PhD Viva Presentation

By

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Research Topic:

Effect of Capital Market Development on Economic Growth

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Introduction and Summary

- **2. Purpose of the Study**

  The study was carried out to help determine how capital markets can be developed to contribute to pro poor economic growth in developing nations.

- 3. **Research Problem:**

- ***The Research Problem Setting***: Economic growth is the priority of every developing nation and one of the key factors that contribute to economic growth is capital market development because it makes long term capital available for businesses' and governments' profitable investments. However, the sector has affected economic growth negatively in some developing nations. It is therefore, imperative to investigate the sector's contribution to growth and determine how it can be developed to promote pro poor growth in developing nations.

- ***Prior Research Efforts***: Some previous works have looked at the institutional and macroeconomic determinants of capital market development and the effect of capital market development on economic growth with different models, variables, varied methodologies and have reported mixed results, in separate single research paradigms [E.g. Pagano (1993); Porta et al. (1996); Garcia & Lin (1999); Rooij, et al. (2007); Osuala, et al. (2013); etc], but have failed to develop a more reliable model that exhausts major factors that promote the development of the market and economic growth. Also, individuals' knowledge about capital market activities and participation in capital market activities and their effect on capital market development and economic growth have not been adequately studied.

Introduction and Summary - *Research Problem Continues*

I. **The Research Gaps:**

The literature reviewed failed to provide a uniform result on the effect of capital market development (CMD) on economic growth. The mixed empirical findings is due to failure of previous researchers to incorporate all relevant predictors and moderators of CMD and economic growth, and the use of different sets of independent variables in different economic jurisdictions of varying economic trends and situations [(for e.g. Pagano (1993) – used regulatory and institutional factors; Garcia and Lin (1999) – used economic variables with financial variables; Yartey (2008) - combined institutional and macroeconomic factors Osuala, et al. (2013) - used only stock market development indicators as predictors of growth;, etc.)]. To better appraise and confirm an acceptable consensus among researchers with respect to the subject, the same set of predictors must be incorporated into the resulting model, or the omission of some predictors in individual economic jurisdictions must be compensated for by using statistical measures. There is also the need to base conclusions on the scope of variables captured into the model, and how predictors are treated (i.e. whether a predictor can serve as a moderator, mediator, or/and secondary dependent or independent variable). Unfortunately, the current body of evidences have not been provided based on these requirements. Moreover, capital market development is driven by individuals' knowledge and participation in capital market activities, but limited works exist on these despite the perceived increased educational programmes organised by market regulators and policy-makers. Some research experts (e.g. Williams 2007; Creswell, 2008) have expressed the belief that the credibility of researches is easier to verify when related themes and subjects are examined in one study. Therefore, the current study is conducted to examine these gaps in the literature .

- **Why Address Research Gaps:**

Addressing these themes/gaps simultaneously is able to clearly articulate results and evidences that collectively increase public knowledge, inform decision making in the study area, and promote pro poor growth in developing nations.

Introduction and Summary Conti.

- **Significance of the Study:**

  This sections states the findings and provides their related practical, policy, and theoretical implications.

- **Practical implications:**

  - **Research Finding 1**: Capital market development has a positive and significant effect on economic growth.
  - **Research Finding 2:** *There is a bi-directional relationship between economic growth and capital market development, but the stronger effect is from capital market development to economic growth.*
  - Implications 1 & 2: *The findings imply that putting greater effort should be placed on capital market development to make long-term capital available for economic growth. This will in tern feed back into the development of the capital market.*
  - **Research Finding 3:** GDP growth is linearly related to by FDI, GFI, MKT, T-Bills and Inflation.
  - MKT is also linearly related to by FDI, GFI, GDP growth, T-Bills, and Inflation.
  - Implications: *The findings imply that when country specific problems are addressed these models can be used as frameworks for predicting the growth paths of developing countries.*
  - **Research Finding 4:** *Respondents have little knowledge about capital market activities.*
  - **Research Finding 5:** *The level of knowledge about capital market activities positively and significantly influence investment in capital market securities.*
  - Implications 4 & 5: *The results can be used as a framework for providing relevant educational programmes that will increase public knowledge, confidence, and participation in capital market activities. Attractive incentive packages can be constructed to lure investors into the market.*

Introd. and Summary Conti. - Significance

- **Significance of the study**

  Practical implications:

- **Finding 6**. *Five (5) sources of knowledge about capital market activities.*
- **Finding 7.** *Seven (7) factors explain low/nonparticipation in the capital market by households.*
- Implications 6 & 7: *These findings imply that market regulators can adopt better strategies to attract more prospective investors into the capital market.*

- **Policy implication:**
- **Findings 1, 2, & 3**
- Implications: *The findings and the models can help government and policy-makers develop and implement microeconomic and macroeconomic policies that will promote capital market development to spur economic growth in developing countries.*
- **Findings 4, 5, 6, & 7**
- Implications: *The findings can serve as a signal to policy-makers and regulators in the capital market to engage in effective educational programmes for the public and construct more attractive incentive packages to lure prospective investors into the capital market.*

- **Theoretical implication:**
- **Findings 1, 2, & 5**

1. *The study contributes to the adoption of the supply-leading hypothesis of financial intermediation within the framework of the neoclassical growth model.*
2. *Again, the study contributes to portfolio choice theories that postulate that increasing public knowledge and building public confidence in financial assets will increase households participation in capital market activities.*

LITERATURE REVIEW

- The literature review is in **two thematic** areas.

  a. The role of finance and capital market development in economic growth.

  b. Individuals' level of knowledge and participation in capital market activities.

<u>Theme 1</u>

- **Finance refers to** the science of funds management. **Economic growth** is the steady process by which the production capacity of the economy is increased over time to bring about rising levels of national output and income.
- The early development economists had varied views on the effect of finance on economic growth.
- For, example, Robert Lucas (1988) was of the view that economists "badly over-stressed' the role of financial factors in economic growth. Joan Robinson (1952) was also of the opinion that where enterprise leads finance follows. In other words, finance responds to changing demands from the growth of the real sector of an economy and not the opposite. ***This became known as the demand-following financial intermediation.***
- The development hypothesis view of finance which evolved from the works of Goldsmith (1969), Gerschenkron (1962), Patrick (1966), McKinnon (1973), and Shaw (1973), advanced that in the early stages of economic development the financial sector grows substantially faster than economic growth. Therefore, governments can develop the financial sector by building institutions and developing policies to make funds available to enterprises for economic growth. ***This also became known as the supply-leading hypothesis of financial intermediation.***

LITERATURE REVIEW

- Unfortunately, some development economists like Chandavarkar (1992) frequently express criticisms about the role of the financial system by ignoring it (Meier & Seers, 1984).
- The works of the early development economists have engineered many empirical studies in different jurisdictions with varied results.
- King & Levine (1993); Caprio & Honohan (2001); Levine (2005); Kargbo & Adamu (2010), etc. provide evidence that financial development robustly and positively relates to economic growth.
- Killick & Martin (1990) report that financial development and economic growth must have a two-edge relationship. Hassan, et al. (2011) found a positive relationship between financial development and economic growth in developing countries, and a two-way causality relationship between finance and growth for most regions and one-way causality from growth to finance for two poorest regions.
- Despite the debate on the role of finance in economic growth, Carlin & Mayer (2003) write that there is a strong relationship between the structure of a financial system and economic growth. Thus, bank-based systems and market-based systems have different effects on economic growth. Alile (1997) writes that the determination of the overall growth of an economy depends on how efficiently the stock market performs its allocative functions of capital.
- On the contrary, some researchers including Garcia & Liu (1999), Agarwal (1996), and Bossone (2010) conclude that banks and markets have a complementary relationship in contributing positively to economic growth.

Literature Review Continued

- Some studies on the effect of capital market development on economic growth however, have produced mixed results. Minier (2003) finds that stock market development affects economic growth positively in developed countries, but negatively on underdeveloped stock markets.
- Again, Brasoveanu, et al (2008) found that capital market development is positively correlated with economic growth, with feed-back effect, but the strongest link is from economic growth to capital market development.
- Azarmi,et al. (2005) found support for relevance of stock market to economic development during the pre-liberalization sub-period, but a negative correlation between stock market development and economic growth for the post-liberalization period in India. This suggests that the Indian Stock market was a casino for the sub-period of post liberalisation. Added to this is the work of UdokaAlajekwu & Ezeabasili (2012) conclude that liquidity is not an identifiable channel for improving economic growth in Nigeria. This may be attributed to the buy-and-hold syndrome and the casino type of trading that occurs in stock markets.
- In conclusion, despite some negative findings on the effect of capital market development on economic growth, most apologists of economic development and empirical works support the fact that a well-functioning capital market promotes economic growth.

Literature Review

Theme 2

- Capital market development has been found to hinge on increased knowledge, confidence, and participation in capital market activities by households. It is therefore, imperative to review studies on the area.
- Bernheim, et al. (2001); and Bernheim & Garrett (2003, cited in Rooij, Lusardi & Alessie, 2007), Lusardi & Mitchell (2008), and Rooij, et al. (2007) conclude that those who were exposed to financial education in high school or in the workplace save more, and affects households behaviour and capital market participation.
- Lusardi & Mitchell (2006 & 2007); Ayirebi (2007); Kimball & Shumway (2007); Guiso & Jappelli (2008); and Lusardi & Tufano (2009) report that despite claims that governments and capital market officials engage in educational programmes most households lack the basic orientation about capital market activities and are, therefore, less inclined to participation in it.
- **Research Gaps:**
- The studies reviewed so far failed to provide a uniform results on the subject. The mixed empirical findings in the literature regarding the relationship between Capital Market Development (CMD) and economic growth is the result of serial omissions in previously generated and tested models.

LITERATURE REVIEW CONCLUSIONS

- **Research Gaps:**
- (a) The first of these omissions is failure of previous researchers to incorporate all relevant predictors and moderators of CMD and economic growth. Moreover, previous empirical studies reporting on divergent findings captured a different set of independent variables in different economic jurisdictions of varying economic trends and situations [(for e.g. Pagano (1993) – used regulatory and institutional factors; Garcia & Lin (1999) – used economic variables with financial variables; Yartey (2008) - combined institutional and macroeconomic factors; Osuala, et al. (2013) - used only stock market development indicators as predictors of growth, etc.)]. It is irrefutable that findings in previous studies in this situation differ.
- (b) To better appraise and confirm an acceptable consensus among researchers with respect to the relationship between CMD and economic growth, the same set of predictors must be incorporated into the resulting model, or the omission of some predictors in individual economic jurisdictions must be compensated for by using statistical measures to compensate for this omission. There is also the need to base conclusions on the scope of variables captured into the model, and how predictors are treated (i.e. whether a predictor can serve as a moderator, mediator, or/and secondary dependent or independent variable).
- (c) Unfortunately, the current body of evidences have not been provided based on these requirements, and this situation forms the basis of a lack of consensus among researchers about the relationship between CMD and economic growth. Also a lack of consensus in this respect is contributed to by the inability of previous researchers to use robust statistical tools (e.g. Principal Component Analysis; Structural Equation Modelling – Path Analysis) and their underlying assumptions to recognise the roles of all predictors, moderators and mediators in the resulting model.

Literature Review

- **Research Gaps**
- For e.g., most recent studies on the subject have used Johansen's Co-integration techniques, but the strict unit-root assumption that these methodologies rely upon is often not easy to justify on economic or theoretical grounds. This has led many economists and econometricians to believe in near-integrated processes which allows for a small deviation from the pure unit-root assumption to be a more appropriate way to describe many economic time series (Hjalmarsson & Osterholm (2007). This causes differences in results.
- (d) Furthermore, capital market development is driven by knowledge and participation, but limited works exists on the level of households' knowledge about capital market activities and participation in capital market activities despite the perceived increased educational programmes organised by market regulators and policy-makers. Some research experts like Williams (2007) and Creswell (2008) have expressed the belief that the credibility of researches is easier to verify when related themes and subjects are examined in one study. Invariably, assessing these related themes in isolation by researchers makes it difficult to readily verify the credibility of their studies.
- **My study is conducted to examine these gaps in the literature together.**

THE RESEARCH METHODOLOGY

- **Research Design and Approach**

  The study used ***quantitative and qualitative*** methods (Spratt, Walker, & Robinson, 2004) to address the research problems.
- **Quantitative:** Helped to generate and answer research questions and hypotheses of this study. Helped to measure and analyze the relationship among variables under study.
- **Qualitative:** Helped to describe variables aimed at finding the state of the capital market in Ghana.
- **Research Format:** Explanatory/Causal Study.
- **Data Type and Sources:**
  - *Secondary data analysis*: This study used quarterly time series data that spanned from 1991 to 2011. Source: Source: http://data.worldbank.org; Emerging & Global Stock Markets Factbook; IFS; World Bank, etc.
  - *Primary data analysis:* Survey method – semi-structured questionnaires were used to collect data from respondents – public and capital market officials - due to it wide acceptability. The questionnaire were self administered. Questionnaires were tested for validity and reliability. They were self-administered and completed at the convenience of respondents.
- **How Used:**

  (1) The secondary data was used for multiple regression analysis based on the neoclassical growth model (Collier & Gunning, 1998; Demirguc-Kunt & Levine, 1996; Emenuga, 1998; and Filler et al. 1996, Osinubi, 2001).
- All assumptions and needed tests were verified, performed, and resolved.

  Tools/Tests: Shapiro-Wilk Test; Box-Cox mechanism (Li, 2005; Osborne, 2010), Durbin Watson statistics, Studentized Residuals, Normal P-P plot(Wooldridge, 2006; Tsay, 1984); Pearson’s correlation, PCA (Lieras, 2002,: Faraway, 2002), Structural Equation Modelling – Path Analysis, (Lleras, 2002).

RESEARCH METHODOLOGY CONT.

- **How Used**

  (2) Primary data was used to analyse relationships among categorical variables in the study.

- **Tools for Primary Data Analysis:** Nonparametric statistical tools, such as Cross Tabulation, Frequency Distribution Tables (descriptive statistics), Pearson Chi-Square (χ^2), Continuity Correction, Cramer's V, Phi, Kendal's W, Kruskal-Wallis Test, and Likelihood ratio were used.
- The researcher's choice was influenced by the recommendation of Smyth (2009); and Cooper & Schindler (2011) that nonparametric statistical tools are the standard for analysing categorical data.
- **Population Sampling Plan**

  The populations for the study were *households; and market regulators, market managers, and market operators.*

- **Sample Frame:** Two separate samples were used: *Four hundred (400)* respondents formed the sample size for households. *Thirty (30)* respondents were also drawn from capital market regulators, market managers and market operators.
- **Sampling Method:** Purposive and convenience sampling techniques were used.

RESEARCH METHOD. CONT. – *Data Analysis*

Research Question	Analysis Method	Reasons
RQ1: What effect does capital market development have on economic growth? **H0 1:** Capital market development has no effect on economic growth.	Multiple Regression/ANOVA/PCA.	They are multivariate techniques of analysis for studying dependent and independent variables to test hypothesis and linear relationship between key variables. To eliminating variables with weak influences in the model.
RQ2: What is the direction of causality between capital market development and economic growth? **H02:** There is no causal relationship between economic growth and capital market development.	Structural Equation Modelling (SEM) through Path Analysis, (i.e. Layered Regression technique).	To measure causal effects between economic growth and capital market development and other causal effects in the models.
RQ3: what other macroeconomic factors determine economic growth.	Multiple Linear Regression/ANOVA/ Structural equation modeling..	They estimate equations to predict values for the criterion variables.

Research Question	Analysis Method	Reasons
RQ4: Is there a theoretical and empirical based model for predicting the short run and the long run growth path of a developing economy?	Multiple Linear Regression/ANOVA/ Structural equation modeling.	To estimate equations to predict values for the criterion variables.
RQ5: What is the level of individuals' knowledge about capital market activities?	Cross-Tabulation	To compare data from two categorical variables – little knowledge and much knowledge.
RQ6: Does the level of individuals' knowledge about capital market activities influence capital market participation? **H08:** The level of individuals' knowledge about capital market activities has no effect on participation in capital market activities.	Cross Tabulation/Pearson Chi-Square/Continuity Correction/Phi/ Cramer's V..	They are nonparametric tools to determine the relationship between the level of knowledge about capital market activities and participation in capital market activities.

RESEARCH METHOD. CONT. – *Data Analysis*

Research Question	Analysis Method	Reasons
RQ7: What factors influence individuals knowledge and participation in market activities?	Kruskal-Wallis Test,	Nonparametric form of ANOVA to assess mean ranks of the sources of knowledge and participation in capital market activities.
RQ8: What are the reasons for households' nonparticipation in capital market securities.	Pearson's Chi-Square	It is an nonparametric tool for the test of significance of reasons for low/nonparticipation in capital market activities.
RQ9: What is the state of Ghana's capital market?	Frequency Distribution Tables – Descriptive Analysis	Descriptive tool to find the state of the capital market in Ghana and the direction for its development.

PRESENTATION AND ANALYSIS

Research Question	Test Performed	Results of the Analysis
RQ1: What effect does capital market development have on economic growth? **H01:** Capital market development has no effect on economic growth.	1.Test to determine whether capital market development has a positive effect on economic growth. 2. Test to determine the effects of some other macroeconomic variables on growth.	1. Supported 2. Supported
RQ2: What is the direction of causality between capital market development and economic growth? **H02:** There is no causal relationship between economic growth and capital market development.	3. Test to determine the direction of causality between economic growth and capital market development. 4. Test to determine which of the two variables exerts greater impact on the other.	3. Supported. 4. Supported.
RQ3: What other macroeconomic variables predict economic growth.	5. Test to determine a model that will predict economic growth of developing countries.	5. Supported.
RQ4: Is there a theoretical and empirical based model for predicting the growth path of an economy?	6. Test to determine a model that will predict economic growth of developing countries.	6. Newly determined

PRESENTATION AND ANALYSIS

Research Question	Test Performed	Results of the Analysis
RQ5: What is the level of individuals' knowledge about capital market activities?	7. Test to determine whether the public have little or much knowledge about capital market activities.	7. Supported.
RQ6: Does the level of individuals' knowledge about capital market activities influence capital market participation (investment)? **H08:** The level of individuals' knowledge about capital market activities has no effect on participation in capital market activities.	8. Test to determine whether much knowledge leads to more participation in capital market.	8. Supported
RQ7: What factors influence individuals knowledge and participation in market activities?	9. Test to assess the factors that promote knowledge and participation.	9. Supported

PRESENTATION AND ANALYSIS

Research Question	Test Performed	Results of the Analysis
RQ7: What factors influence individuals' knowledge and participation in capital market activities?	10. .Test to find factors that influence knowledge and participation in capital market.	10. Supported
RQ8: What are the reasons for households' nonparticipation in capital market securities.	11. Test to find the reasons in for nonparticipation in capital market. activities	11. Partly Supported
RQ9: What is the state of Ghana's capital market?	12. .Test to seek the views of market regulators and managers on the state of the market in Ghana..	12. Partly Supported

Presentation and Analysis – Key Findings

Layer	Predictors	Outcome	R Square	Adjusted R Square	Linearity (Sig.)	Valid Predictors
1.	MKT, FDI, GFI, T-BILLS, INFLATION	GDP growth	0.619	0.594	0.000	FDI, MKT
2.	GDP growth, FDI, GFI, T-BILLS, INFLATION	MKT	0.686	0.666	0.000	GFI' T-BILLS, GDP growth
3.	MKT, FDI, GFI, GDP growth, IT-BILLS	Inflation	0.523	0.492	0.000	T-BILLS
4.	MKT, FDI, GFI, T-BILLS, GDP growth	T-Bills	0.539	0.509	0.000	MKT, INFLATION

PRESENTATION AND ANALYS CONT.

- Impressively, all the models are linearly driven. Models 1, 2 and 4 have strong predictive powers, but model 3 has a weak predictive power.
- 3. There is evidence that majority of the respondents have little knowledge about capital market activities. The Chi-square test indicated a significant difference between these frequency values [χ^2 (1) = 50.579; .000)].
- The Pearson Chi-Square indicates a significant relationship between the level of knowledge about capital market activities and investment in the capital market securities (χ^2 (1) = 40.383, 0.000). Likewise the Continuity Correction test shows a significant relationship between the variables, χ^2 (1) = 38.663, .000.
- The Kruskal-Wallis test indicates a significant difference among these sources of knowledge (χ^2 (8) = 892.122, 0.000). Factors such as media reports, acquaintances, schooling, occupation/profession, and personal investment experience are major sources of knowledge.
- Reasons for low/nonparticipation in market securities include: Low income, preference for banking products and T-bills, Inadequate knowledge about securities, preference for insurance products, lack of interest, preference for real estate products, riskiness of the assets in the capital market. The chi-square test indicates that there is a significant difference between the frequencies (χ^2 (6) = 101.368, .000).
- Capital market regulators, managers, and market operators believe that the market in Ghana is developing, illiquid, inadequately participated, dominated by institutional and foreigners investors.

DISCUSSIONS OF THE RESULTS

Research Objective	Research Question	Research Findings
1. To examine the effect of capital market development on economic growth.	**RQ1:** What effect does capital market development have on economic growth? **H01:** Capital market development has no effect on economic growth.	Capital market development has a significant and positive effect on economic growth.
2. To assess the direction of causality between capital market development and economic growth.	**RQ2:** What is the direction of causality between capital market development and economic growth? **H02:** There is no causal relationship between economic growth and capital market development.	A bi-directional causality between capital market development and economic growth. The stronger effect is from capital market development to economic growth.
3. To find out other macroeconomic factors that influence economic growth.	**RQ3:** What other macroeconomic factors determine economic growth?	FDI has a positive and significant effect on economic growth. T-Bills and Inflation have negative and positive insignificant effects respectively on economic growth.

DISCUSSIONS OF THE RESULTS

Research Objective	Research Question	Research Findings
4. To build and develop a theoretically and empirically based model that will help predict the long run growth path of an economy.	**RQ4:** Could there be a theoretical and empirical based model for predicting the growth paths of an economy?	1. MKT, FDI, GFI. T-Bills, and Inflation, have a linear relationship with GDP growth. 2. FDI, GFI., GDP growth, T-Bills, and Inflation, have a linear relationship with GDP growth.
5. To determine the level of individuals’ knowledge about capital market activities.	**RQ5:** What is the level of individuals’ knowledge about capital market activities?	Most respondents have little knowledge about capital market activities.
6. To determine the relationship between the level of individuals’ knowledge about capital market activities and participation in capital market activities.	**RQ6:** Does the level of individuals’ knowledge about capital market activities influence capital market participation? **H08:** The level of individuals’ knowledge about capital market activities dies not influence participation in capital market activities.	There is direct relationship between the level of knowledge about capital market activities and participation in capital market activities.

DISCUSSIONS OF THE RESULTS

Research Objective	Research Question	Research Findings
7. To identify and analyse some of the critical factors that contribute to knowledge about capital market activities, and participation in capital market activities.	**RQ7:** What are some of the factors that promote knowledge about capital market activities and participation in capital market activities?	1. Five (5) key sources of knowledge and participation in capital market activities.
8. To find out some of the critical factors that contribute to nonparticipation in capital market activities.	**RQ9:** What are some of the reasons why household fail to participate in capital market activities despite its benefits?	2. Seven (7) main reasons contribute to households low/nonparticipations in capital market activities.
9. To assess the state of the capital market in Ghana and the way forward for the development of the market.	**RQ10:** What is the state of the capital market in Ghana and what should be done to promote capital market development to impact positively on economic growth?	The market in Ghana is still developing, has low depth, illiquid, dominated by institutional and foreign investors, government dominated bonds market, and low household, and companies participation .

DISCUSSIONS OF THE RESULTS CONT.

Relationship of Research Findings to other Researches

Finding 1: MKT on GDP growth

- The results of this study supports the supply-leading hypothesis view of financial intermediation.
- It is supported by Schumpeter (1911); Goldsmith (1969); Patrick (1966); Shaw (1973) – *The positive role of finance in economic development*; Supported also by the works of Nazir, Nawaz, & Gilani (2010), Kolapo & Adaramola (2012); Surya & Suman (2006), Kargbo & Adamu (2010), Toloie-Eshlaghy, et al. (2011) and Osinubi (2001) – *positive effects of capital market development on economic growth*.
- Contrary to the findings of Minier (2003); Azarmi, Lazar, & Jeyapaul (2005); Osuala, Okereke, & Nwansi (2013); etc - negative effects on developing nations.
- **Finding 2: Causal effects**
- Supported by Killick & Martins (1990); Surya & Suman (2006); Brasoveanu, Dragota, Catarama, & Semenescu (2008).

DISCUSSIONS OF THE RESULTS CONT.

Relationship of Research Findings to Other Researches

Finding 3 – New models estimated.

Finding 4: Scarce knowledge

- Supported by Guiso & Jappelli (2008); Kimball & Shumway (2007); Lusardi & Mitchell (2006; 2007;) and Lusardi & Tufano (2009).

Finding 5: knowledge and participation

- Supported by Bell & Lerman (2005), UNITAR/DFM (2005), and Rooij, Lusardi, & Alessie (2007); Calcagno & Monticone (2011).

Finding 6: Sources of knowledge and participation

- **Some factors are supported by** Guiso & Jappelli (2004), Hong, Kubik, & Stein (2004); Bogan (2008); Brown, Ivkovic, Smith, & Weisbenner (2008); Berhein & Gareth (2003).

Finding 7: Reason for nonparticipation

- **Some factors are supported by** Vissing-Jorgensen (2002); Geararakos & Inderst (2011); Wanyana (2011); Cavapozz, Trevisan, & Weber, (2013).

Finding 8: The state of Ghana's capital market

- **Partly supported by** Bawumia, et al. (2008).

DISCUSSIONS OF THE RESULTS CONT.

Implications of Research Findings

Research Findings	Practical Implication	Theoretical Implications	Policy Implications
1. Capital market development has a positive and significant effect on economic growth.	This finding will help developing nations to appreciate the fact that developing their capital markets will cause economic growth, other things being equal.	This finding strengthens the use of the supply-leading hypothesis view of financial intermediation within the framework of the neoclassical growth model.	It will help policy-makers to formulate and implement policies that will develop capital markets for growth of businesses and governments' activities.
2. Three is bi-directional causality between capital market development and economic growth, but stronger from capital market development to economic growth..	This finding will ensure that the development of capital markets will have a feedback effect from the growth of the real sector..	The findings support the theory of bi-directional causality between financial development and economic growth.	It will help formulate policies to ensure that capital markets are able to absorb the benefits of economic growth-through products development and access to the market.
3. a. GDP growth is linearly related to by MKT, FDI, GFI, T-Bills and Inflation. b. Also, MKT is linearly related to by GDP growth, FDI, GFI, T-Bills and Inflation	These models can be used as guides to develop national economies through the creation of conducive macroeconomic environment, improvement in thee adoptive capacity of developing nations.		Development planners can be guided by the models after considering country specific problems.

DISCUSSIONS OF THE RESULTS CONT.

Implications of Research Findings

Research Findings	Practical Implication	Theoretical Implications	Policy Implications
4. Respondents have little knowledge about capital market activities.	The findings can lead to the implementation of strategic educational programmes that will increase individuals' knowledge about capital market activities.		There must be improvement in the educational drive of market regulators, managers, and operators.
5. There is a direct relationship between knowledge about capital market activities and participation in capital market activities.	The findings can encourage the use of strategic steps to increase peoples knowledge and participation in market activities.	The findings strengthen standard portfolio choice theories that state that increasing public knowledge and building public confidence in capital market activities could increase market participation.	There must be improvement in the educational drive of market regulators. Capital market courses can be made part of curricula of all levels of education. Development of attractive incentive packages to attract households into the market.
6. Five (5) key sources of knowledge and participation in capital market activities.	The findings will help improve educational programmes on the market.		.

DISCUSSIONS OF THE RESULTS CONT.

Implications of Research Findings

Research Findings	Practical Implication	Theoretical Implications	Policy Implications
7. Seven (7) main reasons for households low/nonparticipations in capital market activities.	The findings can contribute to regular assessment of ways to address the problems of nonparticipation in the market.		
8. The capital market in Ghana is still developing.	The findings can encourage strategic management of both internal and external factors that will develop the capital market in Ghana.		
			.

CONCLUSIONS AND SUMMARY

Research Objective	Research Findings	Research Implications
1. To examine the effect of capital market development on economic growth.	Capital market development has a significant and positive effect on economic growth.	**Theory:** The finding strengthens the supply-leading hypothesis view of financial intermediation within the framework of the neoclassical growth model. **Practice**: It helps us appreciate the fact that developing the capital market has the potential of increasing economic growth.
2. To assess the direction of causality between capital market development and economic growth.	There is a bi-directional causality between capital market development and economic growth, but stronger effect is from capital market development to economic growth.	**Theory:** The findings support the theory that there is a feed-back effect between capital market development and economic growth. **Policy:** The development of the capital market must be done in such a way that it will be able to absorb the benefits of economic growth.
3. To find out other macroeconomic factors that influence economic growth and to build a model that will help predict the growth path of an economy.	1. GDP growth is linearly related to by MKT, FDI, GFI, T-Bills, and Inflation. 2. MKT is linearly related to by GDP growth, FDI, GFI, T-Bills, and Inflation.	**Practice**: These models can be replicated in other jurisdictions. The findings can contribute to the regular assessment of these key factors that promote economic growth.

CONCLUSIONS AND SUMMARY

Research Objective	Research Findings	Research Implications
4. To determine the level of individuals' knowledge about capital market activities.	Respondents have little knowledge about capital market activities .	**Practice:** The findings can encourage strategic implementation and management of educational programmes that are aimed at increasing households knowledge about capital market activities.
5. To determine the relationship between the level of individuals' knowledge about capital market activities and individuals' participation in capital market activities.	There is direct relationship between knowledge about capital market activities and participation in capital market activities.	**Theory:** The findings strengthen standard portfolio choice theories that focuses on increasing public knowledge and building public confidence in capital market securities. **Practice:** The findings can encourage the use of strategic steps to increase peoples' knowledge and participation in market activities. **Policy:** Capital market courses can be made part of curricula of all levels of education.
6. To identify and analyse some of the critical factors that contribute to knowledge about capital market activities, and participation or otherwise in capital market activities.	1. Five (5) key sources of knowledge about market activities. 2. Seven (7) main reasons reason for households low/nonparticipation. in capital market activities	**Practice:** The findings can serve as a basis for promoting the stock market as an avenue individuals savings. **Policy:**. The findings will guide regulators, policy makers, market managers and operators in their

CONCLUSIONS AND SUMMARY

Research Objective	Research Findings	Research Implications
7. To assess the state of Ghana’s capital market and the way forward for its development.	The market in Ghana is still developing, has low depth, illiquid, dominated by institutional and foreign investors, has government dominated bonds market, and low participation .	**Practice:** The findings can encourage strategic management of both internal and external factors that will develop the capital market.

CONCLUSIONS & SUMMARY CONT.

The gaps in knowledge have been filled by the study as follows:

- Related themes and subjects have been examined in one study making it easy to verify the credibility of the study.
- It has cemented the positive feed-back effect between economic growth and capital market development, and the stronger effect coming from capital market development to economic growth.
- It has provided much more reliable models that can guide the growth paths of developing nations .
- It has established the critical role of level of individuals' knowledge and participation in capital market development and its effect on economic growth.
- The study has revealed some reasons for individuals low/nonparticipation in capital market activities.
- The capital market in Ghana is still developing, small, illiquid, dominated by institutional and foreign investors, dominated by government bonds.

CONCLUSIONS & SUMMARY CONT.

Four (4) Scientific Publications

- Acquah-Sam, E., & Salami, K. (2013). Knowledge and Participation in Capital Market Activities: The Ghanaian Experience. *International Journal of Scientific Research in Education*, 6(2), 189-203.
- Acquah-Sam, E., & Salami, K. (2014). Effect of capital market development on economic growth in Ghana. *European Scientific Journal* March 2014 edition vol.10, No.7 ISSN: 1857-7881 (Print) e - ISSN 1857- 7431
- Acquah-Sam, E. (2014). The state of Ghana's capital market. *Journal of Applied Economics and Business*, Vol.2, Issue 3 – September , 2014, PP. 55-66
- Salami, K., & Acquah-Sam, E. (2013). Analysis of knowledge influences in Ghana's capital market development. *Journal of Business Administration and Management Sciences Research*, Vol. 2(9), pp. 203-208.

THANK YOU