**Determinants of academic performance of accounting students in Ghanaian secondary and tertiary education institutions**

**Abstract**

The paper investigates the determinants of academic performance of accounting students in Ghanaian secondary and tertiary education institutions. Data analysis is based on a survey of 500 accounting students enrolled at secondary and tertiary education institutions in Ghana. Using Ordinary Least Squares (OLS) regression, the results indicate accounting students’ performances are affected by both motivational (expectation and volition) and engagement and commitment (academic interest and learning attitude) factors. However, when the data is analysed separately by level of study, the results indicate that expectation has different effect at each level of study. The results in respect of engagement and commitment remain the same. The implication of the differences in the effect of expectation and volition on academic performance at secondary and tertiary level suggest that accounting educational stakeholders should institute separate measures at each level relating to these factors to strengthen their effect on academic performance.

**Keywords**: Motivation, determinants, performance, accounting, Ghana

**Paper type**: Research paper

**Introduction**

The academic performance of accounting students is an important issue because academic failure aside from the emotional and financial costs to the individual students also reduces the number of students progressing through to professional level (Gracia & Jenkins, 2003). Good academic performance, therefore, serves as a springboard for accounting students in their quest to pursue a career in the accounting field. This helps meet market demand for accountants particularly in developing economies where economic growth has resulted in increased demand for accountants (Dalcı et al., 2013; Bakre & Lauwo, 2016). The determinants of academic failure or success are suggested to be of importance not only to students but the institutions and the lecturers dealing with the students (Guney, 2006). A number of studies have examined factors which influence accounting students’ performance such as expectation, interest, attitude (Masky & Zheng; 2008; Guney, 2009; Fallan & Opstad, 2014; Duff & Mladenovic, 2015) with volition been mostly considered in the field of psychology (Wegner, 2003; Feldman et al., 2016). However, the majority of the studies are derived from developed countries (Jackling & Anderson, 1998; Duff, 2004; Maksy & Zheng, 2008; Arthur & Everaert, 2012; Duff & Mladenovic, 2015) and the results remain inconclusive (Masky & Zheng, 2008; Fallan & Opstad, 2014). Evans (2000) opined that such inconsistencies in the results may be attributed to the study’s context and hence the validity of international studies’ results in the local context must be analysed with great care. Byrne and Flood (2008) suggested the need to replicate previous studies in a different environment at different points in time and extend the variables than limiting it to background demographic characteristics. According to Jansen and De Villiers (2016), the inconsistent results demonstrate the importance of the study’s environment in interpreting research findings and that generalising the result beyond the study’s environment has serious implications and not acceptable.

We argue that in the light of evolving trends in global education and the differences in underlying economic and socio-cultural factors between countries, in particular, that of the developed and developing economies, there is the need for context-specific research (Muttakin & Subramaniam, 2015). For instance, in addition to the factors (e.g. age, gender, attendance, effort, interest, expectation, country of origin, work and academic experiences, numeracy and attitude ) that have been used in prior studies (Jackling & Anderson, 1998; Guney, 2009; Byrne & Flood, 2008; Jansen & De Villiers, 2016), this study adds volition as part of the factors which affects performance. This is relevant as volition has received relatively little attention in the existing literature about its effect on the academic performance of accounting students. The relevance of volition as a factor in determining academic performance in the context of a culturally diverse and emerging economy like Ghana cannot be overemphasised. This is because unlike the developed economies where children have a say in what they study at educational institutions, cultural practices in Ghana (hierarchical order) leave less room for children to partake in decisions affecting their future. This, in most cases, leads to the imposition of key decision such as academic pathway choice by parents.

A study of the determinants of performance of accounting students in Ghana is important because over the years the performance of accounting students at the final examination of the second cycle institutions (i.e institutions offering education to students who have completed their junior high school) has been hovering around average. Some subjects have recorded marks which are below expectation which have become a concern to the authorities. The chief examiner noted in his report on accounting students’ final examination results that students lack adequate preparation (Examiner Report, 2015, 2016). The general performance of tertiary students has not been quite impressive with high rustication and accounting may not be exceptional (GNA, 2014; Ferdinand, 2016). A similar sentiment has been expressed by the chief examiner at the professional level that the overall performance of students in most papers fell far below expectation. The chief examiner called for candidates to be adequately prepared before registering to write the examination (Institute of Chartered Accountants Ghana (ICAG) Examiner’s Report, 2016). This is happening at a time when the developmental agenda of the nation requires the services of accountants. The drive for development and full middle-income status have resulted in a massive push of the private sector with government diversifying state enterprises. With privatisation comes the need for financial reporting to ensure better resource allocation, enhance market efficiency and attract investors (Bakre & Lauwo, 2016).

Two reports have highlighted the need for accountants for economic development in Ghana. ACCA report (2006) noted that Ghana needs 2000 qualified accountants to fill various vacancies on the job market to ensure that the country attains middle-income status. However, the country has been facing acute shortage of accountants in the last decade. Also, a report by ROSC (2014) has reiterated that for Ghana to sustain its economic growth and attain full middle-income status, there is the need for sound financial reporting framework for all financial reporting businesses and high level of accountability and transparency in financial reporting especially, in the extractive industry which is not currently available. Therefore, the need to study the determinants of better performance of accounting students at this stage of national development cannot be overemphasised as improvement in performance may increase the number and quality of accountants.

It is against this background that our study set out to investigate the determinants of accounting students’ academic performance to enhance our understanding and improve attraction to the accounting profession. The key research questions we address are:

RQ1. To what extent are motivational and engagement and commitment factors related

to academic performance?

RQ2. Do motivational and engagement and commitment factors differ according to the

level of study?

To address these questions, the study employed a quantitative approach. A quantitative approach was used as the study focused on testing hypotheses (Meheus, 1999; Easterby-Smith et al., 2008) relating to the links from expectation, volition, interest, and attitude to academic performance. The results of the study indicate that generally there is a significant relationship between motivational (expectation and volition), engagement and commitment factors (academic interest and attitude to learning) and academic performance among Ghanaian accounting students. However, when these factors were separately analysed at both secondary and tertiary levels, there were important differences in the results. All engagement and commitment factors remained significance at both levels but expectation is only significant at the secondary level and volition is only significant at the tertiary level.

The study makes the following contributions. First, it provides evidence from a large and diverse Ghanaian sample that motivational factors have a different effect on the academic performance of accounting students at secondary and tertiary institutions. This is a departure from most prior accounting studies which focused on comparative analysis of academic performance indicators at only programme levels at tertiary institutions (Gracia & Jenkins, 2003; Duff, 2004). This finding will increase the knowledge of accounting education authorities and accounting practitioners on different policies to implement to enhance accounting students’ performance which is usually one of the prime objectives of policy formulators. An additional contribution is pursuing the study in a non-developed country setting, and particularly in Ghana. The underlying economic and socio-cultural factors which impact on the educational system differs significantly from those of the developed economies making the applicability of western results difficult. Despite indications of a shortage of accounting personnel and the likelihood of increasing market demand for accountants studies investigating factors influencing the performance of accounting students are scant. Prior Ghanaian studies (Awayiga et al., 2010; Ahinful et al., 2012) focused on knowledge and skill set, and reasons for majoring in accounting respectively rather than determinants of students' performance. This, therefore, leaves open the question of how to improve accounting students' performance to meet the demand of the market. Also, the current research to the best of our knowledge is the first to examine the effect of motivation, engagement and commitment factors on accounting students’ performance at different levels of education in Ghana. This adds to the dearth of the literature in Ghana examining the effect of endogenous factors on the academic performance of accounting students.

The remainder of the paper is structured as follows. The next section gives a brief overview of the socio-political and education environment in Ghana. The theoretical framework and literature review concerning expectation, volition, interest and learning attitude together with the hypotheses to be tested are covered in section 3. Section 4 discusses the research methodology. The results of the study are presented in Section 5. Finally, there is a summary and conclusion.

1. **The social, educational and political systems in Ghana**

The Ghanaian society is hierarchical in nature with respect being accorded to people due to age, experience, position and wealth. Traditionally, however, age is key in the hierarchical structure and forms the basis of authority. The hierarchical nature of the society helps place individuals properly in the social scale which is considered as relevant part of the virtue of humanity and this minimises the tendency to question authority (Jackson, 2004; Oppong, 2006). The hierarchical structures also manifest in the community where every child is expected to be under the authority and control of all adult. This existing network becomes a system of behavioural regulator for adults and children (Gardiner, 1998). There is preferential treatment for the elderly and their decisions are respected irrespective of their wealth level. This in effect moderates the impact of wealth on authority in poor societies.

Poverty is high in Ghana. A report by Ghana Statistical Service (GSS) (2018) indicates that between 2005 to 2017 population growth was much faster than reduction in poverty. This indicates that poverty is still a major challenge as overall poverty reduced marginally from 24.2% to 23.4% with extreme poverty reducing by 200,000 people from 2.4 million to 2.2 million within that period. Income inequality also widened from 41.9% in 2005/6 to 43% in 2016/17. These socio-economic features have implications for education since the poor either do not enrol their children in schools or their education ends after the basic level. Available information indicates that a total of 682,596 children and 278,807 adolescents were out of school in 2018 (UNESCO, 2019). In addition to these factors is the effect of the Ghanaian national culture. From Hofstede Insight (2018), Ghana scores 80% on the power/distance dimension. This confirms the hierarchical nature of the Ghanaian society. This has a significant effect when it comes to decision making regarding course choices since the highly placed individuals tend to dictate the course of action.

As a collectivist society, individualism has a minimal place in Ghanaian society relative to the western world (LeFebve and Franke, 2013). Collectivist are more dependent and this has an effect on individual decision making. A long lasting decision is not made without much involvement of other group members. This helps maintain harmony within the group (LeFebvre and Franke, 2013). The identity of the group member is derived from family, clan or ethnic group or community and its norms and values take precedence over individual self-identified norms and values (Nyambegera, 2002). Therefore, the input of family and community cannot easily be ignored when it comes to decisions regarding study programme choices due to the embedded culture of collectivity.

Ghana is a relatively feminine society (score 40%)( Hofstede Insight, 2018) where competition and drive for individual success is low with decision making involving all stakeholders but weighted according to their hierarchal standing. Also, group identity influences consensus building and an individual's activity is assigned by the group. The low competition and drive for individual success may be due to the high value placed on social achievement relative to individual success. The group strongly disapproves self-centredness and discourages individuals placing themselves above members in their community (Oppong, 2013). This may impact on the type of school one attend, choice of subject(s) and performance since their freedom of choice may be constrained by their belongingness. With a score of 65% on uncertainty avoidance ( Hofstede Insight, 2018) it is clear that the Ghanaian society maintains rigid codes of belief and behaviour and are intolerant of unorthodox behaviour and ideas. This impacts on enrollments into high-rank schools where priority are given to high-grade applicants and also applicants with relatives already in the school. Also, an individual's motivation for education and work is promised on security. Linked with uncertainty avoidance is the low long-term orientation of the society which stifles the pragmatic approach and effort in the educational system. This is demonstrated in the series of educational reforms which have not yielded the needed results. In the second cycle, there has been ‘front and back’ policies over the years (see Adu-Gyamfi et al., 2016). On the indulgence dimension, Ghanaian society is seen as a place where people display a positive attitude and act as they please. This, therefore, calls for rules which are mostly obeyed and help improve performance (Oppong, 2013). A clear set of rules and enforcement are a common phenomenon in all educational institutions in Ghana as it aids teaching, learning and performance.

The current provision of accounting education aligns with the educational system in Ghana which may be classified into three levels as secondary schools, degrees and diplomas, and professional qualifications (Adu-Gyamfi et al., 2016). At the secondary level students are introduced to accounting fundamentals. This helps them appreciate the role and function of accounting. It also prepares them for degree and professional programmes ahead. Secondary education in Ghana lasts for three years and ends on a final assessment examination leading to the award of West African Secondary School Certificate Examination (WASSCE). The various accounting degrees (undergraduate, postgraduate and diplomas) are mostly offered by tertiary institutions in Ghana with oversight responsibility by the National Council for Tertiary Education (NCTE). There is a link between secondary and tertiary education and professional accounting education in Ghana. Students from secondary schools and graduates from non-business-related programmes who want to pursue professional accounting qualification generally start from the foundation level. However, undergraduates with a degree or HND in accounting from tertiary institutions do not write level 1 and some papers in level 2 since they are exempted. Those with masters’ degree in accounting may get more subject exemptions in level 2 depending on their area of study at the masters (ICAG, 2019). The Institute of Chartered Accountants, Ghana is the only mandated body which issues practising accountant’s certificate in Ghana.

On the political front, the country has been very stable with seven peaceful democratic elections held since 1992 (Okudzeto et al., 2014). This stability in the political atmosphere has increased investment in the educational sector resulting in increased infrastructure and enrolment. However, corruption continues to be a challenge (GII, 2011) in all sectors including education with several publicised cases in the court. To improve the corruption situation and governance, the National Anti-Corruption Action Plan (NACAP) was launched in 2014. The multi-party democracy in Ghana has focused much on improving access to education at all levels than improving the quality of education. The duty of improving the quality of education is mostly been championed by non - governmental organisations (Okudzeto et al., 2014).

1. **Literature review and** **hypotheses development**

*3.1 Theoretical framework*

The study adopts a multi-theoretical framework to explain the determinants of academic performance. First, Vroom (1964) explained that the expectancy theory involves what individuals expect from their own efforts and its relation to good performance. In an organisational environment, individuals have different needs and goals which in turn determines their behaviour. According to this theory, more effort is expected to lead to a better-desired outcome. A person's preference for a specific valued outcome/reward to a large extent determines his/her expended effort (Wanous, Keon & Latack, 1983). Using expectancy theory in predicting academic performance, Geiger and Cooper (1995) opined that students' performance is greatly influenced by the attractiveness of perceived future rewards and probability that their effort will lead to these rewards. From the individual's perspective, however, factors such as perceived task difficulty, self-confidence and capabilities all play an important role in the achievement of future rewards. Therefore, motivating students to improve their academic effort depends to a large extent on their belief that higher performance will result from their effort which is likely to be associated with future desired benefits.

The effect of volition on academic performance is explained by choice theory. This theory argues that students take ownership and responsibility for their actions. According to Glasser (1998), learners have four genetically psychological needs which include "the need to belong, the need for power, the need for freedom, and the need for fun". Under these conditions, students are more likely to stick with and thrive in school. Therefore, to ensure success in an academic environment, the learner should be provided with relevant information and allowed the freedom to make their own choice of subjects or course of study rather than been compelled. This is supported by the rational choice concept which assumes that individual with given options (courses) will choose the most preferred one following consistent criterion in other to maximise their utility (Levin & Milgrom, 2004). Not allowing learner(s) the freedom of choice in course selection amount to behavioural control which has a psychological problem which may affect academic performance (Tracy, 2017). The choice condition is beneficial to students' academic performance due to the feeling of control over their environment and choice of task help diminish the likelihood of inappropriate academic behaviour (Stenhoff, Davey, & Lignugaris, 2008).

Interest theory has also been used to explain the effect of students’ academic interest on academic performance. Interest among individuals is conceived as depositions which are related to mental schemata linking the activity or object of interest with positive emotional experiences and personal value system. The basis for expecting academic interest to impact on academic performance is the proposition that interest- driven actions are characterised by value commitment and positive emotional valance (Köller, 2001). This involves personally valued activities mostly accompanied by positive emotions and is self-international. According to interest theory, demands as a result of interest on a person are unavoidable and that there exists a specific relationship between the person and the activity of interest. This in effect implies that an activity related action is realisable (Schiefele et al., 1983). The theory argues that both individual and situational interest promote task persistence, attention, recall and effort (Hidi, 1990; Hidi & Renninger, 2006). Interest is one of the relevant factors of academic success. Schiefele (1996) suggested that interest serves as a motivator for long working hours on tasks.

In this study, we rely on the theory of reasoned action (Ajzen & Fishbein, 1980), to explain the effect of learning attitude on academic performance. According to this theory, an individual’s behaviour is determined by its behavioural intention to perform it. The behavioural intention in itself is determined by the attitudes and subjective norms (perception of behaviour expected from people important to him/her). The attitude toward a behaviour is a function of the expected consequences or outcomes of behaviour (beliefs) and the evaluations of these expected consequences or outcomes (Verhallen, 1984). The theory was extended by Ajzen (1985, 1988) to the theory of planned behaviour by including perceived behavioural control. The intentions to exert effort and obtain a certain level of performance are strongly determined by attitude, subjective norms, and perceived control (Ajzen, 2011). A positive attitude has been suggested to be highly influential to prompt behaviour and subsequently, performance (Lowe & Simons, 1997; Foong & Khoon, 2013). The importance of attitude in performance is due to the fact that it has a direct effect on behavioural variables such as working lon­ger hours, acquiring new skills, and working faster (Ajzen, 2011).

* 1. *Literature review*

A number of previous studies have examined the determinants of academic performance of students in general and accounting students specifically (e.g. Naser & Peel, 1998; Garcia & Jenkins, 2003; Byrne & Flood, 2008; Guney, 2009; Fallan & Optad, 2014). Naser and Peel (1998) interested in the determinants of factors influencing first-year university students’ performance in principles of accounting, undertook an exploratory study at Birzeit University in West Bank among 150 students. The study found that attitudinal variable has a positive impact on performance. Specifically, students’ effort is significantly related to performance. Thus, students who considered their own effort as being a relatively important factor in their study had superior performance. In a similar study, Garcia and Jenkins (2003) explored the performance of undergraduate accounting students at a Welsh University. The sample including second and final year accounting students examined the impact of demographic, attitudinal and behavioural factors on the performance by comparing these factors between second and final year accounting students. Gracia and Jenkins (2003) found that class participation and students whose first choice of subject was accounting performed better. A clear indication that attitude and interest play a significant role in academic performance. On this basis, the authors suggested that intervening variables, rather than demographic variables, may be important determinants of students’ performance in university accounting examinations. Guney (2009) found a positive association between student career expectation and performance in accounting among a sample of 419 in a UK university. He argued that accounting student’s expectation of a future career in accounting serves as a motivation which makes them perform better academically. The positive association between motivation and performance has also been supported in the USA. A study by Masky and Zheng (2008) in a public university found that expected grade point by students has a significant association with performance. Also, research studies on accounting students’ attitude have found it to be key in enhancing their knowledge levels (Hassandoust, Logeswaran, & Kazerouni, 2011; Foong & Khoo 2013).

In Norway, Fallan and Optad (2014) examining the impact of academic interest of management accounting students found a positive and significant influence of academic interest on academic performance. They suggested that that in order for the academic achievement to raise the teachers need to increase the students’ interest in the subject. However, they found no significant relationship between attendance and effort with performance. One factor which has received lesser attention in the accounting students’ performance literature is volition. Fogarty and Goldwater (2011) in their US study suggested that academic performance is strongly associated with self-selection (volition) into the various study field.

Contrary to the above results, studies have found negative or no significant association between motivational, and engagement and commitment factors, and academic performance. Evidence of a study conducted by Masky and Zheng (2008) did not find support for expectation. The results indicated that intention to take the CPA exam or future attendance at graduate school did not influence students' performance significantly. In Ireland, Byrne and Flood (2008) carried out a study of students specialising in accounting at Dublin City University. Data collection was done with a questionnaire containing both open and close-ended questions. The final section of the five-part questionnaire related to the expectation of the students regarding the unit. The results indicated that academic performance of the first year university accounting students to some extent has no significant relationship with their expectations. Recently, Fogarty and Goldwater (2011) investigating academic attitude (effort) and achievement between males and females concluded that where effort is not explicitly rewarded in the academic environment, it does not make any difference. Duff and Mladenovic (2015) developed a cluster analytic approach to examine the antecedents and consequences of learning approaches by accounting students in Australia. Their results indicated that imposition of accounting on students have a negative effect on the learning approach and interest. Where the learner has no input in the decision to study accounting he/she may become detached from the subject which negatively affects their performance

It is evidenced from the preceding literature that there has been a number of studies investigating the performance of accounting students, however, most of these studies are from developed countries with very little known about the determinants of accounting students’ performance in developing countries such as Ghana. It must be noted that in spite of the influx of foreign students in western universities, the institutional policies and arrangements are guided by national regulations and culture (Clarke, Yang, & Harmon, 2018). Foreign students are expected in all cases to rather adjust to the socio-cultural settings which are noted to affect their academic performance. Kelly and Moogan (2012) opined that international students do experience culture shock. Tay (1994) noted that even though most developing countries inherited their educational system from the west, their culture is still much more traditional and conservative than most western democracies. The relationship between student and teacher is mostly one way which may result in a different student-instructor effect on learning and performance than what prevails in the west. A study by Ofori-Attah (2006) on curriculum development and cultural context in some Africa countries including Ghana indicated that the educational system is much autonomous from their colonialists and incorporates autochthonal culture elements. Gervedink et al. (2013) examining the influence of culture in curriculum development in a tertiary institution in Ghana found that development of curriculum activities was strongly affected by national culture. The relevance of contextual analysis and cultural understanding for successful curriculum development and implementation has been alluded to by several authors (Kealey et al., 2005; Rogan & Aldous 2005; Chisholm & Leyendecker 2008; Gervedink et al., 2013). Gervedink et al. (2013) noted that curriculum development influence changes in the educational system which affects students’ learning and performance. Also, the results have been largely mixed. This may be due to a number of reasons, such as differences in the educational system and significant socio-cultural differences between students as a result of differences in the environmental settings. Again, the simultaneous examination of the determinants of accounting students' performance at the secondary and tertiary levels has not been the focus of prior studies. Given the importance of accountants in developing countries' economies, it is important that such studies are extended to developing countries’ environment.

*3.2 Hypotheses development*

*3.2.1 Expectation*

Existing literature indicates that expectation may be associated with academic performance because it shapes how students respond to their studies and the new environment. The basis for such result is that expectation helps the development of new skills necessary in any new endeavour/environment to overcome challenges which may serve as impediments to success (Gibney et al., 2011). Students’ academic career, social pressure, political engagement, and personal and social development expectations may serve to motivate them to achieve success in higher education (Rawson, 2000; Byrne & Flood, 2005; Deaño et al., 2015). Students’ expectations, therefore, increase their investment in their learning (Diniz et al., 2016). This is consistent with the suggestion by Marton and Saljo (1976, p. 125) that students adopt an approach determined by their expectations of what is required of them. Expectation is therefore seen as a check mechanism which may lead students to demonstrate a positive attitude towards their learning (Fazey & Fazey, 2001). However, Gibney et al. (2011) argued that student’s expectation may limit their ability to appreciate the need to obtain new skills necessary in their new endeavour/environment. This may affect their ability to execute strategic plans relating to learning which in some cases may lead to the adoption of surface learning approach (De Lange & Mavondo, 2004; Duff 2004; Bunce, Baird, & Jones, 2016). This may disadvantage them and affect their academic performance. This may suggest that expectations must be well grounded in a proper understanding of the “means-ends” relationship which is fundamental to achievement. Therefore, where no effective plan of action has been implemented the results may be hollow ( Alexander, Doris, Entwisle, & Bedinger, 1994). A prior study by Guney (2009) found a positive relationship between accounting students’ expectation and academic performance. However, Masky and Zheng (2008) and Byrne and Flood (2008) found no significant relationship between student’s expectation and performance. It can, therefore, be hypothesised that:

*H1* *Expectation is positively related to academic performance.*

*3.2.2 Volition*

There are reasons for expecting a positive relationship between volition and academic performance. Where a student decision to read accounting is influenced by referent group such as parents, friends and teachers (Geiger & Ogibly, 2000; Ahinful, Paintsil, & Danquah, 2012, Dalci, Arash, & Baradarani, 2013; Wen, & Bu, 2015) it may lack that element of personal will which may be critical for academic performance. Alexanderet al. (1994) suggested that one of the key ingredients of high performance is willingness which helps one to persist in the mix of obstacles. The chance of an individual choosing a course of action which affects his/her future is known to influence to some extent the success of the outcome. When students are given the chance to decide the programme they want to read at school it is more likely to have a positive impact on their academic performance due to the satisfaction with the decision made (Feldman et al., 2014). It may impact on students’ academic interest, learning attitude and may help them to overcome learning difficulties to reach their goals. This is due to the belief of being free from internal and external constraints and capable of choosing and directing one's own path (Fogarty & Goldwater, 2011; Feldman et al., 2016). The lack of free will may represent psychological illusion (Wegner, 2003) which may affect achieving goals, high levels of deliberation and conscious thought (Stillman, Baumeister, & Mele, 2011).

Other reasons why volition is expected to impact positively on performance include; acceptance of accountability (Nietzsche, 1966), drive for action, self-regulation (Greve, 2001) and stronger motivation for a successful career (Stillman et al., 2010). Freedom to participate in the choice of a course promotes goal monitoring and facilitates enhanced learning from one's mistakes to improve future performance (Alquist et al., 2015). Feldman et al. (2016) suggested that with a certain outcome, those with volitional choice assume more responsibility, have a positive attitude, learn better from past mistakes and work harder at changing negative outcomes. Fogarty and Goldwater (2011) reported that self-selection into a programme has a positive association with academic performance. We, therefore, contend that in instances where students are forced or induced or wrongly advised to read accounting programme that under normal circumstances they would not have opted for, may have negative consequences on their education, which could manifest in the area of poor academic performance. It is therefore hypothesised that:

*H2* *Volition is positively related to academic performance.*

*3.2.3 Academic Interest*

It is believed that students who have interest in a particular academic discipline and seek to pursue personal goals, vigorously engage in learning activities which are aimed at achieving understanding and intellectual development (Lepper, 1988; Paulsen & Gentry, 1995; Donald, 1999). Students with an academic interest in accounting are more likely to develop adequate skills and aptitude for accounting. These are important in order to overcome perceived challenges of the subject being boring, highly numerical and requiring heavy workload (Fisher & Murphy, 1995; Geiger & Ogilby, 2000; Allen, 2004) which affect academic performance. Academic interest is closely associated with self-efficacy (task-specific mastery) (Fallen & Opstad 2014) which is the ability to organise and perform the necessary acts to provide a solution to a specific task (Bandura, 1986). Advocates propose that mastering ability in a perceived difficult subject such as accounting is important since it affects learning outcomes and performance significantly (Fallen & Opstad, 2014). Köller (2001) suggested that academic interest may have a positive effect on academic achievement since it underlines academic choices and self-regulated learning, particularly in less structured instructional settings. Thus, academic interest evokes personal control, self-determination, positive emotions and feeling of autonomy which are all actions with a likely positive effect on academic achievement. In addition, better performance is expected since interest is a mental resource which enhances learning through the promotion of attention, task persistence, recall and effort (Ainley, Hidi, & Berndorff, 2002; Hidi & Renninger, 2006). Empirical results on the relationship between academic interest and performance are inconclusive. For example, Garkaz, Banimahd, & Esmaeili, (2011) and Fallen and Opstad (2014) found a significant association between interest and performance whilst Köller (2001) in a related field of mathematics found no significant effect of interest on performance. It can, therefore, be hypothesised that:

*H3* *Academic interest is positively related to academic performance.*

*3.2.4 Learning Attitude*

The suggestion that learning attitude can impact significantly on academic performance is based on the effect of attitudinal factors including study effort, class attendance and study habits. Though more time spent on studies may not guarantee excellent results, demonstrating a bad attitude towards studies is likely to affect performance negatively. Students who develop better learning attitude by putting in extra effort, attend classes regularly and adopt good study habits such as paying attention in class and taking notes develop better study skills. This may impact on their performance positively (Guney 2009; Nonis & Hudson, 2010). Nonis and Hudson (2010) suggested that having a good learning attitude implies organisation and access to a good set of study materials which coupled with effective time result in relatively better performance.

In addition, positive learning attitude helps better understanding of learning materials, enhances thinking skills (Burke & Williams, 2008) and also reduces anxiety which decreases performance (Sen, 2013). The effort and study habits of students are reported to greatly influence subject knowledge through attainment and structuring new information. These make the learning process easy (Şimşek, 2007; Nois & Hudson, 2010) with a likely positive effect of sustained learning and performance. It has also been suggested that students with a good learning attitude more easily accept tasks and get more involved in the learning process. This is usually achieved by setting goals, acquiring new knowledge and striving for performance excellence which in turn reflect in their performance (Topala, 2014). The results of previous studies on the link between learning attitude and academic performance have also been mixed. For example, Didia and Hasnat (1998) in finance and Guney (2009) in accounting reported a significant association between learning attitude and performance but Fallan and Optad (2014) found no significant relationship between attendance and effort in management accounting with performance. It can, therefore, be hypothesised that:

*H4* *Attitude is positively related to academic performance.*

1. **Research Method**

*4.1 Setting and sample*

The population of interest for the purposes of this study comprises of accounting students from selected secondary and tertiary education institutions in the Cape Coast Metropolitan area in the central region of Ghana. The study area hubs most of the best and oldest schools in the country, particularly at the secondary school level. Five secondary schools (commonly known as senior high schools (SHS)) and one university were considered. To improve sample relevance and representativeness, we focused on final year business students at the secondary education institutions (these students read accounting as their major) and students at all year levels who specialise in accounting at the tertiary level. The final year students at the secondary education institutions were considered as they had enough background knowledge and academic exposure on the subject under investigation. An effort was made to draw proportionate samples from each sample category.

However, the adequacy of the sample size for the study was guided by the statistical analysis and techniques used to treat and examine data. For example, in order to validate our instruments, we employed both exploratory factor analysis which required a large sample size (Field, 2009; Hair, Black, Babin, & Anderson, 2014). Similarly, given that we wanted to use ordinary least square (OLS) regression analysis for estimating the proposed model whose endogenous variable (i.e. academic performance) had many predictor variables, larger sample size became a concern (Hair et al., 2014). Given these considerations, we printed out and distributed 560 questionnaires (300 to the secondary education institutions and 260 to the tertiary education institution). The self-administered questionnaire was distributed to the students during accounting classes and lectures to ensure that only students pursuing accounting programme complete the questionnaires in an organised atmosphere without compulsion. This was done with the assistance of the subject teachers and teaching assistants in the sampled institutions. The questionnaires were administered during the third term and the second semester at the secondary schools and tertiary level respectively. To ensure anonymity, respondents were asked not to identify themselves on the questionnaire and were further assured that data gathered was only going to be used for academic purpose. At the end of the field study, we were able to retrieve 517 made up of 284 and 233 questions answered by secondary and tertiary students respectively. After preliminary examination of the questionnaires for substantial missing values and incompleteness, 500 was considered as effective for the study (i.e. effective response rate was 89.3%).

*4.2 Measures and validation*

Obtaining measures that adequately capture their underlying constructs required us to follow two broad steps. Step one focused on identifying empirical indicators (i.e. conceptually-based observable items) to establish content/face validity (O’Leary-Kelly & Vokurka, 1998). To do this, we followed a detailed prescription offered by MacKenzie, Podsakoff, & Podsakoff, (2011). As explained in the subsequent paragraphs, review of literature enabled us to provide operational definitions of the concepts, which subsequently allowed us to generate item pool for each construct. Item relevance and respondents' ability to understand them is the key to obtaining quality data (Podsakoff et al. 2012). Accordingly, we engaged ten of the target respondents in short semi-structured interviews for this exercise. We were interested in how our predictor constructs could better be captured. For example, we asked them questions relating to their expectations from the accountancy profession, academic interest in accounting, attitude towards learning of accounting, and how they found themselves reading accounting now. We converted the responses obtained for each construct into statements to allow us to make a comparison with the pre-extracted items from literature. Similar or matched items/statements were retained. Next, relevant scale anchors were developed for each construct. We went back to the field and administered thirty copies of the questionnaire. This stage of the questionnaire development process mainly focused on checking the extent to which questionnaire items address concerns of clarity and relevance (Podsakoff et al. 2003; Podsakoff et al. 2012). This preliminary questionnaire was divided into three parts: demographics, predictors (interest, volition, attitude, and expectations), and outcome (academic performance). A review of the questionnaire received indicated that item clarity was not a major concern. Descriptive results obtained indicated that some of the items were deemed as less relevant as they had mean scores far extreme from those of the majority. The set of items included in the final questionnaire are discussed in the ensuing paragraphs. The arrangement of items in the preliminary and the final questionnaire was the same.

*4.2.1 Academic performance*

Academic performance refers to the level of examination achievement in accounting courses. This construct was captured with four-items. Using a self-evaluation instrument to capture a construct like academic performance can lead to social desirability bias—a source of common method bias (Podsakoff et al. 2012). While using actual student grade is desirable, accessibility was a major problem in this study. As item social desirability can cause social desirability bias (Podsakoff et al. 2003), we focused on developing items that avoided it. Specifically, our items avoided an evaluation of *absolute* academic score. Three out of the four items requested the respondents to evaluate their (1) performance in accounting in relation to your courses/subjects, (2) current performance in relation to previous performance, (3) current performance in relation to expectation, and (4) trend (decreasing/increasing) in performance. Using a seven-point scale that ranged from “extremely dissatisfied (=1) to “extremely satisfied (=7)”, the respondents were asked to indicate their satisfaction level in relation to each item statement. The scale reliability (Cronbach alpha) for the four items was .905.

*4.2.2 Expectation*

Students can have several expectations regarding their programmes of study (see Arquero et al. 2009). In this study, however, we focused on those related to socio-economic motives for pursuing an accounting programme. Accordingly, we defined our expectation construct as the extent to which a student believes that the accounting profession is economically and socially rewarding. Combing insights from the interviews and prior research (Arquero et al. 2009), we relied on four items—viz., (1) the accounting profession brings one a greater prestige/respect in the society, (2) I believe the accounting profession helps one to earn good remuneration/salary, (3) Relatively, I believe reading accounting helps one to easily get work to do, and (4) I believe pursuing accounting as a profession makes one more likely to succeed in life. To tap into this construct, a 5-point scale ranging from “not at all (=1)” to “to a largest extent (=5)” was used to measure all items. The scale reliability was .763.

*4.2.3 Volition*

Volition is defined in this study as the degree to which a student freely chooses to study accounting without coercion. Individuals with high volition have greater ability to make conscious choices or convert intentions into actions. Prior studies (e.g. Geiger & Ogibly, 2000; Ahinful, Paintsil, & Danquah, 2012, Dalci, Arash, & Baradarani, 2013; Wen, Hao, & Bu, 2015) and also our interviews suggest that students' decision to read accounting may be influenced by referent groups such as parents, friends, and teachers. Accordingly, we relied on three items to assess the extent to which a respondent freely/willingly chose to study accounting. Using a 5-point scale that ranged from "strongly disagree (=1)” to “strongly agree (=5)”, the respondents were asked to rate each of the three items: (1) I personally chose to read accounting, (2) left to me alone, I’d have preferred to read other programmes other than accounting, and (3) the people around (e.g. parents, friends) influenced me to read accounting. The scale reliability was .812.

*4.2.4 Academic interest*

Academic interest indicates a student’s level of interest in reading accounting. Following Fallen and Opstad (2014), three items—viz., (1) personally, I do not consider accounting as my first option, (2) when growing up, I’ve always wanted to read accounting, and (3) personally, I’ve always never enjoyed reading accounting—were used to capture academic interest. A 5-point scale that ranged from “not at all (=1)” to “to a largest extent (=5)” was used to measure all items. The scale reliability was .778.

*4.2.5 Learning attitude*

Learning attitude indicates a student's outlook toward learning of accounting. A positive outlook towards learning of accounting is reflected in attention (in terms of time, energy, and effort) to reading and acquiring new knowledge. Drawing insight from Fallen and Opstad (2014), we developed three items: (1) I spend a lot of time reading accounting materials (e.g. books), (2) I always want to learn something new in the field of accounting, and (3) I think any effort made to read accounting materials is worth it. A five-point scale that ranged from “strongly disagree (=1)” to “strongly agree (=5)” was used to measure all items. The scale reliability was .736.

Step two of the validation process involved an empirical test to establish construct validity. This required evaluating (1) unidimensionality (2) convergent validity (3) discriminant validity, (4) nomological validity and (5) reliability of the measures (O’Leary-Kelly & Vokurka, 1998; Hair et al., 2014). It became a necessary approach to rely on exploratory factor analysis (EFA) for such tests as the measures were new (MacKenzie et al., 2011). We used principal component analysis as the estimation method and Varimax for rotation (Field, 2009). To ensure that the measures per a given construct are unrelated to those of others and uniquely/distinctively capture only their constructs, we conducted the analysis on all items (O’Leary-Kelly & Vokurka, 1998). For Eigenvalues above 1.00, 5 components were extracted and explained a total variance of 71.808%. The items loaded onto their theoretical constructs. The loadings ranged from .602 to .867. Component 1 (Performance), 2 (Expectation), 3 (Volition), 4 (Attitude), and 5 (Interest) respectively accounted for 33.691%, 13.812%, 9.762%, 8.117%, 6.428% of the variance explained. These results, coupled with the absence of cross-loading above .40 suggest good unidimensionality of the scales as well as convergent validity and discriminant validity (O’Leary-Kelly & Vokurka, 1998; Hair et al., 2014). The KMO value was .862 and Bartlett’s test of Sphericity reached statistical significance; given χ2 (DF) = 3947.165 (136), p < .0001 (Pallant, 2007; Field, 2009) which suggest that the data were adequate and also factorability was possible.

Nomological validity was assessed by examining the statistical results (i.e. correlations) against the theoretical linkages between the constructs. The results produced in Table 2 show significant correlations between constructs as specified in the study and thus lend support for nomological validity (Hair et al., 2014). Lastly, Cronbach alpha was used to assess the reliability of the measures (O’Leary-Kelly & Vokurka, 1998). All alpha values as reported in Table 1 were above the minimum cut-off value of .70 (Bagozzi & Yi, 2012) and therefore indicates that the scales had good internal consistency (Field, 2009).

*4.2.6 Control variables*

The study included gender (male =1, female = 0), and students level (secondary school = 1, tertiary school = 0) as covariate in the analysis.

* 1. *Method bias test*

Given the self-reported nature of the instrument employed in the study, it became necessary for us to conduct a test for common method bias (CMB) (Podsakoff et al., 2003). We employed Harman’s one-factor test for CMB (Podsakoff et al., 2003). Using the unrotated factor solution, all the measures in the study were subjected to EFA and multiple distinct components (i.e. 5) emerged. The first factor accounted for 33.691% of the variance (which is far below 50% of the variance explained) which is accepted in a study like this where the constructs are correlated conceptually. We, therefore, concluded that CMB does not sufficiently describe our data and may not pose much threat to the study’s results and interpretations.

**[TABLE 1 ABOUT HERE]**

*4.4 Model specification*

The following model is used to test our hypotheses with results being presented hierarchically:

Performance = α + β1Gender + β2Level + β3Expectation + β4Volition + β5 Academic Interest + β6 Learning Attitude + ε

Performance = average score of the students’ assessment of academic performance in

accounting (with 1=extremely dissatisfied; 7=extremely satisfied)

Gender = Dummy variable (control variable): 1, if the student is male and 0, if

the student is female.

Level = Dummy variable (control variable): 1, if the student is studying at

secondary; 0, otherwise

Expectation = average score for future expectations from studying accounting (with

1 = not at all; 5 = to a largest extent)

Volition = average score indicating the level of free will of the student in choosing

accounting course using a scale (with 1= strongly agree to 5 = strongly

disagree)

Academic Interest = average score of measures indicating academic interest in accounting

course (with 1= not at all; 5 = to a largest extent)

Learning Attitude = average score for measures instituted by students to improve

academic performance (with 1= strongly agree to 5 = strongly disagree).

ε = error terms

1. **Results**

*5.1 Descriptive Statistics*

Table 2 presents the descriptive statistics of both dependent and independent variables. The academic performance score was 4.11 with wide variations in performance as indicated by the standard deviation of 1.704. The mean score for volition was 3.58. This was followed by interest (mean score 3.57) with expectation and attitude having a mean score of 3.48 each. These results suggest that an average participant has a relatively high interest and volition in studying accounting with appreciable attitude and expectation from the subject. These mean scores indicate that volition is a very important factor among accounting students when it comes to their academic performance.

*5.2 Correlation analysis*

Table 2 also presents the results of the correlation analysis. From the results presented, there is a positive and significant correlation between the academic performance and level of study, volition, expectation, interest and attitude but a significant and negative between performance and expectation.

**[TABLE 2 ABOUT HERE]**

The highest correlation is between academic performance and interest, followed by attitude, volition and expectation. Among the independent and the control variables, the highest correlation was .399, between volition and learning attitude suggesting that all the variables were below the .70 as recommended by Pallant (2007). We further conducted collinearity diagnostic test and found all variance inflation factor values to be far lower than 5 and therefore indicates that the assumption of multicollinearity was not violated in the study (Hair et al., 2014).

*5.3 Regression Results*

Table 3 reports the results of the regression analysis using the academic performance of accounting students as the dependent variable. First, the background characteristics which serve as the control variables in the analysis were entered. This was followed by the entering of motivational, engagement and commitment factors respectively. In Model 1, we examined the influence of gender and level which are control variables. We found that gender and level both have a significant effect on performance. The Model explains 15.8% of the performance variances. This means that male accounting students perform better than their female counterparts. The negative relationship between level and academic performance means that tertiary level accounting students perform better than the secondary level students. Model 2 included expectation and volition as independent variables to examine its effect on academic performance. We found positive and significant relationships between expectation, volition, and academic performance. This implies that accounting students with high expectation in relation to their future do better academically. The finding supports hypothesis 1 (H1) which states that there is a positive relationship between expectation and academic performance. Similarly, accounting students who are studying accounting on their own volition or with minimal influence perform better. The positive and significant effect of volition on academic performance offers support for H2. Model 3 took into account the effect of engagement and commitment factors of interest and learning attitude on academic performance. The results indicate that academic interest has a positive and significant effect on academic performance. This implies that accounting students who develop an interest in the subject perform well and offers support for H3. Learning attitude was also found to have a positive and significant effect on academic performance, indicating that students with a good learning attitude perform better in accounting. This finding offers support for H4. The model with all variables included accounts for about 41 per cent of the academic performance variance.

**[TABLE 3 ABOUT HERE]**

*5.4 Discussion of Results*

The results of the study suggest that students’ expectation from the accountancy profession is significant and positively related to academic performance. Our finding confirms the result of Guney (2009) who found that future career has a positive effect on academic performance. However, it is not consistent with the results reported by Bryne and Flood (2008) and Arquero et al. (2009) who found no association between expectation and academic performance. The positive link implies that students’ academic performance is enhanced by their belief that the accountancy profession will boost their chances of getting a good job, good remuneration and prestige/respect from society. This finding suggests that students’ exposure and understanding of the future benefits associated with pursuing the accountancy profession matters a lot. The result also implies that expectation becomes conditionality for students which may serve as a useful guide to action. This may include developing effective strategies which should facilitate better academic performance. Thus, an expectation set in motion appropriate and reasonable actions for the task at hand which can help the achievement of the desired outcome. Also, when students have expectations they turn to display quality, intensity and persistent behaviours which combine to shape their academic performance better. This may be seen in the light of expectancy theory since future desired rewards have a link with performance. The effect of expectancy on performance can be explained by the high level of uncertainty avoidance in the national fabric of the Ghanaian society which increases the individual need for security. This creates the belief that good academic performance is more likely to be rewarded in the accounting profession which to some extent is the reality in Ghana. Therefore, in line with the social capital view, family, communities and the educators’ ability to clearly communicate to students about the future opportunities that exist for pursuing the accountancy profession is more likely to yield positive outcomes since it creates the needed expectation which is a motivator in this regard.

Similarly, the result that indicates that volition has a statistically positive and significant association with academic performance suggests that where the choice of accounting programme was not imposed on a student by immediate parties but is an act of choice of the student, it is likely to have a positive impact on academic performance. The finding supports our assertion that students’ volition for studying accounting is a crucial determinant of students’ academic performance. This is not surprising given the fact that once an individual is allowed to own a decision(s) which has implication for their future, their input in the decision serves as their “investment” which they may wish to protect at all cost to avoid “loss” in this case peer/social humiliation. Moreover, such students are motivated to perform better in a cultural certain like Ghana where “children students” making their own decisions are generally seen as non-conformers and failure is an expected outcome. Such students are more likely to display academic behaviours associated with high motivation such as spending more time on academic activities which have a positive effect on academic performance in order to prove their point. This result is an indication that a need for freedom in a collectivist society like Ghana when it comes to individual choices is important. The hierarchical order should not mostly be used to make individuals sacrifice their true choice. The result further indicates that the respect and preferential treatment for the elderly in Ghanaian society should be used to provide relevant information to individuals but they should be allowed to make their own choice from available alternatives.

The results which also show that accounting students’ level of academic interest is significant and positively associated with academic performance is consistent with the findings of previous research (Gracia & Jenkins, 2003; Fallan & Optad, 2014). A possible reason could be that students with high level of interest in the subject resort to self-regulated learning and are more likely to read advanced course materials which improve their academic knowledge level as a result of deeper understanding obtained. Certainly, students opting to read accounting and finding it enjoyable may develop their interest and effort in the subject. This leads them to seek better understanding and intellectual development in the chosen programme. This impacts on their academic performance since interest allows one to engage and commit to the subject. Moreover, since interest is a mental resource, students with subject interest may focus all their attention, work longer and persist at accounting task given even in the face of difficulties. From the interest theory perspective, this develops from the specific relationship between the person and the activity of interest such that the interest activity becomes unavoidable and also realisable (Schiefele et al., 1983). This promotes learning which invariably may enhance academic performance.

The result which also indicates that attitude is significant and positively associated with academic performance may be a reflection of how positive learning attitude such as class attendance, making effort at learning new things and spending time on your books may subsequently influence academic performance. It has been suggested that students who show such learning attitude usually engage in deep learning which positively affects academic performance. Another possible reason could be that good learning attitude results in the better organisation of relevant learning materials which helps reduce anxiety especially in critical moments such as examination period which affects performance badly. It can be concluded from the results of this study that good learning attitude involving the adoption of good study habits can lead to improved academic performance. The adoption of good attitude clearly demonstrates the behavioural intention of the student to exert effort to attain a certain level of performance (Ajzen, 2011). The high level of positive attitude in the Ghanaian society may support this finding since such an attitude may facilitate effective self-directed learning which may help meet the perceived behaviour expected by society. The finding of the current study supports those of Naser and Peel (1998) and Guney (2009) which suggest that good attitude by accounting students in relation to class attendance has a positive association with academic performance.

Finally, our control variables also have a significant association with academic performance. Gender of students has a significant association with academic performance. This is consistent with the result reported by Arthur and Everaert (2012) but contrary to the non-significant association between gender and academic performance found by Fogarty and Goldwater (2010) and Fallan and Optad (2014). Also, the level of study has a significant and positive relationship with academic performance. Thus, studying at the tertiary level has much impact on academic performance which may be due to “academic maturity”.

We then divided our sample into two sub-samples on the basis of the level of study (i.e. secondary or tertiary institution). The purpose of this division was to examine the impact of the independent variables on secondary and tertiary students separately. The results of the sub-sample analysis from Table 4 indicate that academic interest and learning attitude have a statistically significant relationship with academic performance at both secondary and tertiary levels. However, volition and expectation have a different effect at both levels of study. While expectation was only significantly positive at the secondary level; volition was significant only at the tertiary level.

**[TABLE 4 ABOUT HERE]**

This may indicate that at secondary level accounting students may have very high expectation about the future due to their programme. This has a significant effect on their academic performance but guidance in course choice is important since volition has no significant effect on academic performance. The insignificant effect of volition at the secondary level may also be attributed to strict Ghanaian culture of parent/guardian having greater input in course choices at this level. However, this influence decreases as one moves up the educational ladder which may increase the impact of volition at the tertiary. On the other hand, tertiary accounting students’ expectation might have decreased due to the acquisition of unfavourable information relating to the accounting profession both from real case studies and academic practitioners which might have been unknown to them earlier. However, the effect of volition on academic performance is significant. This may be as a result of the lessening of the Ghanaian control culture which makes the Ghanaian accounting students get the feel of being in charge of important future decisions. The feel of academic maturity and the need to avoid social humiliation of being seen as a failure in handling his/her own affairs may be contributing to this result. Also, gender only has significant influence among accounting students at the secondary level. This may suggest that at the tertiary level, the culturally stereotype notion of females being lesser of the two genders in need of education might have given way to equality and ability.

1. **Summary and Conclusion**

The objective of the study was to investigate the determinants of academic performance of Ghanaian secondary and tertiary accounting students. The results from the regression analysis indicate that accounting students’ expectation and volition have a significant positive association with academic performance. However, the effect of expectation and volition differ at the secondary and tertiary levels of study. Our results also indicate that interest and learning attitude have a significantly positive association with academic performance. The results provide much insight into the determinants of accounting students’ academic performance in Ghana.

The results of the study demonstrate that in order to improve Ghanaian accounting students’ academic performance, the Ghana Education Service, professional bodies such ICAG and ACCA, family and society should clearly explain the opportunities and prospects which are there for accounting professionals to students. This will help create a valid expectation among the students since expectation is about realities. This, in turn, will motivate them to achieve academic success. Also, the finding of a positive and significant relationship between volition and academic performance indicates that students should have a greater say in determining their career paths and subjects they want to study. However, expectation and volition may have a different effect at both secondary and tertiary levels, which need to be considered in decision-making. The significance of volition suggests the need for circumspection in the culture of superior dictatorship in the choice of a programme of study, especially at the tertiary level. The study again shows a significant effect of interest and attitude to learning on academic performance which indicates that aside students' motivational factors, engagement and commitment factors are equally important in determining academic performance.

Despite the valuable insight provided by the study, there are several limitations which must be considered when interpreting the results. The current study involves only endogenous factors affecting students’ academic performance. However, it is well acknowledged that there are exogenous factors which equally affect students’ academic performance such as the quality of teaching and residential facilities (Guney, 2009; Jansen & De Villiers, 2016). Therefore, future studies should examine the effect of exogenous factors on the academic performance of accounting students. Also, the variables are constructed from questions answered by a single source and are based on his/her perception. This may raise issues associated with self-reporting data such as consistency seeking, self-enhancement, and self-presentation which may affect the reliability and validity of the data. To reduce such limitations, the questionnaire design avoided leading words and questions relating to the dependent variable was placed at the end. From the statistical methods employed, we found no evidence of bias in the data. In addition, the survey data collected was analysed quantitatively which may confine valuable individual insight that could have been gained. Future studies should, therefore, employ a qualitative approach to investigate the determinants of academic performance from an individual student's perspective. Again, the current study examines the influence of the variables on academic performance among only secondary and university accounting students. It is possible that the influence of these factors may differ among professional accountancy students.

In spite of the above limitations, the results suggest that the overall effect of motivation, engagement and commitment factors on accounting students’ performance in Ghana is not different from those found in matured economies. However, this study still makes an important contribution to existing literature because further analysis suggests that the effect of motivational factors (expectation and volition) differs at both secondary and tertiary levels. From the results, expectation seems to be an effective motivator at the secondary level while volition is more effective at tertiary level. Whiles there seem to be some generic effect of expectation at tertiary level irrespective of developed or developing country (see Bryrne & Flood 2008), this would suggest that some context-specific variables such as culture may be very important when it comes to how academic performance of Ghanaian accounting students at the various levels is influenced by motivational factors. This gives some support to the call to understand the academic performance of accounting students in the context of the study’s environment and hence the validity of international studies results in the local context must be analysed with great care (Jansen & De Villiers, 2016). Therefore, the dynamics of motivating accounting students’ academic performance in a developing country with diverse cultural backgrounds may demand a different approach compared to a developed country. This provides new evidence in relation to the effect of motivational factors on accounting students at secondary and tertiary educational levels.

The findings provide accounting educational authorities with the needed insights to improve academic performance at these levels which in turn will help increase the number of accounting professionals on the Ghanaian job market which currently needs about 2000 accountants annually (ACCA, 2006). Also, parents/guardians, families and all other educational stakeholders with interest in promoting accounting education/professionals should dwell more on future expectation of being accounting professional but reduce the level of student volition at the secondary level to improve academic performance. However, at the tertiary level, we recommend an increased level of volition and a lesser emphasis on expectation as a way of improving the academic performance of students. So far as quantity is important so also is the quality of accounting graduates. In this respect, there is a need to increase the number of lecturers/teachers to improve the deteriorating student-teacher/lecturer ratio to an acceptable norm. Also, ICAG should collaborate with tertiary institutions in the area of curriculum development to ensure that relevant and current materials and topics are being delivered to students. It should also develop relevant CPD programmes for training accounting instructors to stimulate innovation and diversity in teaching.

Again, in an effort to create valid expectation among accounting students through provision of relevant information, mention must also be made of the future challenges of the accounting profession which include increasing usage of smart and digital technology, globalization effect on reporting and disclosure standards as well as new forms of regulation (ACCA, 2016; Islam, 2017). Students should, however, be encouraged to appreciate the opportunities these challenges bring once they improve their performance and knowledge in the usage of smart and digital technologies, international reporting and tax regimes as well as socio-environmental reporting (Islam, 2017). The educational stakeholders should also put in place measures to encourage the teaching and learning of cloud computing, digital technologies, bigdata analytics, environmental and integrated reporting among accounting students to enhance their performance in these areas and job opportunities globally.

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**Table 1. Validity results**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Measures | Component | | | | |
| 1 | 2 | 3 | 4 | 5 |
| *Expectations (1=not at all; 5=to a largest extent) [CA= .763* |  |  |  |  |  |
| * The accounting profession brings one a greater prestige/respect in the society | .043 | **.758** | .184 | .131 | .016 |
| * I believe the accounting profession helps one to earn good remuneration/salary | -.055 | **.828** | .024 | .097 | .069 |
| * Relatively, I believe reading accounting helps one to easily get work to do | .169 | **.775** | -.013 | .088 | .048 |
| * I believe pursuing accounting as a profession makes one more likely to succeed in life2 | .116 | **.792** | -.039 | .098 | .052 |
| *Volition (1=strongly disagree; 5=strongly agree) [CA= .812]* |  |  |  |  |  |
| * I personally chose to read accounting | .225 | .176 | **.775** | .296 | .084 |
| * Left to me alone, I’d have preferred to read other programmes other than accounting1 | .192 | .031 | **.795** | .185 | .197 |
| * The people around (e.g. parents, friends) influenced me to read accounting1 | .070 | -.035 | **.849** | .013 | .089 |
| *Academic Interest (1=not at all; 5=to a largest extent) [CA= .778]* |  |  |  |  |  |
| * When growing up, I’ve always wanted to read accounting | .256 | .029 | .038 | .042 | **.837** |
| * Personally, I do not have interest in reading accounting1 | .318 | .142 | .262 | .239 | **.602** |
| * Personally, I’ve always never enjoyed reading accounting1 | .118 | .057 | .154 | .053 | **.871** |
| *Learning Attitude (1=strongly disagree; 5=strongly disagree) [CA= .736]* |  |  |  |  |  |
| * I spend a lot of time reading accounting materials (e.g. books) | .255 | .089 | .028 | **.799** | .015 |
| * I always want to learn something new in the field of accounting | .197 | .105 | .197 | **.788** | .130 |
| * I think any effort made to read accounting materials is worth it | .049 | .220 | .188 | **.693** | .096 |
| *Performance (1=extremely dissatisfied; 7=extremely satisfied) [CA=*  *.905]* |  |  |  |  |  |
| * Performance in accounting in relation to that of courses/subjects | **.769** | .132 | .186 | .204 | .189 |
| * Current performance in accounting in relation to previous ones | **.867** | .084 | .131 | .089 | .193 |
| * The trend (i.e., increasing or decreasing) in performance in accounting | **.844** | .056 | .097 | .214 | .172 |
| * The current performance in accounting in relation to the expectations set for it | **.865** | .048 | .117 | .106 | .127 |
| Eigenvalues | 5.727 | 2.348 | 1.659 | 1.380 | 1.093 |
| Variance explained | 33.691 | 13.812 | 9.762 | 8.117 | 6.428 |

Notes: 1reversed worded; CA=Scale reliability (Cronbach alpha)

Table 2. Correlation and descriptive analyses results

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Variables: | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Mean | SD |
| 1 | Performance | 1 |  |  |  |  |  |  | 4.11 | 1.704 |
| 2 | Gender1 | .256\*\* | 1 |  |  |  |  |  | .54 | .499 |
| 3 | Level1 | -.337\*\* | -.142\*\* | 1 |  |  |  |  | .60 | .490 |
| 4 | Expectation | .220\*\* | .015 | -.017 | 1 |  |  |  | 3.48 | .988 |
| 5 | Volition | .377\*\* | .064 | -.110\* | .155\*\* | 1 |  |  | 3.58 | .994 |
| 6 | Academic Interest | .491\*\* | .127\*\* | -.113\* | .193\*\* | .384\*\* | 1 |  | 3.57 | .929 |
| 7 | Learning Attitude | .423\*\* | .125\*\* | -.224\*\* | .325\*\* | .399\*\* | .317\*\* | 1 | 3.48 | .988 |

Notes; \*p < .05 (2-tailed); \*\*p < .01 (2-tailed); 1dummy variables (gender: male=1; female =0; level: SHS=1; tertiary=0)

**Table 3. Regression analysis results**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Standardised estimates (t-values) | | | VIF |
| Predictors: | Model 1 | Model 2 | Model 3 |
| Gender | .213 (5.111) \*\* | .195 (5.110) \*\* | .152 (4.316) \*\* | 1.039 |
| Level | -.307 (-7.374) \*\* | -.272 (-7.101) \*\* | -.224 (-6.262) \*\* | 1.074 |
|  |  |  |  |  |
| Expectation |  | .310 (8.042) \*\* | .139 (3.534) \*\* | 1.305 |
| Volition |  | .164 (4.281) \*\* | .074 (2.021) \* | 1.133 |
| Academic interest |  |  | .325 (8.434) \*\* | 1.244 |
| Learning attitude |  |  | .170 (4.155) \*\* | 1.398 |
|  |  |  |  |  |
| ∆ R2 | .158 | .137 | .120 |  |
| Adjusted R2 | .154 | .289 | .407 |  |
| ∆ F-statistics | 46.487\*\* | 47.928\*\* | 50.197\*\* |  |
| DF | 496 | 494 | 492 |  |

Notes: dependent variable: academic performance; \*p < .05 (2-tailed); \*\*p < .01 (2-tailed)

**Table 4. Regression analysis results by level of study** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |
| --- | --- |
|  | Standardised estimates (t-values) |
|  | Secondary | Tertiary |
| Gender | .238 (5.054) \*\* | .030 (.506) |
|  |  |  |
| Expectation | .175 (3.387) \*\* | .128 (1.848) |
| Volition | -.006 (-.127) | .204 (3.305) \*\* |
| Academic interest | .352 (6.855) \*\* | .322 (4.891) \*\* |
| Learning attitude | .175 (3.276) \*\* | .205 (3.016) \*\* |
|  |  |  |
| R2 | .362 | .362 |
| Adjusted R2 | .351 | .345 |
| F-statistics | 33.244\*\* | 21.990\*\* |
| DF | 293 | 194 |

Notes: dependent variable: academic performance; \*p < .05 (2-tailed); \*\*p < .01 (2-tailed)

**Survey instrument**

**Dear student,**

Thank you for accepting to participate in this study. This study seeks to **assess the academic performance of accounting students in secondary and tertiary education institutions in Ghana.** The data collected will be used for academic purposes only. Hence, objective responses provided will highly be appreciated. It is kindly requested that you take your time to provide responses to all items on the questionnaire in order to improve the quality of the study. Please note that participation is voluntary and you are free to stop at anytime if you do not want to continue. Thank you once again.

**Section A: Respondent’s Background Information**

1. Gender [ ] Male [ ] Female

2. Age (years) [ ] 15 – 20 [ ] 21 – 25 [ ] 26 – 30 [ ] Above 30

3. Level [ ] Senior High School [ ] Tertiary

**Section B: Interest, Volition and Attitude and Expectations**

*Please use the scale provided at the right hand-side of each table to provide responses on the following items:*

**B1: Interest towards Accounting**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Not at all** | **To some extent** | **To a large extent** | **To a larger extent** | **To a largest extent** |
| **1** | **2** | **3** | **4** | **5** |
| 1. Personally, you’ve always never enjoyed reading accounting | [ ] | [ ] | [ ] | [ ] | [ ] |
| 2. Since you started growing up, you have always wanted to read accounting | [ ] | [ ] | [ ] | [ ] | [ ] |
| 3. Personally, I’ve always never enjoyed reading accounting | [ ] | [ ] | [ ] | [ ] | [ ] |

**B2: Volition for Accounting**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Strongly disagree** | **Disagree** | | **Neutral** | **Agree** | **Strongly agree** |
|  | **1** | | **2** | **3** | **4** | **5** |
| 1. You personally choose to read accounting | [ ] | | [ ] | [ ] | [ ] | [ ] |
| 2. Left to you alone, you would have preferred to read other programmes other than accounting | [ ] | | [ ] | [ ] | [ ] | [ ] |
| 3. The people around (e.g. parents, friends) influenced you to read accounting | [ ] | | [ ] | [ ] | [ ] | [ ] |

**B3: Attitude towards Accounting**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Not at all** | | **Some times** | | | **To a largest extent** |
|  | | **1** | **2** | **3** | **4** | **5** |
| 1. You spend a lot of time reading accounting materials (e.g. books) | | [ ] | [ ] | [ ] | [ ] | [ ] |
| 2. You always want to learn something new in the accounting field | | [ ] | [ ] | [ ] | [ ] | [ ] |
| 3. You think any effort made to read accounting materials is worth it | | [ ] | [ ] | [ ] | [ ] | [ ] |

**B4: Expectations**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Not at all** | **To some extent** | **To a large extent** | **To a larger extent** | **To a largest extent** |
|  | **1** | **2** | **3** | **4** | **5** |
| 1. The accounting profession brings one a greater prestige/respect in the society | [ ] | [ ] | [ ] | [ ] | [ ] |
| 2. You believe the accounting profession helps one to earn good remuneration/salary | [ ] | [ ] | [ ] | [ ] | [ ] |
| 3. Relatively, you believe reading accounting helps one to easily get work to do | [ ] | [ ] | [ ] | [ ] | [ ] |
| 4. You believe a pursuing accounting as a profession makes one more likely to succeed in life | [ ] | [ ] | [ ] | [ ] | [ ] |

**Section C: Academic performance**

*The following items relate to your performance in accounting. Kindly provide your responses by making reference to the scales provided.*

1. **Extent of satisfaction of your academic performance in accounting**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| ***What is your level of satisfaction in terms of:*** | **Extremely dissatisfied** | | **Neither satisfied nor dissatisfied** | | | **Extremely satisfied** | |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| 1. Your performance in accounting in relation to that of your other courses/subjects | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] |
| 1. Your current performance in accounting in relation to your previous ones | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] |
| 1. The trend (i.e., increasing or decreasing) in your performance in accounting | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] |
| 1. Your most previous performance in accounting in relation to the expectations that you set for it | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] |

End of questionnaire

Thank you.