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PREFACE

The University of Cape Coast has run business programmes since the 1975/76 academic year, when it introduced the immensely popular Bachelor of Commerce degree programme. In 2003, the Department of Business Studies, then part of the Faculty of Social Sciences, attained Faculty status as the School of Business.

Like other leading Business Schools in the world, it is befitting of the School of Business of the University of Cape Coast to have a scholarly journal of the highest standards, which focuses on business and enterprise development. *Journal of Business and Enterprise Development (JOBED)* aims to stimulate in-depth and rigorous empirical and theoretical research in the business and enterprise development.

This issue features articles touching on innovation and entrepreneurship, corporate social responsibility and banking, human resource factors and organisational commitment, capital mobility in the agricultural sector, strategic orientation and performance of hotels, perception of students on customer service, and financial innovation and it governance. The broad spectrum of articles selected underscores the importance of addressing business issues in a multidisciplinary context. Each article has been subjected to scrutiny not only by the editorial board, but also by seasoned reviewers from within and outside the University of Cape Coast. A double-blind assessment procedure was adopted for the review.

The *Journal of Business and Enterprise Development (JOBED)* is currently published as an annual periodical, but it is hoped that very soon it will be released twice a year and, subsequently, quarterly.

It is our fervent hope that readers will benefit from its contents, and that quality contributions will be forthcoming to sustain it. We welcome all comments aimed at improving the journal.

May I take this opportunity to thank the various reviewers who took time off their busy schedules to review the papers submitted. May I also thank the members of the editorial board in recognition of the role they played, and the quality service rendered towards the production and release of this document.

I wish you enjoyable reading.

F. O. Boachie-Mensah
(Editor-in-Chief)

Contributions of Research Collaboration to Innovation across Disciplines: Assessing the Entrepreneurial Role of Two Ghanaian Universities

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Abstract

On the basis of debates in literature on the usefulness of research from different disciplines to innovation, this study sought to assess the extent to which research collaboration between university researchers and the carriers of innovation yield outputs that contribute to innovation. The paper analysed data from stratified sample of academics from the Sciences, Technology, Engineering and Mathematics, the Social Sciences, and the Arts, in two Ghanaian universities with the mandate to contribute to research and innovation in Ghana. Out of 266 respondents, a minimum of 40 and a maximum of 108 multiple responses were recorded on the perceived use of collaborative research findings in various types of innovation and for problem solving. Except for service innovation, Kruskal-Wallis tests of differences across disciplines did not reveal statistically significant differences, in the extent to which the academics perceived their collaborative research findings to have contributed to innovation. Thus, all academic disciplines can be relevant to innovation and should be given the necessary policy support.

Keywords: *Collaboration, discipline, entrepreneurial, innovation, research, university.*

Introduction

Research collaboration refers to interactions among persons and or entities of diverse interests to embark upon research and to use the research findings for pre-determined purposes such as advancing knowledge in a scientific field and for innovation (Baba, Shichijo & Sedita, 2009). It constitutes an entrepreneurial role of universities in the form of knowledge production and usage for innovation, for example product innovation, service innovation and technological innovation (Hughes, Kitson, Probert, Bullock & Milner, 2011; Robin & Schubert, 2013). As established by Schumpeter (1934/1983) in the theory of economic development, innovation is a major driver of economic development while by Acs, Braunerhjelm, Audretsch and Carlsson's (2009) postulate in the knowledge spillover theory of entrepreneurship, research and the flow of research findings from universities to knowledge users are fundamental to innovation.

Research collaboration acts as an essential medium for the flow of knowledge between universities and knowledge users for innovation in the private, public and third sectors of an economy (Hughes et al., 2011). In recognition of this fact, the global innovation index makes provision for the ranking of nations on indicators such as the level of university-industry research collaboration and government funding in the form of Gross Expenditure on Research and Development (GERD) (Dutta, Lanvin & Wunsch-Vincent, 2018). Government support assumes several forms including budgetary allocation to national Research and Innovation/Development (R&D), enactment of intellectual property laws and the creation of science and industrial parks.

Globally, government policies and funding have largely focused on the Sciences, Technology, Engineering and Mathematics (STEM) upon the premise that they are relatively more important to innovation (Bakhshi, Schneider & Walker, 2008; Hughes et al., 2011). This has been criticised by scholars such as Bakhshi, Schneider and Walker (2008) and Hughes et al. (2011) who argue that all academic disciplines are relevant to innovation, hence research and innovation policies should not leave some academic disciplines at the periphery of policy interventions.

Ghana, like other sub-Saharan African countries, recognise

the importance of research, innovation and research collaboration to national development and as a result, makes budgetary allocations for these activities which constitute the mandate of the Council for Scientific and Industrial Research (CSIR), public universities and industry players (Mouton, Gaillard & van Lill, 2015). The country's budgetary allocations, in the 2018 Global Innovation Index, show that Ghana's GERD was 0.4 percent and university-industry research collaboration had a score of 41.2 as compared with that of top performers such as Switzerland with a score of 79.5 (Dutta et al., 2018). As a low performer on innovation, Ghana ranked 96 out of 141 countries in 2014 and 107 out of 126 countries in 2018 (Bartels, Koria & Vitali, 2016; Dutta et al., 2018).

Consistent with global trends, Ghana's R&D policies favour R&D by the STEM in spite of appeals to nations to give due attention to all academic disciplines (Bakhshi, Schneider & Walker, 2008; Hughes et al., 2011). The situation has been criticised by Oduro-Marfo (2015) who notes that the 2010 Ghana National Science, Technology, and Innovation Policy considers innovation as the prerogative of only Science and Technology. Moreover, few studies exist on the usefulness of research, from various academic disciplines, to innovation and particularly the usefulness the disciplines to the different types of innovation. This study was, therefore, conducted to offer some preliminary insights into the extent to which research collaboration between university researchers, from different academic disciplines, and knowledge users yield outputs that contribute to innovation.

More specifically, using the case of the Kwame Nkrumah University of Science and Technology (KNUST), with a relatively higher focus on the STEM, and the University of Cape Coast (UCC), which is much inclined towards the Social Sciences and the Arts, this paper explored the perceptions of academics on the extent to which their collaborative research findings have contributed to innovation by knowledge users. Both universities were set up under the leadership of the first president of Ghana, Osagyefo Dr. Kwame Nkrumah. KNUST was established in 1951, as the Kumasi College of Technology, to promote science and

technology in Ghana while UCC was established in 1962 as a University College with the core mandate to promote science education in Ghana (KNUST, 2005; UCC, 2012). Although the two universities have maintained their core mandates over the years, they have grown in size and in focus. Their teaching, research and extension activities are carried out in academic disciplines in the Arts, the Social Sciences and the STEM.

In pursuit of the objectives of the study, literature review was conducted on related theoretical and empirical studies. The outcome of the literature review is presented in the following section. Subsequent sections of the paper consist of methodology and results. These are followed by discussions, conclusions and policy implications, and limitations for future research.

Literature Review

Theoretical and Conceptual Framework of the Contributions of Research Collaboration to Innovation

Research collaboration is defined as interactions among persons and/or entities of diverse interests to embark upon research and to use the research findings for pre-determined purposes such as advancing knowledge in a scientific field and or innovation (Baba et al., 2009). It is regarded as an entrepreneurial role of research-oriented universities and underpins other entrepreneurial roles that universities are expected to play in society. Generally, the entrepreneurial roles of universities may encompass one or a combination of feeding the labour market with entrepreneurial and enterprising graduates through teaching, conducting and disseminating innovation-driven research and contributing to regional and national development through extension (Audretsch, 2014; Sharma, 2015).

Research collaboration between the university and knowledge users is described as an entrepreneurial role of universities due to the fact that it is a means of generating knowledge that could serve as sources of entrepreneurial opportunities (Braunerhjelm, Audretsch & Carlsson, 2010). It is also an indispensable means of converting the opportunities, in the form of tacit knowledge, into innovation (Abdulai, Thomas & Murphy, 2015; Cunningham & Link, 2015). This fact is upheld both in

theory and in practice. For instance, the theory of economic development by Schumpeter (1934/1983) established innovation as a primary driver of economic growth and development and, as a means of tracing the source of entrepreneurial opportunities for innovation, Schumpeterian growth models brought to light, research as major source of knowledge for innovation (Braunerhjelm et al., 2010).

The knowledge spillover theory of entrepreneurship by Acs et al. (2009) affirmed the revelation by the Schumpeterian growth models. The theory illustrates that the more efficiently knowledge flows over from entities such as universities and research institutions to other entities for exploitation, the bigger the effect of new knowledge on entrepreneurship for innovation, competitiveness, growth and development (Acs et al., 2009; Acs et al., 2013). In practice, university research and research collaboration, in particular, have been valuable sources of knowledge and/or entrepreneurial opportunities for regional and national innovation.

Costa and Teixeira (2005) in a survey of 425 technology-intensive firms located in Portugal established, through estimations of ordered logit models, that universities are an important source of information and knowledge for innovative activities. Another study by Mueller (2006) also showed that research, entrepreneurship and university-industry relations, as well as physical capital, labour and regional knowledge stock, significantly influenced regional economic growth in West German regions. On the premise that the Arts and Humanities/Social Sciences were often ignored in studies on interactions between academia and external entities, Hughes et al. (2011) explored collaboration between academics in higher education institutions and businesses in the United Kingdom (UK). They found out that the Arts and Humanities collaborated with businesses for several reasons and that they could consist of disciplines that are applied in nature and could make valuable contributions to collaborative innovation in the private, public, and third sectors of the UK economy, if given the needed policy support.

A comparative analysis of France and Germany by Robin and Schubert (2013) revealed that collaboration with public research institutions had a significant positive influence on product and process

innovation intensity although the impact was twice as high in Germany as the impact in France due to the more diffusion-oriented German science policy. A related study in Ghana by Abdulai et al. (2015) revealed mediating effects of co-operate collaborations and knowledge-based networking on the link between industry-university interactions and organisational innovation.

Contextual support is paramount to the ability of research collaboration to facilitate knowledge production and the uptake of the knowledge for innovation. The studies by Hughes et al. (2011) and Robin and Schubert (2013) confirmed the importance of an enabling environment to research collaboration, especially government support in the form of policy and funding. However, except Hughes et al.'s (2011) study which gave an insight into the relevance of research from academic disciplines outside the STEM to innovation, the other studies focused on the broader concept of the usefulness of research collaboration to innovation.

Acknowledging the fact that research collaboration embraces all academic disciplines and the outcomes of the collaboration could be relevant to innovation, the contributions of research collaboration to innovation is conceptualised to consist of the extent to which research findings, from collaboration between university researchers and knowledge users from the private, public and third sectors of the economy are used in innovation (Figure 1). It is also recognised in the framework that government support helps in creating an enabling environment and may come in various forms such as lesser administrative and regulatory burdens, budgetary allocations and establishment of research and innovation policies and funding (Acs et al., 2009; Braunerhjelm et al., 2010). Mindful of the usefulness of all types of research – pure basic research, pure applied research and use-inspired basic research – to innovation (Archibugi & Filippetti, 2018), no distinction is made among the three types of research.

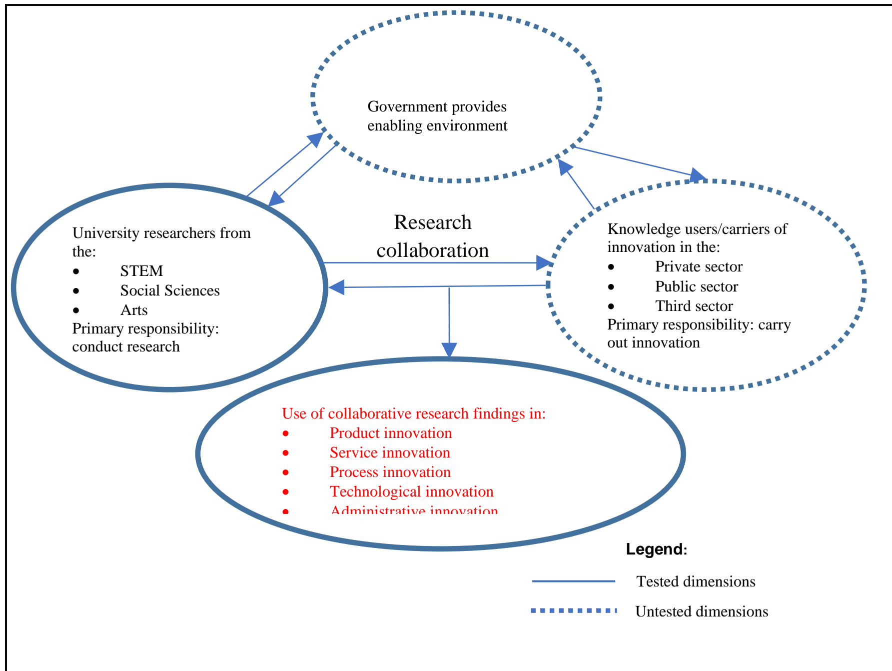

Figure 1: Conceptual framework of the contributions of research collaboration to innovation
Source: Author's construct (2015)

However, a differentiation is made on the basis of academic discipline (Figure 1) as a result of the apparent debate on the capability of research from academic disciplines outside the STEM to make significant contributions to innovation by knowledge users in various sectors of the economy (Bakhshi et al., 2008; Hughes et al., 2011). Generally, government policy has favoured the STEM due to the conviction that the Arts and the Social Sciences are less relevant to innovation. Nevertheless, emerging studies, for example, by Hughes et al. (2011) and Moore, Hughes and Ulrichsen (2010) indicate that research by all academic disciplines, including the Arts and the Social Sciences or the Humanities, can make substantial contributions to innovation.

Primary knowledge users, that is the carriers of innovation, have been identified to include all

individuals and entities in the private, public and third sectors of an economy (Hughes et al., 2011; Hughes & Kitson, 2012). Following definitions by Hughes et al. (2011) and Hughes and Kitson (2012), the private sector comprises individuals and entities, such as entrepreneurs and businesses that pursue privately-owned economic activities whereas the public sector consists of state-owned institutions as well as public sector organisations and employees. Charities, voluntary organisations and social enterprises including the local community and Non-Governmental Organisations (NGOs) constitute the third sector.

On the premise that university research can be beneficial to innovation as a process and outcome of the process (Quintane, Casselman, Reiche & Nylund, 2011; Robin & Schubert, 2013), the conceptual framework (Figure 1) embraces the two realities of innovation and categorises innovation into six types. These are product innovation, service innovation, process innovation, technological innovation, administrative innovation and opportunity-related innovation. This position contradicts the process view of innovation which includes hard or technological innovations (e.g. generation of patents or the introduction of new product, process) and soft or non-technological innovations (e.g. organisational innovation, market innovation) (Tavassoli & Karlsson, 2015). Bloch (2007) in a review of the 2005 Oslo Manual indicates a shift of emphasis from the word "technological" to characteristics or intended uses in order to make the definitions more applicable to innovation in services.

Therefore, product innovation is defined as the process or outcome of the process of developing or offering a new or improved good. This definition is consistent with that of Schumpeter (1934/1983) which is the introduction of a new good or a new quality of a good. On the other hand, service innovation consists of the process or outcome of the process of developing or offering a new or upgraded service while process innovation is conceptualised as involving the procedure or outcome of the procedure of developing or introducing a new or improved production or service delivery method. Boachie-Mensah and Acquah (2015) adopted a similar definition of process innovation in their study of innovation and firm

performance in Ghana. They defined process innovation as the process of re-engineering and improving the internal operations of organisational processes.

Contrary to the process-based conceptualisation of technological innovation as a set of activities through which a firm conceives, designs, manufactures and introduces a new product, service or process (De Massis, Frattini, Pizzurno & Cassia, 2015), technological innovation is captured in the framework (Figure 1) as the process and outcome of the process of developing or offering new or improved tools, equipment or component parts. Administrative innovation is conceptualised in line with Schumpeter's definition (1934/1983) which is the carrying out of new or improved organisation of any industry. Damanpour, Szabat and Evan (1989) argue that administrative innovation affects the social system of an organisation which includes rules, roles, procedures, and structures. It is close in meaning to organisational innovation which is the implementation of a new organisational method through strategic management decisions, as highlighted by Camisón and Villar-López (2014).

The definition of opportunity-related innovation (Figure 1) also follows Schumpeter's opening of a new market and or the conquest of a new source of supply of raw materials. Opportunity-related innovation is, therefore, close in meaning to market innovation defined by Johne (1999) as improving the mix of target markets and how the chosen markets are best served. Nevertheless, the definition of opportunity-related innovation, in the conceptual framework (Figure 1), also embraces introduction of alternative sources of livelihood to reflect the relevance of social entrepreneurship and consequent innovation outcomes for the marginalised in society. This view is buttressed by Bartels et al.'s (2016) argument that current policy debates on research, technology and innovation are tilting towards societal challenges rather than solely towards economic growth objectives.

In sum, research collaboration embraces all academic disciplines. Nevertheless, it is not very clear in literature whether research findings from disciplines outside the STEM could be beneficial to specific types of

innovation. In recognition of the different types of innovation, the following two composite hypotheses guided the study of the contributions of research collaboration to innovation, across disciplines:

H_0: There are no significant differences among academic researchers in the Sciences, Technology, Engineering and Mathematics (STEM), the Social Sciences, and the Arts, in the extent to which their collaborative research findings contribute to product innovation, service innovation, technological innovation, process innovation, administrative innovation and opportunity-related innovation.

H_1: There are significant differences among academic researchers in the Sciences, Technology, Engineering and Mathematics (STEM), the Social Sciences, and the Arts, in the extent to which their collaborative research findings contribute to product innovation, service innovation, technological innovation, process innovation, administrative innovation and opportunity-related innovation.

Methodology

Survey design, based on the mixed methods approach (Leedy & Ormrod, 2010), was used to analyse the perceived contributions of research collaboration to innovation. The population of the study comprised all academic senior members of UCC and KNUST with teaching, research and outreach responsibilities. The study was conducted at KNUST and UCC because the pool of academics from the two universities was comprehensive and versatile for the test of hypothesised differences by academic discipline towards the debate on the usefulness of disciplines outside the STEM to innovation. Based on each university's directory, in January 2015, the study population was 1531 with 41 percent from UCC and 59 percent from KNUST. The elements of the population belonged to academic disciplines which were similar in nature across the two universities thereby, subsequently, permitting stratification of the study population into three academic disciplines of STEM, Social Sciences and Arts. In all, the STEM had 896

academics, Social Sciences had 408 while the Arts had 227, resulting in the total population of 1,531.

With a working sample of 511, the sample sizes of the three strata – 297 for the STEM, 138 for the Social Sciences and 76 for the Arts – were determined through proportionate stratified sampling, firstly by institution and secondly by academic discipline (Schönbrodt & Perugini, 2013). Selection of respondents from each stratum was done by the computerised sample selection method. Eleven key informants were purposely selected for the qualitative aspect of the study. The informants comprised eight academics who had long standing experience in research collaboration. They were recommended by the leadership of the Directorate of Research, Innovation and Consultancy (DRIC) at UCC and the Office of Grants and Research (OGR) at KNUST. The remaining three informants were the Director of DRIC, the Head of the OGR and the Head of the Technology Consultancy Centre (TCC) at KNUST.

In reference to the conceptual framework of the study (Figure 1), innovation variables were assessed on a semantic differential scale, through questionnaire design (Zikmund, Babin, Carr & Griffin, 2013). The scale varied from 1, representing "least beneficial", to 7, representing "very beneficial". Data requirement constituted the extent to which collaborative research findings, within the past ten years, was beneficial to external collaborating parties in terms of improving upon or developing any of the six types of innovation which are illustrated in the conceptual framework. Academic discipline of respondents was measured using nominal scale. Two separate interview guides were developed for the two groups of informants to elicit their research collaboration experiences over the past ten years. A number of questions and prompts in the interview guides were derived from major issues that emerged from the quantitative study.

Ethical clearance for the study was given by the University of Cape Coast Institutional Review Board in September, 2014. The questionnaire was pilot tested from September, 2014 to October, 2014 at the KNUST. After refining the questionnaire, it was administered from November, 2014 to March, 2015 while interviews were conducted in May, 2015 and June, 2015.

Quantitative data were analysed with IBM Statistical Product and Service Solutions (SPSS) Version 19. Test of hypothesised differences across academic discipline was done with the Kruskall-Wallis test instead of ANOVA due to violation of one of the assumptions for the conduct of ANOVA, that is, the presence of conditions with less than 25 participants (Schmider, Ziegler, Danay, Beyer & Bühner, 2010). Qualitative data were transcribed and analysed on the basis of major themes.

Results and Discussion

Results

This section of the paper consists of presentation and analysis of the results of the study. The results encompass descriptive analysis of the demographic characteristics of respondents and the use of collaborative research findings in innovation. The descriptive analysis is followed by tests of hypothesised differences in the extent to which collaborative research findings from the STEM, the Social Sciences and the Arts are perceived to have contributed to the various types of innovation, presented in the conceptual framework of the study (Figure 1).

Descriptive Results

Assessment of four demographic characteristics of respondents – sex, rank, academic discipline and years of service – showed that most respondents were males. That is, out of a total of 266 responses on sex, 76 percent were from males while 24 percent were from females. In terms of rank of respondents, 265 responses were recorded with senior lecturers accounting for the most (48%) while professors were the least (2%). Assistant lecturers, lecturers and associate professors constituted 11 percent, 33 percent and six percent of the responses on rank. In relation to 256 responses on academic discipline, the majority (62%) came from the STEM while the minority was from the Arts (13%). The remaining 25 percent of responses on academic discipline were from the Social Sciences. A total of 261 responses were documented on years of service with a minimum score of one year and a maximum of 39 years, and a mean score of 10 years.

In accordance with the conceptual framework of the study which proposes that research

collaboration can be useful to developing or improving upon various types of innovation, data were analysed on the extent to which collaborative research findings are perceived to have contributed to developing and improving upon innovations as well as to problem solving. Descriptive analysis showed that a total of 133 respondents had engaged in research collaboration within the past ten years. A minimum of 40 and a maximum of 108 multiple responses were received on the extent to which collaborative research findings contributed to various types of innovation and problem solving. The respective descriptive statistics, presented in Table 1, revealed some key findings based on scores below the tolerable limits of skewness (±2) and kurtosis (±7) (Schmider et al., 2010).

Table 1: Perceived Contributions of Collaborative Research Findings to Innovation and Problem Solving

	N	Min.	Max.	Mean	SD	Skewness	Kurtosis
Innovation:							
Product innovation	46	1	7	4.73	1.328	-1.069	.606
Service innovation	94	1	7	5.53	1.250	-1.372	2.330
Technological innovation	40	1	6	4.17	1.430	-.891	-.144
Process innovation	89	2	7	5.39	1.174	-.945	.581
Administrative innovation	52	1	7	4.45	1.412	-.453	.510
opportunity-related innovation	61	1	7	4.53	1.557	-.525	.620
Problem solving	108	1	7	5.73	1.212	-1.295	2.043

The extent to which collaborative research findings were perceived to have contributed to problem solving had the highest mean score of 5.73 followed by service innovation with a mean score of 5.53 (Table 1). Except for service innovation and process innovation which had mean scores of 5.53 and 5.39, respectively, the remaining innovation types recorded relatively lower mean scores with technological innovation recording the lowest mean score of 4.17, as

shown in Table 1. Thus, whereas collaborative research findings were perceived to have made quite high contributions to problem solving, service innovation and process innovation, the perceived contributions to product innovation, technological innovation, administrative innovation and opportunity-related innovation were relatively lower.

Interview results revealed that the collaborative research findings of the eight key informants, from the various academic disciplines, made some contributions to innovation. A landmark innovation was the development of conflict map, which according to an interviewee, is a "commercialised" invention from research collaboration. Another major innovation was the development and commercialisation of the integration of clay with other materials which has led to reduction in overreliance on wood for artwork and ceramic production. An interviewee expressed satisfaction with this development by stating that:

> "…they make the mugs. How can we come in there? The mugs, they cut wood to develop that well or mould. But wood if they could produce about 1000 different mug shapes or designs, that means 1000 different designs of wooden moulds and that will have an impact, that is negative impact, on the environment. The integration of the wood…will affect the eco-biodiversity. Clay is one material that is in abundance in the whole world. So how can we come in? So, we make the moulds with clay. As for clay you can smash it and reuse it."

Test of Differences across Academic Disciplines

Kruskal-Wallis tests were conducted to examine whether academic researchers from the STEM, Social Sciences and Arts, differ in the extent to which their collaborative research findings were perceived to be beneficial to the six types of innovation outlined in the conceptual framework of the study (Figure 1). The tests were necessitated by emerging debates such as those by Bakhshi et al. (2008) and Hughes et al. (2011), in the literature on university interaction with external entities, which argue

for policy attention for all academic disciplines besides the STEM. The STEM has been the priority of policy interventions due to the perception that this discipline, by its nature, is relatively more useful to innovation (Bakhshi et al., 2008; Hughes et al., 2011). The Kruskal-Wallis tests were performed on the six types of innovation presented in the conceptual framework of this study.

Firstly, the extent to which the perceived collaborative research findings contributed to product innovation was analysed with a total of 45 responses (Table 2). Inspection of Table 2 shows that the STEM recorded the highest mean rank (25.16) while the Arts had the lowest mean rank (23.00). However, assessment of the median scores, as presented in Table 2, revealed that collaborative research findings from the Social Sciences (M = 4.75) made the least perceived contribution to product innovation whilst the highest perceived contribution came from the STEM (M = 5.50). That is, collaborative research findings from the Social Sciences were considered less beneficial to product innovation while that from the STEM was considered relatively more beneficial to product innovation. Nevertheless, results of the Kruskal-Wallis test indicated the absence of statistically significant differences in the extent to which collaborative research findings from the three academic disciplines were perceived to be beneficial to product innovation [(Group 1, n = 25: STEM, Group 2, n = 14: Social Sciences, Group 3, n = 6: Arts), x^2 (2, n = 25) = 1.938, p = .379].

Thus, academic researchers from the STEM, Social Sciences and Arts did not differ, significantly, in the extent to which they perceived their collaborative research findings to be beneficial to product innovation. Interview results showed that collaborative research findings from the STEM contributed, for example, to the development of new varieties of crops, solar panels and production of biodiesel while that from the Arts were very beneficial to innovations in the creative industry. One landmark product innovation from the Social Sciences was the development of conflict map for Ghana, which according to an interviewee happened to be a new-to-the-world innovation.

Table 2: Perceived Contributions of Research Collaboration to Innovation across Academic Disciplines

Academic Discipline	N	Mean Rank	Chi-square	Asymp. Sig.	Median Scores
Product Innovation			1.938	.379	
STEM	25	25.16			5.50
Social Sciences	14	19.14			4.75
Arts	6	23.00			5.00
Total	*45*				*5.00*
Service Innovation			6.778	.034	
STEM	55	51.47			6.00
Social Sciences	29	36.95			5.00
Arts	7	40.50			6.00
Total	*91*				*6.00*
Technological Innovation			.032	.984	
STEM	23	20.00			5.00
Social Sciences	12	19.71			4.50
Arts	4	20.88			4.50
Total	*39*				*4.50*
Process Innovation			.0647	.724	
STEM	49	44.17			6.00
Social Sciences	30	41.22			6.00
Arts	7	48.57			6.00
Total	*86*				*6.00*
Administrative Innovation			.311	.856	
STEM	29	25.10			4.50
Social Sciences	19	26.87			5.00
Arts	3	29.17			5.00
Total	*51*				*4.50*
Opportunity-related Innovation			4.188	.123	
STEM	35	32.93			5.00
Social Sciences	19	28.00			4.50
Arts	5	17.10			3.00
Total	*59*				*5.00*

Secondly, the perceived contribution of collaborative research findings to service innovation was assessed. The

assessment was based on a total of 91 responses (Table 2). Results of the assessment showed that the STEM recorded the highest mean rank (51.47) followed by the Arts (40.50) and Social Sciences (36.95), respectively. In addition, the STEM and the Arts recorded higher median scores of 6 each, than the Social Sciences which had a median score of 5 (Table 2). Results of the Kruskal-Wallis test revealed statistically significant differences in the extent to which collaborative research findings from the three academic disciplines were perceived to have contributed to service innovation [(Group 1, n = 55: STEM, Group 2, n = 29: Social Sciences, Group 3, n = 7: Arts), χ^2 (2, n = 55) = 6.778, p = .034]. Some service innovations which benefited from the collaborative research findings of some interviewees were in the educational sector, agricultural sector and media work. An example was the use of language in the media landscape and some educational institutional discourses which, in the view of the interviewee, was becoming domineering and needed to change for enhanced service delivery.

Thirdly, with a total of 39 responses, the extent to which collaborative research findings were perceived to have been useful to technological innovation was analysed. Results of the analysis, presented in Table 2, showed close mean ranks with the Arts and the STEM recording similar mean ranks of 20.88 and 20.00, respectively, while the Social Sciences recorded a relatively lower mean rank of 19.71. The Social Sciences and the Arts recorded the same median score (M = 4.50) whilst the STEM had a higher median score of 5.00. The median scores indicate that collaborative research findings from the Social Sciences and the Arts were perceived to be relatively less beneficial to technological innovation than those from the STEM. However, Kruskal-Wallis test results did not show statistically significant differences in the extent to which collaborative research findings were considered to have contributed to technological innovation, across the three academic disciplines [(Group 1, n = 23: STEM, Group 2, n = 12: Social Sciences, Group 3, n = 4: Arts), χ^2 (2, n = 39) = .032, p = .984].

In other words, academic researchers from the STEM, Social Sciences and Arts did not differ, significantly, in the perceived usefulness of their collaborative

research findings to technological innovation. One key observation is that most technological innovations by interviewees from the STEM still need widespread commercialisation. Follow up questions revealed that relatively huge capital outlays are needed for large-scale commercialisation and efforts to secure risk capital from government and private sources have proven futile.

It is essential to note that students were instrumental in knowledge and technology development and transfer through internships and research collaborations that involved faculty, students and industry. A typical example from an interviewee was the development of mini-cassava grater powered by biodiesel for commercial processing of cassava into *gari*, a Ghanaian food staple. An interviewee from the Arts highlighted the importance of collaboration to knowledge exchange: "We do a lot of collaboration with industry…they have the machinery…if you want to do something…you go and access their machinery. Sometimes, we design for them for international exhibitions."

Fourthly, the perceived contribution of collaborative research findings to process innovation was examined with a total of 86 responses. Inspection of the descriptive statistics, presented in Table 2, revealed that the Arts (48.57) had the highest mean rank followed by the STEM (44.17) and the Social Sciences with the lowest mean rank (41.22). However, as illustrated in Table 2, the three academic disciplines recorded the same median scores (M = 6.00), which is an indication that respondents considered the use of their collaborative research findings in process innovation, as high. Kruskal-Wallis test did not show statistically significant differences in the extent to which collaborative research findings from the three academic disciplines were perceived to have benefited process innovation [(Group 1, n = 49: STEM, Group 2, n = 30: Social Sciences, Group 3, n = 7: Arts), χ^2 (2, n = 86) = .0647, p = .724].

Thus, academic researchers from the STEM, Social Sciences and Arts did not differ, significantly, in the extent to which they perceived the use of their collaborative research findings in process innovation (Table 2). Production processes and

teaching methodologies were some areas that benefited from the collaborative research findings of interviewees. An interviewee shared his experience on his contribution to deficit irrigation for rice cultivation in some communities in the Central Region of Ghana:

> "…we were trying to sell the idea that you could do a second crop, vegetable…instead of letting the land remain fallow after the rice. …Normally, they don't go through the recommended practices of…planting rice. We went in to help… you plough the land, you harrow it, you construct your ponds, the ponds will trap the water… because rice is a water loving plant…But most crops will die…you have to take out the water."

Fifthly, with a total of 51 responses, the extent to which collaborative research findings from the three academic disciplines were perceived to have contributed to administrative innovation was assessed (Table 2). The assessment showed that the Arts recorded the highest mean rank of 29.17 whereas the STEM recorded the lowest mean rank (25.10). Median scores, presented in Table 2, indicated that collaborative research findings from the Social Sciences (M = 5.00) and the Arts (M = 5.00) were perceived to have been useful to administrative innovation while that from the STEM were perceived to have been less beneficial to administrative innovation. However, Kruskal-Wallis test did not reveal statistically significant differences in the extent to which collaborative research findings were perceived to have been useful to administrative innovation, across the three academic disciplines [(Group 1, n = 29: STEM, Group 2, n = 19: Social Sciences, Group 3, n = 3: Arts), χ^2 (2, n = 51) = .311, p = .856].

The test results indicate that academic researchers from the STEM, Social Sciences and Arts did not differ, significantly, in the extent to which they perceived their collaborative research findings to be beneficial to administrative innovation (Table 2). Some interviewees from the Social Sciences shared their experiences on the contribution of their collaborative research findings to the development of national and institutional policies and practices in the fields of

development and education. One interviewee noted that collaborative research findings enhanced justice delivery in Ghana's chieftaincy system, while another pointed to development of manuals and policy briefs for administering educational leadership to promote quality and effective teaching and learning in Ghanaian schools.

Last but not the least, the perceived contribution of collaborative research findings to opportunity-related innovation was analysed with a total of 59 responses (Table 2). Inspection of Table 2 shows that the STEM recorded the highest mean rank (32.93). The lowest mean rank was recorded by the Arts (17.10). In the same way, median scores presented in Table 2 indicate that collaborative research findings from the STEM (M = 5.00) were considered to be relatively beneficial to opportunity-related innovation while that from the Social Sciences (M = 4.50) were considered less beneficial to the innovation. The perceived benefits derived from collaborative research findings from the Arts was quite low (M = 3.00).

Nonetheless, results of the Kruskal-Wallis test did not show statistically significant differences in the extent to which collaborative research findings were perceived to have been used in opportunity-related innovation, across the three academic disciplines [(Group 1, n = 35: STEM, Group 2, n = 19: Social Sciences, Group 3, n = 5: Arts), χ^2 (2, n = 59) = 4.188, p = .123]. Thus, academic researchers from the STEM, Social Sciences and Arts did not differ, significantly, in the extent to which they perceived their collaborative research findings to have contributed to opportunity-related innovation (Table 2).

Three major opportunity-related innovations came up during interviews. These were the use of biodiesel to power vehicles, land reclamation for crop production and the development of artificial zeolites (which according to the researcher happens to be a new-to-the-world innovation for which patent was being sought) for water purification and fertilizer production. An interviewee emphasised the opportunities that have been created in the Ghanaian business environment through research collaboration with industry: "Now the integration has caught up, now everybody is saying integration. It started, all here…"

On the basis of the foregoing analysis, with the exception of

service innovation, there is failure to reject the composite null hypothesis that there are no statistically significant differences in the extent to which collaborative research findings from the STEM, the Social Sciences and the Arts are beneficial to product innovation, technological innovation, process innovation, administrative innovation and opportunity-related innovation. The results further show that all the academic disciplines are relevant to innovation although some variations may occur.

Another major observation from the median scores in Table 2 is that, the STEM appeared to be a leader in all types of innovation except for administrative innovation and process innovation, while the Social Sciences were perceived to have made relatively lesser contributions to the various types of innovation, excluding administrative innovation. The Arts was a close follower of the STEM. Interview results from the Liberal Arts revealed that use of collaborative research findings, by relevant bodies, resulted more in the improvement of processes and service delivery by the users, while collaborative research findings from the Creative Arts yielded, relatively, more product innovations such as jewelry, furniture and other items for interior decoration.

Robustness Tests

The preceding results and analysis pointed to the absence of statistically significant differences in the extent to which collaborative research findings from the STEM, the Social Sciences and the Arts were perceived to have contributed to the different types of innovation, except service innovation. In order to control for Type 1 error, in the analysis of service innovation, post-hoc analysis was done with the Mann-Whitney U test with an Alpha level of .017 (Pallant, 2011).

The first Mann-Whitney U test was between the STEM and the Social Sciences. The test revealed a statistically significant difference, at $\alpha = .017$, in the extent to which collaborative research findings from the STEM ($Md = 6$, n = 55) and the Social Sciences ($Md = 5$, n = 29), U = 545, z = -2.504, $p = .012$, $r = .273$, were considered to have contributed to service innovation. The effect size, $r = .273$, was computed with the formula $r = z \div \sqrt{N}$ (Pallant, 2011). Using Cohen's criteria (.1 = small; .25 = medium; .40 = large) for effect size interpretation (Cohen, 1992;

Pallant, 2011), it can be concluded that a medium, statistically significant difference existed between the STEM and the Social Sciences in the extent to which they perceived their collaborative research findings to have contributed to service innovation.

The second and third Mann-Whitney U tests were between the STEM and the Arts, on one hand, and the Social Sciences and the Arts, on the other. The test between the STEM and the Arts showed insignificant difference, at $\alpha = .017$, in the extent to which their collaborative research findings from the STEM (*Md* = 6, n = 55) and the Arts (*Md* = 6, n = 7), U = 144.000, z = -1.138, $p = .225$, were considered beneficial to service innovation. There was also no statistically significant difference between the Social Sciences and the Arts in the extent to which they perceived their collaborative research findings to have contributed to service innovation ($\alpha = .017$: Social Sciences (*Md* = 5, n = 29), Arts (*Md* = 6, n = 7), U = 91.500, z = -.433, $p = .696$).

On the basis of the fact that the STEM and the Social Sciences had significant differences in their perceived contributions to service innovation, there is failure to accept the null hypothesis that no statistically significant differences exist among the STEM, the Social Sciences and the Arts in the extent to which their collaborative research findings are beneficial to service innovation.

Discussion

From the conceptual framework of the study (Figure 1), it can be said that collaborative research output was considered to have contributed to service innovation and process innovation, while the output was considered quite beneficial to product innovation, opportunity-related innovation, administrative innovation and technological innovation. The findings buttress the relevance of university research to innovation as established in prior studies such as those by Costa and Teixeira (2005) in Portugal, Mueller (2006) in Germany and Robin and Schubert (2013) in France and Germany.

However, the lower mean and median scores for the extent to which collaborative research findings were perceived to be beneficial to product innovation, opportunity-related innovation,

administrative innovation and technological innovation, coupled with the relatively lower percentage of academics who had engaged in research collaboration, imply that the collaborative research findings made less contribution to Ghana's knowledge-based economy. This condition creates the tendency for a wider knowledge filter which is the gap that exists when investment in knowledge creation yields new knowledge that is yet to be exploited and put to commercial use (Acs et al., 2013; Braunerhjelm et al., 2010).

Paradoxically, the general expectation is that collaborative research findings would make substantial contribution to innovation in a country, like Ghana, that is beset with low industrial R&D and an industrial sector that is characterised by a multitude of micro, small and medium-sized enterprises (MSMEs) that do not have the capacity for R&D (Abdulai et al., 2015; Dutta et al. 2018). Prior studies have pointed to rationally conflicting goals and expectations of academic researchers and the carriers of innovation (D'Este & Perkmann, 2011; Hughes & Kitson, 2012), as well as low absorptive capacity of MSMEs in Africa (Fu, Mohnen & Zanello, 2018; Onyeiwu, 2015).

Furthermore, the study has brought to light the importance of all academic disciplines to innovation driven by research collaboration. Although the various academic disciplines appear to have the tendency to be tilted towards certain types of innovation, the findings of this study agree with Hughes et al.'s (2011) and Bakhshi et al.'s (2008) position that the Arts and the Social Sciences or the Humanities are also important in advancing the knowledge base of an economy. This study, therefore, confirms the relevance of all academic disciplines to building the knowledge-based economy, through the contribution of their research findings to innovation, as generalised in the conceptual framework of the study (Figure 1).

Conclusion

The study was conducted with the aim of assessing the relevance of different academic disciplines to innovation within the context of research collaboration (between academics and the carriers of innovation) which is deemed a critical medium for the conduct of innovation-driven research. The major findings of the study were that there were no substantial differences in the extent to which academics

from the STEM, the Social Sciences and the Arts perceived the use of their collaborative research findings in product innovation, technological innovation, process innovation, administrative innovation and opportunity-related innovation. However, a substantial difference occurred in favour of the STEM as against the Social Sciences in the perceived usefulness of their collaborative research findings to service innovation.

Although there were no substantial differences in the perceptions of academics across disciplines, the findings show that the STEM was a leader in all types of innovation except for administrative innovation and process innovation in which the Arts was perceived to have made relatively the highest contributions. The Arts was a close follower of the STEM in product innovation, service innovation and technological innovation while the Social Sciences was perceived to have made relatively lesser contributions to the various types of innovation, excluding administrative innovation in which it came after the Arts. It is, therefore, concluded that all academic disciplines can be relevant to innovation and that the STEM and the Arts are making relatively more contributions to the various types of innovation than the Social Sciences.

Acknowledging the importance of university research to regional and national innovation with eventual impact on economic growth and development, it is an imperative for the Ghanaian government, together with universities and other key stakeholders, to step up measures in support of university interactions with the carriers of innovation, particularly that which would translate into the use of collaborative research findings in the development of competitive innovations for national development. A critical point of departure from the norm is to design appropriate policies from the perspective of the indispensable roles that various academic disciplines must play in the national innovation system.

This study focused on academic researchers from two out of ten public universities in Ghana. Another limitation is the concentration of the study on the supply side of research collaboration to the exclusion of the carriers of innovation. These drawbacks can be the subject of future research together with a study of the contributions of research

collaboration to innovation in the private, public and third sectors of the economy. Moreover, further studies can analyse institutional contribution to regional and national innovation as well as untested dimensions and feedback loops in the conceptual framework employed in this study.

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Corporate Social Responsibility and Bank Performance: A Cointegration Approach

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Abstract
The aim of this study is to examine the short- and the long-run effects of Corporate Social Responsibility (CSR) on the performance of listed Ghanaian banks. An elongated balanced panel design with secondary data of 65 years' bank observations spanning 2004 to 2016 was used for the study. A cointegration approach – Pooled Mean Group (PMG/Panel ARDL) – was used to examine the short- and the long-term effects of CSR on bank performance while controlling for bank variability, growth in interest income and bank size. The results were mixed. In the short term, it was found that CSR has positive but insignificant effect on bank performance (market-to-book value). In the long-term, however, CSR has significant negative effect on bank performance. Based on the findings, the study concludes that, in the long run, engaging in CSR reduces bank performance. Therefore, CSR needs to be carefully planned and implemented to serve as a boost to bank performance and not just regarded as an inconsequential addendum.

Keywords: *Bank performance, corporate social responsibility, cointegration approach*

Introduction

Corporate Social Responsibility (CSR) from its inception has been seen as businessmen's obligation to pursue policies, to make decisions, or to follow the lines of action, which are desirable in terms of the objectives and values of society (Bowen, 1953). From this position, CSR became a valid theme and businesses that continue to increase their corporate social expenditures always increase their performance. In 2011, corporate donations in the U.S amounted to $ 14.6 billion, representing a 61.3% increase (Giving U. S. A., 2012), while in China, the donations constitute about 58.1% (Zhang, Yang, Wang & Wang, 2012). The concept of CSR consciousness led to both the Shareholder and the Stakeholder theories (Orlitzky, 2005). According to Ahmed, Islam and Hasan (2012), managers have found economic benefits from CSR programmes, considering that the objective of a business is to maximize shareholders' wealth. It is also an important medium for creating sustainable competitive advantages at both national and company levels (Vilanova, Lozano & Arenas, 2009). Similarly, Saleh, Zulkifli and Muhamad (2010) argued that CSR is a powerful tool to attract and maintain institutional investors.

From what began in corporate boardrooms, the CSR concept has become a common household name and recognised by most organisations, including financial institutions, such as banks. The banking sector does not only drive economic growth through mobilisation and disbursement of facilities, but also ensure performance efficiency for shareholders (Hye & Dolgopolova, 2011). To achieve all these, they need to develop strategies that account for wider societal concerns arising from their business operations. Within the banking sector, therefore, CSR becomes a harmonizing tool that banks use to positively impact performance. According to Lentner, Szegedi and Tibor (2015), a bank's stable financial position, increasing economic performance, ethical and transparent activities, within the domain of CSR, ensure predictable and reliable operations, and serve the interests of society to a larger degree.

Business benefits of CSR are not only oriented in the short-term, but also in the long term. Most pioneering studies pointed to this

direction. Amran, Ling, and Sofri (2007) stated that public listed companies in Malaysia need to integrate CSR in their company's business activities to remain sustainable in the long-term. Similarly, Carroll and Shabana (2010) held the view that if businesses are to function in the future, they must take actions now that will ensure their long-term viability. The position is not different in the investor market (see Barnett & Salomon, 2003; Mackey, Mackey & Barney, 2007). Yet, empirical studies on the subject have largely focused on the short term (see Doh, Howton, Howton, & Siegel, 2010; McGuire, Sundgren & Schneeweis, 1988; Orlitzky, Schmidt & Rynes, 2003; Waddock & Graves, 1997) to the disadvantage of long-term perspectives. This, therefore, makes relevant the arguments by Hazlitt (1952) that serious analytic errors occur when long-run consequences of short-run policies are forgotten (Wible, 1982).

In this respect, the long-term consequences of CSR remained unacknowledged (Orliztky, 2013) and have to be determined. In doing this, the current study took into account the findings of Garcia-Castro, Arino and Canela (2010) that the heterogeneous results found in previous works could be more fundamentally related to endogeneity of social strategic decisions, since some of the results found in previous research changed, and some even reversed when endogeneity was properly taken into account.

Developments on CSR in emerging economies in Africa, and, in particular, Ghana, differ in purpose from their western counterparts, and geared towards prudence and not necessarily because it is an obligation (Tuokuu & Amponsah-Tawiah, 2016). In a similar vein, banks' community undertakings in terms of completion of classroom blocks, health posts, boreholes or provision of educational services are not just visible in the newspapers and annual reports, but also on banks' websites (Hinson & Adjasi, 2009; Hinson, Boateng & Madichie, 2010). These occurrences reinforced the case that Ghana's financial sector companies embraced the CSR ideology and the practice is not uncommon.

The fact is, Ghana's banking environment has become more competitive, regulated and capital intensive, and so banks need multi-notched approaches to ensure maximum return to shareholders or

risk collapse. In this regard, every trace of perceived useful opportunities that banks could hold on are adopted. It is not surprising that Ghana Banking Awards feature CSR as one of the key criteria. In the 16th edition of 2017, the overall winner, Ecobank Ghana Ltd, was also the winner of the most Corporate Social Responsibility bank in Ghana (Ghana Banking Awards report, 2017). It is also a component of Ghana Beverage Award, which seeks to recognise the contribution of these companies to the sustainability of the environment.

Notwithstanding the giant strides, evidence showed that CSR in Ghana has mainly been examined in its conceptual or normative forms (Ofori & Hinson, 2007; Tuokuu & Amponsah-Tawiah, 2016). Empirical studies regarding its impact on specificities, such as performance, reputation and risk, are in their embryonic stage. Other scholars that provided empirical evidence did so in looking at the various dimensions of CSR and how these conform to major CSR models as in Carroll's (1991 & 1979) frameworks (Hinson, Agbleze & Kuada, 2013; Kuada & Hinson, 2012). Again, due to its association with the environment, a survey of the extant literature showed that CSR practices are hugely skewed towards the mining sector. Banks make the highest contributions to social services each year even though capital structure analysts, such as Amidu (2007) and Gatsi (2012), found them to be hugely financed by debt (i.e., 87% and 80.23% respectively). Considering that CSR issues are widely recognised among Ghanaian banks but have been understudied in terms of their effect created a gap that is addressed in this study.

Literature Review

CSR was defined as the obligations of businessmen to pursue those policies, to make those decisions, or to follow those lines of action which are desirable in terms of the objectives and values of our society (Bowen, 1953), and obligation to constituent groups in society other than stockholders and beyond that prescribed by law and union contract (Jones, 1980). Both Bowen (1953) and Jones (1980) saw CSR as actions of businessmen somewhat wider than that covered by their profit or loss position, but within a well restricted boundary. The study, therefore, followed these definitions, because they set clear

limits within which CSR could be measured or gauged. On the other hand, Palepu, Healy and Peek (2010) explained the concept of performance is to measure businesses ability to generate revenues, profits and cash flows relative to investment. Performance categories include accounting based, market based, and combination of both accounting based and market based (McGuire, Sundgren & Schneeweis, 1988; Orlitzky, Schmidt & Rynes, 2003; Waddock & Graves, 1997).

There are two opposing views about CSR and its association with performance. On the one hand, some practitioners and scholars argue that the sole aim of business organisations is to maximise shareholder value. On the other hand, other practitioners and scholars believe that businesses must assume moral and ethical responsibility and maximise value for all stakeholders. These two opposing views led to the Shareholder theory and Stakeholder theory.

In Levitt (1958), it was argued that social duties and societal welfare were the responsibility of governments instead of businesses. Levitt (1958) viewed businesses' job as taking care of the critical aspect of welfare. Consequently, social performances are seen as distortion to the profit motive that is critical for business success. As Reinhardt and Stavins (2010) concluded, participating in costly CSR activities reduce wages, profits, dividends, stock prices and create difficulty in attracting new capital, because returns are below market averages. In the long-term, harmful signals are sent to equity markets, which might not systematically correlate with companies' economic fundamentals, thus making opportunistic managers incentivized to distort information provided to market participants (Orliztky, 2013).

In two earlier articles, Friedman's (1962, 1970) explicitly elaborated on the field. Especially, in Friedman (1970), it was feared that the action means spending someone else's money for a general social interest and this could reduce returns to stockholders, since corporate executives lacked expertise on how to spend the money. In support, Sundaram and Inkpen (2004) observed that the objective of shareholder value maximization is better, because it is the only objective that leads to decisions that enhance outcomes for all stakeholders. In their view, maximizing the value of

shareholders' wealth in the long run would maximize the value of the firm and stakeholders at large.

Other pioneering works in finance and economics also agreed that shareholder value maximisation is an accepted objective of the firm (Markowitz, 1952; Modigliani & Miller, 1958). Consequently, existence of businesses to maximize the sole interests of shareholders is legitimate and socially ingrained, so that beyond the economic view, CSR is at best a misguided advocacy (Jensen, 2001). Similarly, though within the contractual framework, a firm is seen to have implicit and explicit agreement with other stakeholder groups (Coase, 1937), Boatright (1994) as well as Ehrlich (2005) and Fisch (2006) believed that corporate managers have fiduciary responsibility to maximise shareholder wealth, since shareholders have primacy over constituencies or stakeholders (Margolis & Walsh, 2003). In sum, the shareholder value maximisation logic offers accountable corporations managed by ethical decision makers that create the greatest value for the greatest number of stakeholders (Sundaram & Inkpen, 2004).

In sharp contrast to the Shareholder theory is the Stakeholder theory (Freeman, 1984). The theory's principles are rooted in the interface that businesses have with society where serving more than a single stakeholder maximises total value. The Stakeholder approach sees business and society as integrated elements and not separate entities. In fact, Freeman (1994) and Wicks (1996) referred to this as a mistaken idea when businesses take decisions distinct from ethical consideration. Similar arguments have been proposed by Donaldson and Preston (1995) and Harris and Freeman (2008). Therefore, managing for stakeholders involves maximising for wealth (Phillips, Freeman & Wicks, 2003). This bidirectional approach between business and society in the Stakeholder model is significantly emphasised in the literature, tested and strongly confirmed by many scholars, including Orlitzky et al (2003); Seifert, Morris and Bartkus (2003); and Waddock and Graves (1997).

Although the Stakeholder theory indicates a significant shift from the traditional ideology of wealth distribution, other writers argued that the concepts are not generally developed in ways that make them useful in practice

(Ackermann & Eden, 2011). This is similar in context to Jensen's (2001), that Stakeholder theory failed to specify necessary trade-offs among competing interests and make managers unaccountable for their actions.

Review of empirical evidence

Prior studies on the link between CSR and performance cut across developed and emerging markets, and mainly focused on the short-term perspective. Waddock and Graves (1997) examined the link between corporate social performance and financial performance, using a greatly improved source of data. Controlled variables, including firm size, firm variability and industry effect, were used, because they have been suggested in previous works as factors that affect both firm performance and corporate social performance. The results showed that corporate social performance positively associated with prior financial performance.

Additionally, Godfrey, Merrill and Hansen (2009) investigated whether corporate social performance carries insurance-like properties on market value of negative firm-specifics. In the event study analysis, evidence of risks mitigation by corporate social performance was found, indicating that wealth-protective property of CSR is favoured by targeted secondary stakeholders. Though the methodology was appropriate for discrete idiosyncratic type, focusing only on specific negative events hinders the generalisation of the results. Again, using a similar methodology, but focusing on the effect of corporate social performance on idiosyncratic risk, Luo and Bhattacharya (2009) found the two constructs to be negatively connected.

In Keffas and Olulu-Briggs (2011), financial ratios and frontier efficiency analyses were used to examine the financial performance of CSR and non-CSR banks. Data were sourced from banks in Japan, US and UK listed on the FTSE4Good global index. From the data envelopment analysis, it was found that a positive relationship exists between corporate social responsibility and financial performance. Based on the findings, the authors concluded that incorporating CSR in banks operation leads to better asset quality, capital adequacy and efficient management of portfolios.

In the same vein, but this time from two different regions, namely the USA and Europe, Von Arx and Ziegler (2014) tested CSR-CFP relationship within two different frameworks and disentangled sector specific impacts of CSR, using multifactor models. The econometric analysis showed that CSR activities are valued positively by financial markets in both regions. Additionally, Ciciretti, Kobeissi and Zhu (2014) tested the impact of a bank's community responsibilities on financial performance. After controlling for bank size and bank variability to ensure that performances differences were not effect of differences in risk profiles, urgency and salience of stakeholder relations, the paper found significant evidence that banks were better off by adhering to their mandated community responsibilities.

More recently, Adamska and Dabrowski (2016) argued that investors focus on high CSR standards so that changes in the level of these standards is important information from investors' point of view, because these changes tend to be reflected in their performance. Applying an event study methodology, their results confirmed that investors on emerging markets take into account the information about changes in the level of corporate social responsibility and respond positively to its growth and negatively to its decline, thus, impacting on market value.

Methodology

Data

The elongated balanced panel data for the study was obtained from the Ghana Stock Exchange and other major depositories, such as the African Financial Market. The study period covered a time span of thirteen years; from 31st December, 2004 to 31st December, 20016 and includes all the six listed banks covering the period with 65 years' bank observations. Banks affected by acquisition were dropped. The CSR values together with such firm characteristics as bank variability, growth in interest income and bank size were extracted from the audited annual report and accounts of the listed banks. The closing market values for the various banks were also collected for the same period. These values do not include non-trading days, such as public holidays.

Variable description

Two main types of variables were used in this study. These include both dependent and independent variables. The dependent variable was bank performance. The independent variable was sub-divided into main independent variable, which in this case was CSR, and controlled variables, such as bank variability, growth in interest income and bank size.

Bank performance

Bank performance in this study was measured by total market-to-total book value of the banks. Thus, if the market is correlated with superior and inferior CSR prospects (Adamska & Dabrowski, 2016), it will also correlate with the banks' market-to-book value. The method has the advantage of capturing how the market evaluates each bank in terms of their strategic policies. It is also consistent with Ramchander, Schwebach and Staking's (2012) view that information disclosure on businesses is reflected in the market value of shares. Considering that most markets are inefficient, these strategic decisions may be difficult to process by stakeholders (Fama, Fisher, Jensen & Roll, 1969), thus adversely affecting their market value. Based on these views and in line with the study objectives, bank performance was included as a dependent variable and examined.

Corporate social responsibility

Corporate social responsibility in the Ghanaian banking sector is significantly expressed in socially responsible expenditures. It represents an integration of a heterogeneous element in such areas as education, healthcare, environment, and other stakeholder domains. This avoids the confusion in the use of ratings agency, like Kinder, Lydenberg, Domini (KLD) (Erhemjamts, Li, & Venkateswaran, 2013), corporate reputational indices (CRI) by Fortune magazine (Preston & O'Bannon, 1997) and questionnaire based measures (Gallardo-Vázquez & Sanchez-Hernandez, 2014). The CSR variable was measured by aggregating all the expenditures and scaling same by pre-tax profits, consistent with prior studies, such as Campbell, Moore and Metzger (2002), and Ehsan and Kaleem (2012).

Bank variability

Bank variability in terms of risk has diverse impact on banks'

market value and, consequently, on the ability to perform their CSR functions. On the one hand, if a bank manager finds that his or her bank experiences high levels of debt, it is likely that he or she will decrease CSR activities. This is because the bank will be forced to use its excess cash to honour interest obligations, and thus lack the funds to commit to CSR duties. On the other hand, if the bank manager realises that his or her risk level by way of debt is low, he or she is likely to increase his or her social performances. In view of these contrasting arguments, the variable has been controlled and in line with other previous studies (such as Waddock & Graves, 1997; Seifert, Morris & Bartkus, 2003; Saleh et al, 2010) in order to limit its influence on CSR-bank performance link. In the current study, bank variability was measured by dividing the banks' total asset by total equity.

Growth

This is another control variable included in the model. The variable was measured as a change in interest income (i.e., interest income$_t$ – interest income$_{t-1}$ / interest income$_{t-1}$). A positive association indicates the banks' operational efficiency and the likelihood that the banks can engage in social activities. Conversely, a negative relationship implies an operational inefficiency and a disadvantage to corporate social performances due to inadequate available financial resources. With this latter option, CSR could not be a strategic choice.

Bank size

Evidence has shown that size plays a major role in both bank performance and CSR. Larger banks are easily visible and highly considered creditworthy, thus better resourced to increase their performance and satisfy societal demands. Smaller banks, on the other hand, may be more focused on establishing themselves and so may not have the necessary finances to be concerned about CSR. Size was also used in previous studies, such as Garcia-Castro, Arino and Canela (2010); Seifert, Morris and Bartkus (2004) and Waddock and Graves (1997). Size in this study was measured by taking the total asset of the banks.

Data analysis

An important step in the analysis of econometric data is to determine the order of integration through unit root testing. This is critical, because the order of

integration indicates the appropriate statistical estimator to employ so as to avoid spurious regression. Engle and Granger (1987) argued that spurious regression estimates tend to produce performance statistics that are inflated, thus causing researchers to commit high frequency of Type 1 errors (Granger & Newbold, 1974). As a result, two categories of panel unit root tests were performed: Levin, Lin and Chu's (2002) (LLC) test, which followed a common unit root process and Im, Pesaran, and Shin's (2003) test (IPS), and Maddala and Wu's (1999) Fisher type ADF and PP tests, which test for individual unit root processes in heterogeneous data.

Cointegration test

Since all the variables followed an I (1) process, a cointegration test became necessary. In this regard, Kao (1999) cointegration approach was used to test the cointegration (interdependence) among the variables. The method was chosen because Gutierrez (2003) compared the power of various panel cointegration test statistics and found that Kao's test has higher power than other cointegration tests. The residual based Kao (1999) cointegration test tests the cointegration between the dependent variable (bank performance) and the independent variables (CSR, bank variability, growth in interest income and bank size). Kao's proposition followed Augmented Dickey-Fuller (ADF) panel cointegration test, where cointegrating vectors are assumed to behave homogeneously. Consider equation 1.

$$\eta_{it} = \vartheta_i + \phi\mu_t + \zeta_{it} \quad \text{..........Equation 1}$$

Where η is the dependent variable (bank performance), ϑ_i is the intercept, ϕ is the co-efficient of the independent variables, μ represents the independent variables (CSR, bank variability, growth in interest income and bank size), it is the cross-sectional time series, and ζ as estimated residual. With η and μ following an I(1) process or integrated of order 1, the ADF test applicable to the re-parameterized residual is shown in equation 2.

$$\zeta_{it} = \eta\zeta_{it-1} + \sum_{j-1}^{\beta} \varphi_j \Delta\zeta_{it-j} + \alpha_{it}\beta \quad \text{..........Equation 2}$$

Where, β is used so that $\alpha it\beta$ becomes serially uncorrelated, and the estimated residual of $\sum_{j-1}^{\beta}\varphi_j\Delta\zeta_{it-j}$ included as the first difference of 1 to β lags. The formulated null hypothesis of no cointegration is $H_0\colon p=1$. This is rejected if the probability value is less than 5% or fails to be rejected if the probability value is greater than 5%.

Econometric model

Given the evidence of cointegration, the Pooled Mean Group (PMG)/Panel ARDL by Pesaran, Shin and Smith (1999) was employed as the appropriate estimating technique to examine the short- and long-run relationships. The model involves pooling and averaging so that the intercepts, short-run coefficients and error variances differ freely across banks, while the long run coefficients are constrained to be the same. The PMG/Panel ARDL model was deemed suitable for this study, because both the short- and long-run specifications can be generated simultaneously irrespective of whether the variables are I(0) or I(1). The method is also capable of tackling endogeneity, thus producing best linear unbiased estimators. Following Pesaran et al (1999), the general model is specified as:

$$Cit=\theta_{0i}+\theta_{1i}\,y_{it}^{d}+\theta_{2i}\prod_{it}+\theta_{3i}\alpha_{it}+\theta_{4i}\beta_{it}+\mu_{it},\qquad i=1,2....N,\; t=1,2,.....T,$$

…… Equation 3

Where

$Cit=$ natural logarithm of bank performance proxy by market-to-book value (MBV) for bank i in period t

$y_{it}^{d}=$ natural logarithm of corporate social responsibility (CSR^2) for bank i in period t

$\prod it=$ natural logarithm of bank variability (BV) for bank i in period t

$\alpha it=$ natural logarithm of growth in interest income (G^2) for bank i in period t

$\beta it=$ natural logarithm of bank size (SIZE) for bank i in period t

$\theta_0 i=$ intercept

$\theta_1 i - \theta_4 i =$ parameters to be estimated

$\mu it =$ stochastic term for bank i in period t

In equation 3, the natural logarithms were applied so that they can be interpreted as elasticities and help to eliminate heteroscedsticity in the disturbances (Adams & Hardwick, 1998). CSR and growth in interest income were transformed by taking the square values before applying the log, since some of the banks recorded losses at some points in their operations. In applying equation 3, a maximum lag length of one was automatically selected based on the unrestricted model by Akaike info criterion (AIC). Therefore, the ARDL (1,1,1,1,1) equation is:

$$LMBV_{it} = \theta_{0i} + \psi_{10i}LCSR\text{^}2_{it} + \psi_{11i}LCSR\text{^}2_{it-1} + \psi_{20i}LBV_{it} + \psi_{21i}LBV_{it-1} + \psi_{30i}LG\text{^}2_{it} + \psi_{31i}LG\text{^}2_{it-1} + \psi_{40i}LSIZE_{it} + \psi_{41i}LSIZE_{it} + \lambda_i LMBV_{it-1} + \varepsilon_{it} \quad \text{.................. } \textit{Equation } 4$$

The error correction model as given in equation 5, with Δ indicating first difference or I(1) is:

$$\Delta LMBY_{it} = \phi_i(LMBV_{it-1} - \theta_{0i} - \theta_{1i}LCSR\text{^}2_{it} - \theta_{2i}LBV_{it} - \theta_{3i}LG\text{^}2_{it} - \theta_{4i}LSIZE_{it}) - \psi_{11i}\Delta LCSR\text{^}2_{it} - \psi_{21i}\Delta LBV_{it} - \psi_{31i}\Delta LG\text{^}2_{it} - \psi_{41i}\Delta LSIZE_{it} + \varepsilon_{it}, \quad \text{...................... } \textit{Equation } 5$$

Also, that the estimated intercept in equation 4 becomes:

$$\theta_0 i = \frac{\mu_i}{1-\lambda_i}, \theta_{1i} = \frac{\psi_{10i}+\psi_{11i}}{1-\lambda_i}, \theta_{2i} = \frac{\psi_{20i}+\psi_{21i}}{1-\lambda_i}, \theta_{3i} = \frac{\psi_{30i}+\psi_{31i}}{1-\lambda_i}, \theta_{4i} = \frac{\psi_{40i}+\psi_{41i}}{1-\lambda_i}, \phi_i = -(1-\lambda_i).$$

.. …. Equation 6

In equation 6, the banks' specific error correction co-efficient, $\phi_i = -(1-\lambda_i)$ must lie between -1 and 0 and significant for three main reasons: to indicate speed of adjustment to equilibrium in the long run and confirm both long run and cointegration among the variables. The models were tested at a specific alpha level of 5%. (See Table 1.)

Table 1: A priori effect

Variable	A priori effect with bank performance
Corporate social responsibility	Positive/Negative
Bank variability	Negative
Growth in interest income	Negative
Bank size	Positive

Results and Discussion

Before the results of the short- and long-term effects of CSR on the performance of the listed banks in Ghana are presented, the basic characteristics of the variables in nominal or original form are, first of all, shown in Table 2 as the summary of descriptive statistics.

Table 2: Summary of descriptive statistics

	MBV_{it}	$CSR^{\wedge}2_{it}$	BV_{it}	$G^{\wedge}2_{it}$	$SIZE_{it}$
Mean	2.5514	0.0067	7.6491	0.2818	1.43E+09
Median	1.8858	0.0042	7.3384	0.2176	9.73E+08
Maximum	10.3221	0.0284	14.4835	0.9429	6.05E+09
Minimum	0.5937	-0.0107	4.6153	-0.3404	59349235
St. dev.	1.8134	0.0074	2.0933	0.2491	1.34E+09
Qt. dev.	1.0666	0.0045	1.2377	0.1707	780652993
Skewness	1.8248	0.9998	1.2826	0.4548	1.2719

Source: Annual reports 2004-2016

From Table 2, it is evident that the median performance of the listed banks during the study periods (i.e., 2004-2016) using market-to-book value is 1.8858 with a quartile deviation of 1.0666. This means that

the market value of the banks exceeded the book value by approximately 89%, an indication that these banks during the study period have created value for their investors. This result means that equity investors of the listed banks have earned about 89 pesewas for every cedi of net asset over the study periods – a general indication that investors valued the banks' stocks favourably. The median CSR expenditure incurred is 0.0042 with a quartile deviation of 0.0045. Overall, the average amount of social contributions made by the banks is low in Ghana. On the other hand, the average rate of bank variability (risk) recorded is 7.3384 and has a quartile deviation of 1.2377. The bank variability outcome is critical, because it showed that, over the study periods, more than sevenfold of the banks' assets are financed by debt. More so, while the banks grew at an average of 0.2818 with a dispersion of 0.2491, the average size of the banks was 97,300,000,000 Ghana cedis with 780652993 as its quartile deviation.

Correlation Matrix

In order to ensure that the variables included in the model are not highly correlated, the correlation matrix has been produced. From Table 3, the results have not shown any evidence that the correlations are too high. The correlation between bank variability and bank size, for example, is 0.0155, which is less than 0.7, therefore, all the variables have been retained.

Table 3: Correlation Matrix Results

Variable	$LMBV_{it}$	$LCSR^{\wedge}2_{it}$	LBV_{it}	$LG^{\wedge}2_{it}$	$LSIZE_{it}$
$LMBV_{it}$	1.0000				
$LCSR^{\wedge}2_{it}$	-0.1849	1.0000			
	(0.1402)				
LBV_{it}	0.3169	0.2482	1.0000		
	(0.0101)	(0.0462)			
$LG^{\wedge}2_{it}$	-0.2313	-0.0140	-0.1237	1.0000	
	(0.0637)	(0.9116)	(0.3261)	1.0000	
$LSIZE_{it}$	-0.3117	-0.3345	0.0155	0.2594	1.0000
	(0.0115)	(0.0065)	(0.9022)	(0.0368)	

Source: Annual reports 2004-2016

Panel unit root test results

Table 4 displays the test results for the stationarity of the variables, as indicated in the previous sections. The results in Table 4 suggest that at 5% significant level, the variables: bank performance ($LMBV_{it}$), corporate social responsibility ($LCSR^{\wedge}2_{it}$) and growth in interest income ($LG^{\wedge}2_{it}$) are integrated at levels, whilst bank variability (LBV_{it}) and bank size ($LSIZE_{it}$) are non-stationary. At first difference, however, all the variables were integrated at I (1). Although the PMG/Panel ARDL model holds regardless of whether the order of integration is I(0) or I(1), the first difference was necessary to ensure that none of the variables was I(2) or higher to invalidate the computed F-statistics and, subsequently, test for both the cointegration relationship and its effects.

Table 4: Panel unit root tests results at levels and first difference

Variables	Levin, Lin & Chu	Im, Pesaran & Shin	ADF-Fisher	PP-Fisher
At levels				
$LMBV_{it}$	0.0002	0.0177	0.0391	0.0330
$LCSR^2_{it}$	0.0021	0.0162	0.0261	0.0113
LBV_{it}	0.1836	0.3563	0.4609	0.5316
LG^2_{it}	0.0000	0.0000	0.0000	0.0000
$LSIZE_{it}$	0.1542	0.9650	0.9460	0.6490
At first difference				
$\Delta LMBV_{it}$	0.0000	0.0000	0.0000	0.0000
$\Delta LCSR^2_{it}$	0.0000	0.0000	0.0000	0.0000
Δ LBVit	0.0000	0.0000	0.0000	0.0000
ΔLG^2_{it}	0.0000	0.0000	0.0000	0.0000
$\Delta LSIZE_{it}$	0.0000	0.0000	0.0000	0.0000

Note: Only the probability values are shown

Source: Annual reports 2004-2016

Co-integration test results

Next, the co-integration test results estimated using Kao (1999) are displayed in Table 5. It tested the co-integration between the dependent variable (bank performance) and the independent variables (CSR, bank variability, growth in interest income and bank size), to determine if these variables move together in the long term. The null hypothesis is that there is no co-integration (r = 0) at 5% significant level. The automatic lag length was selected based on Schwartz Information Criterion (SIC) with a maximum lag of 2. Starting with the null hypothesis of no cointegration (r=0) among the variables, the probability value, 0.0031, is less than the 5% significant level. Thus, the null hypothesis of no cointegration is rejected. Thus, this study concludes that a long term cointegration relationship exists among the series bank performance (ΔLMBVit), corporate social responsibility (ΔLCSRit), bank variability (ΔLMBVit), growth in interest income (ΔLGit) and bank size (ΔLSIZEit).

Table 5: Kao residual cointegration test

			T-Stat.	Prob.
ADF			-2.7340	0.0031
Residual variance			0.4286	
HAC variance			0.0864	
Augmented Dicky-Fuller Test Equation				
Dependent Variable: D(RESID)				
Variable	Coefficient	Std. Error	T-Stat.	Prob.
RESID(-1)	-1.1762	0.1278	-9.2026	0.0000
R-squared	0.6099			
Adjusted R-squared	0.5919			
Durbin-Watson stat.	2.3211			

Source: Annual reports 2004-2016

First, the estimated regression results of the PMG/Panel ARDL (1, 1, 1, 1, 1) model, using Pesaran et al (1999), are shown in Table 6. Both the short- and the long-run outcomes have been reported. The banks' specific error correction co-efficient (-0.7729) is also shown. As expected, the error correction co-efficient lies between -1 and 0, negative and significant at five percent alpha level (0.0150). The error correction co-efficient confirmed existence of cointegration and a return to equilibrium should there be any deviation.

Table 6: PMG/Panel ARDL results

Dependent variable = $\Delta LMBV_{it}$			
Short run equation			
Variables	Coefficients	Standard error	Probability
COINTEQ01	-0.7729	0.3002	0.0150
$\Delta LCSR^{\wedge}2_{it}$	0.0861	0.0864	0.3266
ΔLBV_{it}	0.6022	0.6454	0.3580
$\Delta LG^{\wedge}2_{it}$	-0.0468	0.0174	0.0115
$\Delta LSIZE_{it}$	-1.3344	0.5307	0.0173

Long run equation			
$LCSR^{\wedge}2_{it}$	-0.1881	0.0426	0.0001
LBV_{it}	0.9947	0.2619	0.0006
$LG^{\wedge}2_{it}$	0.1912	0.0251	0.0000
$LSIZE_{it}$	-0.2958	0.0417	0.0000
C	2.7095	0.9298	0.0066
Mean dependent var	-0.1258	S.D. dependent var	0.4494
S.E. of regression	0.2753	Akaike info criterion	0.6435
Sum squared resid	2.3496	Schwarz criterion	1.7808
Log likelihood	13.086	Hannan-Quinn criterion	1.0922

Source: Annual reports 2004-2016

As can be seen from Table 6, the short run relationship between the natural log of CSR and bank performance (measured by market-to-book value) indicates a positive but insignificant effect at an alpha level of 5%, controlling for natural log of bank variability, growth in interest income and bank size. The implication is that even though a one percent increase in CSR would have resulted in approximately 0.0861% increase in bank performance (i.e., market-to-book value), all things being equal, the increase is scientifically not different from zero (probability = 0.3266). The result thus strongly supports the null hypothesis 1, which states that there is no significant short-run effect of CSR on bank performance. The argument that improved social performance leads to increase bank performance remained statistically unproven in this study. CSR could be necessary in the short run, but not a sufficient condition to attract the desired positive impact. The finding also failed to provide support for either the Shareholder theory or the Stakeholder theory in the short run. Thus the position of shareholder theorists, such as, Levitt (1958), Friedman (1962, 1970) and such stakeholder theorists, like Donaldson and Preston (1995), Freeman (1984), Harris and Freeman (2008), and Phillips, Freeman and Wicks (2003), have been contradicted by this result.

In the second hypothesis, the proposition was that there is no significant long-run effect of CSR on bank performance. While, again, holding natural log of bank variability, growth in interest income and bank size constant, the PMG/Panel ARDL regression result generally showed that the natural log of CSR has a significant negative effect on natural log of bank performance, using market-to-book measure at an alpha level of 5%. In this regard, a one percent increase in CSR will result in about 0.1881% decrease in bank performance (market-to-book value) in the long run, all things being equal (probability = 0.0001). In the long run, banks' social performances, in terms of philanthropic donations, are negatively evaluated by stakeholders and so become a cost to investors. Two main reasons might be responsible for this effect. Firstly, the signals of CSR performance sent to the equity market did not systematically correlate with the banks' economic fundamentals (Orliztky, 2013). Secondly, the possibility of market imperfection could also not be ignored. Based on this finding, null hypothesis 2 is rejected. There exists a significant relationship so that, in the long run, CSR negatively affects bank performance. This long-run outcome, therefore, aligned strongly with the Shareholder theory and the subsequent positions of Levitt (1958) and Friedman (1962, 1970), that so long as the social activities do not increase the value of the banks, they represent cost and must not be encouraged.

Conclusion

The present study provided evidence on how CSR undertakings affect listed banks in Ghana in the short and long term. The major conclusion is that, in the long term, CSR significantly reduces bank performance. Being socially-involved listed bank affects investors in the long run. In this regard, the study offers policy implications for the bank managers and scholars alike.

Managers of the banks need to understand that CSR performance needs to be carefully planned and implemented to serve as a boost to bank performance and not just regarded as an inconsequential addendum. More so, scholars must not only concentrate on the short-term position of CSR as it is currently done, but seek to determine if the

short-term relationships hold consistently over time.

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Philanthropic Giving: Active Responsibility or Passive Ingratiation? Evidence from Chinese Family-Controlled Listed Companies. *The Journal of Applied Business Research*, *28* (8) 427-440.

Human Resource Factors and Organisational Commitment at the College of Distance Education, University of Cape Coast

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Abstract

The study examined human resource factors and organisational commitment at the College of Distance Education, University of Cape Coast, Ghana. The research approach was quantitative, specifically using a descriptive study design. Out of 242 staff of the College, a sample of 148 respondents (comprising 18 senior members, 80 senior staff and 50 junior staff) were drawn across the three spectrums of staff using Krejcie and Morgan (1970) sample determination formula. The main instrument for data collection was a self-administered questionnaire. Data of the study was analysed with means, standard deviations, independent t-test, two-way analysis of variance and Spearman rank order correlations matrix. The study found that commitment level among staff at the college (CoDE) was high and affective commitment was perceived higher than normative and continuance dimensions of organisational commitment. Work relations were perceived as higher than extrinsic rewards and training and development. It was also found that training and orientation significantly relate to organisational commitment. Sex and age of respondents did not affect organisational commitment and other variables of the study. It was recommended that management of the college should continue to pay more attention to work relations at the college by engaging staff of the

college in inter-unit or inter-departmental assignments to enable staff to build more work relations and used both on-the-job and off-the-job training techniques to maintain or increase commitment level among staff of the college.

Keywords: *Extrinsic rewards, work relations, training and orientation, commitment*

Introduction

The goals of higher education are to provide in-depth knowledge, seek academic development, educate students, and to coordinate developmental demands (Betz, 2005). In the attempt to expand the educational frontiers and extend these educational goals to cover a broad spectrum of qualified applicants, some tertiary educational institutions have introduced distance education in addition to the regular mainstream academic programmes (Moore & Kearsely, 2005). However, the attainment of distance educational goals largely depends on the availability of committed and competent employees. This suggests that the human resources of every distance educational institution remain the most important resource for the survival and growth of that institution. Without it, all other resources would lie idle and unproductive (Jackson & Mathis, 2010). Thus, the survival of a distance education institution depends on employees' commitment.

Employees' commitment is underpinned by Becker's (1960) side-bet theory of commitment. Becker's side-bet theory postulates that "contract" of economic exchange defines the kind of relationship between employee's commitment towards an organisation (Irefin & Ali 2014). Thus, an employee could hardly claim the investments of "side-bet" if he/she decides to quit the organization. Becker (1960) therefore argued that since over a period certain costs accrue; it makes it more difficult for an employee to disengage from maintaining membership in the organization. Employee social and economic investment over time in an organisation come in the form of income, status, seniority, friendship and institutional memory or technical knowledge, cannot easily be recouped or claimed if one loses membership (Kessler, 2013). Kessler described this kind of commitment in the 1960s as the calculative approach to defining and measuring commitment.

Another approach to measuring and describing employees' commitment emerged from the 1970s to mid-1980s called organisational behaviour or psychology approach of commitment by Porter, Steers, Mowday, and Boulian (1974). Unlike, Becker's (1960) side-step theory of commitment which argued from the perspective of economic and social accumulation over time, the second

approach (the attitudinal approach) described commitment as affective or attitudinal. Thus, Porter, Steers, Mowday, and Boulian (1974) were of the view that employees get committed to their organisation because they identify with the organisational values and goals. The emphasis during the attitudinal approach was based on the desire to maintain membership in the organization, belief in and acceptance of the values and goals of the organisation and lastly willingness to exert effort on behalf of the organization.

Meyer and Allen (1984) introduced the multidimensional approach to describe and measure employees' commitment in 1984. The multidimensional approach was initially based on two main pillars such as affective commitment (like the Becker's side-bet theory) and continuance commitment. Continuance commitment was explained as the degree to which employees feels committed to their organisation by the virtue of their perception of the cost associated with leaving. Meyer and Allen (1984) however, later added a third dimension to the multidimensional approach, which was normative commitment. Normative commitment describes an employee's feeling of obligation to remain with the organization. Even though the debate on how to describe and measure employees' commitment has not ceased, it is now generally accepted to describe and measure employees' commitment from the three perspectives such as affective commitment, normative commitment and continuance commitment. Details of these dimensions are provided under theoretical perspective under a literature review of this study.

The University of Cape Coast established the College of Distance Education (CoDE) (Hitherto Centre for Continuing Education) in 1997 with the vision of becoming the leading provider of quality distance and continuing education in Ghana and beyond. The College's mission is to remain as the excellent institution for planning and delivery of innovative, demand-driven, customer-oriented and cost-effective continuing and distance education programmes, aimed at assisting individuals in overcoming geographical, economic, social and cultural barriers to learning, and for national development. In order to achieve its mission, the college has

divided its activities into two main categories.

The first component of the college's activities focuses on activities performed during weekdays usually from Mondays to Thursdays. This category of activities serves as the preparatory period of the college's activities, which are largely administrative in nature. It also includes resolving students' challenges, printing of questions, getting study materials ready for students as well as synchronizing information (announcement) to be sent to students. The second category of activities of the college is basically teaching and monitoring of academic activities in over 83 study centres of the college across the length and breadth of Ghana during weekends. Invigilation of continuous assessment and end of semester examination as well as receiving students' complaints from study centre coordinators are also part of the weekend's activities.

The college is headed by a provost and administrative staff (college registrar and college finance officer), aided by heads of departments, unit coordinators and regional coordinators. Most of the staff at the College were transferred from the mainstream of the University and others were brought in as part of the Colleges' effort of capacity building. The staff of the College comprised senior members, senior staff and junior staff. In terms of reward system, staff are paid salary for their weekdays' activities and allowances for their weekends' activities.

The nature of activities at the college (on weekdays and weekends) requires that staff of the college are committed. This is because committed employees are easy to be retained even though they may not necessarily be satisfied employees as argued from the perspective of normative and affective approaches of commitment theory (Kessler, 2013). Employees of the college also need to be committed to enable the college to deliver on its mandates since organisational performance largely depends on committed staff (Coetzee, Schreuder & Tladinyane, 2014).

Thus, the college's ability to achieve its aim of becoming a leading provider of quality distance education in Ghana and Africa hinges on committed staff. The competition faced by the college from other providers of distance education in Ghana (from

universities and colleges of education) could be largely dealt with when committed staff are on board to deliver on the College's mandate. Meanwhile, employees' performance is not just an antecedent of organisational commitment but also depends on other human resource functions or practices. Key among these human resource practices are training and orientation that staff joining the college receives to enhance their skills and competencies for performance.

The staff of the college work in relation with other staff members in their departments and units. Thus, individual performance could also be highly influenced by the kind of human relationships that exists among staff at the college. From the calculative approach of the theory of commitment, reward as an economic benefit and a human resource function could also be a determinant of employees' commitment. However, earlier studies on the college by Segbenya, Peniana and Aggrey (2018) looked at other human resource practices such as work-life balance and employee job satisfaction among others.

This study thus focused on other understudied variables such as work relations, rewards system and training and orientation, and how these variables relate to employee commitment. Thus, the need to determine whether staff of the college are committed due to positive feelings of attachment to the college (from the perspective of affective commitment), cost associated with leaving (from the continuance commitment perspective) or feeling of obligation to stay in the organisation (from normative commitment dimension) has become very relevant and urgent. The increasing demand and reliance on the activities of CoDE make it imperative to undertake this study. Thus, this study sought to fill this research gap.

The purpose of the study was to examine predetermined factors that influence employee commitment at CoDE. The specific research questions and associated hypotheses of the study were:

1. What is the level of employee commitment among a staff of CoDE, UCC?
2. How do employees perceive work relations, training and orientation and extrinsic reward at CoDE, UCC?

Hypothesis One

H0: There is a statistically positive significant relationship between organisational commitment and variables of the study such as work relations, training and orientation, and extrinsic rewards.

Hypothesis Two

H0: There is a statistically significant difference between the sex of respondents and the variables of the study such as work relations, training and orientation, extrinsic reward and organisational commitment.

Hypothesis Three

H0: There is a statistically positive and significant difference between the type of employment and variables of the study such as work relations, training and orientation, extrinsic reward and organisational commitment.

Hypothesis Four

H0: There is a statistically significant difference between the types of organisational commitment and tenure.

Literature Review

The first part of this section of the paper focuses on the theoretical perspective of organisational commitment theory. The three historical angles of organisational commitment theory such as calculative, attitudinal and multidimensional approaches have already been catered for in the background. Thus, the discussion under this section focuses on the three major perspectives on organisational commitment theory such as affective, continuance and normative commitment (Irefin & Ali, 2014).

Affective dimension of the commitment theory describes employee's emotional attachment to, identification with, and involvement in the organisation. A strong effective commitment to an organisation is characterized by employees' decision to maintain their continuous membership or employment with the organisation (Meyer & Allen, 1987). Four antecedents of affective commitment include personal characteristics, structural/organisational characteristics, job-related characteristics, and lastly, demographic characteristics such as

work experiences, age, tenure, gender and education and job status.

The second dimension of commitment theory which is continuance commitment relates awareness of the costs associated with leaving an organisation. The potential costs of leaving an organisation include giving up seniority-based privileges, losing attractive benefits, the threat of wasting the time and effort spent acquiring nontransferable skills or having to 'uproot' family and disrupt personal relationships. Additionally, continuance commitment also develops as a function of a lack of alternative employment opportunities. Thus, workers whose primary link to the organisation is based on continuance commitment remain because they need to.

The feeling of obligation to continue employment also constitute a normative commitment. Employees with a high level of normative commitment are characterized by the feeling of 'I ought to remain with this organisation'. Normative commitment is influenced by an organisation's provision of "rewards in advance" to a work like the payment of school fees or incurring significant costs in providing employment in the form of head-hunting fees or the costs associated with a job. Other factors associated with normative commitment include cultural orientation (prior to entry into the organization), and organisational orientation (following entry). Recognition of these investments causes employees to feel an obligation to reciprocate by committing themselves to the organisation until the debt has been repaid.

The second section of the literature review of this paper focuses on conceptual discussions on HRM factors of the study and employee commitment. The HRM factors of this study are work relations, training and orientations, and reward systems. Other HRM factors such as job satisfaction, work and life balance among others are not the focus of this study because they have been studied by Segbenya, Aggrey and Peniana (2018) on the same study institution. Also, other HRM practices or factors such as recruitment and selection, performance appraisal and promotions were also excluded from this study because the college has little or no influence over these factors at the college level.

Work Relations and Commitment

Generally, work relations in the workplace is a type of interpersonal relationship based on two concepts-the leader-member relationship and coworkers' interactions (Paşaoğlu & Becker 2015). This description did not consider the quality dimension of work relation. For this reason, Jørgensen, and Becker (2015) added that work relations can be described as the quality of the interpersonal relationship that exists between employees and co-workers (the horizontal pair) and their supervisors (the vertical pair).

A more specific and elaborated description indicating the antecedents of work relation was however given by Sawithri, Nishanthi and Amarasinghe (2017) that workplace employee collaboration encompasses office politicking, level of an interpersonal relationship among workers, backstabbing, empire building, rumour mongering, alienation, trust or mistrust and sabotage. Work relation is relevant for achieving social reciprocity of resources, support and participation in decision-making, trust and respect, quality of teamwork and ultimately, organisational commitment (Funminiyi, 2018).

Training and Orientation, and Commitment

Training is a planned process to modify attitudes, knowledge or skill behaviour through learning experience to achieve effective performance in an activity or range of activities (Wan, 2007). This means that training basically leads to sharpening the skills and the competencies of employees either "on or of" the job for better performance in their present or future job roles.

Orientation, on the other hand, is a form of training given to new employees to familiarize themselves with the new workplace and the necessary facilities, activities of the organisation, work colleagues among others (Jafari, Afshin, Jafari, & Barzegar, 2015). Thus, organisations that are committed to employee training benefit from the rewards of increased skill sets, motivation, higher productivity and knowledge transfer of their employee. Training enhances employees' skills, reduces role conflict and prepares them for future advancements, reduces employee

turnover, hence increases their level of commitment (Funminiyi, 2018).

Extrinsic Rewards and Commitment

Extrinsic rewards are usually financial and tangible rewards given to employees by managers, such as pay raises, bonuses, and direct financial benefits in return for services rendered (Armstrong, 2007). Extrinsic reward continues to play a dominant role in the lives of workers because it is a key determinant for workers' decision to accept and stay on a job (Shaw, 2015). Extrinsic rewards remain one of the most significant motivational strategies for workers (Armstrong & Murlis, 2007). Comparing the effect of pay growth effects on turnover intentions among staff categories, Sthapit (2014) argues that pay growth or extrinsic reward greatly influenced talented employees than other categories of staff.

The overall benefit of extrinsic reward was also highlighted by Mahesar (2015) that organizations that provide its workers with a good extrinsic reward or compensation get in return committed employees who are willing to keep their employment arrangement with their employer for a long term. Arguing from the institutional image perspective, Paşaoğlu (2015) concluded that extrinsic reward is not only necessary for employees but also raises the goodwill of employers in the job market, as a fair and rational organization.

The last section of the literature review of this study looks at the empirical studies on the variables of the study such as work relations, training and orientation, and extrinsic rewards. Coffie, Agyenim -Boateng and Coffie, (2018) found that the quality of information shared among co-workers and supervisors positively correlate with the three dimensions of commitment such as continuance, affective and normative commitment. Funminiyi (2018) rather found that trust in supervisor and co-workers were significantly related to the two dimensions of commitment such as affective commitment in supervisor and explained significant variance in affective commitment in supervisor.

Brunetto, Xerri, Shriberg, Rod, Newman, Dienger (2013) found a very significant relationship between workplace relations and organisational commitment among nurses in the US and Australia. Telman and Unsal (2004) also

concluded that relationship with supervisors and colleagues at the workplace was an external factor that affects employee commitment. Thus, work relations affect employees' commitment, however, at the CoDE, UCC, it is not clear how this factor affects the commitment level of staff.

A study carried out by Coffie, Agyenim -Boateng and Coffie, (2018) found that training only relates to two dimensions of commitment such as affective and normative commitment. Peretomode and Bello (2018) also found that training affected teachers' commitment along the three dimensions of commitment. It can, therefore, be concluded that training and orientation affect employees' commitment, however, it is not clear how training and orientation affect the dimensions of commitment at CoDE/UCC.

Gellatly, Hunter, Currie and Irving (2009) found a significant relationship between firms' compensation packages and employees affective and continuance commitment towards their organization. Shaw and Gupta cited in Mahesar (2015) investigated the relationships between pay dispersal and the quits patterns of good, average and poor performers among 226 US truck drivers. The study found that under high pay practices, pay dispersal was negatively associated with good employees' quit rates when performance-based pay increases were underlined and positively associated when they were not. Also, under high pay practices, pay dispersal was negatively connected to average performer quits when seniority-based pay increases were underlined, but this relationship was diminished when they were not. However, pay dispersal was not constantly related to quilt patterns, when pay was small.

Methodology

This study adopted the quantitative research approach, specifically a descriptive study design. The reason that necessitated the use of this design was that the study sought to describe (Amedahe & Gyimah, 2016) how human resource factors relateto employee commitment at CoDE. The Total population of the study was 242 employees of CoDE comprising 30 senior members, 130 senior staff, and 82 junior staff. Samples of 148 respondents were drawn across the three spectra of staff. Krejcie & Morgan (1970) sample determination formula was used to sample 148

respondents out of the 242 population of the study. The formula used is as follow:

$S=X^2\ NP(1-P)\ /\ d^2\ (N-1) + X^2\ \ P(1-P)$

Where s = required sample size; X^2 = the table value of chi-square for 1 degree of freedom at the desired confidence level (3.841); N = the population size, P = the population proportion (assumed to be .50 since this would provide the maximum sample size) and d = the degree of accuracy expressed as a proportion (.05). Thus $S=3.841*242*0.50(1-0.50)/.05^2\ (242-1)\ +3.841*0.50(1-0.50)$ =148 sample for the study.

Firstly, a list of staff was obtained, and each member of the population was assigned a unique number. In the next step, these numbers were written on separate cards which were physically similar in shape, size, color etc. Then they were placed in a box and thoroughly mixed and the slips were taken out randomly without looking at them until number/sample required was attained. Thus, the lottery method of the simple random was used for the study. The 148 sample was further proportionately distributed across the three staff categories and specific sample for each category can be seen from Table 1.

Table 1: Distribution of Sample Across Spectrum of Staff of the College

Category	Population	%	Proportionate Sample Drawn
Senior members	30	12	18
Senior Staff	130	54	80
Junior Staff	82	34	50
Total	242	100	148

Source: CoDE, 2016

Data collection instrument was self-administered questionnaire. The questionnaire captured both opened and close-ended items. The opened ended items were coded and assigned values due to the quantitative approach or design adopted. Training and orientation as a variable in this study was measured by four items adapted from Delery and Doty's (1996) study and four other items personally developed. Furthermore, four items about extrinsic reward/pay was adapted from the scale developed by Price and Mueller (1986) with two items personally developed. OC was measured with Porter et al.'s (1974) fifteen-item scale (which was modified into nine items) which considered all dimensions of the commitment- affective, continuance and normative commitment.

The last variable of the study which was work relation was assessed with the six-item scale developed by Mahesa (2015). The questionnaire was divided into five sections with section one focused on demographic characteristics of respondents and the remaining four sections dealing with the four variables of the study such organisational commitment, intrinsic reward, work relations and training and orientation. The Cronbach's alpha for the variables of the study can be seen from Table 2. The data collection instrument (questionnaire) had items that were measured on a scale of 1 to 4 with 1 representing strongly disagreement while 4 represented strong agreement. In all 115 completed questionnaires was received representing a response rate of 78 percent.

Table 2: Cronbach's Alpha for Variables of the Study

Dependent variable	Cronbach's alpha	Number of items
Organisational Commitment	.648	9
Independent variables		
Intrinsic Rewards/allowance	.823	6
Work relations	.856	6
Training and orientation	.718	8

All variables	.828	29

Source: Field survey (2017)

Data gathered through open-ended items were coded and analysed quantitatively with data gathered through close-ended items. Specifically, descriptive and inferential statistical tools were employed for the data analysis. Means and standard deviations were used to analysed objectives one and two. Independent t-test was used to test hypotheses two and three and spearman rank order nonparametric correlation matrix was used to test for hypothesis one. Lastly, Analysis of Variance (ANOVA) was also used to analysed hypothesis four.

Results and Discussion

Presentation in this section is based on the research questions that the study sought to answer. The first research question concerned *the level of employee commitment among staff of CoDE.* In order to answer this question, means and standard deviations were calculated and the results can be seen from Table 3. The scale of the items on the questionnaire were rated from one to four. Thus, adding 1+2+3+4=10/4=2.5. This means that all means values from the threshold of 2.5 and above is regarded as high and vice versa. It is evident from Table 3 that only three items were rated high since their means values were above the 2.5 threshold. These items bordered on intention to continue work with the college if possible (M=2.8696; SD= .80005); willingness to recommend the college as a good working place to colleagues (M=2.7478; SD= .81481) and the influence of work relations on respondents' decisions to stay with the college (M=2.6174; SD=.8227).

The results suggest that commitment level among CoDE staff was found to be high. The assertion of high commitment among staff is further corroborated by the low rating of all the remaining items forming the commitment variable of the study. This is because these low items suggest that workers' were not prepared to quit the college to other institutions for a better conditions of service (M=1.9217; SD=.78526), if offered more salary and allowances by other employers (M=2.1739; SD=.91057) and do not feel like

quitting the college at times (M=2.2522; SD=.98090). This finding agrees with that of Brunetto, Xerri, Shriberg, Rod, Newman, Dienger (2013) that committed employees are always prepared to recommend their organisation to their colleagues.

Table 3: Commitment Level Among CODE Staff

Commitment Variables	N	Min	Max	Mean	Std. Dev.
I intend and wish to work with CoDE for as long as possible	115	1.00	4.00	2.8696	.80046
I will recommend CoDE to my friends	115	1.00	4.00	2.7478	.81481
I will not feel guilty if I leave CoDE now	115	1.00	4.00	2.4348	.84946
I am with CCE because there are good work relationships	115	1.00	4.00	2.6174	.82273
Staying with CoDE, right now, is a matter of necessity	115	1.00	4.00	2.4174	.86838
I intend retiring in my present job	115	1.00	4.00	2.3478	.98269
I sometimes feel like leaving CoDE	115	1.00	4.00	2.2522	.98090
I will quit CoDE if offered more salary and allowance by any employer	115	1.00	4.00	2.1739	.91057
If the conditions of service improved, I will still quit CoDE	115	1.00	4.00	1.9217	.78526

Source: Field survey, 2017 Scale: 1.9-2.4= Low and 2.5 and above= High

In terms of how commitment level among staff of the college differ according to staff categorisation, the results can be seen from Table 4. Results in Table show the three categorisations of staff of

the college against the three dimensions of commitment. The results indicate that affective commitment (M= 2.6087; SD=.06107) was perceived higher than normative (M= 2.4348, SD=.84946) and continuance (M=2.4174; SD=.86838) dimensions of organisational commitment.

Specifically, senior members of the college perceived affective commitment higher (M=3.05; SD=.350) followed by junior staff (M=2.85, SD=.642) and senior staff (M=2.45; SD=.643). This kind of commitment at the college was influenced by workers' emotional attachment to, identification with, and involvement in the activities of the college. The finding is in tandem with Irefin and Ali (2014) that strong affective commitment to an organisation is characterized with employees' decision to maintain their continuous membership or employment with the organization.

Table 4: Commitment Level According to the Three Categorisation of Staff

		N	Mean	Std. Dev.	Std. Error
Affective Commitment	Senior Member	11	3.05	.350	.10563
	Senior Staff	75	2.45	.643	.07424
	Junior Staff	29	2.85	.642	.11927
	Total	115	2.61	.655	.06107
Continuance Commitment	Senior Member	11	2.18	1.17	.35209
	Senior Staff	75	2.37	.835	.09637
	Junior Staff	29	2.62	.820	.15227
	Total	115	2.41	.868	.08098
Normative Commitment	Senior Member	11	2.46	1.13	.34015
	Senior Staff	75	2.51	.795	.09178
	Junior Staff	29	2.24	.872	.16200
	Total	115	2.44	.849	.07921

Source: Field survey (2017) Scale: 2.0-2.4= Low; 2.5 and above= High

Table 4 equally shows that continuance commitment among staff of the college was perceived to be high by only the junior staff (M=2.6207; SD=.82001) of the college. The commitment of junior staff of the college was due to the cost of leaving the college which could be either losing attractive benefits (allowances), the threat of wasting the time and effort spent acquiring nontransferable skills or having to disrupt work relationship as found by Jorgensen and Becker (2-15). With regards to normative commitment, only senior staff of the college (M=2.5067, SD=.79480) followed by senior members (M=2.4545, SD=1.12815) perceived it to be high.

The high level of normative commitment among the two categories of staff means these workers had a feeling of obligation (ought) to continue employment with the college. This could be possible due to support received by some members of staff who were sponsored or supported by the college to do their masters and PhD studies as part of the college's capacity building efforts. Recognition of these investments could have causes senior staff and senior members to have felt an obligation to reciprocate by committing themselves to the college and its activities. This finding agrees with that of Coffie, Agyenim -Boateng and Coffie (2018) that organisation's provision of "rewards in advance" to a worker, like the payment of school fees, could cause normative commitment where workers feel like I ought to stay with the organization).

How Employees Perceive Work Relations, Training and Orientation and Extrinsic Reward at CoDE

It has been established that some key antecedents of organisational commitment theory are work relations, extrinsic reward and training and orientation (Mahesar, 2015). It is for this reason that the study went further to examine how respondents perceived these antecedents of organisational commitment at CoDE. Results for respondents' perception on how these factors influenced commitment among the categorization of staff can be seen from Table 5.

Table 5: Respondents' Perception of Factors Influencing Commitment

		N	Mean	Std. Dev	Std. Error
Work Relations	Senior Member	11	2.1818	.75076	.22636
	Senior Staff	75	2.5733	.82484	.09524
	Junior Staff	29	2.8966	.77205	.14337
	Total	115	2.6174	.82273	.07672
Reward System	Senior Member	11	2.3333	.69522	.20962
	Senior Staff	75	2.0422	.59091	.06823
	Junior Staff	29	2.0920	.59024	.10961
	Total	115	2.0826	.60148	.05609
Training & Orientation	Senior Member	11	2.4205	.46190	.13927
	Senior Staff	75	2.3733	.44574	.05147
	Junior Staff	29	2.8405	.53022	.09846
	Total	115	2.4957	.50733	.04731

Source: Field survey (2017) Scale: 2.0-2.4= Low and 2.5 and above= High

Among the three factors examined (Work Relations, Training and Orientation and extrinsic reward) only work relations (M=2.6174; SD=.82273) was perceived to be very high among staff of the college. Training and orientation (M=2.4957; SD=.50733) and extrinsic reward (M=2.0826; SD=.60148) were however, perceived to be low. Junior staff of the college perceived work relations (M=2.8966; SD=.77205) and training and orientation (M= 2.8405; SD=.53022) higher than the other two categories of staff. Though extrinsic reward was generally perceived low across the three spectrums of staff, senior members however, rated it higher than junior and senior staff of the College.

The findings for work relations as the only factor rated high corroborate that the findings of Funminiyi (2018) that work relation ultimately leads to high commitment among workers. Meanwhile, the

findings of this study about the low rating for extrinsic reward disagrees with that of Shaw et al. (2009) that extrinsic reward continues to play a dominant role in the lives of workers because it is a key

Testing of Hypotheses of the Study

Hypothesis One

H0: *There is statistically positive significant relationship between organisational commitment and variables of the study such as work relations, training and orientation, and extrinsic rewards.*

Hypothesis of the study was tested with Spearman rank order nonparametric correlation matrix to establish relationship between the dependent and independent variables and the result can be seen from Table 6. The correlation matrix (Table 6) indicates that there was weak, positive and insignificant relationship between organisational commitment and work relation (rho=.116; Sig=.474; $p \geq 0.005$); and organisational commitment and extrinsic reward (rho=.067; Sig=.217; $p \geq 0.005$). It is clear from Table 6 that there was a positive and significant but weak correlation between training and orientation and organisational commitment ($r = .372^{**}$, Sig=.000; $^{**}p<0.05$). This means that a percentage increase in training and orientation would result in a percentage increase in organisational commitment at the college. The results corroborate the findings of Peretomode and Bello (2018) that training affected teachers' commitment.

Table 6: Spearman's rho Nonparametric Correlation Matrix

		Extrinsic Reward	Training & orientation	Work Relations	Organisational Commitment
Extrinsic Reward	Correlation Coefficient	1.000	.317**	.086	.116
	Sig. (2-Tailed)	.	.001	.363	.217
	N	115	115	115	115
Training and orientation	Correlation Coefficient	.317**	1.000	.169	.372**
	Sig. (2-Tailed)	.001	.	.071	.000
	N	115	115	115	115
Work Relations	Correlation Coefficient	.086	.169	1.000	.067
	Sig. (2-Tailed)	.363	.071	.	.474
	N	115	115	115	115
Organisational Commitment	Correlation Coefficient	.116	.372**	.067	1.000
	Sig. (2-Tailed)	.217	.000	.474	.
	N	115	115	115	115

**. Correlation Is Significant at the 0.01 Level (2-Tailed).

Source: Field survey (2017) Scale: 2.0-2.4= Low and 2.5 and above= High

Since only training and orientation was found to have had a significant relationship with organisational commitment, the study therefore rejected the alternative hypothesis which states that there is statistically positive significant relationship between organisational commitment and variables of the study such as work

relations, training and orientation, and extrinsic rewards.

Irefin and Ali's (2014) found that antecedents such as personal characteristics, structural/organisational characteristics, job-related characteristics, and demographic characteristics such as work experiences, age, tenure, gender and education and job status influence organisational commitment. It is for this purpose that this section test hypotheses that relate to demographic characteristics and variables of the study. Demographic characteristics considered in this section were sex, tenure and employment type. Educational level was not considered because it was already used to categorized staff of the college into junior staff, senior staff and senior members.

Hypothesis Two

H0: There is a statistically significance difference between sex of respondents and the variables of the study such as work relations, training and orientation, extrinsic reward and organisational commitment.

The second hypothesis was tested with independent t-test and the results can be seen from Table 7. All t- values reported for the variables were in line with the equal variance assumed because all the Sig. values obtained under the Levene's test for equality of variances were above .05 threshold. This means that none of the assumptions for using t-test was breached. The results as indicated by the Sig (2 tailed) under t-test for equality of means in Table 7 means that there were no statistically significance differences in scores respectively for male and female perception of organisational commitment [(M=2.64, SD=.698); (M=2.56, SD=.586); t (115)= .488)]; work relations [M=2.59, SD=.807); (M=2.67, SD=.853); t (115)= .609]; training and orientation [(M= 2.54, SD= .543) (M= 2.43, SD=.444); t(115)= .252] and extrinsic reward [(M=2.13, SD= .594); (M= 2.00 SD=.612) t=(115)= .261)].

Table 7: Differences in Perception of the Factors of the Study Based on Sex

Variables	Sex	N	Mean	Std. Dev	Std. Error	Levene's Test for Equality of Variances		t-test for Equality of Means	
						F	Sig	T	Sig (2-tailed
Organisational Commitment	Male	70	2.64	.698	.083	2.416	.123	.696	.488
	Female	45	2.56	.586	.087				
Work Relations	Male	70	2.59	.807	.097	.097	.757	.513	.609
	Female	45	2.67	.853	.127				
Training & orientation	Male	70	2.54	.543	.065	3.257	.074	1.152	.252
	Female	45	2.43	.444	.066				
Extrinsic Reward	Male	70	2.13	.594	.071	.027	.869	1.129	.261
	Female	45	2.00	.612	.091				

Source: Field survey (2017) Scale: 2.0-2.4= Low and 2.5 and above= High

Meanwhile, (except for work relations) male staff perceived commitment, training and orientation, and extrinsic reward more positively as compared to their female counterparts. The findings of this study of non-significance of the varables of the study thus disagree with that of Irefin and Ali's (2014) that organisational characteristics and job-related characteristics influence organisational commitment. Based on the result of non-significance of the factors of study, the eta square showing the size of the effect was not calculated. The alternative hypothesis which indicates that there is a statistically significance difference in how male and female staff perceived work

relations, training and orientation, extrinsic reward and organisational commitment was therefore rejected.

Hypothesis Three

H0: There is a statistically positive and significance difference between type of employment and variables of the study such as work relations, training and orientation, extrinsic reward and organisational commitment.

The third hypothesis of the study also examined whether there were statistical significance differences in terms of how the factors of the study were perceived by teaching staff as compared to non-teaching staff of the college (herein referred to as type of employment). The results can be found in Table 8.

Table 8: Differences in Perception of the Factors of the Study Based on Type of Employment

Variables	Type of employment	N	Mean	. Std. Dev	Std. Error	Levene's Test for Equality of Variances		t -test for Equality of Means	
						F	Sig	t	Sig (2-tailed)
Organisational Commitment	Teaching	17	2.74	.615	.149	.089	.766	.862	.390
	Non - teaching	98	2.59	.662	.067				
Work Relations	Teaching	17	2.06	.746	.181	.676	.413	3.149	.002
	Non - teaching	98	2.71	.799	.081				
	Teaching	17	2.28	.439	.106				

Training and orientation	Non - teaching	98	2.53	.511	.052	2.28	.134	1.926	.057
Extrinsic reward	Teaching	17	2.02	.623	.151	.135	.714	.466	.642
	Non - teaching	98	2.09	.600	.061				

Source: Field survey (2017) Scale: 2.0-2.4= Low and 2.5 and above= High

From Table 8, it is obvious that apart from organisational commitment, non-teaching staff of the College perceived work relations, training and orientation, and extrinsic reward more positively than the teaching staff. The results as indicated by the Sig (2 tailed) under t-test for equality of means in Table 8 means that there were no statistical significance differences in scores respectively for teaching and non-teaching staff of the college with regards extrinsic reward [(M=2.0196, SD=..62328); (M=2.0935, SD=.60024); t (115)= .488)]; and organisational commitment [M=2.7353, SD=.61537); (M=2.5867, SD=.66202); t (115)= .390].

Meanwhile there was a statistically significant difference in terms of how teaching and non-teaching staff respectively perceived training and orientation [(M= 2.2794, SD= .43868) (M= 2.5332, SD=.51101); t(115)= .057] and work relations [M=2.0588, SD= .74755); (M= 2.7143 SD=.79948) t=(115)= .002)]. The magnitude of the differences in the means was small for training and orientation (eta squared=0.03) and great for work relations (0.08). The alternative hypothesis that there is a statistically positive and significance difference between type of employment and variables of the study was therefore rejected.

Hypothesis Four

H0: There is a statistically significance difference between types of organisational commitment and tenure.

Hypothesis four was tested with the use of analysis of variance

(ANOVA). A two-way between group analysis of variance was conducted to explore the impact of working experience herein termed as tenure on the various types of commitment and the three independent variables of the study, as measured by the life orientation test (LOT). Subjects were divided into three main groups according to their number of years of working in the college (Group 1: 1-5 years; Group 2: 6- 9 years; Group 3: 10 years and above) and the results can be found in Table 9. From the table, staff with six to nine (6-9) years working experience perceived affective commitment (M=2.96, SD=.594) and normative commitment (M=2.69, SD=.855); extrinsic reward (M= 2.15, SD=.551) and work relations (M=3.00, SD=.817) higher than all other age categories of staff.

Staff with 10 years and above working experience also perceived continuance commitment (M= 3.00, SD=1.00) and training and orientation (M=2.700, SD=.168) higher that the other two age categories. Meanwhile, there was no statistically significance differences between age and affective commitment [F (2.536) =.084)], continuance commitment [F (1.181) = .311)], normative commitment [F (= 0.670) =.514)], extrinsic rewards [F (1.119) =. 330)], work relations [F (1.606) =.205)] and training and orientation [F (1.054) = .352)]. Irefin and Ali's (2014) findings that demographic characteristics like age influences commitment was therefore not corroborated by this study. Based on the non-significance of commitment and all the other variables of the study, the alternative hypothesis which states that there is a statistically significance difference between types of organisational commitment and tenure was therefore rejected.

Table 9: Differences in Organisational Commitment Based on Age of Respondents

Variables	Age	N	Mean	Std. Dev.	Std. Error	F	Sig.
affective commitment	1-5 years	97	2.55	.663	.067	2.536	.084
	6-9	13	2.96	.594	.165		
	10 years & above	5	2.80	.274	.123		
	Total	115	2.61	.655	.061		
Continuance Commitment	1-5 years	97	2.39	.873	.089	1.181	.311
	6-9	13	2.39	.768	.213		
	10 years & above	5	3.00	1.00	.447		
	Total	115	2.42	.868	.082		
Normative Commitment	1-5 years	97	2.40	.862	.088	.670	.514
	6-9	13	2.69	.855	.237		
	10 years & above	5	2.40	.548	.245		
	Total	115	2.44	.849	.079		
Extrinsic Reward	1-5 years	97	2.09	.608	.062	1.119	.330
	6-9	13	2.15	.551	.153		
	10 & above	5	1.70	.570	.255		
	Total	115	2.08	.602	.056		
work relations	1-5 years	97	2.57	.828	.084	1.606	.205
	6-9 years	13	3.00	.817	.227		
	10 years & above	5	2.60	.548	.245		
	Total	115	2.62	.823	.078		
Training & Orientation	1-5 years	97	2.47	.516	.052	1.054	.352
	6-9	13	2.63	.509	.141		

10 years & above	5	2.70	.168	.075
Total	115	2.49	.507	.047

Source: Field survey (2017) Scale: 2.0-2.4= Low and 2.5 and above= High

Conclusion

The purpose of the study was to examine human resource factors and organisational commitment at College of Distance Education, University of Cape Coast, Ghana. The human resource factors examined were extrinsic rewards, training and orientation, and work relations. The study found that commitment level among staff at the college (CoDE) was found to be high. Affective commitment was perceived higher than normative and continuance dimensions of organisational commitment. Senior members of the college perceived affective commitment higher whiles junior staff perceived continuance commitment higher.

Work relations were perceived to be higher compared to training and orientation and extrinsic reward. The study also found that only training and orientation had a statistically significant relationship with organisational commitment. There was no statistically significance effect of age and sex of respondents on organisational commitment, extrinsic rewards, training and orientation, and work relations. Apart from work relations, all other factors of the study were perceived higher by non-teaching staff as compared to the teaching staff of the college. Type of employment (teaching and non-teaching) was found to have had a statistically significance effect on work relations at the College of Distance Education.

The above findings indicate a need for certain action to take place by management (advisory committee). It is, therefore, recommended that the management of CoDE should:

1. Pay more attention to work relations at the college by engaging staff of the college in inter-unit or inter-departmental assignments to enable staff to build more work relations.
2. Organize college level socialization activities like sporting activities, health walk among others on

public holidays for the staff of the college to fraternize in order to enhance work relations.

3. Continue with training and orientation for staff of the college by introducing both on- the- job and off- the- job methods in order to maintain or enhance the commitment level of staff of the college.

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Understanding the Forms and Trends of Capital Mobility from China into Ghana's Agricultural Sector: From Neo-liberalism to Social Innovation

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Abstract

Given the fact that China has become the top investor in Ghana's economy, this paper sought to interrogate the forms and trends of Chinese capital mobility into Ghana's agricultural sector and explain their attractiveness within neo-liberal and social innovation contexts. Primary and secondary data were drawn from purposively selected state institutions and other actors in the agricultural sector. Using descriptive and constant comparative analytic strategies, we found out that the capital mobility from China into Ghana's agricultural sector has been very visible and more attractive in trade but not in landed investment. It was further discovered that, the forms and trends of the Chinese capital mobility would not have to be understood within neo-liberal persuasions such as trade liberalization and privatization alone but it would also have to be understood within the social innovative contexts of technological advancement and the organizational novelties upon which it is promoted and spread. We argue that the increasing rate of importation of agricultural inputs from China is an opportunity for knowledge transfer and technological adoption to aid the development of appropriate technology, but its sustenance would require the application of social innovative practices.

Keywords: *Capital mobility, neo-liberalism, political economy heteredoxy, social innovation, china, ghana*

Introduction

Serving as a source of foreign exchange, employment, reducing expenditure on importation, enhancing food security and acting as a source of foreign exchange, agriculture remains the real foundation of every country's economic development (Todaro & Smith, 2009). In Africa, for example, agriculture accounts for 33 percent of its GDP (New African, 2014). Its capacity to reduce poverty cannot be equally overemphasized because investment in agriculture, according to Moyo (2014), could lift 85 million people out of poverty by 2024. In Ghana, for example, agriculture's vitality to enhance crop production and employment remains apparent as it absorbs about 45 per cent of the work force (Okudzeto, Mariki, De Paepe & Sedegah, 2014). These realities signify the enormous potential in Africa's agricultural sector.

Africa's agricultural potential has attracted tremendous capital mobility (Alden, 2013; Brautigam, 2015; Buckley, 2013) which finds expression in Foreign Direct Investment (FDI), trade, and inventor mobility. Even though the reasons for the attraction may not be far-fetched, Hallam (2009) puts it in a more elaborate and succinct fashion. He notes:

> *"A major underlying driver for the recent spate of interest* [trade] *in international investment in food production appears to be food security and a fear arising from the recent high food prices and policy-induced supply shocks that dependence on world markets for foods supplies or agricultural raw materials has become riskier" (p.2)* [emphasis added].

On account of the developmental outcomes of the FDI and trade in the agricultural sector they have generated controversial economic, political, institutional, legal and ethical issues with complex debates about whether or not these investments should be encouraged. While some regard it as an expression of South-South cooperation others regard it as a neo-imperialist expansionism. But whatever, the case may be agriculture is of

strategic value to the political economy of China (Mueller & Mueller, 2014).

Putting Ghana on the spotlight, she has also attracted some enormous investments from development partners and foreign investors given the fact that productivity increases in Ghanaian agriculture are potentially significant (World Trade Organization, 2014). The benefits of these investments cannot be overlooked considering Ghana's infrastructural deficits which currently require sustained spending of at least US$ 1.5 billion per annum over the next decade (Ministry of Finance and Economic Planning, 2013) and the fact that Ghana lacks the financial wherewithal to quickly address these deficits. One of these partners is China.

Chinese position as a top investor weaves into her *'going out'* policy which encourages Chinese firms including agricultural parastatals to invest in a host of countries with myriad of incentives offered through the China Africa Development Fund (Xu et al., 2016). Consequently, China has strengthened itself as a leading player in the world economy, challenging the dominance of the United States (Scoones, Amanor, Favareto, & Qi, 2016).

In addition, China also presents itself as more assertive in her intent of being at the core of the "multilateral debate about the reconfiguration of global governance mechanisms" (Vaz, 2015: 1). In Africa, its influence on the scope and amount of both development assistance and investment in agriculture in Africa is growing significantly (Buckley, 2013). In Ghana, China's influence has also been felt. In 2011 Ghana experienced 79 Chinese investment projects registered with the total value of $145 million, while in 2012 China registered 56 projects making it a top investor in Ghana in terms of number of registered projects (GIPC, 2013) cutting across all sectors of the economy.

As China makes this long march into Ghana's economy, many questions stir the intuitions of many political economists and development analysts particularly about what China seems to bring to Ghana's agricultural sector.

These questions have not been fully answered because the trudge to search the real facts about China's role in Ghana's agriculture has either not been well ignited or perhaps got stalled. A generally question we seek to ask is, does neo-liberalism provide all the explanations? In other words, can heterodox political economy, which finds expression in social innovation, also provide useful explanations? In this paper, the scope of capital mobility will be limited to foreign direct investment and trade alone. Inventor mobility was not considered because there was lack of data that would have helped in the analysis of the patterns and the context within which they it occurs.

As it stands now, intellectual discourse of Ghana's agricultural regime has concentrated on the internal contradictions in the sector and the role of internal actors in the improvement of the sector (Moyo, 2014, Seini, 2003; Asamoa, 2001; Nyanteng & Dapaah, 1993). Besides this, even though studies on China-Ghana relations exist, these studies have generally concentrated on trade, manufacturing, road infrastructure development, energy (Tsikata, Fenny & Aryeetey 2008, Marfaing & Theil 2011; Glaesel & McCraken, 2012; Tang, 2017).

Existing studies give a rather superficial outlay on how Chinese foreign aid works to promote Ghana's agricultural sector (Idun-Arkhurst, 2008; Amanor, 2013). Subsequently, other studies which provide rich intellectual analyses on the Chinese role in Ghana's agricultural sector have been carried out (see Amanor & Chichava, 2016; Scoones et al., 2016). However, the studies were not focused exclusively on China and Ghana hence the information about China's role in Ghana's agricultural sector in these studies seem to have been subsumed by information about other countries. Consequently, it blurs the detailed picture one needs to obtain to enhance useful discussions and inform agriculture-related policy strategies.

Clearly, the spectra within which the afore-mentioned studies have been carried suggest that attention could still be given

to the agricultural sector but, this time round, on how China may have been contributing to the sector's prospects or otherwise in a detailed manner.

As established in the literature, fast-growing locations are not closed and independent economies, but rather they are, most likely, those areas hosting Multinational Enterprises (MNEs) (Walker, 1978; Isaksson, 2001; McCann & Acs, 2009). Over, the years the discussion of China's long march in Africa's agriculture has been situated within the contexts of neo-liberalism with some specific explanations.

Much as we also wish to situate this work into neo-liberalism, we seek to do this with the intention of contesting some of the existing neo-liberal arguments and then introduce other contexts which depart from political economy orthodoxy. The new drift to this orthodoxy is known as heterodox political economy. Invariably, we seek to interrogate the social innovative strengths of Chinese firms in their quest to remain more assertive in their intent of being at the core of the reconfiguration of global economic mechanisms including Africa and Ghana.

On grounds of these contestations and research gaps, we locate the role of China, as an external actor; in Ghana's agricultural sector on the altar of three concepts namely capital mobility, neo-liberalism and social innovation couched within political economy frameworks. We choose to locate this study within political economy frameworks because, as Scoones et al. (2016) point out, intellectual discourse about Chinese engagements in African agriculture must look beyond the descriptive narratives and "look at the dynamic and uncontested politics of engagement as new forms of capital and technology enter the African context" (p.1). With these in focus, this study sought to address:

1. How the patterns of capital mobility have occurred in the various sub-sectors
2. The unspoken neo-liberal contexts within which the patterns of capital mobility have taken place

3. The social innovation contexts within which the patterns have occurred

Literature Review

Capital Mobility in the Context of Political Economy Heterodoxy

Capital mobility is commonly described as the process through which the flow of capital carried out through trade, foreign direct investment and inventor mobility (see Coe & Helpman, 1995; Aitken & Harrison, 1999; Almeida & Kogut, 1999; Keller, 2002; Javorcik, 2004; Bitzer & Geischecker, 2006; Oettl & Agrawal, 2008; Kang, 2015) from members of one social system to another social system who do not share the same national territorial boundary.

Largely then, capital mobility is accountable for the nature of items being spread on the altar of globalization. Specifying the items being spread, Snyder (1999) argues that the social processes of globalization involve the spread of particular means of production and patterns of consumption. As a matter of fact, international capital mobility has increased notably in the past decades: on the one hand, the dispersion of international investments across different countries has increased; on the other hand, it tends to concentrate in a few regions within these. Locations where MNEs invest thus become part of global production networks (GPN) at different stages of the production process (Ernst & Kim, 2002).

Heterodox political economy makes a case for the role of other institutions and other social arrangements which are neither essentially economic nor political. Hence, the heterodox political economy perspective holds the role of globalization expressed in capital mobility, as a tool for reengineering regional economic processes, is conditioned to economic, political and social conditions. This perspective suggests that capital mobility may rely not only on the availability of natural resources and neo-liberal or statist macroeconomic structures. Rather, improved economic infrastructure such as development of transportation and

communication systems may influence the pace of capital mobility and eventually affect regional economic development process (Marx, 1967).

Extending this scope, heterodox political economy further notes that enhancement of capital mobility is equally hinged on the non-physical aspects. As argued in the literature, capital mobility into hosting MNEs is influenced by financial capabilities ranging from their sales efforts to reduced turnover time on fixed capital (Harvey, 1975) as well as technical innovation, organizational change (Walker, 1978), financial liberalization policies (Isaksson, 2001) and international investment (McCann & Acs, 2009).

Furtherance to the arguments above, Piore and Sabel (1984) contend that flexible specialisation, trust and face-to-face social relations are fundamental requirements for regional economic success in an era of global economic expansion. Adding the political dimension to the capital mobility-regional development mix, Coe, Hess, Yeung, Dicken and Henderson (2004) suggest that regional development happens on an uneven power playing field.

More specifically, they claim that the balance of power between the different actors is an important determinant of the potential for value enhancement and value capture. It is therefore clear that the mobility of capital and its improvement thereof are hinged on a deep interrelationship between both the physical and the non-physical factors cutting across economic, political and social spectra. Heterodox political economy also finds expression in social innovation.

Social Innovation: A Dimension of Political Economy Heterodoxy

Social innovation is generally defined as effort, method, result or change by collaborative actions (Howaldt & Schwarz, 2010; Neumeir, 2012). Characteristically, social innovation may take varied approaches namely technological, entrepreneurial, organizational and sociological. In this paper, we focus on organizational innovation because its content

resonates with the focal point of this paper which interrogates the organizational strength of Chinese firms in their quest to remain more assertive in their intent of being at the core of filling some economic gaps in Ghana's agricultural sector.

Organizational innovation is that form of innovation described as a new form of cooperative entrepreneurial acting principally resulting into new forms of organization and resulting in technical and marketing innovations (Schumpeter, 1934, 2004). Pot and Vass (2008) view it as containing features such as dynamic management, flexible organization, working smarter, development of skills and competencies and networking with organizations which are seen as been complimentary to technological innovation. Social innovation emerges as one of the social contexts which occasion the process of capital mobility thus operates as one of the strands of political economy heterodoxy. Given the nature of social innovation it reflects the essence of political economy heterodoxies because it would explain the dynamics with which Chinese capital mobility assumes preponderance in Ghana's agricultural sector by referring to non-political and non-structural economic conditions.

Judging from the arguments on social innovation, it can be summed up that a successful social innovation endeavour would require: Creativity, competency, commitment, collaboration and co-operation. Even though the focus is actually on the organisational innovation level at which the issues of social innovation are associated with the Chinese presence in Ghana's agricultural sector, much of the attention will also be given and located at the marketing level – (after-production innovation).

In this paper, organisational innovation can be used in coterminous terms with the term social innovation because the difference between purely organizational innovations and social innovations, as Neumeir (2012) said, is "not always precisely considered" (p.50). On grounds of this clarification and the description of the nature,

content, futures and requirements of social innovation, this strand of political economy heterodoxy will serve as useful context for analysing some of the political economy heterodoxies associated with Chinese presence in Ghana's agricultural sector.

Methodology

The study was essentially descriptive and exploratory. Philosophically, the study is largely rooted in the pragmatic paradigm to knowledge production. Situating the orientations of the philosophical paradigm into this research we sought to describe the trends and forms with which the Chinese capital mobility has taken roots in Ghana's agricultural sector. In addition, we engaged the respondents to capture their encounters and motivations associated with the patronage of Chinese agricultural input. On grounds of the consistency between the orientations of the pragmatic paradigm to research and the nature of the research qualitative and quantitative methods were employed in a sequential order with the latter method preceding the former.

Both quantitative and qualitative data were used. The quantitative data were drawn from secondary sources. The secondary data were sourced from Ghana Investment Promotion Authority, Fisheries Commission and Ministry of Trade and Industry. The qualitative data were however, sourced from public institutions, private institutions (producers and distributors) and end-users. Specifically, Table 1 shows the source and the number of respondents obtained from each source of the primary data.

Table 1: Primary Sources

Category	Source	Sample
Public Institutions	Agricultural Engineering Services Directorate (AESD)	**6**
	Ministry of Food and Agriculture	**2**
Private Institutions (Producers and Distributors)	WYNCA	**2**
	JOYVET	**3**
	Agro-chemical Retailers	**5**
	RST	**4**
	Motorking	**1**
End-users	Meat Producers	**7**
	Aqua culturist	**7**
	Farmers' Association	**8**
Total		**45**

Source: Authors' own construction, 2018

We deployed purposive as the technique to select the target respondents because they were well-positioned to articulate the context of the increasing levels of patronage and imports of Chinese agricultural inputs and provide secondary information on Chinese capital mobility into Ghana's agricultural sector is concerned (Palys, 2012). Officials from the Ministry of Food and Agriculture, AESD and the Fisheries Commission were selected using *'expert'* purposive sampling technique to select them because they "have a particular expertise that is most likely to be able to advance our interest as researchers and potentially open new doors" (Given, 2008:2) with regard to the patterns and attractions of Chinese capital mobility and the neo-liberal and social innovation contexts within which Chinese capital will be understood. We further used the '*criterion'* purposive sampling to select the retailers, the meat producers, the aqua culturists as well as leaders and members of various farmers' associations because they had

some life experiences and motivations for patronage with regard to the mobility of capital and diffusion of knowledge from China (Given, 2008:2) which provided considerable contextual understanding of how social innovation was inclined to the patronage of Chinese agricultural input.

In-depth interviews were conducted involving the use of interview guides. A total of 13 key informants were interviewed. Focus Group Discussions (FGD) were also deployed involving the use of FGD guides. The FDGs were limited to the engineers of the AESD and the end-users given their uniformity of exposure and the variations in their encounters with Chinese agricultural inputs. In all, 5 FDGs were formed for the discussions. The groups were constituted, in their respective terms, by 4 engineers, 5 agro-chemical retailers, 6 meat producers, 6 aqua culturists, and 8 members of the farmers' association. The discussion process was fashioned out to reveal underlying views and motivations, behavioural triggers and challenges and explored reactions to messages (Wallace & Sheldon, 2015) about capital mobility from China.

The process of gathering data from the respondents involved the 'Sense Maker' approach. This approach gave a deeper sense of the underpinning motivations of Ghanaians interest in Chinese agricultural inputs. By this approach, we used the following strategies:

1. Sought experiences from respondents as they conveyed complex knowledge through their stories rather than merely seeking their opinions.
2. Used indirect promptings to elicit answers that tended to be more honest and revealing.

Practically, in combining these strategies, the research participants were made to compare their experiences with the agricultural input from China and from other countries in order to establish the veracity of the emerging heterodoxies in Chinese capital mobility.

The analysis of primary data involved a "range of techniques for sorting, organising and indexing" (Mason, 1996:7). The primary data were organized into themes (data set) which contained similar responses and meaning from the multiple research respondents (Ayres, Kavanaugh & Knafl, 2003). Themes were then developed as fashioned out along the specific issues which emerged from the participants' responses during the period of data collection.

Afterwards the contents of the themes were used to explore the relevance of the heterodox political economy theory to the responses derived from the respondents. Certain social processes, social innovation contexts became central to the understanding of how the actors in the agricultural patronised Chinese agricultural inputs using insights from literature. For this reason, the study employed the *constant comparative analytic strategy* through which the fundamental social processes which characterize the patronage of imported items and their usage by actors in agricultural sector were analysed by drawing out similarities and differences in encounters and motivations (Thorne, 2000). The secondary data were presented in figures and tables to establish the trends and the forms of the capital mobility.

Results and Discussion

This section presents the forms and trends of capital mobility from China into Ghana's food production sector. It starts by ascertaining the forms and trends of capital mobility from China into Ghana's agricultural sector. It presents the patterns of Foreign Direct Investment (FDI), in terms of number of investments and capital invested into Ghana's agricultural sector and their geographical distributions as well as the year-on-year add ups in terms of trade of Chinese agricultural input. Subsequently, it presents the neo-liberal and the social innovation contexts associated with the forms and trends of the capital mobility.

Forms and trends of Capital Mobility from China into Ghana's Agricultural Sector - FDI

The rationale for highlighting the forms and trends of Chinese investment-related capital mobility into Ghana's agricultural sector is to establish the extent and the industries within the agricultural sector within which the Chinese are contributing to the sector.

Capital Mobility in Ghana's Crop and Animal Husbandry Subsectors

Table 2 provides details of Chinese investments in the crop and animal husbandry subsectors.

Table 2: Composite Profile of Chinese Companies engaged in Ghana's Agricultural Sector

Company Name	Date_Iss	Location	Region	Country	Ownership	Sector	Activity
Golden Fish Aquaculture Ltd	06/02/1997	Tema	Gr	China	F	Agric	Fish Farming and Aquarists
Meilong Poultry Ltd	22/04/1997	Tema	Gr	China	F	Agric	Poultry Complex
Eau Agricultural Company (Gh) Ltd	29/09/1999	Amasam an	Gr	China	Jv	Agric	Poultry Farming
Santa Fisheries (Gh) Ltd	19/05/1999	Tema	Gr	China/T aiwan	Jv	Agric	Fishing
Henz Poultry Ltd Now Dragon Farming Ltd	12/09/2001	Tema	Gr	China	F	Agric	Poultry Productio n, Hatchery, Feed Manufact uring
Big Catch Fisheries (Gh) Ltd	17/10/2002	Tema	Gr	China	Jv	Agric	Tuna Fishing
HauangJia Yi Limited	15/06/2007	Tema	Gr	China	Jv	Agric	Vegetable Farming: Chinese Cabbage,

							Lettuce, Green Pepper Etc.
Heyi Company Limited	28/06/2007	Kpong& Ahweras	Vr	China	Jv	Agric	Vegetable Farming
Tila Fish Limited	15/11/2007	Senchi	Er	China	Jv	Agric	Fish Farming
JiaHuaAgric & Technology Company Ltd	18/01/2010	Tema	Gr	China	F	Agric	Farming of Vegetable s
Agriculture Technology Developmen t Ltd	05/02/2010	Tamale	Nr	China	F	Agric	General Agric, Import and Export OgAgric Machiner y, Manufact uring AgricEqpt ,
Infinity Company Limited	05/02/2010	Tamale	Nr	China	F	Agric	General Agric, Import and Export of Agric Machiner y, Manufact uring AgricEqpt ,
Hu Nan Farms Limited	17/05/2010	Afienya	Gr	China	Jv	Agric	General Farming. Company Will Grow Variety of Vegetable sand

							Rearing Pigs
Gya Glorify Farms Limited	16/11/2011	Dentsaw orme	Vr	China	Jv	Agric	Gen. Farming, Aquacultu re Fish Farming
China Fujian Fishing (Gh) Ltd.	22/03/2016	Akosom bo	Er	China	F	Agric	Fish Farming

Source: Ghana Investment Promotion Authority (GIPA), 2017

Within a period of twenty years (1997-2016), fifteen companies had been registered in Ghana for agricultural purposes. These companies were either fully owned by Chinese companies or by a joint venture between Chinese and Ghanaian business enterprises. From Table 2, having fifteen registered companies within a period of 20 years suggests that the agricultural sector records an average of less than one Chinese company. It is apparent in the data that, as at 2014, the agricultural sector had recorded fourteen registered companies with the GIPA inching up to 15 in 2016. Moreover, in 2013 when a total of 219 with an estimated investment value of US$259.56 million had registered in Ghana (GIPC, 2013) none of these went into the agricultural sector. Below is a pictorial representation of the narratives afore-mentioned.

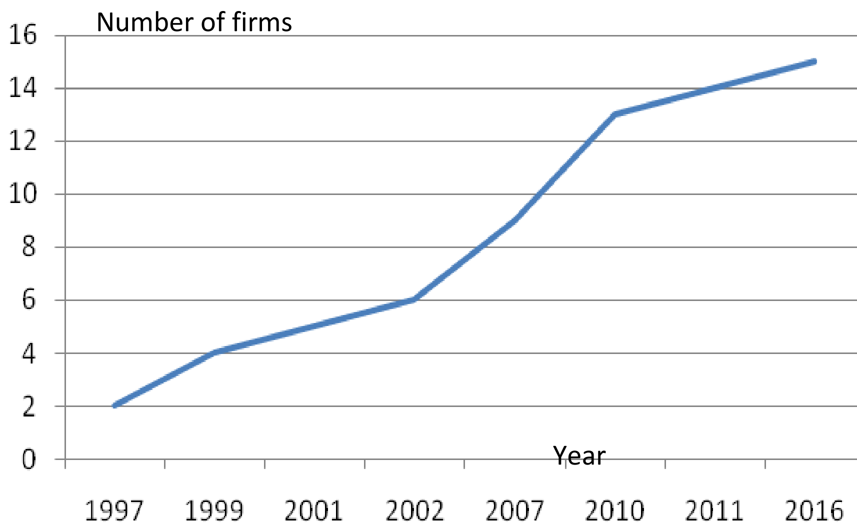

Figure 1: Chinese Investment in Ghana Agricultural Sector (1997 – 2016)
Source: Author's own construction from GIPA, (2017).

The low patterns of capital mobility are not different from the generally low patterns of capital mobility into Ghana's agricultural sector foreign direct investors from other countries, as shown in Table 3. By the first quarter of 2017 the following was the nature of capital mobility in terms of FDI into Ghana's economy, among the sectors.

Table 3: FDI in Ghana as at First quarter of 2017

Sector	Number of Projects	Amount Invested
Manufacturing	13	2.5 billion
Service	12	10.62 million
General Trading	10	15.87 million
Building and Construction	5	6.4 million
Agriculture	1	6.91 million

Source: Authors' own construction from GIPA, (2017).

It is thus clear from Figure 1 and Table 3 that the attraction of Chinese investment into the land-based agricultural sector has not been encouraging. This situation is not different from general trends on the African continent. Indeed, this finding corroborates previous findings by Brautigam and Ekman (2013) and Brautigam and Zhang (2013) that, in Africa, there are far fewer land-based investments than media houses have reported. This raises issues of policy and favorability of the investment environment in the agricultural sector. As it stands, there are conditions which dissuade investors from investing in land-based agriculture. Generally, these are macro issues which relate with lack of infrastructure, distance to markets (see Scoones et al., 2016) and the decentralized and traditionally-based land tenure administrative structure (Boamah, 2014; Schoneveld & German, 2014).

In spite of lower levels of land-based agricultural investments, Chinese capital mobility into the agricultural sector, as indicated, represents an apparently diverse array of engagement in that sector including activities such as general agriculture, tuna fishing, aquaculture, vegetable farming, poultry production and the distribution of agricultural machinery and agro-processing equipment. Table 4 shows the number of Chinese investments in the subsectors in the agricultural sector which has attracted Chinese capital mobility.

Table 4: Agricultural Subsectors Attracting Chinese Capital Mobility between 1997 and 2016

Subsector	FDI
Fish farming and Aquaculture	5
Vegetable production	4
Poultry production	3
General Agriculture	3
Trade of and Manufacturing of Agricultural Machinery	2
Tuna Fishing	1
Rearing of Pigs	1

Source: Authors' own construction from GIPA, (2017).

The predominantly primary-based nature of Chinese investment in the agricultural sector corroborates Amanor's (2013) finding which indicates that China does not yet have significant agribusiness companies operating in the agricultural sector with just a number of small Chinese farmers operating in Ghana producing vegetables, cowpeas and Jathropha while some of these farmers are also involved in distributing Chinese agricultural machinery. This also raises policy issues and perhaps may lend credence to the widely held impressions by Chinese critics that Chinese presence in Africa is focused largely on natural resource extraction and manufacturing. It must also be noted, perhaps to buttress the arguments of the critics that Chinese subsidiary in Ghana, known as Wynca Sunshine (Ghana) Agric Products and Trading Company Limited has been engaged in the production of agro-chemicals. The brand name for the company's agro-chemical products is Wynca. Wynca Sunshine (Ghana) Agric Products and Trading Company Limitedis engaged in the production of herbicides such as Rezim and Caritek as well as insecticides including Sunpyrifos and Lamdakin.

With the data obtained, it is also plain that unlike the discovery made by Brautigam and Tang (2013) about an interest in contract farming arrangements for key crops (including cotton and tobacco) in Africa, this observation cannot be held applicable to Ghana since the Chinese investment into the agricultural sector has not yet entered into key crops, particularly the cocoa subsector, as the data on the profile of Chinese companies engaged in Ghana's agricultural sector from GIPA (2017) suggest.

Capital Mobility in Ghana's Fisheries Subsector: A Focus on the Fish Trawling Industry

In Ghana, the fisheries subsector consists mainly of marine fishery, inland (fresh water) fishery and aquaculture fishery and other related activities such as fish storage, preservation, marketing and distribution (GIPA, 2015).

The fisheries sector's contribution to national economic development is evident in an estimated 3% of the total GDP and 5% of the GDP in agriculture. In terms of employment the fisheries sector employs 10% of the country's population (GIPA, 2015).

Notwithstanding the fact that land-based investment has been low with just about five of the fifteen in the fish farming and aquaculture industry, a significant amount of investment could be seen in the marine fishing sector, albeit largely limited to the fish trawling industry. A structural profile of the marine fisheries industries will provide an understanding to this phenomenon. The marine fishing industry in Ghana can be categorized into four according to the nature of activity carried out. They include the artisanal, semi-industrial (inshore sector), industrial (deep sea) and tuna fleets. Marine fisheries account for over 80% of the fish consumed in Ghana. It has been realized, however, that fresh water fisheries including aquaculture is considerably increasing thereby contributing a share of the supply and consumption trends (GIPA, 2015).

Regarding tuna fishing, it has not attracted many Chinese enterprises because most of the

foreigners engaged in fish farming are largely South Koreans. The Tuna sector is about 98-99% Korean involvement (Ministry of Fisheries and Aquaculture, 2015). Chinese investment in the Tuna sector represents just 1% of the total investment (Ministry of Fisheries and Aquaculture, 2015). Indeed, the Koreans were present in the fish trawling industry but moved away. In lieu of the fact that the Koreans had moved away from the trawling sector the Chinese took over.

Unlike the semi-industrial fish trawling sector, the artisanal fishing sector rarely attracts Chinese capital mobility. It is so because in Ghana about 90% of the outboard motors used by actors in the artisanal sector are YAMAHA and SUZUKI brands which are made in Japan. A few items such as the hook and the nylon lines originate from China thus contributing insignificantly to the Chinese capital mobility enterprise in Ghana. The attention is thus restricted to the fish trawling industry given the visible and ostensibly exclusive Chinese engagement in it. The dynamics of the Chinese engagement are as follow:

Interviews carried out at the Fisheries Commission indicate that ownership of a trawling company in Ghana is, by law, exclusively Ghanaian. However, the reality on the ground is that owing to lack of the ability on the part of Ghanaians to raise the needed capital of about $4 million to own a vessel they acquire the license to engage in trawling and partner a Chinese who has the financial wherewithal to acquire the vessel for them to operate together. Thus, the trawling sector is about 100% Chinese holding in terms of vessel purchase financing, hence their engagement in that sector. In terms of crew it is also heavily dominated by Chinese at the top management positions.

Currently, the main player in the fish trawling industrial sector includes the bottom trawlers who generally operate with a depth of up to 30 m Length Overall (LOA). The industry's main target species include sparids, groupers, cuttlefish and snappers. Between 2008 and 2013 an increase in

fishing capacity was observed, mainly due to the importation of additional vessels (Ministry of Fisheries and Aquaculture, 2015). In 2014, the fisheries sub-sector comprised 107 active vessels which contributed to an estimated annual catch of nearly 20,000 tonnes (Ministry of Fisheries and Aquaculture, 2015).

However, interviews at the Fisheries Commission indicated that some of the vessels had been operating in a very poor state, hence the Commission removed them from the fisheries register which resulted in substantial reduction in fishing effort with the implementation of the Fisheries Management Plan (2015-2019). As at 2017, the register of vessels had records of 80 active vessels and each vessel costs an average of US$4 million totaling an estimate US$320 million as at 2017. Despite the reduction, in the number of vessels, there was an increase in the quantity produced from 20,000 tonnes in the years prior to 2015 to 53,100.30 in 2015 largely attributable to the sizes of the vessels and their technical efficiency. However, between 2015 and 2016 there was a slight increase of 650.01 tonnes in the quantity of fish produced.

The Neo-Liberal Context and Political Economy Heterodoxies to Chinese Investment in Agricultural Sector

It is evident from the data that Chinese capital mobility in the agricultural sector can be largely found in the Tuna farming, vegetable production and poultry production, and fish trawling industries. It will be equally useful to point out that contrary to Mueller and Mueller's (2014) argument that China's increasing reliance on food and feed imports from Africa is directed at satisfying her growing demand, Ghana's case is an exception. Judging from the industries where the Chinese investments into the agricultural sector are being directed into, it could, by and large, be understood within certain micro economic contexts. In the first place, the attraction of Chinese capital mobility into the vegetable production arena has been motivated by the need to meet the dietary needs of a growing number of Chinese nationals engaged in varied forms

of economic activities who patronize restaurants and shops serving Chinese meals (see Cook, Tugendhat & Alemu, 2016).

In terms of poultry production, it has also gained Chinese capital mobility attraction because of the increasing demand for poultry products evident in the increased importation of poultry products. Clearly, the attraction of Chinese investments has been largely motivated by an increasing demand in the products offered by Chinese investors. These rationalizations support the argument by Harvey (1975) that MNEs are attracted to host countries that will enable them have value for their financial capabilities ranging from their sales efforts to reduced turnover time on fixed capital. However, despite the Chinese presence in the poultry industry, the import levels are rising. As indicated on Table 6 the quantum of imports rose from 120,000 tonnes in 2015 to 165,000 tonnes in 2017.

Table 5: Production and consumption and imports of poultry into Ghana (, 000 tonnes)

Year	Consumption	Local Production	Imports
2015	175	55	**120**
2016	205	55	**150**
2017	221	56	**165**

Source: Ashitey, (2017)

Hence, even though there is a level of local demand the investment has been low. Evidently (see Table 2) the last time a Chinese company entered the poultry industry was in 2001. Clearly, the local conditions are not favorable for investment in the poultry industry. Consequently, the local producers and Chinese producers mentioned the market prices of local broiler meat are inclined to be higher than imported one. This corroborates Ashitey's (2017) observation that the price of local broiler meat

tends to be higher than imported meat by 30-40 percent margin, making local broiler meat uncompetitive.

Despite the low levels of investment, an examination of the patterns of distribution of Chinese investments across the sub sectors and the geographical areas clearly suggests that the sub sectors which are receiving attraction are areas with expanded markets. The Chinese are, by virtue of rational actions, responding to market demands in the agricultural sector. Beyond the economic motivations of the Chinese, the availability of naturally endowed resources suitable for certain types of agricultural activities. While the availability of water bodies creates the ecological environment of fishing the arable lands are suitable for vegetable production. This then shows that capital mobility may be driven by the availability of natural resources in the geographical area where capital is attracted to.

Apart from the specific rationalizations, it is also evident that the ecological conditions expressed through the availability of certain natural resources could equally serve as sources of attraction of Chinese into Ghana's agricultural sector. This supports Storper's (1997) assertion that the emergence of a 'regional world' is essentially underpinned by the spatially-bounded localized forces, which are natural in essence. This is clearly showed on Table 6.

Table 6: Regional Distribution of Chinese Investment into the Agricultural Sector

Region	Number of Companies in the Agricultural Sector	Types of Agricultural Activity
Greater Accra	9	Fish farming and aquaculture, poultry farming, tuna fishing, vegetable farming, pig farming

Northern	2	Trade and manufacturing of agricultural machinery
Volta	2	Vegetable production and fishing
Eastern	2	Fish farming

Source: Authors' own construction from GIPA, (2017)

It is apparent from Table 6that Chinese investment into the agricultural sector is concentrated in only four out of the ten regions of Ghana. Out of the four, there is a heavy concentration of the investments in the Greater Accra Region. The region has 9 out of the 15 companies. The 6 remaining investments are evenly spread among the Northern, Volta and Eastern Regions with 2 companies each.

This demonstrates that the capital mobility patterns from China into Ghana's agricultural sector are skewed in favor of the Greater Accra Region. However, a closer look at the activities carried out in the various regions show that activities such as fish farming and vegetable production are equally being carried out in other regions such as Volta and Eastern Regions. This indicates that the attraction for investment is not only by virtue of the natural resources which are suitable for certain kinds of agricultural activity but by virtue of availability of infrastructure.

These ecological-oriented arguments notwithstanding, the picture about the location of Chinese investment is not limited to the availability of natural resources alone. It is visible that the geographical distribution of the Chinese investment in Ghana is a function of economic triggers such as market demands and infrastructural development and incentive conditions which correlate with the location of Chinese investment in Ghana's agricultural sector.

Appealing to the essence of political economy heterodoxy there are more conditions that will determine where an investment will be sited. Indeed, the Ghana Investment Promotion Authority has acknowledged this reality and

has thus introduced some tax incentive packages for business. However, the result after these incentive packages, have been the skewed geographical patterns of Chinese investment in the various regions of Ghana. Looking at the actual location in the Greater Accra Region where majority of the Chinese investments in the agricultural sector could be found they are actually located at Tema which has all the infrastructural facilities such as the Tema Port and the roads. This is where the harbor is located hence the investors' quest to take advantage of proximity in order to reduce cost of transport influence them to site their investment locations in Tema. This resonates the assertion that improved economic infrastructure such as development of transportation and communication systems may influence the pace at which capital mobility would eventually affect regional economic development process (Marx, 1967; Rodrigue & Notteboom, 2017).

In the fisheries subsector, the level of investment is rationally motivated by the fact that there exists an appreciable market for fish and fish products. This is clearly elucidated by the Ministry of Food and Agriculture (2015) that fish remains the main and preferred animal protein food for Ghanaians with about 75 percent of the total domestic production of fish is consumed locally. The high local demand for fish is coupled with an appreciable demand for exports at the international markets to attract Chinese investment in the fish trawling sector. A financially unsupportive economic regime which makes it difficult for Ghanaian to raise capital and a flexible legal regime which allows Ghanaians to operate in partnership with foreign investors explains the high Chinese investment in the industrial fishing sector.

X*Forms and trends of Capital Mobility from China into Ghana's Agricultural Sector: Trade*

Capital mobility is accountable for the nature of items being spread on the altar of globalization. On this score the quest to establish how trade promotes capital mobility from China to Ghana's agricultural

sector becomes critical. Capital mobility in the agricultural sector through trade, for the sake of this analysis, is categorized into the agricultural sub sectors namely crop production and animal husbandry. This is to enable comparisons in trade in agricultural sector between the sub sectors to help shape trade-related agricultural policy.

It will be instructive to note that there are many other agricultural inputs from China into Ghana's animal production subsector. In the course of the data collection it was discovered that poultry feed supplement such as Joyvet and Ampivite were on the Ghanaian market for sale. This was because the importers of these products started importing them in 2017. Figure 2 gives a composite view of the value of imported agricultural inputs from China into Ghana agricultural sector.

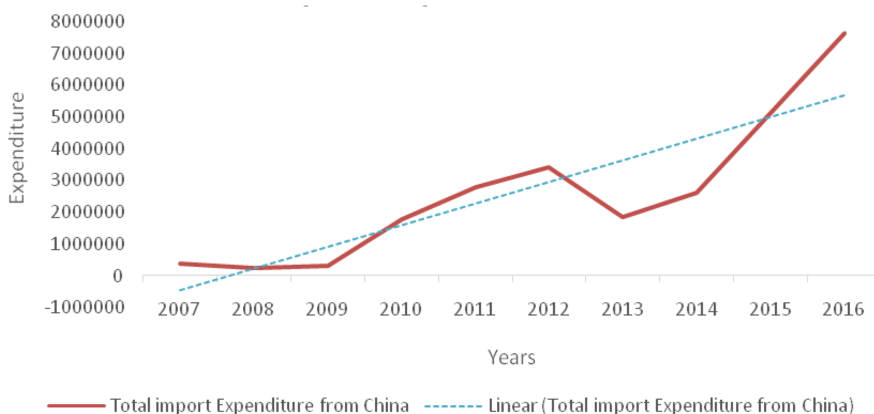

Figure 2: Agricultural Inputs Imported from China into Ghana's Agricultural Sector

Source: Authors' own construction from Ministry of Trade and Industry, (2017)

Figure 2 shows an expenditure of GH¢369,379.8 in 2007. This figure dropped to GH¢230,286.9 and GH¢298,286.9 in 2008 and 2009, respectively. In 2010, however,

the import expenditure increased over five times to GH¢1,769,731. Since then the expenditure had been increasing over the years up to 2016 when it reached the tune of GH¢7,647,556, despite some noticeable drops in the expenditure from GH¢3,412,071 in 2012 to GH¢1,839,130 in 2013. It can be inferred from the data that, on the average, Ghana had spent an amount of GH¢2,609,904.424 to import agricultural input from China, annually. The trend also represents an average year-on-year increase between 2007 and 2016 of GH¢727,817.64 representing an average rate increase of 43.3 percent, yearly. This trend shows that the rate of influx of Chinese agricultural input increased at a high pace, especially between 2014 and 2016 given the fact that the trend exceeded the average rate of increase. A breakdown of this aggregate import into the crop and animal husbandry sub sectors are as follow

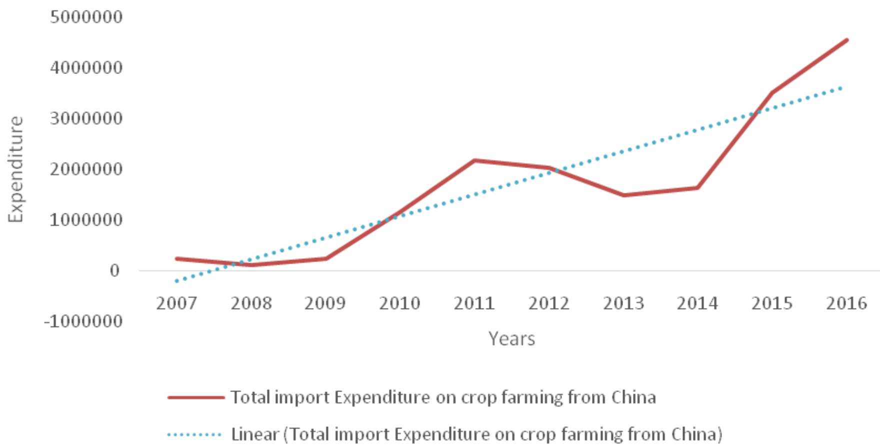

Figure 3: Agricultural Inputs Imported from China into Ghana's Crop Sub Sector
Source: Authors' own construction from Ministry of Trade and Industry, (2017)

The import expenditure on input into the crop farming from China shows an amount of GH¢242,364.2in 2007. This figure dropped to GH¢118,810.79 in 2008 but increased to 249,613.50 in 2009. The import expenditure then increased significantly to 1,161,564.40 in 2010. Since then the expenditure level increased significantly over the years up to 2016 when it reached the tune of GH¢4,548,626.41, despite some noticeable drops in the expenditure from GH¢3,412,071 in 2012 to GH¢1,839,130 in 2013. It can be inferred from the data that, on the average Ghana had spent an amount of GH¢1,716,199.04 to crop farming input from China, annually. The trends denote an average year-on-year increase between 2007 and 2016 of GH¢430,626.21 representing an average rate increase of 63.29 percent, yearly. This trend shows that the rate of influx of Chinese agricultural input is increasing at a high pace, especially between 2013 and 2016.

Figure 4: Agricultural Inputs Imported from China into Ghana's animal husbandry Sub Sector
Source: Authors' own construction from Ministry of Trade and Industry, (2017)

The agricultural input import trends in the animal husbandry industry show an expenditure of GH¢127,015.57 in 2007. This figure dropped to GH¢111,476.08 and GH¢49,195.43 in 2008 and 2009, respectively. In 2010, however, the import expenditure appreciated over the 2009 figure to 608,166.30. Even though it dipped to 589164.81, in 2011 it appreciated to 1385636.26 in 2012. The import pattern remained undulating till it reached a peak of 3,098,929.76 in 2016. It can be thus be established from the data that, on the average, Ghana had spent an amount of GH¢893,705.38 to import animal husbandry inputs from China, annually, between 2007 and 2016. The trend also denotes an average year-on-year increase between 2007 and 2016 of GH¢297,191.42, representing a yearly average increase of 146.45 percent. This trend shows that the rate of influx of animal husbandry input also increased at a high pace, especially between 2014 and 2016 just like the total Chinese agricultural input. A summary of the average spending and the yearly average increase are shown on Table

Table 7: Average spending and the rate of increase (2007-2016)

Subsector/Sector	Average Yearly Spending (GHS)	Yearly Average Spending Increase (%)
Crop	1,716,199.04	63.29
Animal Husbandry	893,705.38	146.45
Agricultural Sector	2,609,904.424	43.3

Source: Authors' own construction from Ministry of Trade and Industry, (2017).

The Neo-liberal Side of the Patterns of Imports of Chinese Agricultural Inputs

Before we situate the agricultural-related import patterns from China to Ghana within neo-liberal contexts it will be important to recognize that the influx of Chinese equipment in Ghana is a reflection of a general

trend in Africa where trade in agricultural commodities have largely included processing machinery and input supply which, according to Kaplinsky (2013), represents a potential for investment along agricultural value chains. This also echoes the political economy perspective to capital mobility adduced by Agyei-Holmes (2013) who argues that the transfer of technology from China to Africa succeeds where there is a clear demand.

Over the years Ghanaian agricultural actors are becoming attracted to Chinese products. Interviews with some of the meat processors, for example, indicate such key examples of Chinese products as vacuum sealers, temperature controllers and bone saws. In the first place, the high rate of influx of Chinese agricultural inputs can be explained by making reference to Kang's (2015) argument that the flow of capital as expressed in technology transfer increases when the technological portfolios of two countries are not similar. Hence, the high rate of influx of Chinese agricultural inputs is a function of an asymmetrical technological relationship between China and Ghana. Generally, Ghanaians in the agricultural sector are attracted to some Chinese agricultural inputs because there are no local substitutes for some of these inputs. This was clearly elucidated in the responses of two of the research participants (an aqua culturist and a meat producer) who argued that the absence of local substitutes for some Chinese agricultural inputs is a reason for which they imported Chinese goods. An aqua culturist, for example, indicated that

> *"we'll go to China because when you look for local substitutes you don't get".*

The influx of the Chinese agricultural input is attributed to the growing number of distributors of Chinese agricultural input. Interviews with the Agricultural Engineering Services Directorate showed that there are a number of private firms engaged in the importation of Chinese agricultural inputs. Notable private distributors include Motorking Company

Limited and RST Company Limited. But within broader economic contexts, has been largely due to macroeconomic policies such as trade liberalization and privatization being pursued in Ghana. These issues affirm the arguments of Scoones et al. (2016) who noted that the rise of China's involvement in African agriculture with the flow of capital has coincided with the restructuring of most African economies with the introduction of neo-liberal economic policies.

It is enlightening, albeit, to note that even though this has been facilitated by certain macroeconomic policies such as trade liberalization, the proliferation of the virtual trading platforms, the Chinese products remain attractive to actors in the Ghanaians agricultural sector because of a number of reasons born out of the actors' experiences. One of the key reasons has been the high visibility of Chinese products on online platforms made possible by technological advancement expressed in the advent of the information technology.

The evidence of the role of the virtual platforms in facilitating the influx of Chinese agricultural inputs was gathered when actors were made to convey complex knowledge through their stories about their use of Chinese agricultural products, and not merely their opinions. A meat processor who maked special mention of one of the online platforms known as 'Alibaba' said,

> *"We've imported a few thing,s which all go to the smoking business, and whenever we need an item, we source the country to compare and whenever we don't get what we want then we go and browse. There's everything on Alibaba. We go there trusting quality because Alibaba has its own quality checks and security checks. So, we do it, once you go to Alibaba it means you can complain to Alibaba, and the peoples their business*

> *is more important to them and their quite sincere".*

This response makes it apparent that technological changes have revolutionized the trade patterns making it equally interactive and efficient even on virtual platforms and thus reinforcing Rodrik's (2011) assertion that technology plays a role in promoting economic activities.

But it will be instructive to note, perhaps indisputably, that in an arena where trade liberalization is encouraged and practiced, the issue of price falls at the epicentre of trade actors. Upon the interviews conducted it was discovered that the cost of the Chinese agricultural inputs served as a centripetal force to patronage among Ghanaians in the agricultural sector.

A key element in the understanding of the increasing level of patronage of Chinese-made agricultural input is the price factor which remains one of the basic foundations upon which economic actors compete in any liberal order. In the arena of neo-liberalism, this economic variable remains key in all business endeavours. In the course of the interviews, such an economic variable played out in the patterns of import of Chinese agricultural input. Indeed, the officials in state institutions and actors in the agricultural sector provided a unison response in this regard. A meat processor in Ghana's agricultural sector, for example, referred to one of the equipment he had acquired from China to indicate that some Chinese products are relatively cheaper than the locally produced equipment in Ghana. He revealed it as follows:

> *"We tried looking for VACUUM SEALERS here the value is like 10,000 Ghana cedis. You get the same equipment from China at about...if you add duties and everything together; it doesn't go like beyond 3000".*

With regard to crop farming agricultural machinery imported from China, the cost factor played out visibly. As was mentioned by officials in the

Agricultural Engineering Services Directorate when they were asked why Chinese agricultural inputs are preferred,

> *"Of the top of my head I will say cost. Personally, it will be difficult to say that they Chinese ones were not good or they were good but at least what in know is that theirs is always the cheapest in most cases and that makes it attractive to people"*

The cost factor which occasioned the preference for crop farming agricultural input was corroborated by engineers of the Agricultural Engineering Services Directorate. One of them said

> *"It is nothing but the low cost of Chinese machinery which has made Government of Ghana accept to allow Chinese machinery to be imported"*

The importer of Chinese livestock drugs maintained the same position as he points out that

> *"The China drugs appear to be cheaper but effectively they are same. They all serve the same purpose".*

Then regarding the crop farm agricultural equipment too, an official of RST, importer of Chinese agricultural equipment, indicated, in a similar fashion, that:

> *"we look at the cost involved for the poor farmer to be able to afford it that is why we do source from there first".*

Examples to buttress this claim are as follow:

Table 8: Price Differentials between Chinese and Indian made agricultural inputs, 2018

Equipment	Price of Chinese origin (GH¢)	Price of Indian origin (GH¢)
Rice Thresher	17,000	21,000
Multi-purpose Thresher	11,000	23,000

Source: Authors' own construction from RST, (2017).

She went on further so say that

> *"We [RST] have a power tiller one is from Vietnam and one is from China; the China one is complete with the trailer, cage wheels with the head is GH¢20,400 and for the Vietnam one only the head without trailer is GH¢23,000"*

It will be instructive to establish that even though all the respondents made mention of the relatively lower prices of Chinese agricultural input there was no consensus about whether the lower prices were coterminous with product efficiency. From the answers, some of the respondents maintained that relatively lower prices were equally a guarantee for high quality and value for money. For example, the meat processor interviewed hinted that

> *"They'll give you equipment that consumes less electricity and, equipment that is within your budget"*

Another research participant, an aqua culturist, engaged in tilapia hatchery, responded in a similar fashion. His response was suggestive of the fact that Chinese agricultural inputs give value for money. He mentioned that:

> *"They take you along in their system of development and productivity".*

Some of the respondents, however, acceded to the reality that the relatively lower-priced Chinese agricultural input was rather matched with a relatively lower level quality. Referring to the quality of poultry drinker, the importer of Chinese poultry inputs who also started importing Italian made poultry equipment maintained that.

> *"Actually, doing a comparison of the Chinese and the Italian equipment the Italian ones appear to be more durable when you feel the texture but there is also a price difference; the Italian one is 25cedis while the Chinese one is GH¢20".*

In this regard, a price difference of about GH¢5 relative to the quality difference was discovered. The RST official also mentioned that

> *"but the quality of the Chinese equipment is not like the other countries". The quality of the other countries is better than what comes from China"*

Despite the absence of uniformity in the respondents' experiences which occasioned the quality of the Chinese agricultural inputs, one observation stands out; beyond doubt, these responses generally confirm the political economy perspective held by Agyei-Holmes (2013) about Chinese trade which holds the contention that in Africa the transfer of technology from China to Africa succeeds where there is a low cost.

It must, however, be emphasized that even though it has been mentioned in earlier sections of this analysis that actors in Ghana's agricultural sector are attracted by relatively low prices of Chinese products it is not applicable to all agricultural inputs. Indeed, some of the agricultural inputs from China were found to be relatively expensive than the local substitutes and that served as a deterring condition for the patronage.

Ironically, one of the key issues which emerged in the course of the research was also hinged on the issue of cost. In the first place there were some other products or Chinese origins which have relatively higher prices. A typical example that could be drawn in this regard was gathered from a meat processor who shared his experience when he decided to purchase a Chinese oven and Chinese pork packaging polythene from China. With regard to the Chinese oven, he said

> *"we have sailing machines from China, you know, they have smokers, ovens, we haven't bought the oven because we felt it's a expensive so the local oven that is what must be interesting to know. Their offer for oven was 6000 dollars as against a local not too good one for 2000".*

Regarding the pork packaging polythene, he narrated his experience as follows

> *"later on, we imported some of their polythene sheets at the end of the day when we calculated it, we saw that it was expensive but the same sum we had we've been able to source".*

This issue of high cost supports the observation made by Chichava, Duran, Cabral, Shankland, Buckley, Tang, and Yue (2013) that some technology transfer programmes were challenged by farmers' inability to pay for services associated with the technology.

Given the role of cost as an attractive and deterring factor it will be crucial to emphasize that the role of the cost is largely determined by the type of product. Nevertheless, the observation made about the cost being a discouraging force in the patronage of Chinese products may smack off rationality of the Ghanaian agricultural actors at the micro level.

However, beyond the purely economic issues including demand and prices as key correlates of the attraction to Chinese agricultural inputs, there

are other issues which appeal to heterodox political economy which equally account for the attraction.

The Social Innovative Side of the Capital Mobility: Attractiveness of Chinese Agricultural Inputs to Ghanaian Agricultural Actors

Suffice to say that apart from the role of neo-liberal macroeconomic and technological advancement the Chinese manufacturing and trading firms have developed some organizational practices which make their agricultural inputs goods more preferable to agricultural products from other countries with details discussed in subsequent sections. These are issues that Agyei-Holmes (2013), Kamplinski (2013), Amanor (2013), Chichava et al. (2013) and Scoones (2016) did not observe nor talked about in their respective studies. Yet, it is important that these issues are brought to the fore because they are of particular interest in political economy heterodoxies. Their main relevance stems from the fact that they serve as foundations for international economic relations and growth and as well as political dialogues and decisions. These issues by and large relate with how the Chinese generally handle their organisational practices and, their customers. These issues are outlined subsequently.

Following are those practices which rendered the Chinese agricultural products attractive as expressed in the responses offered by actors in the Ghanaian agricultural sector who constituted the research participants to this study. They include customer-oriented practices such as timely delivery of products, effective communication mindset by Chinese input suppliers towards Ghanaian agricultural actors, door-to-door delivery and offering customer advice. Others include offer credit facilities, regular training for retailers and regular meeting with farmers.

Their customer-oriented care practices include the following based on the experiences some actors in the agricultural sector have had with Chinese companies in China and Chinese subsidiaries in Ghana, after comparing their experiences

with the Europeans. For example, one of the respondents, a meat producer said,

> *"So, at the end of the day it is their culture; I don't get the same feel when I'm talking to Europeans. So, there is a culture bid, the culture of...er Chinese and their attitude to business is down to earth, friendly, thorough so it becomes a good choice".*

Beyond the general mode of attraction, the research participants brought out specific practices that attracts them to Chinese agricultural inputs discussed as follow. One of the customer-attractive elements that occasioned the sale of Chinese agricultural products as the myriad categories of actors in the agricultural sector was the fast pace with which the agricultural inputs were delivered. In a fast pace and competitive globalized economic order world where time is regarded as essential in any business endeavour, it was understandable how end users would find this act by Chinese firms a source of attraction. A meat processor, for example, did not mince words about his attraction to Chinese agricultural input on the altar of quick product delivery. He indicated that

> *"It may take you shorter time to access and take delivery of this equipment and I will tell you how. You lie on your bed, and you go to Alibaba, you browse from company to company with the same equipment comparing prices and looks. Then you can interact with them directly on WhatsApp or whatever means. If you bet by the end of the week the product is in your hand here because the moment you agree you transfer money, it can be by DHL, or through let's say... for us there is a Ghanaian agent in China so they will send the items to him, put it on the next plane and we know where to pick*

> *it from Accra or how it will be sent to us and we pay for it".*

This effort smacks of high levels of competency and commitment as organizational innovation practices on the part of Chinese companies which resonates the ideas of Neumeier (2012). The timely delivery of products generates trust for the Chinese producers thereby enhancing the attractiveness of Chinese capital mobility confirms the arguments of Piore and Sabel (1984) trust is a fundamental requirement for regional economic success in an era of global economic expansion.

Chinese were also observed to be offering an effective method of communication with the end users of their products. This occurred in the context where trade relations between Chinese firms and Ghanaian end users involved virtual platforms. Another meat processor commented on his experience as follows:

> *"You can even talk on phone which we do and there are people who speak English in every company now in China and they are more courteous and understand more business than some of the people we deal with in Ghana. Chinese and their attitude to business is down to earth, friendly, thorough so it becomes a good choice. Now before I sleep, they are ahead of us 7 hours. When I send a WhatsApp at 10pm here I'll get the response from them instantly. When I send a WhatsApp at 5am here I'll get the response. So, one day I was asking, don't you guys sleep? You decide on a product tonight, by the following morning you would have decided to order it or otherwise."*

From the responses it is quite remarkable to note that the Chinese suppliers exhibited creativity, commitment and competency in their

communication endeavors by adapting to the learning of the English language coupled with the attitudes of courtesy and empathy as well as a timely response to requests as part of their quest to attract customers. The use of English language as a means of communication by Chinese promoted the degree of social relations between them and the Ghanaian end-users of their products, eventually promoting the attractiveness. This also corroborates Piore and Sabel's (1984) argument that social relations could also serve as a fundamental requirement for regional economic exchanges.

The Chinese have also become well noted for the delivery of products on a door-to-door basis. An agro-chemical retailer expressed his experience as follows

> *"you know Chinese also what it makes it easy is that they bring it to our doorsteps. They bring vans and things. They have vans and things and they carry it along to supply their goods unlike CHEMICO".*

In a post–modern world where comfort and convenience are being sought for by customers the door to door delivery grants leverage to a producer and a service provider over a competitor (see Walker, 1978; Howaldt & Schwarz, 2010). Just as it was discovered with regard to the effective communication mindset by Chinese input suppliers towards Ghanaian agricultural actors it can be mentioned that the door-to-door model reflects traits of organizational creativity, competency and commitment (Numeier, 2012). Apart from these organizational forms of social innovation by Chinese firms, the deployment of door-to-door- services reflects to role of flexible specialization which, as Piore and Sabel (1984) contend, promotes capital mobility.

The Chinese producers had not made their products attractive by what they sell but they equally enjoyed attraction because they offered technical advice to customers as well. A meat processor shared his experience as in these words

> *"you are taught about every item. For example, even selecting the 'BONE SAW', they could tell us no no don't go for this one, this one it heats too quickly. So, if you go for this one, this one is almost like domestic so if you go for this one, it takes longer time for it to heat so don't waste too much time waiting for the equipment to cool"*

Such an act of offering advice to customers did not only enable the customer to make rational choices but served as an avenue which latently fed into the knowledge diffusion process because the meat processor, per this experience, gained knowledge about the nature of a product and its suitability for a particular economic activity.

Generally, then, it was apparent that ensuring timely delivery of products, having a communication mindset towards Ghanaian agricultural actors by Chinese input suppliers, offering door-to-door delivery, and offering customer advice were discovered as some of the key customer-oriented practices which gave leverage to Chinese agricultural products over other agricultural inputs. They have exhibited flexible specialization, face-to-face interaction (see Poire & Sabel, 1984) as well as creativity, collaboration, commitment cooperation and competence (see Numeier 2012; Howaldt & Schwarz, 2010; Schumpeter, 2004; Pots & Vass, 2008)

The following are other socially innovative practices that attracted Ghanaian agricultural actors. The data obtained from the interviews also indicated that the Chinese attracted patronage because they offered credit facilities to the end-users of the product. Using WYNCA as a case in point the retailers in the agro-chemical industry mentioned in the course of the interviews. The response of one of them is as follows:

> *"They also give us credit facilities. But that is on condition that the retailer is credit worthy"*

The conditions attached to the credit facilities corroborates Piore and Sabel's (1984) contention that trust, and face-to-face social relations are fundamental requirements for regional economic success in an era of global economic expansion.

Acknowledging the critical role of retailers in the agro-chemical value chain system, Chinese firms, particularly the agro-chemical company, engaged in regular training of retailers. This, according to Chinese firms, happened especially when a new product was introduced. An agrochemical retailer provided a response in support of this claim

> *"Oh, if there is a new product, they summon us for a meeting then they show us so that we can also do the same thing for the farmers because they have realized that we the dealers the farmers come to us than them".*

This practice rested on the assumption knowledge about the availability and the efficacy of products could best be transferred by a retailer among whom farmers have frequent interaction.

This effort indicates competency in terms of knowledge, commitment towards making retailers more efficient as well creating a platform for collaboration and cooperation within which ideas are transferred and the shared.

In addition to the training of retailers, the Chinese agro-chemical company found it necessary to meet the farmers directly. Interpreting this act in the minds of the farmers they mentioned that the regular training played an advantage of generating trust and feelings of respect for them as farmers

> *"So WYNCA also call you to their place at industrial area. At times too they do visit. ohh…some of these days they arrange with time because mostly they also want to meet farmers directly. So, we do the thing farmers, dealers. We mobilize the farmers and the dealers we all come together. We share*

ideas so some of the problems the farmers are facing concerning the product then they also tell them".

The regular meeting with farmers and regular training for retailers reflect a new and modernized type of entrepreneurial function which emphasises 'cooperation' with other stakeholders including distributors and users of products which has been largely considered as a key organisational efficiency (see Pot & Vaas, 2008).

Putting all the practices by the Chinese firms together they epitomize organisational innovations which are represented in high forms of dynamic management, skill development and competencies as well as smart work. This confirms Neumeir's (2011) argument that the usefulness organizational endeavours become very visible and attractive since they have a high possibility of creating forms of technical and marketing innovations which could enhance the productive efficiency of the end users of the product.

This observation has also been well adduced by Harvey's (1975) that fast-growing locations are not closed and independent economies, but rather they are, most likely, those area hosting MNEs having financial capabilities ranging from their sales efforts to reduced turnover time on fixed capital and Walker's (1978) argument that technical innovation, organizational change.

Conclusion

In effect, it is evident that the Chinese capital mobility into Ghana's agricultural sector has been crystallized in forms of FDI and trade. Invariably, the various modes with which capital mobility is crystallized as mentioned is evident and applicable to Ghana as well. Hence, Ghana's naturally endowed resources have rendered it a part of the global economic integration process through capital mobility from China. Not only is Ghana getting attracted to Chinese agricultural business enterprises to engage in protein foods and vegetables but equally remarkable is the supply of a diverse array of Chinese equipment for

agricultural purposes as well as Chinese agricultural experts.

As it stands, even though Ghana's open economy and the attractiveness of Chinese products by actors in the agricultural sector all of which allow trade in Chinese agricultural equipment to flourish, the Ghanaian economy remains unattractive to land-based agricultural investments and agribusiness from Chinese MNEs having financial capabilities of investing into Ghana's agricultural sector due to infrastructure and land tenure constraints.

Generally, the responses and the analysis so far show that a combination of macroeconomic policies and privatization, trade liberalization and other associated neoliberal essentials such as pricing, increased local demand and absence of local substitutes of Chinese agricultural products have been responsible for the observably increasing pace of the influx of Chinese agricultural inputs into Ghana's agricultural sector.

From the data gathered and the discussions that followed, it is suggestive that beyond macro-economic trade policy opportunities and other opportunities offered through technological advancement, Chinese agricultural inputs remained attractive through some interactive efforts between the Chinese suppliers and the end users found in Ghana's agricultural sector. From political economy perspectives these could be seen as not just echoing the neo-classical argument which regards the interactive efforts as a reflection of the rational and creative methods essential at a sustained capital mobility for China but also as a reflection political economy heterodoxies which appreciates organizational innovation including competency and commitment among the Chinese subsidiaries as well collaboration and cooperation between the Chinese subsidiaries on the one side and the retailers and the end users on the other side. In effect a combination of neo-liberal macroeconomic policies, organizational innovation by Chinese firms and technological advancement has fostered the trade-like patterns of capital

mobility from China to Ghana's agricultural sector.

Thus, capital mobility from China to Ghana's agricultural sector would not have to be understood within neo-liberal contexts alone. The capital mobility would also have to be understood within the context of technological advancement and the organizational novelties upon which the agricultural inputs are promoted and spread.

By way of policy, the increasing rate of importation of agricultural inputs from China is an opportunity for knowledge transfer and technological adoption from China and search for less costly local substitutes given the foreign exchange threats on the local currency which constitutes a direct outcome of the importation of the agricultural inputs. This trend means that agricultural development in Ghana would not only largely have to rest on the indigenization of capital investment but with favorable economic conditions.

However, beyond the technological adoption and knowledge transfer dimensions of the policy implications, there is the need to understand the political economy contexts within which the agricultural-input trade and FDI from China take place and draw some lessons in there.

Moreover, it must be emphasized that the influx of Chinese capital mobility, with all the attractiveness, signifies an opportunity for Ghana to take advantage of the patterns of trade and investment and develop the appropriate technology. These could culminate in the production of similar products at relatively cheaper prices. In these regards, the local products would gain a competitive edge over the Chinese products.

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Effect of Strategic Orientation on Performance of Star-Rated Hotels in Ghana

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Abstract
The study used the resource dependency theory to determine the strategic orientation that star-rated hotels in Ghana should adopt to realize both financial and non-financial performance. Out of a population of 680 star-rated hotel managers, a sample of 248 were chosen, using the stratified random sampling technique. Self-administered questionnaires were used to solicit the views of managers of the selected star-rated hotels. In all, a total of 178 responses were retrieved and analysed, using descriptive and partial least squares in structural equation modeling. Findings of the study indicate that none of the strategic orientation types influenced financial performance. However, aggressiveness, analytic, defensiveness, futuristic and riskiness were found to rather influence non-financial performance of star-rated hotels. The study, therefore, confirms the resource dependency theory and concludes that when star-rated hotels tend to be aggressive, analytic, futuristic and risky, it influences non-financial performance. The study, therefore, recommends that managers of star-rated hotels use analytic, defensiveness, futuristic and riskiness strategic orientation to enhance non-financial performance.

Keywords: *Strategic orientation, performance, star-rated hotels,*

financial performance, non-financial performance

Introduction

A key determinant of business success, as described in the study of Deshpande and Webster (1989), is strategic orientation. Han and Verma (2012) explained that a firm's strategic orientation is a set of behaviours that operationalize its overarching strategy. Lynch, Mason, Beresford and Found (2012) also are of the view that strategic orientation defines how an organisation pursues its business. This orientation, according to the authors, guides the corporate strategy and provides the guiding philosophy of the firm. Avci, Madnoglu and Okumus (2010) explained strategic orientation as the way a firm adapts to its external environment. Further, strategic orientation focuses on how a firm should interact with external environmental aspects such as customers, competitors and technology.

Strategic orientation of a firm has also been linked to superior performance of firms (Nzioka & Njuguna, 2017, Obeidat et al. 2016, Han & Verma, 2012, Heiens & Pleshko, 2011). According to Zhou and Li (2010), strategic orientation drives superior performance. Similarly, a recent study by Nzioka and Njuguna (2017) in Narobi also found out that strategic orientation had a positive and significant effect on hotels in Nairobi County. It can, therefore, be inferred that the strategic orientation of a firm is likely to influence how a firm interacts with its external environment and it can also influence the success or failure of the firm.

As the hotel sector of Ghana continues to record increases in the number of star-rated hotels, such as Kempinski, Movenpick Ambassador, Tang Palace, and Atlantic hotel, competition in the sector has been fierce as more strategies are being deployed to court attraction and occupancy to their respective facilities. The hotels in Ghana should be able to identify the strategic orientation that must be pursued in order to record increases in their performances. A review of literature indicates lack of studies in the hotel sector, especially in Ghana. Most of the literature reviewed were studies conducted outside Ghana and most of these studies were also in industries outside the hospitality industry. Ghana being one of the emerging economies in the West African sub-region, with a stable

economy, and growing hotel sector, requires such studies to be able to provide an understanding of how actors in the sector should interact with theirs external environment in order to sustain their businesses.

A study to determine the effect of strategic orientation on the performance of hotels, therefore, becomes imperative. Despite the link between strategic orientation and performance, little research has focused directly on how hotels can maximize performance through the development of a strategic action plan (Han & Verma 2012) that provides direction on how hotels should interact with external environment. Studies to determine the strategic orientation that hotels should adopt in order to record increases in performance has been lacking in Ghana. In this regard, the current study sought to determine the effects of strategic orientation types on both financial and non-financial performance of star-rated hotels in Ghana. Findings of the study, therefore, contribute to the debate on the effect of strategic orientation on the performance of hotels and provide hotel managers in Ghana the strategic orientation type to adopt in order to achieve a certain level of organisational performance.

Literature Review

The Resource Dependency Theory

The theory that underpins the study is the resource dependency theory. The theory explains how a firm interacts with its external environment and how such interaction influences the ability of the firm to achieve its performance targets. The strategic orientation that the firm adopts is to help the firm to interact with the external environment. The strategic orientation provides direction on how a firm interacts with the external environment. This is explained by the type of strategic orientation that a firm adopts in interacting with the elements of its environment. The theory argues that the long-term survival and success of a firm is dependent on its abilities to link the firm with its external and internal environment (Pfeffera & Salancik, 1978). A basic argument in the theory is that firms constantly must interact with their environment. Firms should, therefore, concentrate on how to control the external environment in order to create resources and reduce the effects of environmental risk. The ability of firms to meet their set targets depends on how well the firm can interact with its external

environment. How the firm interacts with its external environment, according to Jogaratnam (2017), explains the strategic orientation of the firm. This theory can, therefore, be said to explain the linkage between strategic orientation and organisational performance, which are the variables of this paper.

Strategic orientation

Valos and Bednall (2010) explain that one of the most important pillars that has major implications for an organisation's structure, activities, investments, relations with the market, and performance is strategy. Sarker and Palit (2015) are of the view that having a strategy helps organizations find solutions, create new capabilities, and improve business performance as organisations interact with the external environment. Managers of such organizations through such interactions can gather specific resources, recognize opportunities for providing valued products and services, and to convey those products and services for higher profits (Al-Ansaari, Bederr & Chen, 2015). Obeidat (2016) is also of the view that adopting the best strategy out there requires organizations to co-ordinate their approaches in establishing industry positions and/or by relying on their resources, competences, and capabilities in an effort to achieve a fit with their internal and external environments and, in turn, achieve a sustained competitive advantage and improved business efficiency.

Further, one of the early classifications of strategic orientation was done in the study of Miles, Snow, Meyer and Coleman (1978). Their approach to strategic orientation was termed as the classificatory approach. This approach, according to McKelyey (1975), attempts to group strategy on either a priori conceptual grounds or derived categorizations. Respectively referred to as typologies (e.g. Hofer & Schendel, 1978; Porter, 1985; Rumelt, 1982; Wissema, Van der Pol & Messer, 1980) and taxonomies (e.g. Miller & Friesen, 1978), this approach aggregates firms according to the nature of strategy emphasized. For instance, the Miles et al. (1978) strategic typology has been widely examined in the marketing literature (McDaniel & Kolari, 1987; McKee, Varadarajan & Pride, 1989; Speed, 1993) and suggests that firms can be affiliated to one of four strategy types: (1) prospector; (2) defender; (3) analyser; and (4)

reactor. Notwithstanding this, Tiryakian (1968) accentuates that the classificatory schemas are restricted to inter-group comparison and do not allow for intra-group investigation. In addition, Speed (1993) opined that although firms may adopt different strategic orientations that can be meaningfully classified, such parsimonious approaches may not detect nuances associated with various aspects of competitive strategy, because crude categorizations do not acknowledge the importance of dimensions that are excluded from the typology.

Bing and Zhengping (2011) also classified strategic orientation into a mix, covering entrepreneurial orientation, marketing orientation and learning orientation. Bing and Zhengping (2011), therefore, explained entrepreneurial orientation as a firm’s new entry and the procedures, practice and decision-making activities, with its aim to improve the value of products and service in response to customers, which may lead to excellent performance. Lumpkin and Dess (1996) explored five dimensions of entrepreneurial orientation, including autonomy, proactiveness, aggressiveness, risk-taking and innovativeness, which are similar to the categorization of most of the studies on strategic orientation.

Based on the various conceptualization of strategic orientation, the current study, therefore, adopts the framework developed by Venkatraman (1989), who conceptualized strategic orientation in terms of six dimensions: aggressiveness, analysis, defensiveness, futurity, proactivity and riskiness. The choice of this categorization of strategic orientation is deeply rooted in the explanation provided in the study of Miller (1983). Venkatraman (1989) in his study developed six strategic orientation types, which apply in this study. These are leading (always trying to innovate), future-analytic (focusing on research for future activities), aggressive (undercutting competitors), defensiveness (maintaining careful control), adventurous (risk taking), and conservative (avoiding risk). The conceptualization of strategic orientation by Venkatraman (1989) has since been used in several studies (Han, 2012, Han & Verma, 2012) and is also central to the various classifications of strategic orientation as it consolidates the various classifications given by researchers.

Organisational Performance

Numerous authors (Chen, 2007; Evans, 2005) underline that the main empirical contributions to the measurement of performance of businesses have focused on the industrial sector and some segments in the service sector (banks, retail, insurance), but have neglected the travel and tourism sector. However, from the 1990s onwards, many studies have focused on performance in the hotel sector (Okumus, 2002). These studies that have focused on the hotel sector have limited their studies to features of hotel businesses (Winata & Mia, 2005; Mia & Patiar, 2001; Brander Brown & Harris, 1998), which comprise business units such as rooms, food and beverage and stores.

Cui and Hu (2012) posit that measurement of corporate performance has always been the unique question that researchers are trying to answer. Wadongo, Odhuno, Kambona, and Othuon (2010) explain that performance of an organization has traditionally been measured by looking at the revenues or the profits made at the end of the year, or using key financial ratios. Despite the development of performance measurement systems in the hospitality industry, various researchers (Brander-Brown & McDonnell, 1995; Atkinson & Brander-Brown, 2001; Harris & Mongiello, 2001) have pointed to the reluctance of the hospitality industry to use balanced measures and rely solely on financial measures. However, Orgaad, Larsen and Marnburg (2008) are of the view that no single indicator will give a comprehensive picture of performance of a firm. This, therefore, calls for the use of different performance measures.

Several constructs have been used to measure financial performance of firms often referred to as the accounting measurement of performance. These measurements, according to Hermalin and Weisbach (1991); Barney (1986), include profit rate, return on assets (ROA), long-term profitability, sales growth rate. Calori and Sarnin (1991) also used the return on investment ratio, the return on sales ratio and the annual variation of the net turnover, which are all financial variables in measuring performance of a firm. What is common to researchers in the field of organizational performance is the use of these accounting measurement of organizational performance. For example, Nzioka and Njuguna (2017); Jogartnam (2017); Han and Verma (2012); Li, Lam and Qian (2001); Bagozzi, Verbeke

and Gavino (2003); Fisher and Alford (2000) etc. all introduced accounting measurement in measuring corporate performance.

Other studies have also indicated that non-financial indexes, such as employee satisfaction, customer satisfaction, turnover rate, quality of products/services, and some other variables in the organizational aspects should also be used in measuring performance (Cui & Hu, 2012). Besides these indexes, Kaplan and Norton (2007) also raised the balance score card to emphasize the importance of customer, internal business processes, learning and growth. Bagozzi et al. (2003) also divided corporate performance into the in-role performance and extra-role performance. The in-role performance includes sales volume, communication effectiveness and relationship building, while the extra-role performance is made up of courtesy, helping, sportsmanship and civic virtue. Researchers have argued that the non-financial variable is the new trend for appraising organizational performance. The development of the employee behaviour and the consciousness of social responsibilities are all considered as equally important as the accounting variables measure of organizational performance (Calori & Sarnin, 1991).

Numerous studies have examined the significance of strategic orientation and its impact on firm performance. Gatignon and Xuereb (1997), in a survey of 393 marketing executives, found a positive relationship between strategy and performance. Their results confirmed that the influence of strategic orientation on firm performance depended on the uncertainty level in the market that would increase customer orientation, therefore, increasing overall performance in a company. An analysis of the extant literature indicates that few studies have assessed the impact of strategic orientation on small and medium firms of which the hotel sector prominently features. Avci, Madanogu and Okumus (2011) looked at strategic orientation and performance of tourism firms with evidence from a developing country, Turkey. The study also established that prospectors were found to outperform defenders, whereas analyzers showed a comparable performance to prospectors. The study, therefore, recommended that both perceptual and objective measures are needed to confirm the results to better assess the possible differences in performance among strategic

orientations in some other developing countries.

Similarly, in a study by Han and Verma (2012), to explore the relationship between strategic orientation, corporate culture and financial performance of hotels in South Korea, the study established that opportunity-seeking approach of a leading strategic orientation drove financial results for the clan and adhocracy cultures, but did not help the market or hierarchy cultures. Other strategic orientation also drove financial results, including future-analytic and defensive. Obeidat (2016) examined the effect of both strategic orientation and innovation on organizational performance. Data for the study were collected from 252 employees of three major telecommunication companies operating in Jordan. The results of the study established that there is a significant relationship between the strategic orientation, bank performance and the business strategy. Further, the results of the study indicated that business strategy plays a mediator role in the relationship between strategic orientation and firm performance.

Jassmy and Bhaya (2016) also examined the effects of strategic orientation and its effects on organizational performance of real estate banks in Al-Dewaniya province of Iraq. The study concluded that strategic orientation positively influenced organizational performance when only customer orientation is used as the measure of strategic orientation. However, when competitive orientation is used to measure strategic orientation, the relationship with organizational performance is insignificant. Nasir, Al Manum and Breed (2017) also examined the effect of strategic orientation on the performance of small scale and medium enterprises in Malaysia. The results of the study showed that entrepreneurial orientation was the construct that shares a positive relationship with all the other constructs in the model. Entrepreneurial orientation was, therefore, identified as the most significant strategic orientation.

Further, Nzioka and Njuguna (2017) also investigated the relationship between firm orientation and performance of hotels in Nairobi County, Kenya. Firm orientation was measured using market structure, organizational structure, strategic orientation and market orientation while performance of hotels was also measured using customer satisfaction, employee commitment, overall business performance, sales, profits, return

on investment (ROI), return on assets (ROA) and return on sales (ROS). The study established that lower business performers were associated with defensiveness and aggressiveness, while high performers were associated with analysis, futurity, proactiveness, based on the comparative approach developed by Venkatraman (1989). The study further established that strategic orientation and performance of hotels were positively and significantly related. Based on the empirical review, the study, therefore, hypothesizes that strategic orientation types positively affect both financial and non-financial performance of star-rated hotels in Ghana.

Methodology

Measurement of variables

Strategic orientation

Measurement of strategic orientation was adapted from Venkatraman (1989). Six strategic orientation types were identified. These are: aggressive, analytic, defensiveness, futuristic, proactive and riskiness. The conceptualization of strategic orientation by Venkatraman (1989) has since been used in several studies (Han, 2012, Han &Verma, 2012) and is also central to the various classifications of strategic orientation as it consolidates the various classifications given by researchers.

Organisational Performance

With respect to the measurement of organizational performance, both financial and non-financial indicators were used. The financial indicators relied on subjective approaches to measuring financial performance. Justifications provided for the use of subjective measurement of performance are owners/managers are unwilling to disclose actual figures of their performance for fear of being taxed or for being targeted by the government (Zulkiffli & Perera, 2011).

The use of non-financial measures was also informed by Kaplan and Norton (1992). Twelve items were used to measure both financial and non-financial organizational performance namely profitability, return on investment, growth in profitability, daily sales, increment in volume of sales, retaining customers, supplier relations, quality of service delivery, occupancy rate, size of customers and productivity of our employees compared to industry average.

Sample size and sampling procedure

Based on the total population of 680 managers of star-rated hotels, a sample of 248 hotel managers were chosen based on the table developed by Krejcie and Morgan (1970). The respondents were then selected, using the stratified random sampling technique. The population was divided into five (5) strata. The groups were managers and supervisors of five star-rated hotels, four star-rated hotels, three star-rated hotels, two star-rated hotels and one star-rated hotels. A proportion of each stratum was calculated to get the number of respondents for each stratum based on the sample size of 248. Next, respondents were randomly selected until the sample for each stratum was obtained.

Data collection instrument

Questionnaire was the main data collection instrument used for the study. The questionnaire comprised three sections; Section A, B and C. Section A collected data on the strategic orientations of the star-rated hotels, Section B focused on organizational performance and Section C also focused on demographic characteristics of the respondents and hotels involved in the study. In all, 29 items were used to measure strategic orientation, 12 items were used to measure both financial and non-financial organizational performance. Five items were used to collect data on the demographic characteristics of respondents. Out of the 248 questionnaires distributed, 178 were received and used for the analysis, representing 71.72% response rate.

Data analysis

Data preparation was in two stages. Firstly, the raw data collected through the questionnaire were edited, coded and converted into the actual variables of interest. Upon receipt, each questionnaire was checked carefully for incompleteness and inconsistencies. Out of a total of 248 distributed questionnaires, 178 of the received questionnaires were considered valid for data analysis after screening and doing away with uncompleted questionnaires. Next, processed data were analysed, using partial least squares in structural equation modeling. PLS-SEM is widely recognized for its remarkable advantages in behavioural studies (Hair, Ringle, & Sarstedt, 2011), as it helps researchers to understand the relationship among

sets of observed variables (Hair, Hult, Ringle, & Sarstedt, 2016).

Results and Discussion

Demographic characteristics of respondents

Table 1 presents the demographic characteristics of respondents. Out of a total of 178 respondents, 99 were males and 79 were females, representing 55.62% and 44.38% respectively. The domination of the males in the sector was due to the nature of the task and responsibilities associated with the role of a hotel manager. Concerning the age distribution of respondents, 31 were aged between 18-24. Seventy-four were also aged between 25-31, representing 41.57%. Forty-nine of the respondents were also aged between 32-38, representing 27.53%. Thirteen were aged between 39-44, 6% were also aged between 45-51, representing 7.30% and 3.37% respectively. Most of the managers were young and energic. Considering the demands of the work, they were more suited for such a job. This is explained by the large percentage of the managers that are aged between 18-38. Five of the respondents were also aged above 51, representing 2.81%. Table 1 shows that more than 50% of the respondents were aged between 18-38.

Table 1: Demographic characteristics of respondents and star-rated hotels

Item	Frequency	Percentage (%)
Sex		
Male	99	55.62
Female	79	44.38
Total	178	100
Age		
18-24	31	17.42
25-31	74	41.57
32-38	49	27.53
39-44	13	7.30
45-51	6	3.37
52 and above	5	2.81
Total	178	100
Level of Education		

Senior high school or lower	40	22.5
Higher National Diploma (HND)	56	31.5
First Degree	61	34.3
Postgraduate Degree	21	11.8
Total	178	100
Work experience		
1-5 years	97	54.49
6-10 years	54	30.34
11-15 years	11	6.18
16 years and above	16	8.99
Total	178	100
Position		
Assistant manager	25	14.05
Manager	47	26.41
Senior manager	11	6.18
Supervisor	95	53.37
Total	178	100
Ownership structure		
Company	112	62.92
Partnership	4	2.25
Sole proprietor	62	34.83
Total	178	100
Number of rooms	2987	
Number of employees	2107	

Source: Field survey, Owusu (2018)

In terms of academic qualification, most of the respondents had qualifications ranging from Higher National Diploma, First Degree and Post-Graduate Degree. Fifty-six of the respondents were HND holders, representing 31.5%, 61 were first degree holders, representing 34.3%, and 21 had post-graduate degree, representing 11.8%. Forty of the respondents, representing 22.5%, were SHS holders. This indicates the respondents were educated and could understand and respond to the issues of corporate culture, strategic orientation and performance of the hotels they managed. To buttress this point, respondents also held positions ranging from supervisor to manager, which made them well placed to understand the

corporate culture, strategic orientation of their respective hotels. Ninety-five of the respondents were supervisors, representing 53.37%. Forty-seven of them were managers, representing 26.41%. Twenty-five of the respondents were also assistant managers, representing 14.05% and 11 of them were also senior managers, representing 6.18%.

With respect to the ownership structure of the star-rated hotels, the study found out that 112 of the hotels involved in the study were registered as Limited Liability Companies, representing 62.9%, 4 were registered as partnership and 62 were registered as sole proprietorship, representing 2.24% and 34.8% respectively. The hotels involved in the study also employed 2107 persons. The hotels involved in the study also supplied 2987 rooms to their customers.

Effect of strategic orientation on organisational performance

First, the study sought to determine whether the linkage between strategic orientation and performance, as established through the literature reviewed, were also applicable to the Ghanaian context. To achieve this, the study hypothesized that strategic orientation has a significant effect on performance of star-rated hotels. A model (Figure 1) was developed and tested to answer this objective and test the hypothesis. Details of the findings are presented in the subsequent sections. Before analyzing the proposed model on the relationship between strategic orientation and organisational performance of star-rated hotels, reliability and validity of the model were evaluated and established (see Tables 2 and 3). Then to estimate reflective measurement models, outer loadings, Composite reliability, average variance extracted, and discriminant validity were evaluated.

Table 2: Criteria for the evaluation of the model (Reliability and Validity)

Variables	Cronbach's Alpha	rho_A	Composite Reliability	AVE	R square	Adjusted R square
Performance	0.7207	0.8051	0.8145	0.5262	0.3146	0.3107
Strategic orientation	0.7597	0.7730	0.8380	0.5106		

Source: Field survey, Owusu (2018).

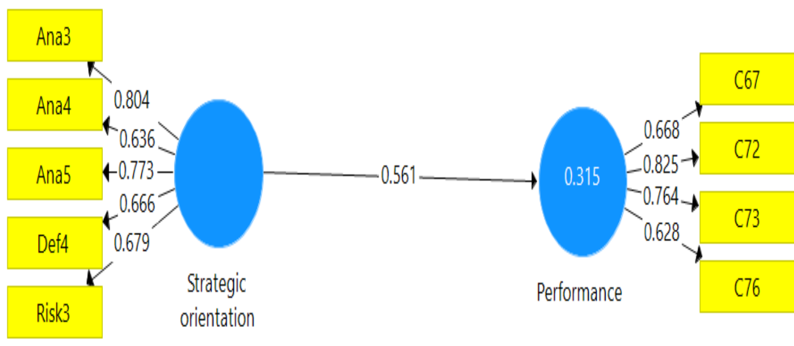

Figure 1: Model depicting the composite effect of strategic orientation on Performance

Source: Field survey, Owusu (2018)

Table 3: Discriminant Validity Using Fornell-Larcker Criterion

Variables	Performance	Strategic orientation
Performance	0.7254	
Strategic orientation	0.5608	0.7146

Source: Field survey, 2018

Examination of the outer loadings of the latent variables (strategic orientation and performance) indicate loadings are between 0.628 – 0.825 (Figure 1). Composite reliability and AVE scores are above 0.7 and 0.5, indicating good reliability and

validity, respectively. The Fornell-Larcker criterion indicates that there is discriminant validity between the cross loadings. The predictive abilities of the structural model were also assessed, using the coefficient of determination R^2, which recorded 0.3146, indicating that 31.46 of performance was explained by strategic orientation.

To check if the path coefficients of the inner model are significant or not (T-Statistics), bootstrapping procedure was run. Using a two-tailed t-test with a significant level of 5%, the path coefficient should be significant if the T-statistics is larger than 1.96. In the current study, the T-Statistics recorded 11.4235, which is greater than the 1.96. The study, therefore, found a statistically significant effect of strategic orientation on hotel performance. Further, the model's effect size (f^2), which showed how much an exogenous latent variable contributes to an endogenous latent variable's R square value, highlight large effect of 0.4589. The predictive relevance of the model was also assessed, using the Stone-Geisser Q test. The Q^2 values for the endogenous variable should be above zero (0). Cohen (1998) provides a guideline for assessing Q^2. From 0.02-0.14 is considered weak, 0.15-0.34 is moderate and 0.35 and above is considered strong. Therefore, based on the loadings presented in Table 4, the Q^2 is 0.136; this means the predictive relevance of the model is considered weak. This suggests that strategic orientation compositely is a weak predictor of performance of star-rated hotels.

Table 4: Stone-Geisser Q-test for model one

Constructs	SSO	SSE	Q^2 (=1-SSE/SSO)
Performance	712.000	615.026	0.136
Strategic Orientation	890.000	890.000	

Source: Field survey, Owusu (2018)

Next, the study sought to determine which of the strategic orientation types was responsible for the significant influence it had on performance. To achieve this, strategic orientation types were modeled against financial performance. A second model was proposed, which depicted the strategic orientation types as

predictors of financial performance. Details of the outcome are presented in Figure 2 and Table 5.

Table 5: Criteria for evaluating model two

Constructs	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)	R square	Adjusted R square
Aggressiveness	0.674	0.786	0.557		
Analytic	0.735	0.833	0.556		
Defensiveness	0.657	0.793	0.567		
Financial performance	0.835	0.872	0.633	0.080	0.059
Futuristic	0.624	0.801	0.578		

Notes: Loadings between 0.4 and 0.7 are acceptable. >0.7 is high. Cronbach's $\alpha >$ 0.7 is acceptable and high. Composite reliability should be 0.7 or higher. AVE should be 0.5 or higher. $R2$ of 0.75 is substantial, 0.50 is moderate, and 0.25 is weak

Source: Field Survey, Owusu, 2018.

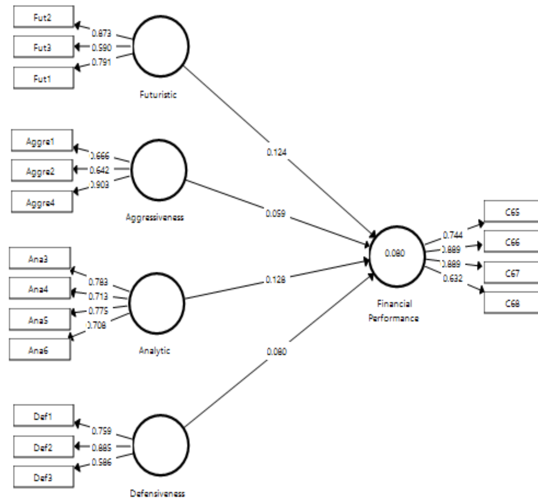

Figure 2: Model depicting the effect of strategic orientation on financial performance

The validity of the model was also assessed, using the Fornell-Larcker criterion. Results are presented in Table 6. An examination of the outer loadings for the second model indicates that the loadings of the latent variables are between 0.586 and 0.903. However, proactive and riskiness strategic orientations failed to meet the quality criteria after several iterations. Further, of the remaining four constructs of strategic orientation, some had loadings below 0.7. However, since removing those loadings did not change the overall reliability, the items remained in the model. Composite reliability scores were all above 0.7. Average variance extracted scores were also above 0.5. These indicate good reliability and validity of the model. The outcome in Table 6 shows that there is discriminant validity between all the constructs based on the cross-loading criteria. The R^2 figure meant that aggressiveness, analytic, defensiveness and futuristic weakly explains 8% of the variable in financial performance.

Table 6: Discriminant Validity Using Fornell-Larcker Criterion

Constructs	Aggressiveness	Analytic	Defensiveness	Financial performance	Futuristic
Aggressiveness	0.746				
Analytic	0.255	0.746			
Defensiveness	-0.004	0.408	0.753		
Financial performance	0.141	0.233	0.170	0.796	
Futuristic	0.397	0.469	0.309	0.232	0.761

Source: Field work, (2018)

Bootstrapping procedure was done to determine the significance of the path coefficients. The based-on-the-bootstrapping scores for aggressiveness, proactiveness, riskiness, defensiveness, futuristic and analytic all indicated that these strategic orientations were not significant in predicting financial performance. Results are presented in Table 7.

Table 7: Bootstrapping results and t-statistics for path coefficients of model five (inner model)

Constructs	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
Aggresiveness -> Financial performance	0.059	0.052	0.121	0.489	0.625
Analytic -> Financial performance	0.128	0.136	0.104	1.229	0.219

Defensiveness -> Financial performance	0.080	0.109	0.122	0.654	0.513
Futuristic -> Financial performance	0.124	0.122	0.089	1.383	0.167

Source: Field survey, Owusu (2018).

To confirm the scores of the bootstrapping, the f^2 scores were generated, which also recorded scores lower than 0.02, indicating small effect size. Further, the predictive relevance of the model was also assessed, using Stone-Geiser Q test. The Q^2 as shown in Table 8 is within the range of 0.02-0.14, signifying weak predictive relevance.

Table 8: Stone-Geisser Q-test for model two

Constructs	SSO	SSE	Q^2 (=1-SSE/SSO)
Aggressive	534.000	534.000	
Analytic	712.000	712.000	
Defensive	534.000	534.000	
Financial Performance	712.000	695.154	0.024
Futuristic _	534.000	534.000	

Source: Field survey, Owusu (2018).

The study also sought to find out whether strategic orientation was also a predictor of non-financial performance. To this end, a third model was developed to test the effect of strategic orientation types on non-financial performance. Details of the outcome are presented in Tables 9, 10 and Figure 3.

Table 9: Criteria for the Evaluation of the Model (Reliability and Validity)

Constructs	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)	R square	R square adjusted

Aggressiveness	0.760	0.845	0.578		
Analytic	0.701	0.833	0.624		
Defensiveness	1.000	1.000	1.000		
Futuristic	0.724	0.879	0.784		
Non-financial performance	0.649	0.849	0.738	0.422	0.406
Riskiness	0.608	0.831	0.712		

Notes: Loadings between 0.4 and 0.7 are acceptable. >0.7 is high. Cronbach's $\alpha > 0.7$ is acceptable and high. Composite reliability should be 0.7 or higher. AVE should be 0.5 or higher. $R2$ of 0.75 is substantial, 0.50 is moderate, and 0.25 is weak
Source: Field Survey, Owusu (2018).

An examination of the outer loadings of the latent variable indicates that loadings are between 0.7 and 1.0. However, proactiveness failed to meet the quality criteria after several iterations was removed from the model. The other remaining five constructs of strategic orientation had loadings above 0.7. The discriminant validity, which was determined according to Fornell-Larcker's (1981) criterion. The values indicated there is discriminant validity between all the constructs based on the cross-loading criterion. Once the construct measurement was confirmed as reliable and valid, the study assessed the structural model's predictive abilities and the relationships between the model components.

Table 10: Discriminant Validity Using Fornell-Larcker Criterion

Constructs	Aggressiveness	Analytic	Defensiveness	Futuristic	Non-financial performance
Aggressiveness	0.760				
Analytic	0.170	0.790			
Defensiveness	0.271	0.447	1.000		
Futuristic	0.403	0.363	0.360	0.885	
Non-financial performance	0.364	0.507	0.427	0.465	0.859
Riskiness	0.092	0.519	0.223	0.128	0.380

Source: Field survey, Owusu (2019)

As shown in Figure 3, the coefficient of determination, which is the $R^{2,}$ is 0.422, explained 42.2% of the variances in non-financial performance. Numbers on the arrow, which are called the path coefficients, displayed how strong the effect of one variable is on the other variable. The weight of each path coefficients allows the researcher to rank the variables' statistical importance. The model, as presented in Figure 3, shows that analytic strategic orientation makes a very strong effect on non-financial performance with scores of 0.283. Futuristic follows with scores of 0.255, aggressiveness is next with scores of 0.198, riskiness is next with scores of 0.173 and defensiveness with scores of 0.029 (Figure 3). All the path relationships were all statistically significant except for defensiveness that recorded a path score less than 0.1.

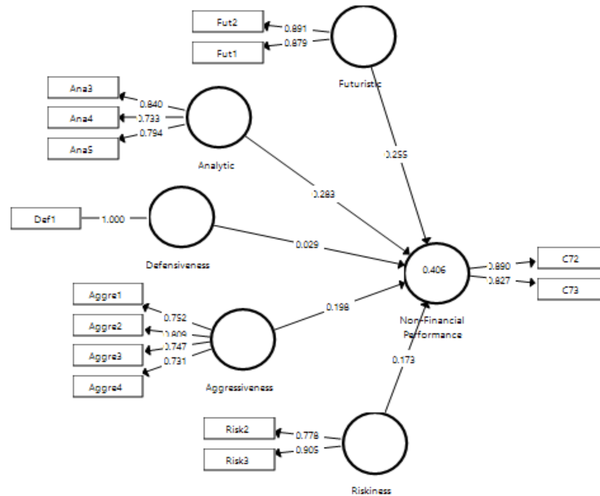

Figure 3: Model Depicting the Effect of Strategic Orientation Types on Non-Financial Performance

To check if the path coefficients of the inner model are significant or not (T-Statistics), bootstrapping procedure was run. Using a two-tailed *t*-test with a significance level of 5%, the path coefficient should be significant if the *T*-statistics is larger than 1.96. In the present study, as shown in Table 11, futuristic, analytic, aggressiveness and riskiness all recorded T-statistics scores greater than 1.96 except for defensiveness that recorded scores less than 1.96. Based on the bootstrapping scores, the following strategic orientation types were found to be significant predictors of non-financial performance: analytic strategic orientation; futuristic strategic orientation and riskiness strategic orientation. However, the following strategic orientation types were also found not to significantly predict non-financial performance: defensiveness and proactiveness.

Table 11: Bootstrapping Results and T-Statistics for Path Coefficients (Inner Model)

Constructs	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
Aggressiveness -> Non-financial performance	0.198	0.204	0.069	2.864	0.004
Analytic -> Non-financial performance	0.283	0.282	0.073	3.863	0.000
Defensiveness -> Non-financial performance	0.029	0.032	0.071	0.402	0.688
Futuristic -> Non-financial performance	0.255	0.252	0.079	3.211	0.001
Riskiness -> Non-financial performance	0.173	0.177	0.068	2.530	0.011

Source: Field survey, Owusu (2018)

The model's effect size (f^2), which showed how much an exogenous latent variable contribute to an endogenous latent variable's R^2 value, highlights small effect sizes as the scores were all lower than 0.15. The predictive relevance of the model was also assessed, using the Stone-Geisser Q-test. The model's predictive relevance was 0.275, which is within the range of 0.15-0.34 a moderate predictive relevance. The results of these tests are presented in Tables 12 and 13.

Table 12: Effect Size of Structural Model Six (f^2)

Constructs	Non-financial performance
Aggressiveness	0.053
Analytic	0.085
Defensiveness	0.001
Futuristic	0.078

Non-financial performance	
Riskiness	0.034

Notes: Effect size of 0.02, 0.15, and 0.35 indicates small, medium, and large effect, respectively (Marcoulides & Saunders, 2006).
Source: Field Survey, Owusu (2018)

Table 13: Stone-Geisser Q-test for model three

Constructs	SSO	SSE	Q^2 (=1-SSE/SSO)
Aggressive	712.000	712.000	
Analytic	534.000	534.000	
Defensive	178.000	178.000	
Futuristic _	356.000	356.000	
Non-Financial Performance	356.000	258.278	0.275
Riskiness_	356.000	356.000	

Source: Field Survey, Owusu (2018)

Summary of the hypotheses tested are presented in Table 14. Table 14 highlights the key outcomes in predicting the effect of strategic orientation on the performance of star-rated hotels in Ghana.

Table 14: Summary results of Hypotheses Testing of Models one, two and three

Hypotheses	Path coefficients	T-statistics	P-value	Results
Strategic orientation > organizational performance	0.5608**	11.4235	0.0000	Fail to reject
Aggressiveness > financial performance	0.059	0.489	0.625	Rejected
Proactiveness > financial performance				
Riskiness > financial performance				
Defensiveness > financial performance	0.080	0.654	0.513	Rejected

Futuristic > financial performance	0.124	1.383	0.167	Rejected
Analytic > financial performance	0.128	1.229	0.219	Rejected
Aggressiveness > non-financial performance	0.198**	2.864	0.004	Fail to Reject
Proactiveness > non-financial performance				
Riskiness > non-financial performance	0.173**	2.530	0.011	Fail to reject
Defensiveness > non-financial performance	0.029	0.402	0.688	Rejected
Futuristic > non-financial performance	0.255**	3.211	0.001	Rejected
Analytic > non-financial performance	0.283**	3.863	0.000	Fail to reject

Source: Field survey, Owusu (2018)

Discussion

The study sought to determine whether strategic orientation influences performance of star-rated hotels involved in the study or not. To achieve this, the study hypothesized that strategic orientation has no significant effect on performance of star-rated hotels. All the items measuring strategic orientation and performance were put together respectively. The results of the study indicated that strategic orientation has a significant effect on performance compositely. This means that the hypothesis that strategic orientation has no significant effect on the performance of star-rated hotels is, therefore, rejected.

The coefficient of determination, which is the $R^{2,}$ predicted 31.46 percent change in performance. Strategic orientation provides direction on the future of the organization. The findings indicate that how a firm chooses to interact with elements of the external environment, such as the customers, competitors and technology, affects the level of performance of the firm. As posited in the resource dependency theory, the long-term survival of a firm is dependent on its ability to link internal and external environment (Pfeffera & Salanack, 1978). The findings, therefore, support the position of

the theory, and posits that reliance on internal resources alone cannot achieve long-term survival and that an interaction between both internal and external environments is a key driver of performance. This was confirmed by the effect size, which recorded a large effect size. Further, the predictive relevance of the model also confirmed that strategic orientation predicts performance compositely. The finding is consistent with the findings of Gatignon and Xureb (1997), who also established a positive relationship between strategy and performance. Similarly, Day (1994) also established that strategic orientation may have direct implications for organizational performance.

The results also confirm the findings of Sin et al. (2005), who also established that strategic orientation affects the level of performance of hotels in Hong Kiong. Though the study area differs from that of Hong Kong, the study results do not differ and, therefore, affirm that strategic orientation affects performance. Similarly, Zhou and Li (2007) also found out that strategic orientation is a significant driver of superior performance in emerging economies. The study findings thus affirm this finding, considering Ghana as emerging economy on the African continent. The study finding is also consistent with that of Amirkahani and Keza (2015). The study finding, however, fails to confirm that of Jassmy and Bhaya (2016), who found insignificant relationship between strategic orientation and performance. The findings also validate the findings of the study of Han and Verma (2012), who recommended for replication of the study in other countries to either affirm or disprove the findings in that study. The finding of the current study, therefore, validates the findings of Han and Verna (2012) and indicate that the strategic orientation that a hotel adopts is a predictor of the level of performance of the hotel.

Further, the study analyzed the strategic orientation and financial performance to determine which of the strategic orientation type is a better predictor of financial performance. The study results indicated that none of the constructs significantly predicted financial performance of star-rated hotels in Ghana. Aggressiveness, analytic, defensiveness and futuristic were all found not to be significant predictors of financial performance. The results, as presented in Figure 2, recorded a

very low R^2 of 0.08, thereby affirming the finding that strategic orientation does not significantly predict financial performance, contrary to the earlier findings that strategic orientation compositely predicts performance. The T-statistics for the four constructs were all below 1.96 and that explains the insignificant contribution of strategic orientation to financial performance. On the contrary, Han and Verma (2012) rather established that futuristic and defensive strategic orientation drove financial performance. The effect size was small, and the predictive relevance was also weak. This clearly indicates that although strategic orientation compositely predicts performance, it rather does not contribute to predicting financial performance as the predictive relevance of the model was weak.

These findings could be explained by the nature of the business environment in which hoteliers work. The high cost of electricity and other utilities makes it difficult for hotels to pursue some of these strategic orientations with the hope of making financial gains. For example, being aggressive and cutting prices to increase financial performance is not sustainable in the long run. The cost of electricity and labour makes such an orientation unsustainable in the Ghanaian context. Further, the study established that strategic orientation rather drove non-financial performance indicators, such as increasing mutual trust, increasing the number of customers that visit the facility and the productivity of employees. This was confirmed in the Q^2 results, which showed a moderate predictive relevance. Strategic orientation types, such as aggressiveness, analytic, futuristic and riskiness, were rather found to be significant predictors of non-financial performance. The finding is, however, consistent with that of Nzioka and Njuguma (2017), who also indicated that strategic orientation of firms is positively and significantly related to performance.

Conclusion

The implications of the study findings are of two-fold: first, to business and, second, to theory. Firstly, with respect to business, the findings imply that the strategic orientation that a business adopts in pursuit of its long-term goals influences the level of performance of the business. However, the key question that the study sought to answer is which of the strategic orientation types should be

pursued in order to realize both financial and non-financial performance? The study findings indicate that strategic orientation should be used in pursuit of non-financial gains, such as building trust, increasing the number of customers that visit the hotels, and enhance employee productivity. The achievement of these non-financial performance goals would also reflect in financial gains to the hotels.

Secondly, with respect to theory, the study contributes to the resource dependency theory and posits that how a firm interacts with its external environment within the hotel industry of Ghana could only enhance non-financial gains, such as building trust, increasing the number of customers that visit a facility and increasing employee productivity. It, therefore, affirms the theory and explains that not only should firms rely on internal resources to achieve performance targets rather how a firm chooses to interact with its external environment could also enhance the performance of the firm.

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Perception of Postgraduate Students on Customer Service at the School of Graduate Studies, University of Cape Coast

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Abstract
The aim of this study was to examine the quality of service provided by the School of Graduate Studies, University of Cape Coast to its students (customers). This study employed a descriptive survey design. A questionnaire designed by the researchers was used to obtain data from 400 postgraduate students (customers), using the stratified sampling technique. Data were presented and analyzed using descriptive statistics which included frequencies, percentages, means and standard deviation. The study found that staff members at the School of Graduate Studies, University of Cape Coast provide quality services to postgraduate students at different dimensions when they seek assistance. It was therefore recommended that the Directorate of Human Resource in collaboration with Training and Development Section of the University of Cape Coast should include aspect of customer care topics in the training programmes for all categories of staff in order to improve professionalism in tangibility dimension of service delivery.

Keywords: *Customer expectation, customer service, perception, service quality, quality dimensions, student satisfaction*

Introduction

In recent years, organisations have placed increasing emphasis on customer service as a means of gaining an edge over their competitors, since it has been realised that the customer is the foundation of business and the reason for existence. It has, therefore, become necessary for the growth and sustenance of a business (Cook, 2008) to treat customers with utmost respect, ensuring their satisfaction through good customer relationships. Good customer service is the life blood of any business. It is all about bringing customers back to the organisation. In the case of the universities, students, alumni, as well as other stakeholders constitute customers. Understanding customer expectations is a prerequisite for delivering superior service as customers compare perceptions with expectations when judging a firm's services (Parasuraman, Zeithaml, & Malhotra, 2005). Good customer service is not an exception in higher education. Although many higher education institutions run away from the idea that they should be customer focused, Govender, Veerasamy and Noel (2012) argue that service quality in higher education is described as a measurement of how well higher education institutions conform to customers' needs and expectations. Students have been identified as the primary customers in universities (Karami & Olfati, 2012). Seen in this light, it is imperative that universities continue to build and maintain stronger relationship with their students by providing stronger relationship and educational services. Universities must also be interested in the perception of their students regarding educational services as it relates to their satisfaction (Hanaysha, Abdullah & Warokka, 2011; Russell, 2005). However, arguments in contemporary literature suggest that management of higher learning institutions, should not only deliver services to meet social expectations to appreciate student perceptions, drawn from their long-term experience within an academic environment (Munteanu et al., 2010). Tutu-Boahene and Mawuli (2014) suggest that little research efforts have been put into

investigating graduate students' experience in higher education institutions.

The mission of the University of Cape Coast is to provide quality education through the provision of comprehensive, liberal and professional programmes that challenge learners to be creative, innovative and morally responsible citizens. Good customer service should take into consideration the mission of the institution in order to gain a competitive edge over its competitors. As a University, students are the most vital resources; without them the university would not be able to exist and function as an organisation or business. The University of Cape Coast offers a range of programmes and support services to help students. Apart from getting the students on the programmes of their choice, the University provides support services to facilitate knowledge acquisition in addition to its core mandate of teaching and research, such as orientation service, student mentorship, seminars and workshops, chaplaincy service, financial help, guidance and counseling service and security services (50th VC's Annual Report 2018).

The School of Graduate Studies of the University of Cape Coast has a mandate to advice Senate on the University's graduate scholarship policy and recommend the award of scholarships for approval. The vision of the School is to become the hub of an outstanding multi-disciplinary context for graduate training and research for advancing the socio-economic development of Ghana. The School of Graduate Studies is to ensure the relevance of graduate programmes for the promotion of economic, social, scientific and technological development of Ghana and Africa, and to make graduate training and research continually responsive to the changing climate of the world of work. One of the missions of the School of Graduate Studies is to mobilise appropriate human and material resources from within and outside the University to ensure maximum utilisation of available potentials.

The purpose of this study was to explore the perception of

postgraduate students on customer services at the School of Graduate Studies, University of Cape Coast. Specifically, the study looked at the service quality based on the SERVQUAL Model by Parasuraman, Zeithaml and Berry (1988). Turban, Lee, King and Chung (2002) posit, "Customer service is a series of activities designed to enhance the level of customer satisfaction that is a feel that a product or service has met a customer's expectation" (p. 87). The University expects students to commit to certain responsibilities, such as a degree of scholastic aptitude and well-roundedness, commitment to hard work and to the university's culture. Students also expect more from their universities than relevant classes. The needs of students have extended beyond the classroom and into administrative processes of the university. They expect a high level of customer service before, during and after their enrollment and in all interactions with their institutions.

Students are ambassadors of every university and could help the University to grow positively. There is, therefore, the need for the University to be customer-focused and build a customer-driven workforce to maintain excellence. Staff should provide services in such a way that it would allow customers to access services in the most efficient, fair, cost effective and humanly satisfying and pleasurable manner (Speer, 2014). Handling students in the most efficient and effective manner in this rapidly changing time is very important in order to meet the tenets of the University's mission statement. It was on this premise that a study of this nature was conducted to explore the perception of students (particularly, post-graduate students) regarding service quality at the School of Graduate Studies, University of Cape Coast.

Literature Review

Technology is revolutionising the way people interact and get their information. With technological advancement aiding service delivery systems, customer expectations continue to rise. The University of Cape Coast aims to continuously improve its teaching, learning and support services. The University

appreciates that the factors or elements that contribute to customer satisfaction will lead to the delivery of excellent customer service that would create a customer-focused culture at the School of Graduate Studies. A customer-focused institution means everything the institution does that points to improved customer-service and satisfaction (Home of Service, 2013). Customer service is the ability to meet customers' needs and it highly depends on customers' expectations. It could mean one or a combination of being able to treat customers satisfactorily, serving customers with a smile, improving customer perception and confidence; and making customers feel that they are special and need to be pampered. It could be said that customer service is a series of activities put together to meet the customers' expectations and satisfaction. Many customers expect providers of services to be friendly, understanding, courteous, respectful, honest and loyal. They expect service providers to appreciate and treat them with some professionalism. Nickels, McHugh and McHugh (2008) observed that products and services in the 21st century are designed to 'fascinate, bewitch and delight customers in exceeding their expectations and making business customer-driven.

According to McShane and Von Glinow (2006), customer expectation is a powerful driving force for change in institutions, such as university of Coast. They noted that dissatisfied customers represent a compelling force for renovation, because of the adverse consequences on organisational survival and success. One of the criteria for measuring success in a customer-oriented institution is the satisfaction of both the internal and external customers. Internal customers (students) are individuals and departments within the institution that receive services from other individuals or units. Often, the value of the internal customers is overlooked. McShane and Von Glinow (2006), emphasised that employer/employee satisfaction is associated with customer satisfaction for these reasons: job satisfaction affects a person's mood for good therefore,

employees are likely to communicate friendliness and positive emotional mood, which customers appreciate. Managing customer relationship is a complete and challenging duty that requires leadership, focus and commitment. Patterson and Smith (2000) postulate a similar view that each customer is different, hence relationship with them need to be tailored to match their needs. Good customer handling is a concept that has helped many organisations to realize their goals of being leaders in their industries. Competition for retaining customers and thereby gaining advantage over competitors has prompted many organisations to give much attention to customer relationship (Home of Service, 2013).

Customer service is committed to providing a high-quality service to all its customers in a friendly, customer-focused environment. This single-minded focus on satisfying customers is achieved by understanding who the customers are and determining their real needs in the first instance. Smith (1998) posits, "if we understand who our customers are, those we would like to be our customers, identify the various groups within our customer base and understand their needs, we will be in the position to create products and services that can satisfy the customer." He said that creating customer value is such a complex and challenging task that it requires leadership focus and commitment.

Empirical Review

Rouf, Rahman, and Uddin (2016) studied students' satisfaction and service quality of higher educational institutions in Bangladesh. Using a well-structured questionnaire as a data collection instrument, with 160 students spanning four public universities as respondents (sample), the study found significant relationship between the five dimensions of service quality (tangibility, reliability, responsiveness, assurance, and empathy) or SERVQUAL i.e. (service quality model) and students' satisfaction. In general, the results indicated that all the five dimensions of service quality were correlated with student satisfaction.

In a comparative study on two colleges (a state and a private college) in Royal University of Bhutan (RUB), aimed at determining factors of student satisfaction in the private and the state colleges, van Deuren and Lhaden (2017) reported that the institutions under study showed both similarities and differences between the public and private colleges. Overall student satisfaction did not differ, but the perception of the quality of factors contributing to satisfaction differed. Some factors contributed to student satisfaction in both colleges, but other factors were only relevant for the private or for the public college. For example, although differences exist between the colleges under study, the findings suggest the relevance of five factors contributing to overall student satisfaction: teacher role, learning environment, administrative staff, future prospects and location. The factor "future prospects" refer to how universities prepare students for their career after graduation."

Tuan (2012) reported that the effects of service quality and price fairness on students' satisfaction in universities in Vietnam and that of administrative service quality were significantly and positively related to students' satisfaction. This finding demonstrates that the knowledge of the functioning of a university, skills and service attitude of administrative staff play a very important role in increasing students' satisfaction. Contrary to this finding, Ahmed and Masud's (2014) research in universities in Malaysia found that administrative services were not significantly related to students' satisfaction. However, their research found that quality of academic resources, lecturer quality and quality of academic programmes had a direct and significant relationship with students' satisfaction.

Theoretical Framework

The study was guided by the SERVQUAL Model by Parasuraman, Zeithaml and Berry (1988), which sets out a theoretical framework for the measurement of service quality. The SERVQUAL scale has since become the most prevailing instrument for measuring service quality. It initially comprises 10 measurements with 97 items. Consequently, this was later

reduced to 5 measurements with 22 items in 1991. *The five dimensions are tangibles, *reliability, responsiveness, assurance and empathy. **

**Customers are required to record their perceptions of that institution's performance on those same dimensions... In a situation where perceived performance ratings fall below expectations, quality is poor (Parasuraman et al, cited in Zakari, 2016). Zakari (2016) explains that the SERVQUAL Model gives thorough information about customer perceptions of service, i.e. the customer's benchmark performance stages, as perceived by customers, customer comments and suggestions, as well as impressions from employees with respect to customer expectations. The framework guiding the study is based on the SERVQUAL Model, which is presented in Figure 1. The framework consists of five areas: responsive, assurance, reliability, empathy and tangibility.

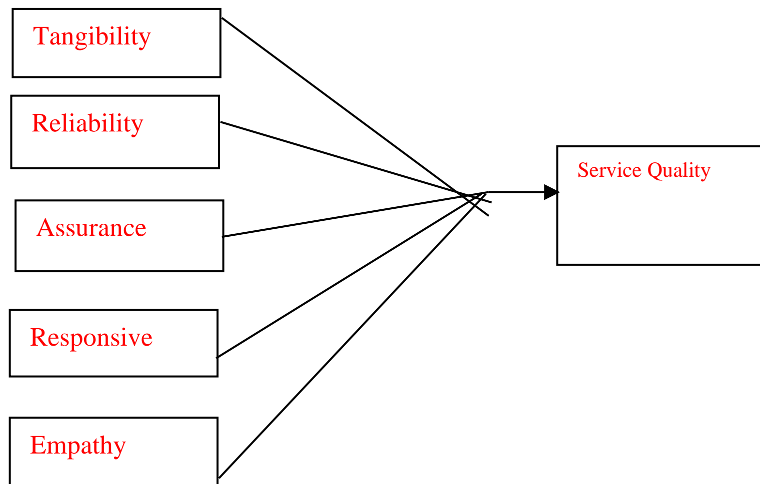

Figure 1: Strategic Customer Service Framework
Source: Author's construct (based on the SERVQUAL Model by Parasuraman et al, 1988)

Tangibility Dimension

**Tangibles involve the physical prove of the service. According to Zeithaml, Bitner and Gremler (2006), tangibles in details normally show physical facilities of the service provider, the appearance of personnel, materials associated to the service (credit and debit sheets, cheque books etc.), decorations and business hours, the tools and equipment used to provide the service. Tangibles are usually used by firms to express image and signal quality.

Reliability Dimension

According to Zeithaml et al (2006), reliability is "the ability to perform the promised service dependably and accurately" or "delivering on the promises." Does the firm deliver the service comfortably the first time? Does the firm respect the promises? These are a portion of the inquiries that should be answered by providers of service if they are to accomplish unwavering quality. This measurement of service quality, as indicated by Parasuraman et al (1988), is the means by which the providers of service can give service to a client as promised, tried and true in dealing with clients' service issues, performs service right at the first instance, give service at guaranteed time and keep clients always informed about when service will be performed or available.

Assurance Dimension

Assurance involves the knowledge and courtesy of employees and their capacity to pass on trust and certainty. It likewise incorporates skill, obligingness, believability and security. In the view of Andaleeb and Conway (2006), assurance may not be so vital with respect to different industries where the risk is higher and the result of utilizing the service is questionable. For example, in the medical and healthcare industry, assurance is an imperative measurement that clients utilized as the principle in evaluating a health centre or a specialist for a task. The trust and ultimate confidence might be visible in an employee who connects the client to the

organisation (Zeithaml, Bitner & Gremler, 2006).

Responsiveness Dimension

Responsiveness concerns the ability or preparation of employees to offer service (Parasuraman, Zeithaml & Berry, 1985). Responsiveness is concerned with managing the client's inquiries and concerns and immediately attending to concerns or providing a solution to these issues. A firm is known to be responsive when it conveys to its clients the extent to which it would go to find solutions or have their issues managed. To be effective, institutions need to look at responsiveness from the viewpoint of the client as opposed to the organization's point of view (Zeithaml et al, 2006).

Empathy Dimension

Empathy involves minding and arrangement of individualized regard for clients by employees of the firm (Zeithaml et al, 2006). In this respect, the client feels exceptional and extraordinary. While trying to create empathy, employees of the firm should try to recall the names of their clients, their inclinations and needs and find a way to fulfill them. Small organisations through their customized services to customers are in a more superior position to accomplish empathy than large organisations.

As the framework illustrates, the interplay of the five dimensions in the model would enhance service quality in an organization. It is the view of the researcher that the model, if applied strictly in the higher education setting, could improve service to its customers. This is because most higher education institutions do not see themselves as customer driven establishments, which need to provide services such as those in the banking and other service industries. This is supported by evidence in the higher education literature e.g. Ahmed and Masud (2014), as cited in Kara, Tanui, and Kalai, (2016). Tuan (2012) postulates that administrative service quality was significantly and positively related to students' satisfaction. This finding demonstrates that the knowledge of the functioning of a university,

skills and service attitude of administrative staff members play a particularly important role in increasing students' satisfaction. Nonetheless, the findings of Ahmed and Masud's (2014) research in universities in Malaysia found that administrative services were not significantly related to students' satisfaction. These revelations suggest that there is no clear consensus on quality services (especially administrative services) in higher education. Against this backdrop, adopting the SERVQUAL Model to guide and measure service quality helps to ensure that service quality is improved. In the researcher's view, the SERVQUAL Model is appropriate to guide the study.

Strategic Customer Service Frameworks

Many organisations and communities have used home factors and elements in building their strategic customer service frameworks, to bring about cultural change that has helped them in enhancing existing cultural practices. These organisations have been successful in creating customer-focused cultures and are leaders in their industries.

Responsibilities of Stakeholders in Improving Customer Service in UCC

Managing customer service in the University is the responsibility of the various stakeholders, and it is dependent upon understanding and commitment from both management and staff members. University management, staff members and graduate students, as stakeholders, are likely to have an impact on the success of managing customer service issues.

University Management

The University management plays a critical role in improving the quality of teaching and learning, research, community services and other functions of the University. Management should set the vision and empower other stakeholders to take responsibility for achieving it. The Vice-Chancellor sets the academic tone of the institution for students, teaching staff, non-teaching staff, parents and community members

by providing effective leadership. Adopting a distributive style, involving other internal and external stakeholders in the management of the university, could enhance the efficiency and effectiveness of recruitment of high-performing intelligent employees to foster customer-focused culture. Management should be enthusiastic and articulate constant support for customer service enhancement throughout all levels of the institution. Staff members of the University of Cape Coast must be made to understand that customer service forms an integral part of their job and they should aim at satisfying each other as well as the students so that each and every one would help the University gain its worldwide acclaim. Initiatives for improving quality should not be measured on a short-term basis but should be continuous.

Teaching and Non-Teaching Staff

The lecturer's role is pivotal in the improvement of quality of teaching and learning in the universities. The lecturer is a pacesetter who sets plans aimed at ensuring students' effective learning by devising learning experiences to arouse students' interest and inspire them to work diligently so as to become creative problem solvers. All over the world, the teacher is recognised as a major factor in implementing educational reform efforts aimed at improving the quality of education. It is not a matter of just providing the students' needs, but also going the extra mile to meet their expectations in order to establish excellent customer relationship with them. This requires courtesy, a sense of caring, willingness to help and the ability to solve problems in order to build values that will identify those factors that boost relationship/satisfaction. Cook (2008) posits that everyone within an organisation is a customer; and to provide service to an external customer involves a whole chain of people each satisfying the needs of their colleagues down the line. Therefore, treating staff or people with respect is necessary if the external customer is to receive excellent service. University staff should seek to design and refine business practices within the

University's mission to provide customers with what they need in the manner they prefer.

Students (Customers)

Students are customers in the education industry striving to get the best education. The essence of the establishment of any institution of higher learning is to ensure the sound development of students academically, morally, socially, politically and spiritually. One learning outcome is the reality of students being the driving force in demanding changes in how their education needs are served. Customer service is performed in most of our educational institutions today and there are even departments dedicated to providing student services. However, real customer service must involve more than a department or a handful of individuals. Providing a true service-centred environment is everyone's job, that emphasis must start at the top and the inspiration for delivering should be more than lip service. Some would argue that higher education has focused less on the process of good customer service and more on the final product of producing educated graduates. If students fulfill the course requirements set before them, the institution awards them a diploma/degree in recognition of their accomplishment. But universities have not been as concerned about whether students felt satisfied while completing their degree requirements. They tend to emphasise, instead, that students need to work hard while at school to complete their degrees. The advantages of this approach include increased customer satisfaction and loyalty. Taking care of students should lead to increased retention, which is an increasingly important revenue source for higher education institutions. The bottom line is that institutions of higher education need students to survive and thrive.

Methodology

The study employed the descriptive survey design. This descriptive survey is designed to describe the existing situation, which is normally sought to examine the answers to who, what, when, where and how

questions (Creswell, 2014). In this study, the cross-sectional survey under the descriptive survey design was employed. That is, the researcher collected one data for the research. The advantage of the survey design is that it allows the researcher to describe the opinions and beliefs as it is. It also allows for fast collection of data for analysis. The researcher applied the survey technique by distributing questionnaires to gain feedback from respondents and to gain an understanding of what is perceived as customer service at the School of Graduate Studies. According to Creswell (2014), a survey technique can gather data or information from people by using a questionnaire. Therefore, this survey uses a questionnaire administered by the researcher to gather data from the respondents.

The study population is the group of people who have the information that the researcher is looking for and from which conclusions could be drawn (Malhotra, & Birks, 2007). In this case, the study population consisted of 4,269 postgraduate students (customers) from the five Colleges in the University of Cape Coast, namely: College of Humanities and Legal Studies, College of Education Studies, College of Agriculture and Natural Resources, College of Distance Education and College of Health and Allied Sciences. From the total population, a minimum sample of 366 respondents were deemed appropriate. This was calculated, using the Sloven's formula: $\mathbf{n} = \frac{N}{1+N(e)2}$, where n = sample size, N = accessible population and e = level of significance at 0.05. However, the study sampled 410 respondents to ensure adequate representation. The study employed the probability sampling technique, specifically, stratified sampling, to group the respondents into their respective Colleges. The proportional stratification was to ensure adequate representation of students in each stratum i.e. college. In calculating the sample for the strata, the sample for each stratum was divided by the total population and multiplied by the sample size. A sampling frame was then developed out of which the simple random sampling technique was used to select the

required number of respondents for the study. The table of random numbers was used to select the respondents for the study. The main instrument employed for the data collection was a structured questionnaire.

The questionnaire was designed to provide specific responses aimed at addressing the research objective. The questionnaire was developed from the literature review. It was influenced by the SERVQUAL Model by Parasuraman et al (1988) to measure the quality of service at the School of Graduate Studies, UCC. Respondents were given a questionnaire with an explanation before filling in. A 4-point Likert scale was used in measuring the variables of interest that has to do with respondents' perception of customer service delivery at the School of Graduate Studies. There are some reasons behind the selection of this method. First, it allows a large quantum of information to be solicited at a relatively low cost. Second, more accurate and precise responses are obtained, because interviewer's bias can be avoided. Fifteen questions on quality service delivery were administered to the respondents on which the analysis was based. It has four items with a Likert scale from one to four. Respondents were expected to tick the option that best reflected their opinion, starting from 1= least agree to 4=highest agree.

In order to reduce the chances of getting the wrong answer, attention was given to the reliability and validity of the instrument used. Some steps were taken to ensure the validity and reliability of the study. To ensure the validity of the instrument, the draft questionnaire was given to both lecturers and administrators who are professionals and experts in the area to check how well the items were developed and whether the items were relevant in answering the research questions. The instrument (questionnaire) was subjected to further reviews by experts in higher education, especially on quality assurance. Their feedback and suggestions were incorporated in the final instruments designed for the study. This was done to ensure that the validity of the instrument was checked. To further check the

reliability of the instrument, data were obtained from the reliable sources that means that a respondent must be a postgraduate student (customer) of the School of Graduate Studies of University of Cape Coast. The questionnaire was also pre-tested at University of Education, Winneba, Graduate Studies to ensure it measured what it was supposed to. Results from the pre-test showed Cronbach's Alpha of 0.82 in line with Pallant's (2007) suggestions.

To ensure strict compliance with ethical standards of research, written permission sought from the University, which was duly granted before data were collected. The researcher introduced a clause in the introductory paragraph of the instrument assuring respondents of anonymity and confidentiality. In addition, the time required for filling in the questionnaire was mutually agreed between the respondents and the researcher. A total of 400 questionnaires were completed and, after carefully scrutinising them, 391 questionnaires were used in the data processing and analysis. This gave a response rate of 97.6%. The data gathered were analysed, using IBM SPSS (v.23). Before the main analyses were run, the data were cleaned to make sure it was the true reflection of what was on the questionnaires. Outliers were identified and corrected, by running some descriptive analysis, such as frequency, percentage, mean, standard deviation, minimum and maximum.

Results and Discussion

This section deals with the presentation and discussion of the results that were gathered from the data collected. It begins with a discussion on the background information of respondents in relation to the research questions as well as the literature review.

Background information of respondents

In the study, respondents' background characteristics were described in terms of sex and age range. The instrument designed for the collection of data for the study was questionnaire. Respondents were to indicate their background information for the purposes of classification and comparison. Background

information of respondents was grouped, and responses were analyzed using frequencies and percentages. The results, as captured, indicated that there were more male respondents than female with males accounting for 201 (51.5%), and females representing 190 (48.5%) of the total respondents. This indicates that there are more male than female postgraduate students at the University of Cape Coast. About 175 (44.6%) of the respondents indicated that their ages fall within the age range between 26-35 years. This was followed by 142 (36.3%) whose ages range between 36-45 years. About 75 (19.1%) of the respondents were within the age range between 18-25 years. The finding reveals that most of postgraduate students of the university are youthful, thus between 18-45 years.

Perception of Postgraduate Student on Customer Service Quality

The research objective was to ascertain the perceptions of postgraduate students on customer service delivery at the School of Graduate Studies, UCC. The study examined customer service quality, using 15 quantitative questions in which respondents were required to indicate the extent to which they agree with each statement by indicating the number that best portrays their perception on the Likert scale. The responses were analysed, using means and standard deviations, as summarized in Table 1.

Table 1: Description of Customer Service Quality

SERVQUAL Model (5 Dimensions)	Mean	Std. Dev.	Interpretation
Responsiveness			
Whenever I ask for service the staff serve me readily in a good manner.	3.56	.74	Very high level
When I need service, the staff give me prompt service	3.52	.64	Very high level
Always the staffs are willing to solve students (customer) problems or challenges	3.42	.85	Very high level

Sub-total	**3.5**		Very high
Assurance			
UCC staff make students (customers) feel safe in their enquiries or seeking assistance	3.05	1.11	High level
Every time staff of UCC are consistently courteous with me	2.79	1.31	High level
Most often UCC staff have the knowledge to answer my questions.	2.72	1.28	High level
Sub-total	**2.85**		High level
Reliability			
Postgraduate students feel secure in seeking assistance or making enquiries from the UCC	2.94	1.25	High level
When UCC promises to do something by a certain time, they do it.	2.66	1.21	High level
UCC performs services right the first time.	2.53	1.31	High level
Sub-total	**2.71**		High level
Empathy			
Whenever I request for service, UCC staff give me full and individual attention.	2.99	1.26	High level
Staff of UCC handle my concerns or enquiries in a caring manner.	2.84	1.09	High level
Staff of UCC understand my specific needs with a specific attention	2.24	1.19	Low level
Sub-total	**2.69**		High level
Tangibility			
Staff of UCC dress professionally and are neat in appearance.	2.96	1.18	High level
University of Cape Coast has modern-looking equipment (computers, fast ICT facilities, Computer labs etc.)	2.59	1.26	High level
The interior and exterior of the offices are visually appealing and spacious (comfortability conditions, waiting queue chairs, notice board).	1.87	1.02	Low level
Sub-total	**2.47**		Low level
Overall total	**2.85**		High level

Key: Mean range and interpretation on the level of service quality
3.26 – 4.00 - Very high level; 2.51 – 3.25 - High level; 1.76 – 2.50 - Low level; 1.00 – 1.75 - Very low level

It is evident from Table 1 that with respect to the responsiveness dimension of service quality, the results showed that respondents expressed very high levels of agreement on the question, that whenever they ask for service in the University the staff serve them readily in a good manner (mean = 3.56, std = 0.74). The results further showed that there were very high levels of agreement on the part of respondents relative to whether when they need services from the university, staff give them prompt service (mean = 3.52, std = 0.64). Most respondents opined very high levels of agreement in responding to the issue that always School of Graduate Studies staff members are willing to solve problems/challenges confronting them (mean = 3.42, std = 0.85). These findings suggest that staff at the School of Graduate Studies are responsive to students' needs and as much as possible try to solve their problems. The findings also suggest that the School of Graduate Studies of the University of Cape Coast, have trained the staff members to respond appropriately to students' problems. The findings further suggest that staff at the School of Graduate Studies possibly have the willingness to solve students' problems and complaints as and when they come. This might have accounted for majority of the students agreeing to the statements "whenever I ask for service, the staff serve me readily in a good manner, and when I need service, the staff give me prompt service." The findings also support the views of Brady and Cronin (2001). Brady and Cronin argue that interaction quality deals with the experience that customers have with employees who provide the services, and it is one of the factors that influence customer satisfaction. The findings of Brady and Cronin suggest that customers (and in this study students) would only agree that there is quality service being provided only when they are satisfied with the services provided to them. This further

supports the finding of Tuan (2012). Tuan's research in universities in Vietnam found that administrative service quality was significantly and positively related to students' satisfaction. This finding demonstrates that the knowledge of the functioning of a university, skills and service attitude of administrative staff play a very important role in increasing students' satisfaction.

The results on assurance dimension revealed that most respondents affirmed highly that UCC staff make students (customers) feel safe when postgraduate students seek assistance or make enquiries (mean = 3.05, std = 1.11). Most respondents highly agreed that at most times staff of UCC are consistently courteous with postgraduate students (mean = 2.79, std = 1.31). The results further showed high levels of agreement by respondents on the issue of whether most often UCC staff have the knowledge to answer questions posed by postgraduate students (mean = 2.72, std = 1.28). The findings suggest that staff members of the School of Graduate Studies have the knowledge, skills and courtesy of the institution (UCC) to provide good services to its students. The results further suggest that the institution has imbedded in its staff ethical standards, which makes them able to relate well with students (especially post graduate students who are mostly seen to be mature in nature). The maturity level of post graduate students requires that staff who interact with them are equipped with the courtesies, have the knowledge of their work and their institution in order to be able to provide the needed assistance, which would make the students satisfied. Furthermore, the findings suggest that students could trust the staff at the School of Graduate Studies with serious issues because, possibly, they believe the staff members can help them resolve issues. In a study on measuring higher education service quality across some selected universities in Ghana, Asinyo (2015) reports that assurance proved the second-best performing dimension in the study with the highest score, relating to student feeling safe in their

transactions with staff in the various institutions.

In a study conducted on Assessment of students' satisfaction of service quality in Takoradi polytechnic: The students' perspective, Anwowie, et al (2015) reported that Polytechnic employees are expected to be consistently courteous with students and 84 percent of the respondents reinforced this point. Similarly, the study reported that majority of the respondents (60 percent) agreed that Takoradi Polytechnic designs academic curriculum that is relevant to the demands and trends of the current job market. Also, 43 percent of the respondents agreed that Takoradi Polytechnic employees consistently show courtesy to students, while 22% disagreed. The high positive rating from the students might have suggested that the Takoradi Polytechnic was doing something regarding the assurance of students. The findings of Anwowie, et al (2015) corroborate this and other studies, that most of the students are satisfied with services at the assurance dimension. Thus, the staff of the School of Graduate Studies may have positioned themselves well that students can trust them with their issues as well as also exhibit high level of courtesies to students.

On the reliability dimension of service quality, the respondents highly agreed that postgraduate students feel secure in seeking assistance or making enquiries from the School of Graduate Studies (mean = 2.94, std = 1.25). The respondents further acknowledged highly that when the School of Graduate Studies promises to do something by a certain time, keep to it (mean = 2.66, std = 1.21). Again, the respondents highly agreed that the School of Graduate Studies performs services right the first time (mean = 2.53, std = 1.31). The possible reason for these findings is that the students feel assured, because staff members have been equipped with the knowledge and skills to assist studies. It possibly also means that the respondents feel their issues or problems discussed with staff would be kept confidential. Regarding the issue of things being done on time, it could be

perceived that students do not think that problems should only be solved thus, for planning purposes, they should be told when their problems can be solved. It means that for students to be satisfied with services, timelines in the provision of services is highly paramount. The findings further reveal that problems or services that have deadlines, if not delivered on time, makes it difficult for students to be satisfied. For example, students who will graduate have a certain period within which to submit their final work. If the negligence of a staff member causes student's work to delay, although the student may graduate at the next graduation ceremony available, s/he would not be pleased because s/he did not graduate at the stipulated time. The findings support that of Anwowie et al (2015), that students expect staff members in a polytechnic to tell them (students) exactly when a service will be performed. The students expect that polytechnic staff member will always respond to their requests and give prompt services. On this account, it is not only imperative that services are provided to the students, but quality service must be provided considering the time as an important factor.

On the face value, it may be seen that the School of Graduate Studies may be providing services to its students, yet, due to the bureaucratic nature of the University structure, it may be interesting to know whether staff members are able to meet timelines in the provision of services to students. The results on empathy dimension of service quality reveal that most respondents highly agreed that whenever they request for service, the university staff give them full and individual attention (mean = 2.99, std = 1.26). The results revealed that most respondents expressed high levels of agreement that staff of the University handle their concerns or enquiries in a caring manner (mean = 2.84, std = 1.09). Most respondents expressed low levels of agreement on the issue that staff members of the Graduate School understand postgraduate specific needs with specific attention (mean = 2.24, std = 1.19). The findings suggest that whenever

students visit the School of Graduate Studies for services, the staff readily give the students the needed attention. This suggests that structures have been put in place for staff members to solve students' problems. The findings further suggest that staff members have been cautioned or admonished to give attention to students whenever they visited the offices for services. So, it is not surprising that students gave a low rating to the issue that staff members understand postgraduate specific needs with a specific attention. This probably may have been due to the high number of postgraduate students and the limited number of staff members at the School of Graduate Studies. The findings also suggest the School of Graduate Studies gives the needed support services to the students, as a result, leading to most students rushing there for redress instead of their affiliated Colleges. This is imperative that the first point of call for every student is his or her Department. It is only when the Department cannot handle the issue that it would be referred to the School of Graduate Studies. Against this backdrop, the high number of students that visit the School of Graduate Studies, it may be highly difficult for the staff members to know and address the concerns of every postgraduate student on time. This is further occasioned by the need to pay listening attention, adapt and be flexible in delivering what individual customers need (Zeithaml & Bitner, 2003). These findings agree with previous studies (for example, Hensley & Sulek, 2007; Asinyo, 2015; Anwowie et al, 2015). The findings suggest that customers become dissatisfied with a service if they should wait for a long time to be served. Many service organisations worry about customer queues as they may elicit negative perceptions on the quality of customer service. Insight from the previous studies further reports that respondents disagreed with the statement that the institution provides more individual attention. Thus, although the students acknowledge and see the need for individual attention, it was not readily available. Similarly, majority of students perceive that the staff from their institutions

give personal attention to students. Thus, the literature suggests that due to the size of the students' population, it will be difficult to provide individual attention. This could further be hampered by the limited time and resources available to offer individual attention to students (Anwowie et al, 2015; Zeithaml & Bitner, 2003). The position of Anwowie et al. (2015), and Zeithaml and Bitner (2003) is congruent to that of this study, that it may be difficult for the School of Graduate Studies to provide individual attention to students due to the huge number of postgraduate students.

In relation to the tangibility dimension, the study revealed that most respondents agreed highly that staff of the University dress professionally and are neat in appearance (mean = 2.96, std = 1.18). Furthermore, the respondents agreed highly that the University has modern-looking facilities such as computers, fast ICT facilities, computer labs and magnificent buildings etc. (mean = 2.59, std = 1.26). But the respondents expressed low levels of agreement relative to the issue that the interior and exterior of the School of Graduate Studies offices are visually appealing and spacious (comfortability conditions, waiting queue chairs, notice board). (mean = 1.87, std = 1.02). The findings must have been the critical observation from students regarding the rooms that currently house the School Graduate Studies. A cursory look at the place indicates a lack of work space even for the staff members. This often makes students who are visiting the office to wait outside until it is their turn for services to be provided for them. As such, there are no adequate waiting area, not enough office space to keep materials as well as provide services in a comfortable manner for students at the School of Graduate Studies. This might have accounted for the low rating of tangibility dimension of the service quality by the students.

The above findings confirm Walter, Edvardsoon and Ostrom's (2010) claim, that the physical environment is crucial to students, because service delivery occurs in the physical environment where the design, production and

delivery of the services are of value to customers. The interior and exterior of the physical environment can create positive or negative experiences to customer. Physical environment quality includes the physical and social setting in which the institution operates, such as buildings, cleanliness and availability of customer's personal space. The study, however, disagreed with the findings of Anwowie et al (2015) in a study conducted on assessment of students' satisfaction of service quality in Takoradi Polytechnic. It was reported that majority of the students (94 percent) agreed that polytechnics must have state-of-the-art equipment, to aid staff members to provide efficient service to students. There was also high positive response from the study regarding the expectations of the appearance of physical facilities in a polytechnic. The study revealed that majority of the respondents agreed that there were user friendly physical facilities.

Conclusion

The study has shown that customer service quality at the School of Graduate Studies, University of Cape Coast, occurs at different dimension levels. The findings suggested that, in terms of ranking of the dimensions, the School of Graduate Studies was doing quite well in the area of responsive and assurance. Similarly, there is high level of progress also in the area of reliability and empathy dimensions of quality. The findings suggest in totality that the School of Graduate Studies may be offering quality services to postgraduate students. However, a careful look at the five dimensions suggests that the School may be lacking in some, especially on tangibility dimension. The findings further suggest that measuring empathy, for example, is one of the difficult dimensions, since it is not something that can be touched. As such, depending on circumstances and time, different students may experience different phases in service quality from the staff members. For example, during peak periods (such as graduations), the staff members may not have individual attention for students, as compared to a situation where there were no

official University activites to be attended by the staff members of the School. The findings, thus, document that responsiveness to customer service quality at the School of Graduate Studies of the University of Cape Coast is the most dominant dimension. The least customer service quality dimension is tangibility. It could further be concluded that good customer care is a shared concern, which requires the combined efforts of all the relevant stakeholders. The students, staff and other stakeholders would have specific roles to play to promote good customer care.

Based on the findings of the study, there is the need for the Directorate of Academic Planning and Quality Assurance to collaborate with the School of Graduate Studies, Colleges and the Directorate of Human Resource, to conduct regular customer service surveys, analyse data and give feedback to staff members to improve on service delivery quality and to develop a customer service culture with the best service skills. Management of the University of Cape Coast should spell out the roles of School of Graduate Studies in the area of graduate education. This would resolve ambiguities as to which office is responsible to solve graduate students' problems i.e. whether the Department or the School of Graduate Studies.

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Corporate Social Responsibility and Access to Finance: A Study of Firms on the Ghana Stock Exchange

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Abstract

This study investigates the relationship between corporate social responsibility (CSR) and access to finance, using data from companies listed on the Ghana Stock Exchange (GSE). The study adopted multiple regression in investigating the relationship between corporate social responsibility (CSR) in terms of profitability (measured by return on equity – ROE) and philanthropy (measured by corporate social responsibility disclosures – CSRED), and access to finance (measured by growth in equity, retained earnings, debt and working capital). Economic responsibility and access to finance measured by growth in retain earnings are negatively and insignificantly associated. Discretionary responsibility has positive and significantly relationship with growth in equity capital. Again, economic responsibility is negatively and insignificantly related to growth in debt stock, while discretionary responsibility is positively and significantly associated with growth in debt stock. Finally, economic responsibility is negatively related to growth in working capital, while discretionary responsibility is positively related to growth in working capital, but both cases are significant. The study encourages firms to embark on higher level social responsibility, since that can alleviate access to finance challenges faced by firms.

Keywords: *Access to finance, corporate social responsibility, discretionary responsibility, economic responsibility, Ghana Stock Exchange*

Introduction

The sustainable growth of firms is usually tied with how much they have as retained earnings or internally generated funds and also debt sources (Carpenter, & Petersen, 2002; Rahaman, 2011; Allen, Chakrabarti, De, Qian, and Qian, 2012; Chen, & Guariglia, 2013; Beck, Demirguc-Kunt, Laeven, & Levine, 2005). The case is different with large firms, especially those that have their stocks traded on the stock exchange in the sense that they have access to both internal and external finance. There has been evidence from some countries that firms with access to external finance grow more quickly (Rajan, & Zingales, 1998; Moore, Craigwell, & Maxwell, 2005; Ayyagari, Demirguc-Kunt, & Maksimovic, 2010; Girma, & Vencappa, 2015). Even though companies need cashflows to implement their positive net present value projects to ensure sustainable growth, there have been calls on businesses to help improve the social welfare of the communities within which they operate. According to Friedman (1970), the only social responsibility of a business is to increase profitability for its owners. In effect, Philanthropic gestures by businesses beyond the statutory requirement is a negation on sustainable growth prospect of firms, which can be injurious to shareholder wealth maximisation (Jensen & Murphy, 1990; Bhandari & Javakhadze, 2017). Because of this, businesses expect that their engagement in social responsibilities activities would enable them to enjoy some economic benefits. In this paper, we analyze how the level of social obligation and responsiveness of firms listed on the Ghana Stock Exchange can assist them to access finance. Social obligation is defined as a company's resolve to concentrate on enhancing the value of shareholders without bothering on giving to society beyond statutory requirements. Social responsiveness of firms connotes the resolve of management to incorporate the needs of the community in their mission statement to the extent that companies go beyond reacting to the needs of the community by allocating resources to solve societal problems.

According to CSR Foundation Ghana (2011), CSR is defined as a planned, systematic and ethical corporate behaviour that meet statutory and regulatory requirements beyond an organisation's mission statement and satisfies the needs of all

stakeholders and social imperatives in a transparent and sustainable manner for development. In this sense, the stakeholder view of CSR admonishes companies to behave as citizens and contribute to the improvement in the environment within which they operate (Freeman, 2007, 2010). However, by engaging in CSR, companies can gain some reputational and economic benefits. This study aims at ascertaining the relationship between corporate social responsibility and access to finance of companies listed on the Ghana Stock Exchange. It seeks to find the relationship between economic responsibility and discretionary responsibility among CSR components (economic responsibility, legal responsibility, ethical responsibility and discretionary responsibility) as proposed in Carroll (2016), and access to finance of listed firms in Ghana. Both ethical responsibility's and legal responsibility's relationships with access to finance are excluded because ethics is subjective, and it varies rapidly depending on cultural and geographical setting. It is also difficult to ascertain data on legal responsibility since such responsibilities are mandatory.

Some empirical literature on CSR have affirmed that CSR, in a way, has positive impact on firms. Cited in Moura-Leite and Padgette (2011), a report by Vogel (2005) on a 2002 survey by PricewaterhouseCoopers (PwC) revealed that 70% of global chief executives believed that CSR is vital to their companies' profitability. Similarly, according to UN Global Compact – Accenture CEO Study (2010), 93 percent of the 766 participant CEOs from all over the world declared CSR as crucial factor for their organisations' future success. In Margolis, Elfenbein, and Walsh (2009), a mata-analysis of the relationship between corporate social and financial performance, it was found that corporate social performance (CSP) has a small, positive and significant effect on corporate financial performance. Wang and Qian (2011) also by analyzed data on philanthropic activities of publicly listed Chinese firms from 2001 to 2006 and found a positive relationship between corporate philanthropy and financial performance measured by return on assets (ROA). Their research demonstrated that corporate philanthropy enables firms to produce better stakeholder responses and to gain political resources. Finally, Cheng,

Ioannou, and Serafeim (2014) found that firms with better CSR performance face lower capital constraints. Also, CSR performance with stakeholder engagement reduces potential agency and transaction costs and enhances revenue or profit generating potential of the firm. In Ghana, Ansong (2017) conducted a cross-sectional analysis on the effect of CSR on financial constraints of small and medium enterprises (SMEs) in the Accra Metropolis. His findings suggest that CSR engagement by SMEs influences their capacity to access external finance. However, unlike Ansong (2017), this study employs a panel analytical framework on objective data gathered from audited annual reports produced by listed firms in Ghana.

Figure 1 shows the trend of performance all stocks listed on the GSE. The figure depicts a general positive trend in the performance of the GSE composite index. However, intermittent fluctuation in performance has been recorded over the period. For the period under consideration, 2012-2016, we see a downward trend in performance from 2014. The exchange recovered from 2017 to just about the end of the first quarter of 2018 and then took a downward trend till 27 March, 2020. From the website of the GSE on 29th March, 2020, it was recorded that the "performance of GSE market indices**,** the benchmark *GSE Composite Index* (GSE-CI), pared 0.38 (-0.02%) points to close at 2,160.52, representing a 1-week loss of 0.85%, a 4-week loss of 0.76%, and an overall year-to-date loss of 4.28%. The *GSE Financial Stocks Index* (GSE-FSI) also decreased by 0.04% to 1,925.60 points, making it a 1-week loss of 1.36%, a 4-week loss of 1.98%, and a year-to-date loss of 4.66%". The figures show that the performance has been falling in recent times. As we discussed in the first paragraph, studies show that firms will not grow if they do not have enough access to finance to implement their investment projects. This study examines whether CSR engagements by firms listed on the Ghana Stock Exchange will enable them to reduce internal and external constraints.

Figure 1: Movement of GSE Composite Index from 2011 to 2020

Source: Ghana Stock Exchange (2020)

The study is organised as follows. Section two reviews related literature on the issues. Section three discusses the methodology of the study. Section four presents the results and discussion on the findings. The fifth section concludes on the findings of the study.

Literature Review

Instrumental theories of CSR engagements include shareholder's wealth maximisation theory, and strategic goals for achieving competitive advantages. They emphasise that firms should undertake social activities that go a long way to increase profitability which can contribute to shareholder wealth maximisation. In addition, investments in competitive context such as philanthropy create competitive advantages for a firm, therefore, philanthropy must be in line with the organisation's mission (Freeman, 2007, 2010). Profit maximisation and competitive advantage in themselves can create opportunities for firms to attract external finance. In summary, instrumental theories view CSR as a strategic tool, which firms can undertake to achieve their economic objective and ultimately create wealth as well as boost opportunities of firms' access to finance (Garriga & Mele, 2004).

It is an undeniable fact that the goal of every firm is to make profit for its shareholders, which will culminate in improving the wealth of shareholders. The classical argument is that CSR activities are conflicting to the tenet of agency relationship

between shareholders and board of directors and that the sole responsibility of businesses is to increase the wealth of shareholders (Friedman, 1970). Proponents argue that if firms pay taxes and obey the laws and business regulations of the land, then their residual interest only lies in making their shareholders happy, because shareholders supply the resources used in the production process. Firms spend a lot on CSR and that is a negation on efficiency and wealth creation for owners. This argument by Friedman forms the foundation for the economic view of CSR, that the only responsibility of the firm is to make profit and pay taxes to the government. This economic argument of CSR is supported by Jensen and Murphy (1990), who argue that if managers are not checked, they can over-invest in CSR engagements at the expense of engaging in investments positive net present value projects. In other words, funds committed to CSR activities can reduce the amount of money available for investment opportunities, which can, in turn, reduce the growth prospects of firms, thereby increasing the sensitivity of capital investments (Bhandari & Javakhadze, 2017). Pursuance to firm survival and performance, capital-constrained firms can decide to forgo investments with positive net present values (NPVs) that they would have undertaken if they had capital. Cheng, Ioannou, and Serafeim (2011) emphasised that capital constraints relate to market frictions that prevent firms from funding all desired investments. They include inability to borrow, inability to issue equity, and illiquidity of assets (Lamont, Polk & Saa-Requejo, 2001). Cheng et al. (2011) also showed that firms with better CSR performance face capital supply curve that is less steep, which suggests that they have open market to loanable funds at any small increase in interest rates. The authors arrived at the conclusion that market participants are more willing to allocate scarce capital resources to firms with better CSR performance. However, financing constraints vary among firms on the basis of size (Cinecera, 2003; Czarnitzki, & Hottenrott, 2011), age (Beck, Demirgüç-Kunt, Laeven, & Maksimovic, 2006; Canepa, & Stoneman, 2002; Macusi, & Vezzulli, 2014; Cincera, Ravet, & Veugelers, 2016), level of risk (Canepa, & Stoneman, 2002), type of owners—whether foreign or locals (Drakos, & Giannakopoulos, 2011;

Gorodnichenko, & Scnitzer, 2013), among others.

On the other hand, the overwhelming evidence suggests that social actions by entities benefit societies and societies reciprocate by rewarding entities in various ways that culminate in maximising shareholders' wealth. Firms that engage in social responsibility are perceived as good citizens. For that matter, prime stakeholders, such as customers, reward such firms by patronising their product. CSR disclosure information entails positive news about a firm, which increases the reputation of such firms. In addition, engagement in CSR can generate core resource capabilities for firms by improving firm value due to stakeholders' acceptability. However, the stakeholder view of CSR posits that firms have greater responsibility to ensure that all its stakeholders are happy. Firms generate a lot of resources, such as competent employees, raw materials, and revenue, from the communities within which they operate, so it is right for the firm to support society's development. Because of the resources they mobilise, businesses are better positioned to support the course of societies. In the empirical literature, however, it appears that firms that engage and disclose their CSR activities enjoy one economic benefit or the other. CSR activities offer strategic options for firms to differentiate their product, increase patronage and earn greater profits (Albuquerque & Zhang, 2019).

In line with firms' economic responsibility of CSR, profitability can serve as both internal finance and a means to attract external financing from shareholders, especially when expressed in terms of return on equity. Profitability, a measure of firms' financial performance, is one aspect financial institutions consider before they accept to grant businesses with external funds. According to Pandula (2011), financial performance indicates the ability of businesses to repay their loans to the extent that, if businesses are profitable, they have high chances to amortise loans within the terms and conditions. In their bid to mitigate credit risk, financial institutions focus on the profit ability of businesses that request for external funds. Besides, individuals and institutional investors also consider the profitability of the business in order to predict the tendency of default of the bond agreement and make informed investment decisions. All these suggest that there exists a relationship between

profitability and access to finance. However, in contrast to profitability as a measure contributing to access to finance, Zarook, Rahman, and Khanam (2013) suggest that there is no significant influence of financial performance (measured by profit and return on asset) on access to finance in Libyan's SMEs.

In terms of access to finance, the extant studies that employ cross-sectional analytical framework suggest that CSR is responsible for the reduction in external financial constraints, because CSR increases corporate transparency and information asymmetry (Cheng, Ioannou, & Serefeim, 2014). Wang and Qian (2011) found that corporate philanthropy elicits stakeholder response and puts a company at better position to attract political resources from government. This is true with companies that make their philanthropy visible essentially to primary stakeholders through disclosure of CSR information. In China, large firms that can afford advertising benefit more from charitable giving than firms that do not disclose CSR information. The import of this is that positive behaviours are stimulated in stakeholders when firms identify needs of society and take pragmatic steps to salvage these social imbalances. These positive behaviours from stakeholders may include investments from socially conscious investors, increase in demand and tax cuts, which are all sources of finance for the company. However, corporate philanthropy must have direct impact on primary stakeholders in other to generate shareholder value. It stands to reason that, consistent with the instrumental theories, corporate philanthropy must be guided by the organisation's mission, in order to attain competitive advantage.

Similarly, Lee, Kim and Kwon (2017) examined whether CSR performance on host firms can increase foreign investment, with a sample of Korean public firms, and found a positive relationship between high CSR performance and foreign investment. Thus, a company's philanthropic activities, after establishing reputation for a company, all other things being equal, attracts financial resources from investors from different geographical settings. In addition, disclosure of CSR information increases firms' chances of getting access to external finance (Ansong, 2017; Lins, Servaes, & Tamayo, 2017; Garcia-Sanchez, Hussain, Martinez-Ferrero, & Ruiz-Barbadillo, 2019). This happens because CSR

engagement increases firm value, which can serve as a collateral in accessing funds from the bond's market. Social capital does not only reduce the risk-taking behaviour of financiers, but can also ensure the stability of banks, which operates in high social capital regimes (Jin, Kanagaretnam, Lobo, & Mathieu, 2017). In the same token, Lee, Kim and Kwon (2017) examined whether CSR performance on host firms can increase foreign investment for Korean public firms. They found a positive relationship between high CSR performance and foreign investment. Thus, a corporate's philanthropic activities after establishing reputation for a company, all other things being equal, attracts financial resources from investors. Firms that are proactive in CSR engagements can send signals to the credit market that they expect enough liquidity that can assist them not only to fund CSR activities, but also to honour their debt obligations when they fall due. This increases their credibility and reduces external finance constraints.

Firms' participation in CSR is most often measured by their performance in philanthropic activities. It includes cash and in-kind donations. Wang and Qian (2011), by analyzing data on philanthropic activities of publicly listed Chinese firms, from 2001 to 2006, found a positive relationship between corporate philanthropy and financial performance (measured by return on asset).The result is consistent with Sen and Bhattacharya's (2001), that CSR through philanthropy can function as advertising that can increase demand for products and services, and/or reduce consumer price sensitivity. Moreover, CSR can attract socially responsible consumers (Hillman, & Keim, 2001), or attract financial resources from socially responsible investors (Kapstein, 2001).

Furthermore, Cheng et al. (2011) cited that CSR can have a positive impact by allowing for better marketing of products and services (Fombrun, 1996), providing better access to valuable resources (Waddock, & Graves, 1997), attracting and retaining higher quality employees (Turban, & Greening, 1997; Greening, & Turban, 2000). CSR also creates unanticipated prospects (Fombrun, Gardberg, & Barnett, 2000), serves as advertising (which increases demand for products and services) and reduces consumer's sensitivity to prices (Sen, & Bhattacharya, 2001). It can be deduced that all

the above translates into profit, which can, in turn, contribute to a firm's accessibility to internal finance.

The foregoing discussion shows the importance of CSR to firms. Firms' CSR activities can also be inhibited by inadequate access to finance to undertake socially responsive behavior. In most cases, conflicts ensue when managers find themselves between committing money to achieving CSR objectives and generating enough free cash flows to distribute to shareholders. This study examined whether firms that engage in CSR activities are more likely to access funds from investors. This study is closely related to that of Ansong (2017) particularly because of the evidence that both studies have Ghana as study setting. Ansong (2017) collected primary data from 423 small and medium enterprise operators in the Accra Metropolis to ascertain the impact of SMEs' CSR activities on access to finance with stakeholder engagement mediating the relationship. The study reported positive relationship between CSR activities and SMEs access to finance. However, the use of primary data to solicit self-reported responses on objective concepts, such as access to finance, is problematic, since operators may not provide the true picture of affairs. The current study analysed audited financial data from listed firms, which are considered larger and highly regulated to provide true financial information periodically. Unlike Ansong's (2017), which employed snap-shot analysis on the issues, this study employed a panel data analysis technique, which allows the exploitation of time series and cross-sectional dynamics in the observation. The period of the current study spanned from 2012 to 2016, using annual observation from 11 listed firms. The expectation from the analysis was that firms that engaged in CSR activities would enjoy reputations that would enable them to access funds on the credit market in both the short- and long-term.

Methodology

The study was on listed firms on the Ghana Stock Exchange. As of Monday, April 23rd, 2018 there were 41 listed ordinary share equities on the Ghana Stock Exchange. The number includes both companies on the main market and Ghana Alternative Market (GAX). The study focuses on those firms that have been on the main market for a five-year period between 2012

and 2016, therefore, by taking out Access Bank Ghana and Agriculture Development Bank (that were listed in 2016); and HORDS LTD, Meridian-Marshalls Holdings, and Samba Foods Ltd, DIGICUT and Intravenous Infusions Limited (that are all on the Ghana Alternative Market), AngloGold Ashanti Depository Limited (AADs) and NewGold Issuer Limited (which is an Exchange Traded Fund – ETF); 32 equity share companies became our population size. However, amongst the 32 equity companies that were on the GSE's main market from 2012 to 2016, only eleven companies have reports on their CSR activities. Therefore, to aid comparison, these eleven companies were chosen for the study (see Table 1). A five years' data on these 11 companies generated fifty-five observations for the correlation and regression analysis.

Table 1 - List of companies included in the population size are as follows

No.	Symbol	Company
1	CAL	Cal Bank Limited
2	ETI	Ecobank Transnational Incorporated
3	FML	Fan Milk Limited
4	GCB	Ghana Commercial Bank Limited
5	GOIL	Ghana Oil Company Limited
6	PZC	PZ Cussons Ghana Ltd.
7	SCB	Standard Chartered Bank Ghana Ltd.
8	SIC	SIC Insurance Company Limited
9	SOGEGH	Societe Generale Ghana Limited
10	TBL	Trust Bank Limited (THE GAMBIA)
11	TLW	Tullow Oil Plc

Source: Annual Report and Financial Statements (2012-2016)

Data Source and Collection Instrument

Data was collected from secondary sources, mainly audited annual report and financial statements, and relevant information on the World Wide Web. Data on CSR expenditure disclosures were obtained from the websites of the listed firms. These sources were used, because they provide objective data points devoid of subjective biases. Data used in the computation of return on equity as a measure of profitability, and in the

computation for growth in equity, growth in retained earnings, growth in working capital and growth in debt stock (as measures for access to finance) were all ascertained from companies' annual report and financial statements. In addition, data on the number of corporate giving, a measure of philanthropy, were taken from companies' annual report for the period under review and the World Wide Web.

The financial statements of some companies were denominated in US Dollars. Hence, where applicable, the US Dollars denominations were converted into Ghana Cedi, using end of year direct daily exchange rates averages of 1US Dollar to GHC 1.5469, GHC 1.8522, GHC 2.0681, GHC 3.0494, GHC 3.7838, and GHC 3.9424 for the years 2011, 2012, 2013, 2014, 2015 and 2016 respectively. The financial statements of the Trust Bank Ltd. (THE GAMBIA) were denominated in Gambian Delasi (GMD). In this case, the cross-exchange rates were used. Thus, the value of Gambian Delasi in Ghana Cedi was computed as follows: $\mathrm{GHC/GMD} = \frac{GMD/USD}{GHC/USD}$. Therefore, the rates used were GHC 0.0546; GHC 0.0595; GHC 0.0606; GHC 0.0762 and GHC 0.0923 and GHC 0.0942 for the years 2011, 2012, 2013, 2014, 2015 and 2016.

Model Specification

The study adopted a mathematical model to establish relationships between dependent variable and independent variables. The variables of the study include: access to finance, economic responsibility, and discretionary responsibility besides other control variables. This study followed the previous work of Cochran and Wood (1984), whose general regression equation is stated below:

$$CFP_i = a + b_j CSR_{ij} + b_k IND_{ik} + \varepsilon_i \tag{1}$$

Where;

$CFP_i = Average\ Financial\ Performance\ for\ each\ firm$

$CSR_{ij} = Corporate\ Social\ Responsibility$

$IND_{ik} = Industry$

$a = Constant$

$\varepsilon_i = Error\ term$

Equation (1) is modified and stated clearly as:

$$AtF_{it} = \beta_0 + \beta_1 ROE_{it} + \beta_2 CSRED_{it} + \beta_3 X_{it} + \mu_{it} \quad (2)$$

Where, AtF is access to finance measured by growth in equity (GiE), growth in retained earnings (GRE), growth in working capital (GWC) and growth in debt stock (GiD). Growth is measured in their absolute values and not in percentages, hence, Growth in equity (GiE) is computed as the current year's equity minus previous year's equity and so on. ROE is return on equity, defined as net profit after interest and tax divided by ordinary shares' equity. CSRED is Corporate Social Responsibility Expenditure Disclosed. This is chosen as a proxy for measuring expenditure on philanthropy.

X= Set of control variables. Total revenue and total assets (non-current assets plus current assets) are the proxies for measuring firm efficiency and firm size respectively.

β_0= Constant

$\beta_{1\text{-}3}$= Regression coefficient to be determined

μ= Disturbance term=v+π where v and π are the unobserved cross-section effect and time effects respectively.

$_{it}$= Time and cross-section dimension of variables

Following previous studies (Wang, & Qian, 2011; Ameyibor, 2015), the study employed natural logarithms on all the variables. Taking natural logarithms helped the study to eliminate heteroscedasticity in the disturbances (Adams, & Hardwick, 1998), and minimize the effects of extreme values in the dataset and enable outliers to be linearly distributed for a better fit model. Therefore, equation (3) satisfies the objectives of (1) ascertaining the relationship between economic responsibility and access to finance and (2) ascertaining the relationship between corporate philanthropy and access to finance.

Definition of Variables

Access to Finance

Access to finance (measured by growth in equity, growth in retained earnings, growth in debt stock, and growth in working capital) is the dependent variable, because its variability was

explained by another variable (economic responsibility, or discretionary responsibility). Growth in equity was computed as the growth in ordinary equities' value over the five years period from 2012 to 2016. Thus, growth in 2012, 2013, 2014, 2015, 2016; with growth in 2012 being difference in equity values between 2012 and 2011, and so on. Equity was measured in terms of its book value, because of the inconsistencies in the equity value if it were measured in market value, since market prices of shares vary daily. Growth in retained earnings was computed as difference in retained earnings over the five years period from 2012 to 2016, where growth in 2012 referred to difference in retain earnings between 2012 and 2011, and so on. Growth in debt stock was computed as difference in long-term debt over the five years' period from 2012 to 2016, with growth in 2012 being difference in long-term debt between 2012 and 2011, and so on. Any short-term debt was excluded, because it was captured in the computation of growth in working capital. Finally, growth in working capital (i.e. current assets – current liabilities) was computed as changes in working capital over the five years' period from 2012 to 2016. Again, growth in 2012 was computed as difference in working capital between 2012 and 2011, and so on. Our measurements represent the primary sources of finance for most businesses in Ghana. The values representing growth for each component of access to finance measurement are what we presented as dependent variables in the regression estimates. The increments in the various sources of finance mostly available to corporate entities reflect new sources of finance which may be due to CSR engagements.

Economic Responsibility

According to Carroll (2016), business organisations are economic units for the purpose of providing goods and services to consumers for an acceptable level of profit, making profitability a primary incentive for businessmen. It is the basis for which the other components of CSR are anchored, therefore, it is the foremost condition for which society expects that the business be created and sustained. Profitability can be measured by

profit margin, return on assets, earnings per share, and return on equity. Earnings per share and return on equity are appropriate measures so long as shareholder wealth maximisation is concerned. However, for the purpose of this study, economic responsibility describing financial performance was measured by return on equity (ROE), because it is a perfect measure for required rate of return of shareholders' investments. ROE was computed as net profit after interest and tax divided by ordinary shareholders' equity. The use of profitability as a measure of economic social responsibility is anchored in the Friedman's (1970) argument that the only social responsibility of companies is to make profit for their shareholders provided the companies have fulfilled their statutory obligation, such as adherence to regulations and payment of taxes. However, economic responsibility is the lowest level of social responsibility, therefore, the paper also measured CSR by discretionary responsibility.

Discretionary Responsibilities

These include corporate actions that are in response to society's expectations that businesses would be good citizens. It involves acts or programmes to promote human welfare or goodwill, such as contributing money, facilities and employee time to humanitarian programmes or purposes in the community (Carroll, 1991). They include all forms of business giving (Carroll, 2016). Discretionary responsibility is measured by the monetary value of corporate to society, which is a quantitative measure. According to Ameyibor (2015), with reference to Wood and Jones (1995), qualitative measures of CSR performance indices, such as Moskowitz ratings and fortune ratings, have often been criticized, because they are subjective. Again, according to Ameyibor (2015), using Kinder, Lydenburg, Domini (KLD) scale has been argued to be a numerically crude approach to quantify what is nearly to be unquantifiable. Measuring corporate giving in monetary terms scraps away biases of using just subjective views of organisations' corporate giving, which does not give a fair representation of firms' philanthropy. Therefore, consistent with Ameyibor (2015), the study employed a quantitative measurement, namely various expenditures incurred on CSR activities. However, unlike corporate social responsibility expenditures disclosed (CSRED) on profit before tax, as it was used

in Ameyibor (2015) and some prior studies, this study picked only the absolute values of CSRED, as used in Wang and Qian (2011).

Control Variables

Also included in the independent variable in each of the objective is “firm size,” referred as control variable. The size of a firm can influence the ability of a firm to undertake CSR activities (Cheng, Ioannou, & Serafeim, 2011; Waddock, & Graves, 1997), since large firms have more resources than small firms and can enjoy economies of scale (Wang, & Qian, 2011), or get external funding than small firms. This would interfere with our result, if not controlled, hence, the need for its inclusion in the independent variable. Consistent with Waddock and Graves (1997), firm size was measured in terms of total assets.

We also used total revenue (LTS) as a control variable. Total revenue provides a short-term buffer to support operations of the business. Firms that are expecting a surge in revenue will procure more of contingent assets and liabilities. Operational assets (account receivable and inventories) and operational liabilities (account payables and accrued expenses) increase with revenue and, therefore, determines the level of operational leverage and the level of cash forecast of firms. Again, the values over the five-year period for total assets and total revenue were obtained from the audited financial statements of the listed firms.

Data Processing and Analysis

The study adopted Fixed/Random effects estimated, using panel least squares (LS) and Pooled Ordinary Least Squares (OLS) for the estimations. This estimation requires some initial validation in order to ascertain consistent results. Hence, we tested for correlation, multi-collinearity, autocorrection and homoscedasticity. Statistical software used for data processing include Microsoft Excel 2019, EViews 10 and Statistical Package for the Social Sciences (SPSS) 21.

Results and Discussion

Eleven companies had data on their CSR activity expenditure either published in the annual reports or disclosed on the World Wide Web from 2012 to

2016. There were 55 observations in all with average observations of 25 after adjustments to produce result.

Diagnostic Test Results

Correlation Matrix Test Result

Table 2 presents the correlation between the variables included in this study. This was meant to show that the independent variables ($LROE_{it}$ and $LCSR_{it}$) and the control variables (LTA_{it} and LTS_{it}) have a relationship with the dependent variables ($LGiE_{it}$, $LGRE_{it}$, $LGiD_{it}$ and $LGWC_{it}$). The table shows that both the independent and control variables have some correlation with the dependent variables.

Table 2 Correlation Matrix Test Resul

		LGIE	LGRE	LGID	LGWC	LROE	LCSRED	LTA	LTS
LGIE	Pearson Correlation	1							
	Sig.								
LGRE	Pearson Correlation	.567	1						
		(.054)							
LGID	Pearson Correlation	.421	.787**	1					
		(.198)	(.000)						
LGWC	Pearson Correlation	.839**	.676**	.872**	1				
		(.000)	(.000)	(.000)					

LROE	Pearson Correlation	.442	.719**	.558**	.629**	1			
		(.051)	(.000)	(.004)	(.000)				
LCSRED	Pearson Correlation	-.511*	.094	.091	-.122	-.241	1		
		(.030)	(.596)	(.653)	(.504)	(.156)			
LTA	Pearson Correlation	.805**	.463**	.802**	.561**	.223	.572**	1	
		(.000)	(.006)	(.000)	(.000)	(.155)	(.000)		
LTS_{it}	Pearson Correlation	.792**	.233	.615**	.405*	.057	.600**	.843**	1
		(.000)	(.185)	(.000)	(.016)	(.718)	(.000)	(.000)	

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Access to finance is measured by growth in equity (LGIE), growth in retained earnings (LGRE), growth in working capital (LGWC) and growth in debt stock (LGID). Growth is measured in their absolute values and not in percentages, hence, Growth in equity (LGIE) is computed as the current year's equity minus previous year's equity and so on. LROE is return on equity, defined as net profit after interest and tax divided by ordinary shares' equity. LCSRED is Corporate Social Responsibility Expenditure Disclosed.

Source: Annual Report and Financial Statements (2012-2016)

Multicollinearity Test

Table 3 presents the multicollinearity test result of the independent variables in each case with their dependent variables. It is seen from Table 3 that the Tolerance values of each of the independent variables are above 0.10. This is supported by the Variance Inflation Factors (VIF) of each independent variable in each case with their dependent variables, which are all less than 10. This implies that there is no multicollinearity among the independent variables. Table 3 also presents the multicollinearity test results showing for both Tolerance values and VIF of the various independent variables (LROE, LCSRED, LTA, and LTS) in each case when regressed on the dependent variables (LGIE, LGRE, LGID and LGWC).

Table 3- Summary of Multicollinearity Test

	Dependent Variable	Independent Variable		
	LGIE	LROE	LTA	LTS
Tolerance		0.411	0.237	0.241
VIF		2.431	4.214	4.153
		LCSRED	LTA	LTS
Tolerance		0.910	0.337	.338
VIF		1.098	2.969	2.961
	LGRE	LROE	LTA	LTS
Tolerance		0.856	.306	.335
VIF		1.169	3.268	2.985
		LCSRED	LTA	LTS
Tolerance		0.638	0.414	0.425
VIF		1.568	2.417	2.356
	LGID	LROE	LTA	LTS
Tolerance		0.578	0.108	0.113
VIF		1.729	9.289	8.817
		LCSRED	LTA	LTS
Tolerance		0.731	0.325	0.293
VIF		1.368	3.078	3.411
	LGWC	LROE	LTA	LTS

Tolerance		0.909	0.191	0.195
VIF		1.101	5.227	5.131
	LGWC	LCSRED	LTA	LTS
Tolerance		0.597	0.245	0.220
VIF		1.675	4.085	4.556

Access to finance is measured by growth in equity (LGIE), growth in retained earnings (LGRE), growth in working capital (LGWC) and growth in debt stock (LGID). Growth is measured in their absolute values and not in percentages, hence, Growth in equity (LGIE) is computed as the current year's equity minus previous year's equity and so on. LROE is return on equity, defined as net profit after interest and tax divided by ordinary shares' equity. LCSRED is Corporate Social Responsibility Expenditure Disclosed.

Source: Annual Report and Financial Statements (2012-2016)

White Test Heteroscedasticity

White test heteroscedasticity was conducted to check for homoscedasticity in the cross-section errors. The results in Table 4 imply that there is variance in the error terms for the second and fourth estimations, because their p-values are approximately equal to zero. The rest of the models were not affected by heteroscedasticity.

Table 4 Summary of Heteroscedasticity Test (White Test)

Dependent Variables	Independent Variable			F-Statistics	P-values
LGIE	LROE	LTA	LTS	1.685990	0.236741*
LGIE	LCSRED	LTA	LTS	3.758840	0.025437
LGRE	LROE	LTA	LTS	0.549498	0.823706*
LGRE	LCSRED	LTA	LTS	4.698164	0.004235
LGID	LROE	LTA	LTS	1.510595	0.221694*
LGID	LCSRED	LTA	LTS	1.596338	0.203344*
LGWC	LROE	LTA	LTS	1.133819	0.381556*
LGWC	LCSRED	LTA	LTS	1.638458	0.174426*

*. Correlation is significant at the 0.05 level (2-tailed).

Access to finance is measured by growth in equity (LGIE), growth in retained earnings (LGRE), growth in working capital (LGWC) and

growth in debt stock (LGID). Growth is measured in their absolute values and not in percentages, hence, Growth in equity (LGIE) is computed as the current year's equity minus previous year's equity and so on. LROE is return on equity, defined as net profit after interest and tax divided by ordinary shares' equity. LCSRED is Corporate Social Responsibility Expenditure Disclosed.

Source: Annual Report and Financial Statements (2012-2016)

Note: The p-values with asterisk are the models that have constant variance in their error terms.

Regression Results

The regression results in Table 5 show that $LROE_{it}$ has a negative and significant relationship with $LGiE_{it}$ at 10% significant level (β= -1.503). From this result, it is observed that any 1% increase in the profitability of a company on the Ghana Stock Exchange results in 1.50% decrease in access to finance sourced from equity investment. It reveals that companies' reliance on equity as a source of finance diminishes with a rise in profit. This means that companies may not rely on equity finance to support their economic responsibilities. Rather, the companies pay more dividend to equity-holders when they earn more profit rather than asking equity-holders to supply additional capital. This means that the companies are generally going by earning more profit for their shareholder. This is in line with Friedman's admonishing that companies must concentrate on maximising profits for their shareholder, because that is their social obligation.

Table 5 Regression results

Eq Name:	01	02	03	04	05	06	07	08
Method:	LS	LS	LS	LS	LS	LS	LS	LS
Dep. Var:	LGIE	LGIE	LNGRE	LGRE	LGID	LGID	LGWC	LGWC
LNROE	-1.503*		1.806		-0.667		-1.244*	

	(0.787)		(0.912)		(0.855)		(0.763)	
LNTA	2.784***	2.368***	0.492	0.858	1.232	1.075	1.080	0.869
	(0.926)	(0.878)	(1.006)	(1.034)	(0.932)	(0.928)	(0.814)	(0.815)
LNTS	-0.257	-0.589	-0.886	-0.416	0.219	0.021	-0.400	-0.809
	(0.802)	(0.791)	(0.982)	(0.997)	(0.932)	(0.907)	(0.857)	(0.813)
C	-46.465***	-33.886***	19.32	3.261	-20.035	-14.67	-4.442	6.242
	(14.312)	(11.988)	(14.701)	(12.52)	(13.479)	(10.870)	(11.548)	(9.010)
LNCSRED		0.378**		-0.224		0.229		0.271
		(0.176)		(0.230)		(0.211)		(0.194)
Observations:	55	55	55	55	55	55	55	55
R-squared:	0.272	0.293	0.117	0.061	0.141	0.152	0.282	0.270
F-statistic:	2.509	2.779	0.893	0.438	1.100	1.207	2.642	2.485
Prob(F-stat):	0.028	0.017	0.52	0.873	0.379	0.318	0.022	0.030
Durbin-Watson	1.691	1.678	1.656	1.902	1.921	2.125	2.717	2.642
Hausman Test	0.902	0.948	0.694	0.865	0.328	0.562	0.878	0.797
Residual normality	0.505	0.699	0.117	0.044	0.042	0.05	0.443	0.302

Access to finance is measured by growth in equity (LGIE), growth in retained earnings (LGRE), growth in working capital (LGWC) and growth in debt stock (LGID). Growth is measured in their absolute values and not

in percentages, hence, Growth in equity (LGIE) is computed as the current year's equity minus previous year's equity and so on. LROE is return on equity, defined as net profit after interest and tax divided by ordinary shares' equity. LCSRED is Corporate Social Responsibility Expenditure Disclosed.

***significant at 0.01, **significant at 0.05 and *significant at 0.1.

Source: Annual Report and Financial Statements (2012-2016)

Relationship between economic responsibility ($LROE_{it}$) and access to finance

The results in Table 5 also shows that $LROE_{it}$ has a positive but insignificant relationship with $LGRE_{it}$ at 5% significant level (β = 1.806). This result is statistically not meaningful, but practically it may mean that companies do not make decisions on social obligation based on retained earning's growth. Growth in retained earnings would rather mean funds are being devoted to positive net present value projects, and it takes time for benefits from investments to materialise into distributions to owners.

The results also show that $LROE_{it}$ has a negative and insignificant relationship with $LGiD_{it}$ at 5% significant level (β = -0.667). This result is consistent with that of Pandula (2011), who also found a non-significant relationship between firm performance and access to bank finance. The result also supports the findings of Zarook, Rahman, and Khanam (2013), who found that firm performance (measured by liability to assets ratios, profit and return on assets) has no significance in SME's access to credit. However, it can be deduced that when firms on the GSE make profit, they rely either on their profit or on internally generated funds from retained earnings rather than they would depend on external funds from banks and financial institutions. Thus, the firm may rely on internal equity finance when their performance does not engineer access to external funds.

The results, again, show that $LROE_{it}$ has a negative and significant relationship with $LGWC_{it}$ at 10% significant level (β= -1.244). Thus, companies on GSE resort to internally generated funds when they are performing well rather than accumulating capital through current liabilities (such as trade creditors and short-term bank overdraft) to finance short-term operations.

Relationship between discretionary responsibility ($LCRSED_{it}$) and access to finance

The results further show that $LCSRED_{it}$ has a positive and significant relationship with $LGiE_{it}$ at 5% significant level (β = 0.378). This means companies which are engaged in philanthropy attract more equity investments in Ghana. This finding is in line with that of Lee, Kim and Kwon (2017), which found that Korean firms that do well in CSR attract foreign investments. A company's philanthropic activities, after establishing reputation for a company, all other things being equal, attract financial resources from investors. Firms that are proactive in CSR engagements can send signals to the credit market that they expect enough liquidity that can assist them not only to fund CSR activities, but also to honour their debt obligations when they fall due. This increases their credibility and reduces external finance constraints. We did not find any meaningful evidence that companies' engagement in philanthropic activities enables them to attract bank finance and short-term finance from other creditors.

Results on the control variable show that the size of companies in Ghana, measured by the natural log of total asset, has strong positive effect on access to finance, measured by growth in equity. This means that large firms attract a lot of equity capital in Ghana. This may come about because the size of the firm usually increases with age of the firm, and as firms grow, they gain reputation. The increase in reputation of large firm may be responsible for their attraction of equity investment. Appendix 1 contains the results of the Pooled Least Squares estimations, which are similar to results in Table 5 in most respects.

Diagnostic Tests

We also performed additional diagnostic tests in order to validate the results in Table 5. The third panel in Table 5 shows the results of these tests. First, the probability values of the F-statistics ($p<0.05$) imply that the estimates in equations 01, 02, 07 and 08 provide joint explanatory power to access to finance. We, therefore, relied on these estimates in delineating the impact of CSR on companies' access to finance in Ghana. Similarly, the relatively optimal level of the Durbin Watson statistic (optimal level of the test should be around 2.0) shows that autocorrelation is not a problem. The first lags of the dependent variables may not have

significant impact on the results in Table 5.

Furthermore, the estimates in the equations 01 through to 08 were done through random and fixed effects. This was done to determine that the unobserved cross-sectional and time effect embedded in the innovation term in equation 2 do not correlate with the error term. To do this, we used the Hausman's cross-sectional dependence test. The test is based on the null hypothesis that the unobserved cross-sections correlate with the residuals emerging from the estimations. The large probability values (p-value>0.05) imply that random cross-sectional effect estimates are preferred to fixed effect estimates. Accordingly, the estimates in Table 5 are based on random effect estimates. Finally, the probability values (p-value>0.05) of the Jarque-Bera Normality tests show that the residuals are normally distributed with approximately zero averages and constant variances. The diagnostic tests, generally, show that the results in this study are efficient and consistent. Table 6 shows a summary of the relationship between access to finance and economic and discretionary responsibilities.

Table 6 Summary of Relationship between GiE_{it}, GRE_{it}, GiD_{it}, GWC_{it}, and ROE_{it} and $CSRED_{it}$

Dependent Variable	Independent Variable	Relationship	Significance
LGIE	LROE	Negative	Yes
	LCSRED	Positive	Yes
LGRE	LROE	Positive	No
	LCSRED	Negative	No
LGID	LROE	Negative	No
	LCSRED	Positive	No
LGWC	LROE	Negative	Yes

LCSRED	Positive	No

Source: Annual Report and Financial Statements (2012-2016)

Conclusion

This paper contributes to the discourses on CSR-access to finance nexus by insisting that companies that engage in philanthropic activities attract more equity capital from investors. The findings support both the instrumental and stakeholder theories of corporate social responsibility, that engagement in CSR can engineer some beneficial exchanges for companies and their environment. We also found that, by engaging in CSR activities, companies do not actually neglect their core obligation of earning profit for their shareholders. Here, in the case of companies on the GSE, the more they do philanthropy, the more the growth in ordinary shareholders' equity balance. In the same token, the more companies engage in economic responsibility, the more they give more money to their shareholders or the lesser they require extra capital from their shareholders. This is traceable to the shareholder wealth maximisation theory, which informs companies to pay attention to maximising the wealth of shareholders and affirms that a firm will achieve the optimum gain from CSR if activities are towards achieving the firm's mission. Based on the findings of the study, we recommend that where a company seeks to capitalise on philanthropy to win foreign investments and attain competitive advantage, it should fit into the company's missions. Disclosure of CSR information can also engineer goodwill which, in turn, can enhance the companies' chances of accessing external credits.

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Appendix 1: Regression Results from the Pooled Least Square Estimations

Eq Name:	01	02	03	04	05	06	07	08
Method:	LS	LS	LS	LS	LS	LS	LS	LS
Dep. Var:	LGIE	LGIE	LGRE	LGRE	LGID	LGID	LGWC	LGWC
LNROE	-1.403** (0.608)		1.570** (0.750)		-0.937 (0.751)		-1.358* (0.781)	
LNTA	2.425*** (0.642)	2.210*** (0.637)	0.450 (0.791)	0.628 (0.817)	1.101 (0.793)	0.946 (0.786)	0.699 (0.824)	0.493 (0.822)
LNTS	0.072 (0.676)	-0.428 (0.637)	-0.784 (0.833)	-0.228 (0.817)	0.485 (0.835)	0.15 (0.785)	-0.123 (0.868)	-0.361 (0.822)
C	-45.316*** (9.180)	-33.668*** (7.149)	17.977 (11.317)	3.958 (9.167)	-22.712 (11.333)	-15.089 (8.819)	-6.756 (11.788)	4.574 (9.229)
LNCSRED		0.373** (0.151)		-0.185 (0.194)		0.288 (0.186)		0.349 (0.195)
Observations:	55	55	55	55	55	55	55	55
R-squared:	0.427	0.435	0.094	0.033	0.150	0.163	0.067	0.070
F-statistic:	12.678	13.091	1.764	0.587	2.993	3.307	1.212	1.270

Durbin-Watson	1.138	1.197	1.676	1.642	1.971	1.977	2.513	2.472

***significant at 0.01, **significant at 0.05 and *significant at 0.1.

Source: Annual Report and Financial Statements (2012-2016)

Financial Innovation and its Governance: A Cross-case Analysis

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Abstract

Over the past decades, financial innovation has catalysed the development of economies in many ways. Despite this, the introduction, commercialisation and use of innovations in finance in new and unexpected ways in society has led to negative impacts globally. To this end, scholars are becoming interested in understanding how financial innovations can be managed to ensure a positive net benefit globally. Using a qualitative research design, this paper investigates the questions of how innovation takes place and how it is governed within the insurance broking industry. The study further engages in a cross-case analysis where findings from the empirical work are discussed in relation to previous empirical study conducted in the asset management and bank customer relationship management space. Findings suggest the existence of a more nuanced continuum of practices, ranging from unstructured approaches through informal to formal models where the phasing of innovation activities was clearly punctuated by decision gates.

Keywords: *Financial innovation, innovation management and governance, financial services.*

Introduction

The concept of responsible innovation has recently become an important topic in many sectors, including financial services. Within this field of study, researchers have sought to explore how financial innovators can organize, manage and govern their innovations in order to support a philosophy of responsible financial innovation. Nevertheless, studies are still limited with current research on the topic, focusing on what responsible financial innovation could mean theoretically (Armstrong et al., 2012; Muniesa & Lenglet, 2013), how it plays out in varied empirical contexts (Asante et al., 2014; Himli, 2018; Arthur & Owen, 2019) and efforts by governments to create regulatory frameworks that foster responsible financial innovation (MacDonald III, Ledbetter, Obie, Olson, Rodman & Atherton, 2017). These studies have shown that there is a need to understand how financial innovation takes place and how it is governed in order to ensure its responsible emergence in society.

Results from empirical studies conducted by the researcher on financial innovation process and governance in the asset management and banking sectors (e.g. Asante et al., 2014; Arthur, 2017a; Arthur, 2017b; Khraisha & Arthur, 2018; Arthur & Owen, 2019) show use of both formal and informal corporate governance mechanisms for financial innovation, often framed by contextual (rather than direct) legislation. This leads to the argument that the process and governance of financial innovation can vary across different sectors of the financial innovation landscape, which can be addressed by expanding research on the topic into other financial sectors. Therefore, the objective of this paper is to 1) investigate how financial innovation occurs and how it is governed in another financial context, specifically an insurance brokerage organisation; and 2) cross reference findings from the study on insurance brokerage with findings from empirical work earlier conducted by the researcher in two other financial sectors.

Literature Review

The Financial Innovation Process and Governance Framework

A review of the literature suggests that despite differences in the types of financial innovation (Finnerty, 1988, Finnerty, 1992, Graham & Dodd, 1934, Tufano, 2003) and the number of activities within the innovation process (Edgett & Jones, 1991, Vermeulen, 2004, Menor & Roth, 2008), practices of idea generation

and launch appear to start and end the financial innovation process respectively. The above studies suggest the use of an unstructured approach to innovation where complexity and incrementality is a feature. Financial innovations appear to be driven by a broad range of internal and external factors (e.g. client demand, institutional requirements, globalisation, technological advancements, competition and changes in regulation) (Llewellyn, 1992, White, 1997, Sánchez, 2010), which lead to new and improved products, processes, markets and institutions.

These are developed within a lead time averaging 12 months (Drew, 1995, Beard & Dougan, 2004) and can involve both internal and external stakeholders (including management, board of directors, NPD and audit committees, self-regulatory bodies and government) (Erturk et al., 2004, Cohen et al., 2010) who interact with each other in an informal and unsystematic way (de Bretani, 1993, Sundbo, 1997, Vermeulen, 2004). Further, it is important to note that with the increasing use of open innovation in financial services (Schueffel & Vadana, 2015), decentralised forms of governance (for example, the use of multiple people, such as software engineers, users, currency exchanges and regulators as well as automated systems in the governance of the virtual currency bitcoin) have emerged. This governance is, however, focused predominantly on governance of the financial sector as opposed to governance of financial innovation itself (Asante et al., 2014). The former monitored and enforced, using a variety of mechanisms that include legal codes, corporate governance frameworks, codes of conduct, internal controls, rules and periodic audits (Li et al., 2008, Panico et al., 2011). Further, governance mechanisms normally emerge through a process of issue identification, self-regulation, failure and legislation (Cox, 2008), where financial regulation only occurs after the occurrence of a negative event in the industry.

Methodology

The study adopts a qualitative research design. Within this design the study uses a multi-case study approach where research questions identified are investigated sequentially in three selected UK based organisations (see Table 1). These organisations were selected, using a purposive sampling approach, using a criterion of the organization having engaged in innovation in the past 5 years. Cases were also selected purposively from three different sectors of the financial services industry in the United

Kingdom, namely asset management, banking and insurance, to allow for an understanding of the concept in varied contexts. Within case studies, the study used the organisational ethnography method, but chose to move away from the traditional long-term nature of ethnographic research (Neyland, 2007) by adopting the use of the "compressed time mode" approach proposed by Jeffrey and Troman (2004), which "involved a short period of intense ethnographic research" in which the researcher inhabited the research site almost permanently" for a period of between three to six weeks (Jeffrey & Troman, 2004, p.538) depending on organisation and access granted. Table 1 gives further details on this and shows use of ethnographic data collection methods, such as observation and interviews.

Table 1: Summary of case studies selected

Case	Category	Ethnographic Time	Data Collected
Case 1	Financial firm (Asset Management)	• Six weeks in-house • Teleconferencing and email follow-up over period of six weeks	• 3 semi-structured interviews with managers and associates in the product development team • 15 semi-structured interviews with managers and associates in other departments involved in innovation and its governance • Observation of 3 project management meetings • Observation of 3 steering committee meetings • Observation of 1 product review group meeting • Observation of 1 estimation and planning meeting • Observation of 1 idea generation and portfolio construction meeting • Review of 10 internal document on the organization as a whole, product development processes, and documents/minutes of previous meetings held relating to ongoing innovation project • 1 face to face workshop conducted at the end of write-up to validate findings
Case 2	Technology-related firm (big data analytics)	• Three weeks in-house • Email follow-up via email over a period of six months	• 2 semi-structured interviews with managers and associates in the product team • 2 semi-structured interviews with managers and associates in the project management team • 11 semi-structured interviews with managers and associates in other departments involved in innovation and its governance • 1 semi-structured interview with external auditor • Observation of 2 update meetings • Observation of daily employee activities • Review of 5 internal documents on the organization as a whole, product development processes etc. • 1 face to face workshop conducted at the end of write-up to validate findings
Case 3	Financial firm (Insurance broking)	• Three weeks in-house • Email follow-up via email over a period of four months	• 12 semi-structured interviews with managers and associates in departments involved in innovation and its governance • Transcript of 6 short videos on innovation and the innovation challenge on the organization's intranet site • Observation of daily employee activities, including practices at the Lloyd Insurance Market • Review of 20 internal documents on the organization as a whole, and on innovation mainly located on the organization's intranet site and in hard copy • 1 face to face workshop conducted at the end of write-up to validate findings

Data collected were analysed, using the basic qualitative data analysis processes of reduction, data display and conclusion drawing/verification (Miles & Huberman, 1994; Schutt, 2012). Data reduction was done as the researcher read through raw data multiple times to identify themes emerging from responses that served as codes for analysis. Using open coding techniques, words, phrases and sentences in raw data were categorised based on the themes. This was followed by axial coding, which involved investigating similarities and differences within raw data themes and identifying relationships and patterns within open codes in order to identify broader emerging themes. Coded

data were then displayed, using tables, graphs and diagrams, which allowed for an understanding of aggregate dimensions in order to draw conclusions. Data were presented, using a narrative approach that sought to synthesize findings from all data sources to tell the story of how innovation occurs and is governed.

Description of Case Studies

The first case study involved a large (global) and privately owned asset management company, whose activities involved the development and trading of investment funds (see Asante et al., 2014, for detailed results). Findings from this study suggested financial innovation to be largely incremental with short lead times and involvement of multiple stakeholders, managed within a well-structured stage-gate model of innovation governance in which the NPD teams played a co-ordinating role and in which there was a requirement for regulatory approval (in this case via the Financial Conduct Authority).

The second ethnographic study occurred in a much different organisational context in terms of size and operations – i.e. a small to medium-sized technology based organisation undertaking innovations to support big data analytics in the context of customer relationship management in the banking and retail sectors (see Arthur & Owen (2019) for detailed results). Findings from this study showed the existence of a semi-formal stage gate model characterised again by short lead times and multiple (internal and external) stakeholder engagement. Both incremental and disruptive innovations were identified. In contrast to the first case, however, direct regulatory approval was not a feature of the innovation governance process, although laws from government (through the Information Commissioner's Office) and guidelines from the Payment Card Industry framed and influenced innovation pathways significantly. The third case study, reported in detail in this paper, turns to a global insurance broking company undertaking innovation associated with risk characterisation and placement in the financial sector. The paragraphs that follow present findings of the study conducted in the third case study and a cross-case analysis of findings from the three case studies.

Results and Discussion

Results for Case Study Three

Innovation process and environment

The organisation in case 3 was observed not to have a separate research and development or new product development team and, as one of the respondents from the placement department put it, "no systematic process for, and champion of innovation exists within the organization." Nevertheless, innovation was observed to occur within business units, resulting, as described by the same respondent from the placement team, from the "motivation of a small group of individuals." New ideas sprung up spontaneously on an ad-hoc basis from within the organisation, which were then translated into innovations launched into the market, generally over a period of between 8 and 34 months, depending on, for example, whether risk governance approvals are required or not. Innovation was observed to be largely incremental and located in the process and product space. This involved either changes to policy wordings (in some cases the stripping of the policy to its bare minimum) and / or tailoring of already existing policies to client needs (hereafter referred to as "product innovation") as well as the creation of new processes and services to support and enhance the risk placement process (hereafter referred to as "process innovation"). Nevertheless, although incrementalism was the predominant mode of innovation exhibited in this study, this was not always the case.

While product innovations were driven by client demand, changes in regulation and findings from research on industry risk, process innovations were driven primarily by the desire to improve the way the organisation does business (e.g. broking and placement process) and gains competitive advantage by demonstrating to clients a good understanding of the industry and associated risks. These led to business model innovations as the output of changed internal processes that have created room for the organization to offer something new to carriers. There was no evidence of a formalised, structured corporate process for developing new products and services. Findings instead suggest a more ad-hoc, decentralized approach to the process and institutionalisation of innovation, despite the existence of corporate documents describing a closed-loop innovation process, involving eight activities (industry verification, prioritisation, sector strategy refinement, business justification, product development, launch preparation, product launch and performance

management). One respondent vaguely remembered the existence of a product development group in the past of about ten individuals within which he participated on a monthly basis.

Given the periodic, ad hoc, distributed and informal nature of innovation in the organization the researcher elected to adopt a historical approach in which she analysed the previous development of three major innovations (two product innovations within one business unit dealing primarily with financial institutions and one process innovation within another business unit overseeing global placement activities) in order to understand the organisational features of the innovation process and its governance. This analysis, which involved examining what the innovation was about, how it had developed overtime, who was involved and what mechanisms and tools were used, suggests four broad phases of innovation to be employed: idea generation; product/process design; launch preparation and launch – and just one informal approval point. These four phases did not constitute a formal, or even informal, innovation stage gating method, but rather a broad categorization of the key activities which related to new product/process development in the selected innovation cases.

Analysis of market offerings, in order to highlight gaps and identify opportunities for innovation, was found to be a significant driver for ideas. For example, one of the product innovations originated from gaps identified within conventional directors and officers (D&O) policies regarding defence and/or legal representation expenses and the insight that most D&O policies are too lengthy and cumbersome. This resulted in the introduction of an innovation that changed the way D&O policies were written in order to make it simpler and provide clarity on issues identified. Another was a response to gaps in conventional crime policies, which were limited mainly to theft, specifically defined fraud activities and other types of losses, all of which led to litigation among insurers and clients. Again, this led to an incremental innovation that broadened the scope of crime policies in a way that did not pose excessive risk to underwriters. Similarly, the studied process innovation case stemmed from a desire to address the lack of a structured risk placement approach within the industry, which the organisation found necessary in order to support fast-paced decision making concerning which insurer is most suited to meet a client‘s needs. These gap analysis activities were conducted

predominantly by motivated individuals or groups of individuals within the organisation, almost independently from the organisation's operations and in a non-systematic way. Thus, one respondent argued that innovation within the organisation comes from two places: deep technical expertise and cross fertilisation between business units in a way that is not strategically mandated by the organisation. In the case of one of the product innovations studied, this gap analysis and idea generation was identified to have come from an individual's technical experience, prior to his joining the organisation. In other innovation example studied, although the gap analysis had been conducted within the organisation, this occurred among small groups of people as a side activity.

The product/process development stage of the innovation process involves the designing of the product/process on paper and the testing of this in the real world in order to confirm its feasibility. This, in common with idea generation, is also done by originators of the idea as a largely separate activity from routine business operations. However, it involves informal discussions with senior managers in the business unit who can consider, assess and challenge the idea. This process could also involve interactions with others (e.g. insurers and clients) in the industry. Of the product innovations that was studied, PD included the drafting of what the new policy would look like, followed by a series of face-to-face, email and telephone discussions between originators and insurers, after the signing of a non-disclosure agreement, in order to stress-test its practicality (e.g. address the question of whether insurers are willing to underwrite the new risk and policy). By pointing out problems associated with simplifying a policy (using broad clauses for example), insurers were able to identify risks that were of concern to them, which the originators had overlooked; hence contributing to a process of co-designing of the product. In the case of the process innovation example, development involved a designing of the new process on paper and a small-scale testing of this in one of the organisation's offices. As explained by a representative from the risk management department, this stage should involve the preparation of a document that demonstrates a good understanding of what the idea is, how it feeds into the business unit's strategy as well as financial costs and projections. However, there was no evidence that this always occurs for all innovations on a systematic basis.

The launch preparation phase serves as the point at which the organisation becomes formally involved in the innovation process. Following an informal approval by line managers and senior executives in the legal and compliance departments, ideas progress to a 'preparation to launch' stage. This consists of preparatory activities for roll-out rather than a build of the new product/service for most product innovations and is characterised by multiple interactions between business units and various departments. For process innovations, this phase could include technology design and build as funds need to be authorised for this to commence. In general, development activities involve selecting clients, carriers and any third-party technology vendors to work with (if required), fine-tuning marketing pitches, preparing proposals, finalising legal contracts, organising support materials (e.g. brochures, quick reference guides) and training employees. For the process innovation case studied, the researcher identified the use of tools such as the project management intranet site, monthly steering committee meetings, prioritisation and scoping review meetings, sign offs and workshops to govern engagements between business units and departments. However, according to one of the senior managers, the effectiveness of this engagement in maximising knowledge sharing was limited due to time constraints. As a result, he argued that there is room for improvement when it comes to stakeholder engagement within the innovation process at the organization.

Launch involves making new product/services available to the insured and carriers, or to employees within the organisation (if the new product or service is for internal use); and the commercialisation of this to others in the future. Commercialisation could be done in stages, with the organisation limiting the new product/service to specific clients, employees or regions. An example of this pragmatic approach to commercialisation was demonstrated in the case of one of the product innovations studied, where roll out to financial institutions was not undertaken until it had been launched and monitored in other non-financial industries for a period of time, as carriers perceived the financial sector as being too risky.

Innovation governance

Despite the lack of a formal, well-structured process for new product and process development, the existence a well-structured risk governance model (Figure 1) was clearly apparent

within the organization. This model was in development sometime before 2012; and a Financial Services Authority (now the Financial Conduct Authority (FCA)) censure leading to financial losses experienced by the organisation served to catalyse the existing efforts of the organisation in enhancing controls around bribery and corruption. It was observed that all new products and services within the organisation went through a rigorous risk governance process as the organisation believed that these had the potential to change its risk profile. Nevertheless, awareness of the existence of this governance mechanism was patchy, and most respondents lacked clarity in terms of what constituted a new product or service offering.

The risk governance process begins with the use of a decision-making tool to determine whether an idea will lead to a new product or service; and as such should go through the whole process. The decision-making tool is a one-page document defined by the organisation's board, which outlines ten characteristics of a new product or service. These characteristics include any idea that: leads to doing business in a new country or industry, involves high set-up cost (threshold determined by the board), requires the organisation to underwrite risks (according to exemption rules in FCA regulations giving insurance brokers an underwriting authority on behalf of an insurance carrier), and needs to be developed or delivered in conjunction with third parties, among others.

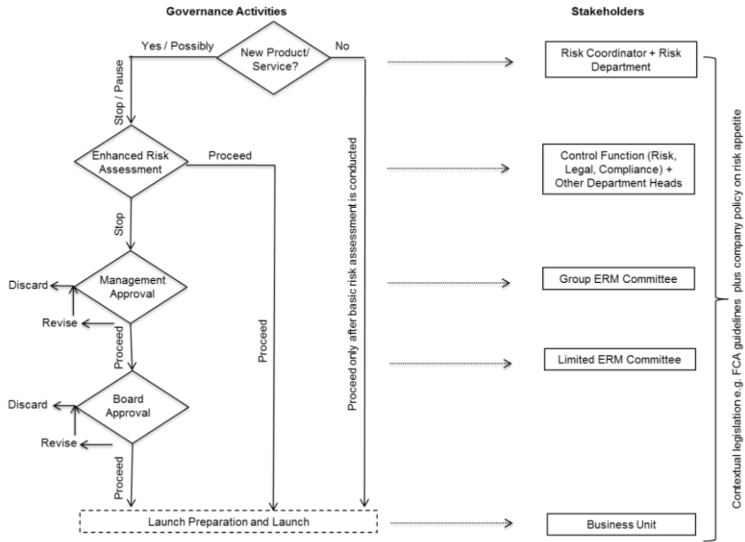

Figure 1: The Risk Governance Framework

New ideas that do not meet any of the criteria are clearly not considered new products or services and can, therefore, proceed with no formal approval required to launch preparation and launch, only after a basic risk assessment, which feeds into the existing business' risk profile has been conducted. For those ideas that are deemed to lead to new products/services, the RCO and risk function will make a decision for the idea to either pause or stop. The decision to pause is normally made for ideas that could possibly be a new product (e.g. meets at least one of the characteristics) and where there is deemed a need for further scrutiny and an enhanced risk assessment and challenge by control functions (e.g. risk, compliance, legal). The enhanced risk assessment stage, different from the workshops earlier described under risk assessment (on page 206) involves a series of round table sessions initiated by the risk function in collaboration with other departments e.g. compliance, legal, finance, and business leads among others (as needed based on the idea). Here, they discuss the idea to see if controls are genuinely in place and nothing has been missed. They challenge the idea based on the idea of conduct risk (i.e. risk emanating from the way the organisation and its

employees conduct themselves) by asking questions such as: have we designed the product in the best interest of the client, how do we avoid confusion, are we relying on key persons for this to work, and ,if we are, what happens if they are not available, among others. These questions suggest a broader framing of innovation governance than just risk, although the organisation themselves refer to the process as risk governance alone.

The output of this discussion leads to a decision concerning whether the idea should proceed to launch preparation and launch or stop. The stop decision normally applies to innovative ideas that are clearly new or significantly amended products or services (i.e. those that meet all or a significant number of the pre-defined characteristics) and means the innovator may continue to develop the idea internally but cannot conduct any external marketing, sales, communication and delivery of the product or service until an enhanced risk assessment, business plan development, and a review, challenge and approval of idea by a formal committee (i.e. management and the board) have been satisfactorily completed. Through what is referred to as the Group ERM Committee, senior managers of the organisation challenge the idea to see if it is fit for purpose, commercially viable, falls within the risk appetite of the organisation and provides a good risk/reward trade off. In the case of the placement process innovation, for example, a decision was made during the enhanced risk assessment stage to stop as the project was big and the initiators had to give an oral and written presentation on the business plan to the Group ERM committee. It is important to note that an idea would not be passed to the Group ERM committee without having first received robust challenge, including a review of business case and risks. This is followed by an independent risk review and challenge of the new product/service by the Limited‘s ERM Committee on behalf of the board of directors to check that management has an appropriate risk process in place, understands key risks, controls and impact on the organisation’s risk profile, and these are within the risk appetite of the firm. New products/services approved at management and board levels go straight into investment and development. However, products/services that did not go to management and board approval because they were not considered significant by the risk function still need to undergo a risk assessment, incorporate views from compliance and legal

departments and be passed by line managers for approval before they can be progressed. All ideas not approved at any stage of the risk governance framework are either revised to reflect the concerns raised by the governing committees and brought for further review later or discarded.

In addition to the internal risk governance processes described above, contextual legislation also framed innovation in the company. Through the issuance of a license to operate from the FCA, the organisation was free to introduce any new products or service without the need for formal approval. However, the organisation believed that in the case of an innovation that was "material enough", FCA opinion was crucial prior to launch as the FCA retained the ability to intervene (for example by banning the use of a new product is found to pose some risks at a future date). The definition of what "material enough" meant was left to the discretion of the organisation's board.

Discussion

Definition, features and motivations

It was observed that innovation was largely framed across the case studies as either a "new" product or process, with limited explicit framing of innovation in the position-paradigm dimensions, as presented by Tidd et al. (2005) and Tidd and Bessant (2009). In terms of new products and processes, this was primarily presented as improvements to existing products and processes; and this was demonstrated through the largely incremental nature of innovation activities within all three cases. However, positional, and (paradigm changing) disruptive innovations were also a distinct feature of case study two, where, in addition to incremental innovation, the practice of positional and disruptive innovations was clear. This deviation may be due the low organisational age and small size of the organisation, in comparison to the others, as Assink (2006: 215) argues that such organisations may have no need to "unlearn obsolete mental models, a successful dominant design or business concept," thereby increasing their disruptive innovation capability with the right amount of risk-taking, innovation process management and follow-through in place. Further, the organisation in case study two appeared to be exposed to more opportunities for disruptive innovation as its operations were focused on and within an emerging industry (i.e. big data analytics) as opposed to well-established industries (i.e.

asset management and insurance); which they could take advantage of, given limited regulation and a desire not only to grow, but also to strategically place itself in the market, being a start-up company.

Regarding motivations and drivers, the researcher found in all three cases the use of financial innovation as a differentiation strategy to address the desire of the companies to survive, thrive and win in a competitive environment. This supports findings from the literature on the impact of competition in driving innovation initiatives in the 21st century and could reflect the fast-paced nature of the financial sector and the potential for innovations to be easily copied (Tufano, 1989; Heffernan et al., 2013). Nevertheless, the argument for financial innovation as a need-based activity still holds as all three organisations recognised that the success of their innovation projects depended to some extent on external factors such as client demand and buy-in. Thus, findings from research on changing trends in consumer behaviour and interests were important drivers in the idea generation stage of the innovation process. Only in case study two was there evidence of innovation as a direct response to regulatory changes. However, the influence of contextual legislation and other forms of governance in all three cases compelled the organisations to consider the purpose (specifically their suitability for clients) and nature of their innovations at an early stage of the innovation process, and this provided important framing, and boundaries for innovation. Further, case study two also showed an impact of technological advancements in the pace of financial innovation activity as its innovations were, to some extent, catalysed by advances in information and communication technologies regarding data collection and analysis (e.g. Hadoop, NoSQL). In total, the researcher observed similarities with regard to the definition, features, and motivations (drivers) of financial innovation in all three cases; most of which support findings from the literature earlier discussed, such as the largely incremental nature of financial innovation driven primarily by factors such as competition, customer changing needs, and regulation.

An innovation management continuum: from linear to unstructured, non-linear models

Findings from the literature suggested the lack of direct, formal innovation governance (regulatory or otherwise) and little evidence of corporate strategic innovation

management processes (e.g. those described by Tidd et al. (2005), Tidd and Bessant (2009) and others). By contrast, the researcher, in fact, observed the use of strategic innovation management models in two of the cases, involving the phasing of innovation activities and clearly defined decision gates, and in case three a risk governance model that applied to new product and process development. In case one this was clearly institutionalised in the company as an established, co-ordinated and formal innovation governance process. This process was similar to what Cooper (2008) refers to as the stage-gating model for innovation management. Cooper (2008, p.3) defines a stage-gate as "an operational map" characterized by "a series of stages and decision gates". However, there was considerable variation in the application of innovation management across the three cases.

The researcher identified the use of a formal or informal stage-gate model for innovation management only in cases one and two, where NPD stages were integrated with decision gates. A review of the literature (Phillips et al., 1999; Cooper et al., 2002; Ettlie & Elsenbach, 2007; Cooper, 2008; Cooper, 2009; Srivastava & Singh, 2012) suggests a trend towards modification of the traditional stage-gate model (Cooper, 1990) in theory and practice in order to improve its efficiency; thus, leading to the addition of a discovery stage, which creates an innovation funnel for proactively exploring new ideas (Cooper, 2009). This pattern of either adding to or subtracting from the generic five-stage, five-gate model of scoping, business case, development, testing and launch (Cooper; 2009) was observed in the two cases, which used a stage gating methodology, since they varied the number and descriptions of phases in the traditional stage-gating model.

Case one was characterised by a five-stage, four-gate process, involving activities of idea generation, testing, build, launch and post-launch review which was officially recognized and used within the organisation. This approach considers business case approval as a key governance activity (i.e. a decision gate), merges the scoping and discovery stage into one (i.e. idea generation) and conducts testing much earlier in the innovation process in contrast to the generic model (Cooper; 2009). On the other hand, case two revealed a five-stage, four-gate process of opportunity assessment, impact assessment, requirements and scoping, build and launch; but this was loosely structured and used in a relaxed, unofficial way, in

contrast to the first case study. This may be because development of the process was still emerging and in its infancy at the time of study; although the ambition to standardise processes was an important feature identified within the organisation. Further, this model merges the scoping and business case phase (i.e. requirements and scoping) as well as the development and testing phase (i.e. build and testing) while at the same time dividing the discovery stage into opportunity and impact assessment respectively.

In contrast with the other two cases, in case three, the researcher observed a largely unstructured innovation process, involving activities of idea generation, development, launch preparation and launch. However, despite this, innovation was integrated with well-defined risk governance mechanisms that were in place more broadly within the company. This supports findings from a study by Aas et al. (2015) on innovation practices within production-intensive service firms which they explain to include some financial institutions like banks and insurance companies that rely heavily on information and communication technology. According to their study, these institutions have innovation processes that are flexible. Overall, findings from all three cases suggest that approaches to innovation management fall within an innovation management continuum, comprising, on one hand, formal linear approaches, such as the stage-gating model (Cooper, 1990), and, on the other hand, more unstructured, non-linear mechanisms of trial and error, and experimentation (Sperry & Jetter, 2009). Despite these variations, innovation activities in all three cases involved an assessment of ideas and the making of new product/process available to users, at the beginning and the tail end of the innovation process, respectively.

Ownership of innovation and associated roles

Within cases one and two, the researcher identified the use of two of the innovation governance models proposed by Deschamps (2012)– individual(s) or department(s) charged specifically with the responsibility of managing the innovation process and/or innovation steering committees and boards. In contrast to this, innovation activity in case three was not embedded in the organisational structure of the organisation with clear lines of responsibility (and as part of job roles) in terms of who should oversee its smooth progress. Thus, the organisation appeared to have adopted the “no one in charge

model" which, according to Deschamps (2012), occurs when an organisation a) wants to encourage shared responsibility for innovation, b) needs time to temporarily manage internal re-structuring activities and/or c) considers innovation unimportant to require formal governance mechanisms. Findings from the study in case three suggest the first as reason for this as the identified initiatives within the organisation to promote innovation (at least recently) and a number of innovations originating from individuals who informally take on the role of "innovation champions", in addition to their defined job roles, and without need to be mandated by the organisation. The researcher found that both product/project departments (in case studies one and two) as well as individuals (in case study three) assume an "innovation owner" status; however, they play different roles – the former being co-ordination, organising and managing resources for the successful completion of innovation projects and the latter a development role as they try to build and test prototypes that will allow them make a business case and win the support of the organisation.

Co-innovation and the multi-stakeholder nature of the innovation process

Results from the cases suggest an element of co-innovation (Lee et al., 2012) for all three cases, to varying degrees, where internal and external stakeholders (Brown & Eisenhardt, 1995; Chesbrough, 2003; Berthon et al., 2007; Blazevic & Lievens, 2008) collaborated with each other within the innovation process framework (Piller et al., 2011). This differs from, but is linked to, the concept of co-creation (Prahalad & Ramaswamy, 2004; Hirano et al., 2013); and involves not only the creation of value with customers through personalised user experiences, but also engagements with a broader group of stakeholders (including customers) in the designing of products and services (Piller et al., 2011): this was particularly evident in case study two. Thus, co-innovation departs from earlier models of innovation where new products and services were created only by and within organisations (closed), extending to specific partner firms (collaborative), or between firms and other stakeholders through an eco-system (open), using these new ideas to create new values and experiences for customers (Lee et al., 2012). While internal stakeholders within all three cases primarily involved employees who participated in management, decision making and departmental

activities throughout the innovation process, external stakeholders involved customers (both businesses and individuals), partner organisations, and governments (Greer & Lei, 2012; Lee et al., 2012) who engaged with the organisation at different times and in different ways throughout the innovation process. However, stakeholder engagement was, overall, limited: the researcher found no evidence of engagements with broader stakeholders such as competitors, activists and special interest groups identified in innovation projects in other sectors. With regard to internal stakeholders, management involvement for cases one and two occurred throughout the innovation process while that for case three occurred only after a product had been designed, when some form of financial commitment was needed, usually prior to launch (Smith & Reinertsen, 1998). On the other hand, interactions with external stakeholders for case one occurred quite early in the innovation process (i.e. at testing phase), while external participation for case two occurred throughout the innovation process and that for case three occurred mid-way during the product development level and later at the end after launch.

At the FEI, new ideas for all three cases initially originated from within the organisation – through interactions between the innovation owner and other business units. However, in case study two new ideas also originated from business customers; and this was due to the outsourcing relationship that existed between the organisation and its clients. As new ideas for all three cases progressed from evaluation to testing and/or development, external input was added in a guarded (e.g. using non-disclosure agreements) but concrete, elaborate and structured fashion (Piller et al., 2011). This dialogue was facilitated, using methodologies whereby business customers and/or their representatives (e.g. consultants/professional advisers for case one) were explicitly asked to evaluate concepts and test prototypes; all of which led to the refinement of the final offerings (Piller et al., 2011). In contrast, individual customers (who were in case two also the end-users) only played a passive role at the FEI, with their involvement limited to the provision of information in an indirect way through the use of customer feedback retrieved from call centres, data analytics and market research (Fang, 2008; Carbonell et al., 2009); perhaps reflecting arguments in the literature on the unsuitability of

some customers in contributing to the innovation process. Despite this, Arvanitis et al. (2015) suggest that the involvement of customers, especially lead users in the innovation process can be beneficial if the appropriate methods of interaction is used. At the back end of the innovation process (i.e. commercialisation) business clients were also engaged actively in the innovation process (Piller et al., 2011). In cases two and three, for example, the systematic nature by which commercialisation was done allowed the organisations to incorporate user feedback into existing offerings; thereby making available to new clients a refined version of launched new products/processes as the scope of commercialisation widened.

It was found that both business and individual customers were not involved to any significant degree in the actual build of the new product/services. However, partner organisations and government (through regulators) appeared to play an active role in the development stage of the innovation process, with little involvement at the front and back end stages. In cases two and three, partner organisations comprised several merchants and carriers respectively. Their involvement in the development phase of the innovation process stems from the fact that their services are crucial to the effective creation and approval/valorisation of the new product/process. Thus, major innovations developed in case two may not have been possible without the network of merchants to provide cash rewards, and the product innovation in case three may not have been viable without the availability of carriers willing to take on the risks specified in the new policy. Perhaps these partnering organisations could also be considered as suppliers (Kopecka et al., 2011) as they provide to some extent elements of the resources needed to effectively deliver the new product or process. These may be limited in terms of their input in the shaping of innovation; but they could be very important as their inability to deliver could significantly influence the innovation's success.

Regulatory and non-regulatory governance

In all three cases, the researcher found the existence of both internal and external stakeholders directly or indirectly involved in the innovation governance process. These were either regulators providing oversight of innovation and general business activity more broadly, or market participants who acted not only as the "regulated," but also oversaw the

innovation process and how new products evolved from idea to launch (e.g. banks in case study two). Regulators (mainly external to the organisation) comprised the government who delegated to various enforcement agencies (e.g. tax authorities in case one, the financial conduct authority (FCA) in cases one and three, and the Information Commissioner's office (ICO) in case two) as well as a formalised Self-Regulatory Organisation (SRO) (i.e. the Payment Card Industry Security Standards Council), whose activities were mandated by industry and not government in case study two. Further, the activities of these bodies were supported by external auditors in cases one and two. While external auditing for innovation in case study one occurred post launch, that for case two happened independent of the innovation process and focused on adherence to general good business practices. Regarding internal stakeholders, the researcher's findings suggest the use of the universal corporate governance framework as a model of innovation governance. This is evidenced in the review, challenge and approval roles played by top management, board of directors, internal auditors and employees within specific departments of the organisation (e.g. product development, legal, risk and compliance) or its client's organisations (for case two and three where innovation involves a relationship web with multiple stakeholders) as part of the innovation process. The interests of shareholders were acknowledged in cases two and three as important; however, I found no evidence of their direct involvement in the innovation governance process.

These findings suggest that both contextual (and in case one direct) legislation (what Braithwate and Drahos (2000) referred to as state regulation) and self-regulation (what Braithwaite and Drahos (2000) referred to as corporate regulation) were important instruments of innovation governance in all three cases. This challenges the prevailing view in the literature that financial innovation is neither governed within companies or subject to external regulatory governance or industry standards. Nevertheless, it is important to acknowledge, as suggested strongly in the literature, that legislation in cases two and three appeared to relate to financial sector governance and not financial innovation governance per se. In contrast, findings from case one suggest the direct or formal (Braithwaite & Drahos, 2000) intervention of government (through agencies) in innovation governance through regulatory approvals required prior to launch

(for example submission of portfolio to the FCA for approval). Despite these differences, overall, the researcher found legislation, whether focused on financial activity relating to innovation or financial innovation itself, was an important influence that framed innovation activities, since regulatory guidelines (direct or indirect) create 'de facto' boundaries within which innovation activities could take place. Thus, self-regulation practices within all the three studied organisations were found to focus heavily on ensuring compliance to broader regulatory boundaries set by the legislator, or industry standards though these were quite flexible (Braithwaite & Drahos, 2000). This indirect involvement of legislators in the innovation process was largely loosely structured, with engagement with the legislator in several different ways and at varying frequencies for different innovation projects. The intensity of engagement increased (i.e. beyond the standard monitoring visits to include additional discussions initiated by the organisation) in situations where there was lack of clarity of existing regulatory guidelines regarding emerging innovation pathways.

The researcher identified in case study three a strengthening of the effectiveness of existing, internal corporate policies through the introduction of new controls, mechanisms and incentives in response to failure (e.g. the establishment of a risk governance framework following a financial loss). These mechanisms were, in fact, found to extend to the other two cases to varying degrees to include committees, internal controls and codes of conducts. Comprising groups of individuals appointed by the organisation, committees engaged in discussions during periodic meetings in order to understand key issues related to the new product/process. These committees differed in purpose from the one identified in the literature i.e. as a mechanism used by government in financial regulation. Their activities focused either on evaluating and approving new products/processes throughout the innovation process (hereafter referred to as decision-making committees) or monitoring the progress of new products/processes from idea generation to launch (hereafter referred to as project management committees) as opposed to investigating issues and making recommendations for regulatory reform. The number of people on these committees varied in all three cases; however, it appeared that each of these committees involved representatives from different departments of the

organisation. Decision-making committees in all three cases appeared to exist formally within the studied organisations; and these met at pre-set times. However, project management committees were only properly established in cases one and three. In case two, this reflected the informal and ad-hoc nature of interactions within and between departments, convened as necessary throughout the innovation process.

Conclusion

It is important not to generalise from the results of three case studies; the extent to which the findings are generalisable both more broadly within and beyond the asset management, customer relationship management and insurance brokerage sectors requires further research. Nevertheless, findings from three studies suggest similarities between innovation practices (and their governance) across the studied organisations and (with important differences) to dimensions described in the literature. These allow the researcher to, firstly, suggest a few amendments to the theoretical model of financial innovation described earlier based on the literature review. Findings from the three case studies appear to originate and emerge from the desire of organisations to meet customer needs, gain competitive advantage, and respond to findings from research in the industry and changing regulation. However, while the literature suggested that innovation generally follows an unstructured and informal innovation process, with little evidence of systematically used frameworks, findings from the empirical work, in fact, suggests a more nuanced continuum of practices, ranging from unstructured approaches through informal to formal models (e.g. stage-gate) where the phasing of innovation activities was clearly punctuated by decision gates.

Despite these differences, involvement of both internal and external stakeholders (e.g. clients, regulators and partners) mediated through an innovation owner (i.e. a department(s), individual or group of individuals) was a prominent feature of all three cases. These lead to the launch of primarily incremental (e.g. varying the characteristics of funds, changes to loyalty programme implementation phase and alterations to insurance policy wordings), and, on a few occasions, disruptive innovations, which can be mapped onto the product, process and positional innovation landscape (and in case two paradigm dimension). They occurred within relatively short lead times (normally between 3

and 34 months), as suggested in the literature. Within this framework, government legislation and industry standards played a key role in setting the governance context and frame within which innovation activities take place; and these were enforced primarily through dialogue and approvals at key decision-making meetings, internal controls and codes of conduct.

Within the case studies, the researcher identified the existence of a range of mechanisms to foster anticipation, characterisation and management of risks associated with financial innovations. The extensive use of non-regulatory forms of governance mechanisms, such as project management and decision-making committees, provided a starting point for risks to be assessed and understood. This characteristic, which the research considers to be one of the strengths of the current financial innovation and governance model, was even present in organisations that used unstructured approaches to manage the innovation process, albeit these were not sufficiently integrated with innovation activity. What is of note is that this was largely restricted, knowingly or unknowingly, to the internal operations of the organisation, namely to activities associated with its internal stakeholders. Further, although avenues for anticipatory deliberations were in place, discussions focused mainly on quite narrow definitions of (largely operational) risk (e.g. project specific risks such as cost and time overruns, organisational capacity to meet demand and financial returns, regulatory and reputational risks) with limited consideration of potential wider e.g. systemic impacts within the innovation governance framework itself.

The involvement of multiple stakeholders in the co-creation and governance process (to varying degrees) is another feature of the current framework for financial innovation and its governance that could help steer innovation towards desired ends. This feature not only allows for multiple perspectives on the issues at stake, but also engages individuals with the relevant knowledge, skill and technical expertise to help the organisation make strategic decisions (e.g. to attempt to distinguish beneficial innovations from harmful ones using outputs from anticipatory, reflective and deliberative exercises). Such individuals can also contribute greatly towards decisions regarding options for mitigation available to the organisation. Despite this strength within the current model, and except for case study two, the researcher identified engagement

and deliberation to be largely limited when this came to external stakeholders. This is evidenced in practices of limited involvement of diverse stakeholder groups (where these differ from clients) and even in the context of clients, limited engagement of individual clients in the innovation process.

Overall, there was a distinct lack of communication and dialogue with, and amongst, a diverse range of external stakeholders. The few external stakeholders that are involved (e.g. customers/clients, partners firms, and regulators) are not brought together on one platform (e.g. as has been done in some innovation examples in science and technology studies through public debates and consensus conferences) to engage with each other on the issues at stake). Those external stakeholders who do engage do so through an innovation owner who collates all ideas and shares these with other internal stakeholders as and when these are needed. This may suggest a conscious or unconscious filtering of external stakeholder contributions and ideas by the innovation owner, which could limit the effectiveness of a more broadly configured deliberative process. Further, the innovation owner in this framework does not share with other external stakeholders the contributions of other external or internal stakeholders, thereby eliminating the option of mutual learning amongst a varied group of stakeholders.

This is quite an important gap in the current model as it suggests that deliberative processes identified within the case studies fall short of some of the good engagement practices suggested in the literature as being necessary for positive outcomes. Specifically, it suggests that the criteria of openness (which relates to diversity among stakeholders), level of intensity (relating to the timing and nature of engagement) and quality (with regard to number of engagements and the mechanisms in place to facilitate engagements) are lacking. This all presents as a lack of engagement with a wide range of external stakeholders, which might include such groups as competitors, activists and special interest groups all of whom could provide important contributions to understanding the wider impacts, and social desirability of innovations in the financial sector.

The use of formal or informal linear innovation management models, such as the stage-gate model identified in some of the organisations, provides an opportunity for an ongoing monitoring and assessment of innovation activities, thereby allowing the organisations to respond quickly.

Despite this, overall, the researcher often observed a lack of a systematic approach to collecting and screening ideas across the cases. That said, tools such as periodic meetings, internal controls (e.g. documents, checklists, automated rules, contracts, etc.) and codes of conduct, not only encouraged responsiveness to emerging knowledge on risks and broad impacts, but also served to incentivise positive action among stakeholders. One question the study begs is whether the degree of formalisation of innovation processes and governance described has any positive impacts on innovation capability and outcomes. Further, although the involvement of multiple stakeholders in the financial innovation process implies broader scope for co-creation and deliberation, it has the potential to introduce complexity regarding stakeholder relationship and participation management, especially in cases where structured governance approaches are absent. Thus, there is a need to clearly map out who the stakeholders are, what their roles are and possible channels of communication to ensure that the experience and outcomes are positive.

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Firm-Level Determinants of Corporate Social Responsibility: Evidence from Small and Medium-sized Enterprises in Ghana

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Abstract
This paper examined firm-level determinants of social performance among small and medium-sized enterprises (SMEs) in Ghana, using specific traits, such as firm age, firm size, financial performance, leverage and managerial competence. It contributes to our knowledge on how firm-level characteristics influence the corporate social responsibility (CSR) initiatives among SMEs. The study analysed primary data of 423 SMEs, using regression analysis. It documented positive relationships between managerial competence, financial performance and CSR, and a negative relationship between leverage and CSR. The thrust of the study is that, besides managerial competence, financial performance variables were far more important determinants of the social performance of SMEs than non-financial ones. Therefore, it recommended that policy makers that desire active participation of the SME sector in addressing societal problems should institute measures that will improve their financial performance. These could include providing cheaper alternatives to accessing funds and maintaining a sustainable macroeconomic environment that support the financial prosperity of this sector. Finally, since it has been proven that managerial competence improves social performance, SME owner/managers are being encouraged to invest a lot of time and resources in sharpening their managerial competencies.

Keywords: *SMEs, firm-level determinants, CSR; social performance, financial*

determinants, non-financial determinants, emerging economy

Introduction

The concept of corporate social responsibility (CSR) has gained heightened attention from academics and practitioners in the wake of various scandals in recent times. Notable among them are the Volkswagen's emissions scandal, the Apple old iPhone slowdown and the Toshiba accounting scandal. These cases have contributed to a phenomenon that is described as a decade of moral decadence in business. Beyond everything else, it has been advanced that what businesses need most for their long-term survival and growth is an "ethical bailout" grounded on the tenets of CSR (Chih, et al., 2010). Some scholars (Chih, et al., 2010) have long argued that the responsibility of businesses extends beyond their owners and creditors to include several other groups and individuals who are adversely affected by business operations. For instance, Carroll's (1979, p. 500) observation is that "the social responsibility of business encompasses the economic, legal, ethical, and discretionary expectations that society has of organizations at a given point in time." Davis (1973, p. 312) opined that businesses should "accomplish social benefits along with the traditional economic gains that the firm seeks;" and Frederick (1986, p. 4) argued that "the fundamental idea of 'corporate social responsibility' is that business corporations have an obligation to work for social betterment." Acabado et al. (2019) posit that, to fully appropriate the value CSR creates for society, it is imperative for researchers and academics to pay attention to its determinants.

While extensive research has already been conducted in the area of CSR, most of these studies have concentrated on examining the nexus between corporate social performance and corporate performance (Ansong, 2017a; Ansong, 2017b; Bocquet et al., 2017; Saedi et al., 2015; Mishra & Suar, 2010; Mackey et al., 2007; McWilliams & Siegel, 2000; Waddock & Graves, 1997). Margolis and Walsh (2003) have attributed the limited understanding of the concept of CSR to the over-emphasis on its impact on firm performance and there have been indeed recent calls

from some scholars (for example, Walsh et al., 2003) for a more thorough theoretical and empirical investigations into the determinants of corporate social performance. Most of the studies that have responded to this call thus far have largely focused on how external variables, such as business cycles (Catalao-Lapes et al., 2016) and the pressure from external stakeholders (Benabou and Tirole, 2010; Darnall et al., 2012; Baron, 2012), influence firms' CSR initiatives. Empirical works that have addressed the firm-level determinants (Baldini et al., 2018; Lourenco & Branco, 2013; Iannou & Serafeim, 2012; Artiach et al., 2010; Reverte, 2009; Wanderley, Lucian, Farache, & De Sousa Filho, 2008; Stanwick & Stanwick, 1998; Roberts, 1992), largely ignored the SME sector.

The study of Campbell (2007) is accredited with the institutional theory on CSR, which makes some propositions, indicating the conditions that are likely to influence the extent to which firms perform socially. The conditions proposed by Campbell (2007) include the state of the economy, the degree of rivalry among firms, institutional factors and firm-level characteristics (see also Jones, 1999; Shleifer, 2004). This paper concentrates on how firm-level characteristics of SMEs in a developing economy influence their social performance. Jones (1999) rates the SME sector higher than larger firms in the execution of non-instrumental social responsibilities, because these firms are not subject to the financial hegemony and bureaucratic controls that tend to hinder CSR practices among larger firms. Jones (1999) advanced that SME owners/managers have the flexibility to imprint their personal values on their businesses and, hopefully, some of these values may promote the ideals of being good corporate citizens while pursuing financial prosperity. This makes the SME sector an important area for empirical studies in order to enrich the CSR discourse.

It is also imperative to study the concept of CSR from the perspective of emerging economies, because of the view

that such economies are usually characterized by weak governance and institutional structures (Cambell, 2012). This makes them more dependent on the private sector to spur socio-economic development. In many developing countries, the SME sector constitutes a vast majority of businesses and accounts for a large share of overall employment in the private sector. Given the significant contributions of this sector, it would be inappropriate for researchers to ignore it in their investigations (Spence & Lozano, 2000). Finally, the study focuses on the firm-level characteristics as the firm is the ultimate target for any action designed to promote CSR (Jones, 1999). Since initiatives at other levels are generally directed at the firm-level, a proper appreciation of firm-level attributes is necessary to assist firms drive strategic value from CSR (Udayasankar, 2008).

This paper makes two relevant contributions to the extant literature on CSR. First, it contributes to our understanding of firm-level determinants of CSR among SMEs. Second, it empirically examines the relationship between firm-level factors and CSR in an emerging country context where governance and institutional structures are weak relative to advanced economies. The next section of this paper reviews literature and develops hypotheses on the firm-level determinants of CSR, after which the methodology that was employed in conducting the study is explained. It proceeds to the presentation and analysis of results. Finally, it concludes by making recommendations.

Literature Review

The instrumental theories emphasise the notion that the main purpose of firms is wealth creation and as such firms should only embark on social activities that are consistent with wealth creation (Friedman, 1970). On the other hand, integrative and ethical theories hold a different position. Integrative theorists advocate that business organizations utilize societal resources to support their survival and growth and, hence, they should assist in addressing societal problems and challenges even if this does not necessarily lead to the maximization of

shareholders' wealth (Preston & Post, 1975; Garriga & Mele, 2004). In a similar vein, ethical theorists believe ethical values define the relationship between business organizations and society. Hence, ethical considerations must supersede other factors when a firm decides to embark on CSR initiatives (Freeman, 1984. Jones (1999) drew attention on SMEs as a sector more prone to carrying on non-instrumental CSR and, hence, worthy of empirical investigation. Again, Campell (2007) posits that firm-level characteristics have the potential to influence the extent to which firms engage in CSR initiatives. Hence, this study examines the relationship between traits, such as firm size, firm age, financial performance, leverage and managerial competence and the social performance of firms.

Firm Size and CSR

Several studies have offered different explanations as to how and why firm size affect social performance of corporations. Based on organisation theory, some have suggested that larger organisations tend to have the administrative structures and systems in place, which then create the management architecture necessary for improved social performance (Brammer & Millington, 2006). In contrast, others are of the view that the bureaucratic nature of larger firms rather inhibits them from becoming socially responsive (Jones, 1999). Jones (1999: 169) posits that organisational inflexibility is more likely to be associated with firm size and, corollary to this, "non-instrumental socially responsible behaviour is simply not viable in the decision making and control systems of capitalist-bureaucratic organisations."

The power explanation (Pfeffer & Salancik, 1978; Meznar & Nigh 1995) emanating from sociological literature expounds on how corporations deal with pressure from societal expectations with rather conflicting conclusions. On one hand, it is assumed that larger firms are more likely to be pressurised due to their visibility to invest more in CSR activities. By comparison, SMEs are likely not to exhibit socially responsible

behaviour, since they are less visible and may profit little from CSR initiatives. On the other hand, other scholars (e.g., Meznar & Nigh, 1995) are of the view that given the higher bargaining power of larger firms, they are better positioned, relative to SMEs, to resist any influence to commit to CSR practices they are not ready for. As a result of this, large firms are less likely to be socially responsive.

Based on contingency theory and organisational economics, Wicket et al. (2016) reasoned that the cost implications associated with managing large-sized firms could negatively influence the extent to which such firms invest in CSR activities. The ownership structure of large firms also tends to limit the extent to which such firms are socially responsible. Large firms are usually accountable to powerful shareholders, creditors and to the whims of financial markets (Mintz & Schwartz, 1990). The primary motive of these stakeholders is to earn optimum return on their investment. Hence, they are less likely to be tolerant of socially responsible behaviours that do not positively impact on a firm's competitive position. This limits the opportunities for management of such firms to act in socially responsible ways. However, owners/managers of SMEs have the laxity to impact their firms with their personal values, which may include being socially responsible, in addition to the pursuit of personal wealth (Jones, 1999; Ansong, 2015).

The impact of firm size on corporate social performance is also connected to the issue of access to resources (Brammer & Millington, 2006). It is a well-accepted view that larger firms tend to enjoy greater resource-slack, and this positively influences their CSR commitment (Johnson & Greening, 1999). On the contrary, SMEs often do not have access to financial resources that will empower them to become more socially responsible.

However, Madueno, Jorge, Conesa and Martínez-Martínez (2016) posit that SMEs carry out more CSR practices than they acknowledge, a phenomenon referred to as silent social responsibility. Overall, it has been argued that firm size can affect

strategic motivation, thereby having a positive influence on social performance (Adams & Hardwick, 1998; McElroy & Siegfred, 1985). Empirically, Madueno et al. (2016) and Acabado et al. (2019) found a positive relationship between firm size and corporate social responsiveness and philanthropy. It is deemed that in an emerging economy where access to and effective utilization of financial resources is key to the survival of SMEs, larger firms would have more laxity to spend on social initiatives. Based on the arguments raised above, it is anticipated that larger firms are much more likely to undertake CSR activities with ease relative to SMEs (Baumann-Pauly, Wickert, Spence & Scherer, 2013; Lepoutre & Heene, 2006). Hence, it is hypothesized that:

H1: Firm size positively influences the social performance of SMEs

Firm Age and CSR

There have been limited theoretical explanations as to how firm age impacts on corporate social performance. However, Jawahar and McLaughlin (2001) provide insight into how firm age can influence CSR initiatives based on the organisational life cycle approach. They reasoned that while companies are required to equally satisfy the needs of all their stakeholders, it is practically impossible to do so at the same time. "Instead, they are likely to fulfil economic and all non-economic responsibilities of some primary stakeholders, not others, and, over time, to fulfil responsibilities relative to each stakeholder to varying extents" (Jawahar & McLaughlin, 2001: 397). This is so because the needs of these stakeholders do not arise at the same time and different stakeholder groups tend to wield different degrees of influence and power on an organisation across its life cycle stages.

The foremost work of Cochran and Wood (1984) reasoned that firms with older assets, which might have been manufactured in an era of weak regulatory business environment, are more likely to be seen as being less socially responsible, because of possible emissions from these assets. The reality, however, is

that management of such firms might have exerted a lot of energy and initiatives aimed at attaining a cleaner environment. Thus, the mere fact that an older firm might be possessing older assets that are less environmentally friendly can lead to higher costs in meeting new social demands and, at the same time, may be viewed as being less socially responsible.

Another explanation is that management of older firms are less responsive in adapting to social change (Cochran &Wood, 1984). On the contrary, Roberts (1992) advanced that as a firm matures, it is somewhat compelled to maintain its reputational record of being a good corporate citizen. The expectations of stakeholders regarding sponsorship and involvement could inhibit any changes in corporate strategy as withdrawal from such commitments could signal to stakeholders that the firm expects financial or managerial disturbances. Similarly, Al-Gamrh et al. (2016) advanced that older firms tend to have a better understanding of the challenges and needs of their environment and such knowledge tends to induce them to be more socially responsible, since they are expected to behave as corporate citizens. Again, older firms are more aware of the positive outcomes of CSR initiatives, such as customer loyalty, attraction of talented employees, less lawsuits and so on, hence, they are more likely to embark on such activities than younger ones.

Withisuphakorn and Jiraporn (2016) opined that older firms tend to be more financially stable and cashflow than younger ones. This enables them to embark on more CSR initiatives. However, the fact that they are also already financially sound could discourage them from such investments. Older firms might have built the reputational capital that comes as a result of being socially responsible and, thus, they may have little drive for engaging in CSR activities relative to younger ones.

Empirically, Godos-Díez, et al. (2011) documented that once a firm initiates socially responsible activities, it is compelled to implement them due to the firm's desire to meet the expectations of its stakeholders.

From the discussions above, it is expected that older SMEs in emerging economies are more likely to engage in social responsibility actions, because of their quest to maintain their credibility and reputation. Scholars (e.g., Diamond, 1989) have largely associated firm age to firm reputation among smaller firms, because of their ability to survive the critical start-up years. Hence, it is hypothesized that:

H2: Older SMEs are more likely to be socially responsible

Financial Performance and CSR

The main thrust of the slack resource theory and resource-based view is that the financial condition of an organisation is a key determinant of the amount and kinds of activities the organisation can engage in (Campbell, 2007; Waddock & Graves, 1997; Buchholtz et al., 1999). This implies that firms with enough financial resources are better positioned to engage in CSR initiatives. On the other hand, good management theory admonished managers to pursue activities that will address the concerns of the stakeholders without necessarily considering their financial resources. It is believed that, by doing so, the reputation of the organisation will be enhanced, and this would, consequently, lead to better financial performance (Campbell, 2007; Waddock & Graves, 1997; Fauzi & Idris, 2009).

Campbell (2007) has observed that profitable firms tend to have more resources to spare for socially responsible initiatives than less profitable ones. As a result, it is expected that business organisations will be less likely to commit financial resources to socially responsible activities in instances where they are experiencing relatively weak financial performance (Waddock & Graves, 1997). This proposition is much stronger among SMEs, since social performance is also related to the issue of access to resources (Brammer & Millington, 2006). Larger firms are associated with greater resource-slack, and this significantly influences their commitment to CSR activities (Johnson & Greening, 1999). This position is supported by

Withisuphakorn and Jiraporn (2016). They argued that firms that are financially sound and have enough cashflows tend to engage more in CSR activities.

On the contrary, SMEs often have constrained or inadequate financial resources, which tend to negatively impact on their ability to pursue CSR initiatives. It has also been advanced that firms with poor financial performance do not embrace government directives that emphasise the need for firms to embark upon CSR practices. This is because they believe such regulatory measures would compel them to invest their meagre resources in activities, they deem to be unproductive, thereby worsening their already precarious financial position (Smith, 1994). Several empirical studies (e.g., Cochran & Wood, 1984; Lin, et al., 2009) have reported that financial performance has a positive effect on social performance. It, therefore, follows that financial performance is expected to be positively related to the extent of a firm's social performance. Thus, it is hypothesized that:

H3: Financially sound SMEs are more likely to be more socially responsible

Financial Leverage and CSR

Financial leverage has been explained as funds taken from outside parties, like companies and other financial institutions, to undertake business ventures (Sahut et al., 2016). The stakeholder theory (Jensen, 2002) and capital structure theories provide some explanations as to how financial leverage could influence the extent to which a firm can engage in CSR initiatives (Mishra & Modi, 2013). Jensen (2002) calls for a balance in managerial decision making in the attempt by management to meet the expectations of both investing and non-investing stakeholders. He argues that it will be counter-productive to ignore the needs of investing stakeholders through the acquisition of unsustainable levels of debts in the bid to satisfy the needs of non-investing stakeholders. The consequences of CSR activities for highly indebted companies could be negative, because of the possible negative reactions from some key

stakeholders, such as creditors and suppliers.

Even though it has been suggested that CSR investments strengthen a firm's relations with its stakeholders, this is dependent on the financial leverage position of the enterprise (Harrison & Combs, 2006). Titman (1984) advanced that key stakeholders are usually mindful of the indebtedness levels of firms. This is because the leverage position of companies can influence their ability to honour their financial obligations as and when they fall due. Purushothaman et al. (2000) posited that the close relationship between high-leveraged firms and creditors tends to limit the amount of resources they devote for socially responsible actions. Also, Zweibel (1996) reasoned that excessive company debt increases interest expenses, which discourages investment in CSR among firms that have the object of maximising shareholders' wealth. Moussu and Ohana (2016) add that the debt pressure acts as a brake in discouraging investments, which are valuable both for society and firms.

However, Brammer and Millington (2005) also posit that high leverage negatively affects the reputation of a firm, and this puts pressure on firms in this state to intensify their CSR initiatives to improve their image. It is anticipated that the cost implications of having a lot of debts could negatively influence the ability of SMEs to perform their social responsibilities. Empirically, Harrison and Combs (2006) provided evidence on how financial leverage influences managerial decisions in social performance-related areas, such as employee treatment, product issues, environmental protection, diversity performance and community relations. Some scholars (Moussu & Ohana, 2016; Purushothaman et al., 2000; Zweibel, 1996) have also reported a negative relationship between leverage and CSR practices. Thus, the following hypothesis is proposed:

H4: Leverage is negatively related to social performance of SMEs

Managerial Competence and CSR

Agency and stewardship theories provide the theoretical explanation for the differences in importance managers attach to CSR activities. Agency theory views managers as agents who would essentially seek to maximize their own utility, even at the expense of the value of the firm (Jensen & Meckling, 1976). It is deemed that managers with such orientation are less likely to be interested in socially responsible investments, since this would not explicitly enhance their personal wealth. On the contrary, the stewardship theory portrays managers as stewards of firms (Davis et al., 1997). Stewards are expected to defend the welfare of all stakeholders and make decisions that address the concerns of the majority and not those of only shareholders. The theory is premised on the fact that the most efficient way to satisfy all stakeholders with conflicting interests is to maximize the long-term value of the firm (Hernandez, 2008). Some scholars (e.g. Waddock & Graves, 1997) have documented that firms' long-term value can be enhanced through managerial competence and CSR.

In practice, the role played by top managers in promoting social initiatives is extremely important (Quazi, 2003; Swanson, 2008). Socially responsible firms are the creation of socially responsible managers who are willing sometimes to sacrifice personal and corporate ambitions in favour of socially responsible actions (Hunt et al., 1990). Indeed, it is the responsibility of top managers to incorporate ethical and social responsibility values into the organisational culture and strategy (Waldman et al., 2006; Singhapakdi et al., 2008). It has been argued that, to ensure the consistent and successful pursuit of CSR initiatives, it is not enough to develop effective CSR structures and policies (Harris & Crane, 2002; Holton et al., 2010; Mamic, 2005), rather, what is most needed is developing the competencies and skills of managers (Ansong, 2017c; Lans et al. 2014; Wals & Jickling, 2002). According to Belkaoui and Karpik (1989), the underlying cause of an effective implementation of social

performance policy that delivers long-term value to firms is management's competence. Management with the competence to make a company profitable also has the knowledge and understanding of social responsibility, which leads to addressing more social and environmental concerns. Following from the above discussion, it is hypothesized that:

H5: Managerial competence positively influences the social performance of SMEs.

Methodology

The quantitative approach was adopted for the study as it allows for generalisability and reliability. The populations of this study consisted of all registered SMEs with the National Board for Small-Scale Industries (NBSSI) and the Association of Ghana Industries (AGI) in the Accra Metropolis of Ghana, a total of 2083 firms as of September 2013. Based on Krejcie and Morgan (1970), who assume an alpha of 0.05 and a 5% margin error, a sample of 423 SMEs, consisting of 254 medium-sized and 302 small-sized firms, were randomly selected for the study. The random sampling technique grants unbiasedness in the selection of respondents for the study. A close-ended questionnaire was used in collecting data from the owners/managers of SMEs in the Accra Metropolis of Ghana. A pilot study was conducted in February 2014 to validate the questionnaire. The questionnaire was administered to a sample of fifty SME owners/managers in the Sekondi-Takoradi Metropolis. This was intended to predict the expected response rate and identify any problems with the survey. The pilot recovered a response of 62 percent. All items showed a high level of internal consistency reliability.

A major limitation of the use of questionnaire was the possibility of method bias. Podsakoff, Mackenzie and Podsakoff (2012) opined that self-reported measures have the tendency of being affected by common method bias (CMB). This is due to the fact that there is usually an implicit social desirability associated with answering survey questions in a

certain desirable pattern, causing indicators to share a common amount of variation (Kock & Lynn, 2012), item characteristics (ambiguous items) and measurement context (Podsakoff, Mackenzie, Lee & Podsakoff, 2003). This bias can lead to unsound conclusions, because it can inflate or deflate a given relationship among variables (Doty & Glick, 1998). Because all measures were self-reported and collected from a single group of respondents (owners/managers of SME), the common method bias test was conducted to address this problem (Podsakoff et al., 2003). Descriptive statistics and regression analysis were employed in analysing the data. Multiple regression was adopted as it allows testing the predictive power of a set of independent variables on a continuous dependent variable (Pallant, 2015).

Model

This study adapted the model of Reverte (2008). The new model considers the relationship between CSR and firm age, firm size, leverage, managerial competence and financial performance. The inclusion of each variable in the model is informed by the theories used in the study. Thus, the model for the study takes the following form:

$$CSR_i = \alpha_i + \beta_1 FA_i + \beta_2 FS_i ++ \beta_3 LE_i \beta_4 MC_i ++ \beta_5 FP_i + \varepsilon_i \qquad (1)$$

Where:

CSR represents corporate social responsibility; FA represents firm age; FS represents firm size; LE represents leverage; MC represents managerial competence; FP represents financial performance.

Measurement of Variables

This section provides explanation as to how the variables employed in this study were measured:

Dependent Variable

Corporate social responsibility (CSR) was measured based on Sweeney's (2009) scale. The scale took into consideration all the key CSR dimensions. Some of the specific CSR information that were covered involved energy

conservation, supply of clear and accurate information and labelling of products and services and so on.

Independent Variables

Firm age was measured based on the number of years the business has been in operation. The number of employees was used as a proxy for firm size. The ratio of total assets to total debts measured the leverage of the firms. It is important to note that this ratio would reverse the interpretation of the direction of the regression output on leverage. Nakiyinga (2007)'s 14-item scale of managerial competence was adopted for the study. In line with previous studies in the SME domain, financial performance was subjectively measured. It has been argued that subjective measures of financial indicators are acceptable, because SMEs rarely keep financial records (see Sweeney, 2009; Man, 2011; Burton & Goldsby, 2009).

Results and Discussion

Descriptive statistics

Table 1 summarizes the descriptive analyses of dependent and independent variables, reporting the mean, standard deviation, minimum and maximum statistics for the attributes of the firms included in the sample. The average extent to which the sampled firms engage in corporate social responsibility is 3.89. This shows that most of the SMEs, despite their size, were still actively pursuing CSR practices. Firm age has a mean of 14, while firm size, in terms of the number of employees, had a mean of 14.19. Financial performance has a mean value of 1.17. This implies that the financial performance of the sampled SMEs was not encouraging. Managerial competence recorded a mean of 4.0478. This suggests that a lot of the SME managers have the requisite competence in running these businesses. Leverage (measured as total assets/total debts) indicates a mean value of 3.4161, suggesting that most of the SMEs do not employ a lot of debts in their operations.

Table 1: Descriptive Summary Statistics

Variable	Mean	Std. Deviation	Minimum	Maximum
CSR	3.8900	0.5900	1.0000	5.0000
Managerial competence	4.0500	0.5200	1.0000	5.0000
Financial performance	1.1700	0.3537	1.0000	3.0000
Firm age	14.0000	13.3499	1.0000	70.0000
Firm size	14.1915	12.1520	1.0000	65.0000
Leverage	3.4161	0.9039	1.0000	5.0000

Multicollinearity tests

Table 2 shows the multicollinearity tests results for the independent variables used in the study. The calculated VIF (Variance inflation factor) in all cases was less than 2, indicating that there is no multicollinearity problem for regression analysis (Fox, 1991).

Table 2: Multicollinearity Tests

Variables	Tolerance	VIF
Managerial competence	0.892	1.122
Financial performance	0.693	1.444
Firm age	0.725	1.379
Firm size	0.718	1.392
Leverage	0.625	1.601

Common Method Bias tests

To reduce the possibility of common method bias (CMB), both procedural and statistical measures are adopted (Mat Roni, 2014). The procedural method concerns the approach the data were collected, and the instrument is designed. To reduce the effect of CMB in this study, only previously tested scales were used (Alfes, Shantz, Truss, & Soane, 2013). To reduce social desirability bias and evaluation

apprehension, the survey stressed anonymity of respondents (Podsakoff et al. 2003; Mat Roni, 2014). In addition, statistical approach is also very important in controlling for CMB (Mat Roni, ibid).

According to Podaskoff et al (2003), the Harman's single factor test is the most widely used and simplest test in literature to control against CMB. With respect to the test, Podsakoff and Organ (1986) advanced that a single factor would emerge from a factor analysis or one general factor would account for most of the covariance in the independent and criterion variables if CMB was a serious problem. Mat Roni (2014) also adds that if the first component of the Total Variance Explained in a factor analysis accounts for less than 50 percent of all the variables in the model, the study is free from significant common method bias effect. All items measuring variables in this study were entered into an exploratory factor analysis with a principal axis factoring analysis, extracting seven factors, with factor 1 accounting for only 32.636 percent of the variance (the Table is attached as Appendix A). The results indicated that no single factor emerged and no one general factor accounted for most of the covariance among the latent factors. Therefore, CMB does not affect the results of this study.

Regression Model Results

Regression analysis was used to estimate the firm level determinants of CSR among SMEs. The empirical results (see Table 3) of this study showed that managerial competence had a significant positive relationship with corporate social performance. This output supports the assertion by Belkaoui and Karpik (1989) that one of the most important determinants of a firm's pursuit of social activities that addresses societal concerns is managerial competence. It seems managers with the competence of running profitable firms also have a better understanding of the ramifications of social responsibility, which leads to them addressing more social and environmental concerns. Competent managers know that by being socially responsible this could lead to several positive

outcomes, such as retaining and attracting competent employees, customer loyalty and good reputation, that can lead to better corporate financial performance.

Also, financial performance had a significant positive relationship with CSR. From the slack resource theory, it can be reasoned that profitable firms are more likely to have spare financial resources that can be devoted towards CSR activities (Campbell, 2007; Waddock & Graves, 1997). In view of the credit constraints confronting SMEs in the sub-Saharan African region, it is unlikely that less financially sound SMEs would seek to undertake CSR initiatives. Regarding leverage, it had a significant negative relationship with CSR. From the narration on how financial performance influences CSR, it is rational for highly leveraged firms to be less interested in CSR activities. Firms with high leverage positions signal weak financial performance in view of high debt interest expenses they are faced with (Zweibel, 1996). This clearly discourages investment in CSR among firms that have the object of maximising wealth (Moussu & Ohana, 2016).

Both firm age and firm size had no significant relationship with CSR. These results are contrary to previously held positions (see Meznar & Nigh, 1995; Godos-Díez et al., 2011) that older and larger firms normally tend to be more socially responsible, because of the pressure to maintain their reputation and meet stakeholder expectations. This finding is not surprising given the context of this study. One of the major constraints confronting SMEs in Ghana is access to affordable credit, hence financial resources, as argued by slack resource theory, is a major determinant of the initiatives that firms in this sector can embark upon. Also, given that SMEs in developing countries do not normally engage in succession planning and effective financial record keeping to profit from the advantages that come with growing old and larger, it is to be expected that firm age and firm size will not have any influence on the social performance.

Table 3: Regression Model Results

Variable	Coefficient	Standard error	t-value	Significance
Firm age	0.007	0.002	0.152	0.897
Firm size	-0.023	0.002	-0.542	0.588
Managerial competence	0.573	0.043	14.825	0.000
Leverage	0.169	0.027	4.021	0.000
Financial performance	0.081	0.019	2.027	0.043
R^2	0.446			
Standard error of regression	0.439			
F-statistic	67.035			
F-statistic probability	0.000			

Conclusion

This study examined the firm-level determinants of CSR among SMEs in Ghana. The empirical results revealed that managerial competence and financial performance have significant positive relationships with CSR, while leverage had a significant negative relationship with CSR. Firm age and firm size had no significant relationship with CSR. The thrust of this study is that, besides managerial competence, financial performance variables were far more important determinants of the social performance of SMEs than non-financial ones. The findings largely affirm the slack resource theory and the resource-based view that the resources available to an organization is a key indicator of the kinds of strategies and activities that organisations can pursue. Based on the findings, internal resources, such as managerial competence and financial resources, are necessary for SMEs to become more socially responsible.

Therefore, it is recommended that SME owners and managers should seek to develop and improve their managerial competencies in order to improve their social performance of their firms. They are also to balance their quest of seeking to project their enterprises as good corporate citizens with the responsibility of ensuring that these firms remain profitable. The finding shows that it is when they remain profitable that they can embark on CSR programmes. In addition, policy makers that desire active participation of the SME sector in addressing social problems should institute measures that will enhance their financial performance. These may include providing cheaper alternative to accessing funds and maintaining a stable macroeconomic environment that supports their financial success and prosperity.

Despite the major contributions this study makes to the existing SME literature, there are still some limitations that future studies may seek to address. First, the study was restricted to our understanding of how firm-level characteristics of firms influence their social performance. However, it has been posited that national and industry-level variables also have significant influence on the extent to which firms engage in social initiatives. Therefore, a comprehensive study can be carried out to establish how these other indicators impact on the social performance of SMEs. Second, it failed to disaggregate the various dimensions of CSR (i.e. social, environmental, governmental, etc). Hence, future studies could seek to examine how firm-level attributes of SMEs affect these specific areas of CSR. Finally, besides managerial competence, there are other several CSR-related competencies that could influence the ability of a manager to effectively initiate and execute CSR programmes. Future studies may want to address how other types of competencies and skills influence a manager’s willingness to pursue CSR initiatives.

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Appendix a: Common Method Bias ExtractioN

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	10.117	32.636	32.636	10.117	32.636	32.636
2	2.684	8.659	41.295			
3	1.954	6.303	47.598			
4	1.601	5.164	52.762			
5	1.490	4.806	57.568			
6	1.165	3.759	61.326			
7	1.027	3.312	64.639			
8	.945	3.050	67.688			
9	.783	2.525	70.213			
10	.718	2.317	72.530			
11	.671	2.163	74.693			
12	.649	2.092	76.786			
13	.616	1.988	78.774			

14	.591	1.906	80.679			
15	.570	1.839	82.518			
16	.530	1.709	84.227			
17	.502	1.618	85.845			
18	.487	1.570	87.415			
19	.451	1.456	88.871			
20	.413	1.333	90.205			
21	.386	1.246	91.451			
22	.379	1.223	92.674			
23	.360	1.161	93.835			
24	.334	1.077	94.912			
25	.303	.978	95.890			
26	.277	.892	96.782			
27	.234	.755	97.537			
28	.221	.714	98.251			
29	.202	.652	98.903			
30	.186	.601	99.503			
31	.154	.497	100.000			

Extraction Method: Principal Component Analysis.

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