model for predicting user acceptance especially in IS context (Bueno & Salmeron, 2008).

Impact of Perceived Usefulness and Ease of Use With Regard to Attitude towards e-HRM: There has been numerous numbers of researches done on e-HRM. Yusoff, Ramayah and Ibrahim (2010) discovered that only attitude that has been found to influence the intention to use e-HRM technology. In the other study done by Yusoff and Ramayah (2012) shows that the variables of perceived usefulness and perceived ease of use have given significant effects on attitude towards using e-HRM. The e-HRM system "…obviously is not a strictly universal practice, it is appropriate for a certain type of organization while inappropriate for other organization" (Yusoff & Ramayah, 2012). Somehow, e-HRM may not be appropriate for all organization as it is depended on the need and what is important for the organization. As for some small organization, investing in e-HRM may not benefit in terms of cost effective for them and managing small number of employees can still be efficient using conventional human resource management system. Ruel, Bondarouk and Looise (2007) in their research showed that positive actual use of e-HRM application got along with more positive perception of HR effectiveness and so do the easiness of use. Perceived usefulness and perceived ease of use are statically distinct construct because the effect of ease of use is the subset of those comprising in the usefulness brought from the system i.e. "…between two systems that perform the identical set of functions, a user should fine the one that is easier to use more useful" (Davis, 1989). Based on the reviewed literatures, a framework of study is developed as shown in Figure 1.

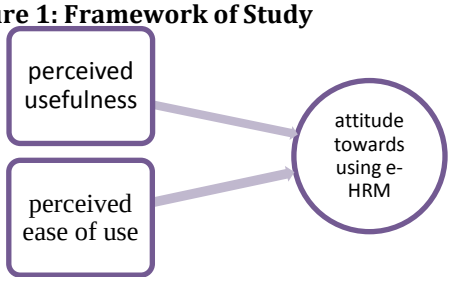
3. Methodology

The main purpose of the research is to determine the factors that influence the employee attitude towards e-HRM. The data of the research were collected through questionnaires. The sample comprises of 53 employees of an engineering company in Malaysia, which were administered during a period of 6 weeks starting from April 29th to June 7th. Questionnaires were distributed directly to the employees and also through an online

survey which were distributed by email. It was then analyzed using IBM Statistic 20. The questionnaire was divided into four main sections: a profile, attitude towards using e-HRM, perceived usefulness, and perceived ease of use section. In the profile section, it contains of socio-demographic characteristic of the respondents such as gender, job category level and their range of birth which classify them into Gen-Y, Gen-X and baby boomers. For this section of survey, a multiple choice question was used in which several choices of answers are provided for each question asked.

Research Framework

Figure 1: Framework of Study



The survey was intended to understand and determine factors that influence the attitude of employees towards e-HRM where the independent variables of this study were put into assessment through this survey. The survey properly explored how the employees perceived the current system that they are using which whether it has brought usefulness to them and whether it is easy to use for them. Measures used in this study were adapted from prominent researchers i.e. Davis (1989) for perceived usefulness and perceived ease of use, while attitudes towards e-HRM was adapted from Voermans and Veldhoven (2007). The questions were structured using the Likert format where respondents are given seven choices for every question or statement. The choices represent the degree of agreement each respondent has on the given question. The Likert survey allows the researchers to carry out the quantitative approach effectively where the data can be interpreted by statistics.

4. Results and Discussion

The objective of this research is to determine whether the hypothesis developed for this study is accepted or rejected. The first hypothesis was there will be a positive relationship between perceived usefulness and attitude of employees towards e-HRM in an engineering company. This simply put that if there is a positive relationship then the more a system is perceived to be useful by employee the more positive the attitude of employees will be towards the system (e-HRM). Subsequently the second hypothesis was there will be a positive relationship between perceived ease of use and the attitude of employees towards e-HRM in an engineering company. This second hypothesis merely suggested that the positive relationship will indicates that the more the system is perceived to be easy to be used by the employees, the more positive the attitude of employees towards the system (e-HRM).

Most of the 53 respondents surveyed in this study were female (68%), Malay (77%), Gen-Y (41%), executive level (53%). The results of this study in terms of all dependent and independent variables were significantly high in internal consistency as per the result of reliability analysis. The dependent variable of attitude towards e-HRM has a Cronbach's Alpha of .961 for its total items of 22. While for the two independent variables in this study which are perceived usefulness and perceived ease of use, both has .968 and .888 with total items of 10 each. As shown in Table 1, the Pearson correlation analysis, the results indicated that all variables are significantly and positively correlated to each other. Perceived usefulness and attitude towards e-HRM is positively and moderately correlated with .373 and its correlation is significant at the 0.01 level (2 tailed). The second independent variable is perceived ease of use where it is also positively and moderately correlated as well with .334 towards the dependent variables where correlation is significant at the 0.05 level (2 tailed). While perceived usefulness and perceived ease of use were significantly and highly correlated with each other at .734 (p = 0.01). Therefore, it was concluded that all variables in this study were significantly and positively associated with each other. To further understand the effects of both independent variables in this

study (i.e. perceived usefulness and perceived ease of use) towards the dependent variable (i.e. attitudes towards e-HRM), a regression analysis was conducted.

Table 1: Pearson Correlation Matrix

	Perceived Usefulness	Perceived Ease Of Use	Attitudes towards e-HRM
Perceived Usefulness	*(.968)*		
Perceived Ease Of Use	.734**	*(.888)*	
Attitudes towards e-HRM	.373**	.334*	*(.961)*

Note. Coefficients alpha are in parentheses. **. Correlation is significant at the 0.01 level (2-tailed). *. Correlation is significant at the 0.05 level (2-tailed).

Table 2: Regression Analysis

Variables	Coeff. (B)	Std. Error	Beta
Intercept	1.88	.42	
Perceived Usefulness	.22*	.09	.22
Perceived Ease Of Use	.46*	.08	.50
R^2	.38		

Note. *$p < .01$.

As shown in Table 2, both perceived usefulness and perceived ease of use were the significant positive determinants for attitudes towards e-HRM with both independent variables were explaining 38% variations in the dependent variable. Additionally, Beta result shows that perceived ease of use was more important than perceived usefulness in predicting their positive effects towards attitudes towards e-HRM. Taken together, an employee's attitudes towards using e-HRM shall be significantly and positively influenced by the level of perceived ease of use he or she is having towards the e-HRM system and at the same time is depended upon the level of usefulness he or she perceived towards the system as well. Therefore, both hypotheses of this study have been supported and the regression equation for this study is: *Attitudes towards using e-HRM = 1.88 + 0.22 perceived usefulness + 0.46 perceived ease of use*

In overall the findings of this study suggest that the independent variables; perceived usefulness and perceived ease of use has a positive relationship towards the dependent variable; attitude towards using e-HRM. In summary, this study has achieved its objectives to identify the impact of perceived usefulness and perceived ease of use towards attitude using e-HRM among employees in an engineering company, as well as discovered which factors that better predicting the employees' attitude in using e-HRM which is the perceived ease of us of the system.

5. Conclusion

Based on the findings, it shows that both independent variables are positively correlated with dependent variables. Hence, if during the initial stage of implementation all employees should be given a proper and valid understanding on the system. This is because the more the system being understood by the employees the more they perceived the system is useful and easy to use. Based on the researchers own the observation and initial interview while collecting the data, the employees were mostly aware of the goals of the system towards themselves but not fully aware how this system was intended to be use for the purpose of improving their organization with a better human resource management. It is also important that the system is not only being evaluated by the end users but also evaluated in the perspective of the people who will administer the system. To have an effective system use in a company, it shall not only benefit one side which is the staff but gave a hard time towards the one managing or administered the staff throughout the system. As of the result of this study, it is clearly stated that both factors highlighted in this study have influence the attitude of

employees towards e-HRM. However the study may neglect the other area or perspective of employees who are managing or administrating the staff through the system. A system would be effective and efficient if it give ease to both side of this group which is the employees and also the administrator including their manager. Other than that, for the future research the generation-Y phenomenon can be challenge on does the age range influence the attitude of employees towards e-HRM? It is said that generation-Y are more technologically optimistic, thus they adapt the technology more easily. Thus a research question regarding generation-Y and attitude towards e-HRM can be studied.

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