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## **Determinants of Academic Mentoring in Higher Education: Evidence from a Research University**

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### **Abstract**

Research has shown that most young and inexperienced faculty members require assistance in developing their career and meeting their teaching quota through mentoring. However, academic mentoring has not been effective in many research universities, especially those in the developing world. This study has investigated the factors that facilitate academic mentoring in a typical research university. The study adapted a quantitative methodology by drawing from a sample of 244 senior and junior teaching staff of a public research university in Ghana and used Multiple Regression as the basis for the study analysis to test the hypotheses. Findings showed a strong positive relationship between institutional career support and the process of mentoring. Findings also showed a strong positive mentoring relationship between senior faculty and inexperienced faculty, as well as between colleague faculty. Similarly, findings showed a very low presence of academic mentoring in the University of Ghana. This work contributes strongly to academic mentoring and discovers some legitimate antecedents of mentoring in institutions of Higher Education. By this, the work provides HE institutions with the value of developing their internal human capital asset that can leverage their performance.

**Keywords:** mentoring, determinants of mentoring, institutional career support, co-worker support, higher education, human resource capabilities.



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## Introduction

Presently, global competition in university ranking through strong research and teaching is greatly influencing the operations of Higher Education (HE) institutions. As the academic environment becomes increasingly competitive, students as the primary consumers of higher educational services (Wignall, 2007), show preference for institutions that are able to demonstrate quality teaching and learning outcomes (Gomes & Murphy, 2003). To meet such student demands, universities have come under intense pressure to create a kind of competitive advantage (Maringe & Gibbs, 2008). This quest for competition would place the institutions in a position to attract greater funding opportunities, recruit a high caliber of students, and attain strong research capacity and capability (Archer, 2008). Achieving this level of academic accomplishment is, however, hardly possible without mentoring relationships, the building blocks of any human resource development effort within an institution (Bozeman & Feeney, 2007).

Indeed, the popularity or visibility of higher educational institutions is largely shaped by effective academic mentoring strategies. Essentially, the literature identifies three academic mentoring strategies: 1) the mentoring relationship can be between “a more experienced (usually older) faculty member or professional [who] acts as a guide, role model, teacher, and sponsor of a less experienced (usually younger) faculty or junior professional (Johnson, 2002, p. 88); 2) Mentoring relations can be established between colleagues (Bouwma-Gearhart, 2012); and 3) Mentoring relations between the institution and its staff in the form of career support programs (Parker, Authur, & Inkson, 2004).

This study explores the recognition and use of these three strategies as vehicles for achieving institutional visibility in African universities. In fact, using these three pillars as determinants of academic mentoring in higher educational institutions is worth investigating. It is critical to interrogate the use of these strategies because the literature on academic mentoring in universities reports consistently that mentored faculty experience higher levels of job satisfaction, better student evaluations, greater academic productivity and a stronger likelihood of remaining at a particular university than non-mentored faculty (Ingersoll, Merrill, & May, 2012; Smith & Ingersoll, 2004).

In spite of this opportunity for professional growth and development, it appears that most research institutions in Sub-Saharan Africa (SSA) have, over the years, shown signs of poor performance due to lack of faculty development (Abugre, 2017), resulting in a series of threats to their continual existence. Moreover, the increased international competition, engendered by rankings of higher educational league tables together with a decrease in central government funding, have negatively affected the performance of most African universities. Consequently, Sigué (2012) advocated that, in spite of the availability of other lucrative opportunities, higher educational intuitions in Africa can help retain faculty members endowed with research capacities and inclinations if novice faculty members are guided through mentoring processes and professional support from more experienced colleagues (Thornton, 2014). This study responds to this assertion by investigating the determinants or factors that promote high quality and effective mentorship among academic staff in a typical Ghanaian public research university. By so doing, the study offers the following three major contributions:

First, universities are open systems and highly competitive in rankings and classifications, this study thus contributes to institutional development through knowledge sharing and skills building in the form of mentoring among academic staff by providing a three-level human resource development framework that can help create visibility for African universities.

Second, there is no doubt that institutional career support, guidance from senior faculty, and colleague mentorship all represent valuable but different forms of skills development strategies for the inexperienced faculty member. Yet, to date, no study has looked at all three variables together, in an effort to assess their individual roles in predicting mentoring outcomes. Therefore, and given the burgeoning literature in academic mentoring, it is reasonable to examine the use of these three variables in determining academic mentoring in higher educational institutions.

Third, teaching as a profession is more concerned with interpersonal and socio-emotional bonds with people and therefore, requires enormous support and guidance. Nevertheless, the critical role of such relationships in mentoring inexperienced faculty, colleagues, and students for professional and career success in sub-Saharan African universities has often been overlooked, a gap that this research seeks to contribute to.

This study is structured as follows. First, the conceptual framework of the study is presented through a literature review on mentoring attributes, and the formulation of hypotheses. This is followed by the empirical investigation and results of the tested hypotheses. Finally, a discussion of the findings, implications, limitation and future research and conclusion are offered.

### *Literature and Hypotheses*

#### *Mentoring Attributes*

Mentorship is a multi-faceted concept based on interpersonal relationships that can influence the career progress of a protégé or an inexperienced person. The word mentor is coined from the Greek values of guidance provided by the elderly to the inexperienced. Thus, mentoring may be described primarily as an intense developmental relationship of a relatively long duration in which inexperienced staff receive a range of career and psychosocial help exclusively from senior professionals (Clawson, 1980; Kram, 1985). The conceptualization of mentoring can be broadened further to reflect external drives or career progress-oriented functions such as sponsorship, visibility and exposure, and not just inner-oriented psychosocial developmental functions (Kram, 1985).

From this perspective, Roberts (2000, p.162) describes mentoring as a formalized process through which a more experienced person stimulates a supportive role of supervision and encouraging learning in a less experienced person so as to facilitate his/her career and personal development. Based on these descriptions, several attributes appear to emerge from the concept of mentoring. Thus, Allen, Eby, Poteet, Lentz, and Lima (2004) suggest that mentoring has three core attributes, namely career advancement, professional commitment, and an ability to accomplish tasks by the protégé. Similarly, Haggard, Dougherty, Turban, and Wilbanks (2011) contend that mentoring has to do with reciprocity, developmental benefits and regular and consistent interaction between the mentor and the mentee. Consequently, Hughes, Ginnet, and Curphy (2012) emphasized the “Three Cs”

(confidence, competence, and credibility) as significant attributes of the mentoring process in leadership and subordinate relationship.

This trifocal understanding of mentoring is principally anchored in an interpersonal relationship between people and the support derived from this relationship. Hence, this work argues that a variety of supportive arrangements exist at various levels that can affect faculty outcomes within higher educational institutions. Accordingly, the study presents mentorship as a three dimensional concept, and explores its relationship with institutional career support, guidance from senior faculty, and colleague mentorship. For example, there is a great deal of empirical evidence that suggests that these three variables of mentoring are positively associated with employees' desirable outcomes like satisfaction. Teaching is an interpersonal, emotional and social profession, which requires tremendous support at both the institutional and individual level. For instance, when an institution promotes social capital, it contributes to the development of a stable and committed staff who feel they are being supported by that institution (Ferres, Connell, & Travaglione, 2004).

Similarly, research has proven that co-worker relations and support have the potential to be a significant determinant of employee attitude in institutions (Hodson, 1997). This work thus contends that these three dimensions (institutional support, senior faculty support and colleagues support) would improve faculty opportunities for mentoring others while enhancing the respective positions of both mentors and their mentees, or protégés. Consequently, the current study aims to address these three dimensions as significant determinants of mentoring opportunities in higher educational institutions.

#### *Institutional Career Support and Mentorship*

In this competitive global environment, higher educational institutions should be about how to maximize staff competencies and skills in order to stay in or ahead of the competition. In higher education, the kinds of talent required to accomplish institutional goals often demand that universities provide various staff career support services such as workshops, seminars, educational support packages, and other relevant courses. Such "moral support for and opportunities to invest in one's career" (Kuijpers, Schyns, & Sheerens, 2006, p. 172) would impact on both individual and organizational growth. For example, in a study to investigate the link between employees' perceived organizational support, superior support, and employee turnover, Eisenberger, Stinglhamber, Vandenberghe, Sucharski, and Rhoades (2002) established that supervisors, "to the extent that they are identified with the organization, contribute to perceived organizational support and ultimately to job retention" (p. 565).

In addition, employees' perception of good support from their institutions strengthened their commitment, citizenship behavior, retention, and consequently, their performance through a social exchange or a reciprocal process. Other studies have also revealed that when organizations are perceived by workers to be supportive, encouraging and empowering management (Kanter 2003), trust develops among co-workers (Ferres et al., 2004), and ultimately career and mentorship support is improved within the organization. Thus, building relationships with co-workers in the form of mentoring support creates more opportunities for social and inter-cultural contact, and increases knowledge sharing among staff.

At the individual level, employees are seen as becoming more and more personally responsible for “understanding their own needs, determining their own goals, and managing their own careers” (Parker et al., 2004, p. 490). At the same time, the employee is expected to meet career standards set by the employing organization. Even though individual workers should be concerned about their own career progression, their respective organizations should play key roles in giving them the needed career boost. The obligation of institutions to provide the desired work environment and technological infrastructure to support mentoring and career development has been explored by many researchers (Franko et al., 2016; Gubler, Arnold, & Coombs, 2014). Thus, institutions can technologically enhance career support and mentoring through improved internet and mobile-based programs (Franko et al., 2016; Lysova, Richardson, Khapova, & Jansen, 2015).

Research reports that when institutions support their staff to build and enhance their career through mentoring, the benefit is two-fold. For example, Ok and Vandenberghe (2016) revealed a significant relationship between perceived organizational development and employee competency development. Similarly, Pennaforte (2016) explored the concept of institutional support on learning outcomes of students and subsequent behaviors and reported a positive relationship. Likewise, Lancaster and Milia (2014) found that institutional support positively affects employee learning. They further suggest three salient institutional support components that can enhance career development, namely, the provision of high-quality relevant development programs; ensuring that course content is aligned with the organization’s strategy and the employee’s work; and ensuring senior management commitment throughout all aspects of the employee development process. Following these assertions, this study proposes a recognition of the mentoring role of institutional career support in the construction of both career competencies and career success of academic staff. Thus, this study hypothesizes that:

*Hypothesis 1: Academic staff who receive institutional career support are more likely to embrace mentoring opportunities in the university than those who do not receive institutional career support.*

#### *Mentorship Support from Senior Faculty*

When the mentoring relationship is between a senior professional and a junior, it is often expressed as “a personal relationship in which a more experienced mentor (usually two to four levels higher in an organization) acts as guide, role model, and sponsor of a protégé” (Hughes et al., 2012, p. 75). This requires senior teachers to reform their actions to embrace a philosophy that brings their expertise and experience to learning (Stanulis & Russell, 2000). Mentoring does not only enhance the initial career advancement of a person, but can also have a long-term effect on his/her professional development. The mentor can help the protégé develop a sense of direction and long-range research goals which promote a successful career (Kram, 1980). Similarly, the mentor can help the protégé “learn the ropes” in a profession (Moore, 1982).

In this case, the experienced professionals can give the inexperienced faculty insight into the many unwritten and vague norms that exist in academia. This is because; the nature of institutional work (e.g. challenge, variety) and the nature of employee direction (how experienced or senior faculty relate to subordinates or inexperienced faculty) can drive positive work engagement in organizations (Macey & Schneider, 2008). Consequently,

protégés or inexperienced faculty can receive a wide range of mentoring services, including “knowledge, advice, challenge, counsel, and support about career opportunities, organizational strategy and policy, office politics and so on” (Hughes et al., 2012, p. 76). Clearly, the pursuit of career development by junior scholars in the academic terrain is not without challenge, fear or anxiety. New or youthful entrants into the adult workplace do encounter such developmental tasks that often require good mentoring relationships that would enable them accomplish their goals (Kram, 1985). Indeed, the initial teaching years of an inexperienced faculty can be a ‘make or break’ period, as transition periods, both within and across professions, are often characterized by several challenges, particularly for the novice (Howe, 2006).

In the university environment, isolation, reality shock, inadequate resources and support, lack of time for planning and interaction with colleagues are some of the barriers faced by inexperienced faculty members. Others are difficult work assignments, unclear and inadequate expectations, intergenerational gap, dealing with stress, lack of orientation and information about the university system, and institutional practices and policies that promote hazing (Andrews & Quinn, 2004; Anhorn, 2008). Hence, inexperienced faculty, such as assistant lecturers and lecturers, who do not receive adequate support from professors and senior lecturers – the more experienced senior faculty – in their first years may leave or abandon teaching in favor of other professions. New entrant lecturers and assistant lecturers often need guidance to help them navigate the complexities of the university work environment. Research recommends that since they arrive as unprepared and uncertain teachers (Sorcinelli, 1994), university management must take them through induction programs that can motivate and retain these inexperienced lecturers and their assistants.

Mentoring can be a very useful tool for reducing the stresses faced by novice teachers, providing orientation to curriculum and promoting the creation of better norms of collegiality and collaboration (Sweeney, 2004). Hawkey (1997) believes that ‘facilitating teachers’ professional development requires mentors to understand and engage in this process by helping their less experienced colleagues to unravel their preconceptions and examining the impact of these preconceptions on practice. Thus, a professor – lecturer relationship, for example, is very useful in promoting academic mentorship in higher educational institutions. More experienced mentors like professors, associate professors, and senior lecturers, may express avuncular and protective behaviors toward their mentees, and occasionally, more directed and disciplinary approaches to the mentoring role (Reddick, 2012). Thus, as stated earlier, supportive adult relationships, such as the type between professors and lecturers, are important for personal, emotional, cognitive, and psychological growth of the lecturers (Eby, Rhodes, & Allen, 2007). In this case, this patriarchic type of relationship typically involves meeting more of the academic, social, career and/or personal goals of the lecturer and less so of the professor.

This is because empirical research suggests that induction programs for inexperienced teachers and other high-quality faculty mentoring programs have a positive impact on the protégé, or lecturer’s effectiveness, higher satisfaction, commitment, and early-career retention, classroom instruction, and student achievement (Henry, Bastian, & Fortner, 2011; Ingersoll & Strong, 2011). This means that these achievements are hardly possible without standard mentoring practices (Benson, 2008), as new entrant lecturers would be left to “sink or swim” in the academic sea (Wright & Wright, 1987). This study argues that effective

mentoring programs would help novice lecturers swim safely to their destinations and invariably save them from a 'sinking' academic ship. Consequently, this study hypothesizes that:

*Hypothesis 2: Academic staff who receive mentoring support from senior faculty are more likely to embrace more mentoring opportunities in the university than those who do not receive such support from senior faculty.*

#### *Mentorship Support from Academic Colleagues*

Aside mentoring by senior professionals and career support from the employing organization, protégés may also receive mentoring services from colleagues (Bouwma-Gearhart, 2008, 2012). In the university environment, faculty members regularly consult their peers, interpersonally or through group platforms, on a wide range of issues affecting their teaching and research obligations (Steadman, 1998). Like employees of other organizations, university teachers are generally more comfortable sharing their teaching strengths and weaknesses with colleagues than with other members of the university community since they can readily help to meet "discipline-specific teaching needs" (Bouwma-Gearhart, 2012, p. 183).

In classroom situations, a novice or inexperienced faculty may be paired with a more experienced colleague so as to enable the former to observe and use the latter's instructional design and delivery methods as models for effective teaching and learning (Barker, 2003). This kind of mentoring relationship between colleagues may be viewed as beneficial to both parties. It positions the inexperienced faculty to accomplish tasks professionally while, in the course of issuing the dos and don'ts of a teaching assignment, it sharpens the professional edge of the more experienced colleague (Palloff & Pratt, 2011). Mentoring is therefore a useful tool for professional development and retention of co-workers. Hence, Myers and Johnson (2004) argue that, co-worker relationships are fundamentally vital to the organizational socialization process and are associated with positive institutional outcomes, such as increased satisfaction and retention of employees. In the case of higher educational institutions, it appears that academic faculty needs this socialization process more than ever.

The reason is that, learning from experienced colleagues to teach and to publish would demand that the inexperienced and experienced colleagues co-work together in a collegial relationship. Furthermore, perceiving one's co-workers as supportive has been understood to be an important job resource that can facilitate the achievement of work goals and this correlates significantly with employee engagement (Schaufeli & Bakker, 2004). The amount of support and positive encouragement that a faculty member will receive from colleagues and superiors on his academic work is likely to engage him/her and hold back his/her frustrations in the institution. Similarly, the lack of support perceived by a faculty member from his colleagues would probably cause resentment and frustrations and incite his/her dissatisfaction in the institution. Consequently, this study hypothesizes that:

*Hypothesis 3: Academic staff who receive support from colleague faculty are more likely to embrace positive mentoring in the university than those who do not receive support from colleague faculty.*



## Methodology

The study employs a quantitative methodology of data gathering and analysis of the opinions of all levels of academic staff comprising professors, associate professors, senior lecturers, lecturers, and assistant lecturers of a public research university. The results are analyzed through the use of multivariate techniques consisting of multiple regression and descriptive statistics. Multiple regression analysis focuses on measuring the predictive accuracy and interpreting the variate of independent variables. Thus, the use of multiple regression analysis in this work is appropriate in helping to predict the determinants of mentoring, whilst descriptive analysis is used to describe and to summarize the data in numeric and percentage forms for easy interpretation and understanding.

This study draws on a sample of teaching staff from a public research university in Ghana. The university is the largest and also the first public university of the country. The university is well-recognized both in Sub-Saharan Africa and worldwide. The main objective of the study was to investigate the factors that determine or influence academic mentoring opportunities in a research university. From January 2012 to May 2013, participants were invited to complete a survey questionnaire sent to the various schools, colleges, and departments of the university. All teaching staff were initially sent an e-mail informing them of the study through the university mail portal. The mail specified that the target population of the survey was the University's faculty, or all teaching staff of the University. To stimulate participatory interest in the survey, participants were assured of the anonymity of their responses, and also promised that a preliminary report would be published on the analysis of the study in the university newsletter. After rigorous cleansing of the data (e.g. checking for double records, blanks, and impossible values), a sample of 244 usable questionnaires was attained, representing 34.8% of the total academic staff strength of about 700 teachers at the university.

To measure the variables used in this study, Dreher and Ash's (1990) career mentoring practices scale was adopted. The scale consists of 18 items with an aggregate reliability Cronbach's alpha coefficient of .95. Statements were modified to fit the study context since the focus of investigation is academic professionals in a developing context. This means the language of the original statements were modified to offer better understanding to the study's respondents whilst making sure the original meanings were maintained. Therefore, to provide a wide choice of responses to the questions, the response range was extended from a five-point to a seven-point, Likert-type scale, from 1= strongly disagree to 7= strongly agree. The seven-point scale offers the respondent a wide array of answers pertaining to his/her choice and sentiments on the question (Gratton & Jones, 2004). This is very significant when dealing with highly educated respondents in academia so that they understand the magnitude of each descriptor. Besides, empirical studies have generally concurred that reliability and validity are improved by using five to seven point scales rather than coarser ones – those with fewer scale points (Dawes, 2008, p. 3).

*Mentorship in the University:* To measure mentorship in the university, three items were used as derived from the original Dreher and Ash's (1990) to test the variable as follows: *I have a mentor who conveys feelings of respect for me; I have a mentor who is sympathetic to my academic concerns and, I have a mentor who encourages me to be open to my fears and*

*anxiety*. Cronbach's alpha reliability was calculated to be .80. (Response format: 1= Strongly disagree to 7= Strongly agree).

*Institutional career support*: To measure perceived institutional career support, three measures were used that were adapted and modified from Dreher and Ash's (1990) career mentoring scale. Sample questions for participants included: *There is an opportunity for mentoring relationship in this university; I have been left alone to understand what is required for tenure*. (Response format: 1= Strongly disagree to 7= Strongly agree). Cronbach's alpha reliability was calculated as being .89.

*Mentorship support from senior faculty*: Mentorship support from senior faculty was measured with three items scale derived from Dreher and Ash's (1990) which include: *My mentor assigns or recommends me for challenging task that facilitates my career; My mentor recommends me for task that help me meet new colleagues outside this University; My mentor recommends me for task that increase my contacts with other senior members in the University*. (Response format: 1= Strongly disagree to 7= Strongly agree). Cronbach's alpha was calculated as .90. *Mentorship support from colleagues*: Mentorship from colleagues was measured with three items derived from Dreher and Ash's (1990). Sample items included: *I have colleagues in this university I look up for support in my career; I receive knowledge and skills from colleagues regarding my academic publications*. (Response format: 1= Strongly disagree to 7= Strongly agree). Cronbach's alpha was calculated as .89.

In this study, demographic variables such as gender and position/rank were included to better understand the research sample. As there is evidence that background variables such as gender, and position or rank of the respondent may be related to the work outcomes and therefore skew the results in a certain direction (Vansteenkiste et al., 2007), these variables were used as control variables in the regression analysis in order to prevent the observed relationships to be affected by these demographic variables. Gender was coded as 1= male, 2= female, position/rank was also nominally coded with example: 1= Assistant Lecturer to 8= Professor. After the data were gathered from the research participants, correlation analysis and hierarchical multiple regression analysis were conducted to obtain the appropriate descriptive and inferential statistical results using SPSS 20.

## Results

In the first place, the descriptive analysis of the study yielded the following: Of the 244 teaching staff who participated in the study, 208 of them representing 85.2% were males. Similarly, a breakdown analysis of the respondents are as follows: 75 Assistant Lecturers completed the questionnaires representing 29.6%; 100 Lecturers representing 39.5%; 23 Senior Lecturers representing 9.1%; 28 Research Fellows representing 11.1%; 2 Senior Research Fellows representing 0.8%; 12 Associate Professors representing 4.7%; and 4 Professors representing 1.6%. In response to the question '*I have a mentor in this university*', 226 faculty members representing 92.9% said 'No', while 18 faculty members representing 7.1% said 'Yes'.

Secondly, above is presented, standard deviations and correlations found between the variables in this study. As a preliminary test for robustness of the data, an evaluation of normality, linearity and multicollinearity proved satisfactory. With regard to Multicollinearity, despite the presence of moderate figures of inter-correlations of the

independent variables, an examination of the variance inflation factors (VIFs) revealed that multicollinearity did not misrepresent the results. A VIF above 10 is often interpreted as an indication of multicollinearity (Stevens, 2002). The VIFs for Institutional career support, support from senior faculty, and support from colleagues are 3.18, 4.77 and 3.97 respectively. Since these VIFs are all well below the critical value of 10, multicollinearity is not considered a problem with the data; and therefore, the data has demonstrated a goodness of fit for further analysis.

Hence, a two-step hierarchical multiple regression was performed to evaluate the test of the hypotheses. Model 1 presents results for the null model, which assesses the two control variables (gender and position/rank). The results from Model 1 show that the two control variables (gender and position/rank) were not found to have influenced the results. Model 2 presents results of all three hypotheses (*H1, H2 and H3*) and suggests strong positive relationships between all the predictive variables (Institutional career support, support from senior faculty and support from colleagues) and the outcome variable (mentorship in the university). As predicted, results from Model 2 indicate that *H1*, which states that *academic staff who receive institutional career support are more likely to embrace mentoring in the university than those who do not receive institutional career support* is accepted ( $\beta = .44, p < 0.001$ ). Similarly, *H2* which states that *academic staff who receive support from senior faculty are more likely to embrace mentoring in the university than those who do not receive support from senior faculty* has been accepted ( $\beta = .65, p < 0.001$ ). Also, *H3* which states that, *academic staff who receive support from colleague faculty are more likely to embrace mentoring in the university than those who do not receive support from colleague faculty* has been accepted ( $\beta = .31, p < 0.001$ ). In general, the model for the analysis emerged largely significant at ( $F(5, 238) = 262.64, p < 0.001$ ). Thus, all three hypotheses are supported by the results and accepted with strong and high positive beta values. Additionally, Model 2 has demonstrated a robust analysis of the three predictive variables by accounting for 84.2% ( $F(5, 238) = 262.64, p < 0.001$ ) of the variance in the criterion variable.

## Conclusion and Discussion

This study aimed at contributing to the academic mentoring literature in higher educational institutions of learning. The study is even more relevant as it adopted the perspective of determining mentoring practices within a research university in a less studied context. By determinants of mentoring, this work sought to investigate the antecedents or factors that facilitate or influence mentoring processes in the university. Thus, drawing the knowledge from both experienced professors and inexperienced lecturers on the determinants of academic mentoring, this study hypothesized that institutional career support, support from senior faculty, and support from colleagues were determinants of academic mentorship in the University of Ghana.

Consequently, analysis of the survey data collected confirmed these hypotheses significantly and positively. In other words, institutional career support to faculty members, support from senior faculty to inexperienced faculty members, and support from colleague faculty members will enhance academic mentoring in higher educational institutions. In fact, the results showed a significant positive relationships between all the three predictive variables (institutional career support, support from senior faculty and support from

colleagues) and the outcome variable (mentorship). These significant positive relationships ( $p < 0.001$ ) lend much support to the claim that institutional support, support from senior faculty, and support from colleagues are basic determinants of academic mentoring behaviors in higher educational institutions.

From the extant literature (Eby et al., 2007), mentoring provides consistent friendship, support, and direction aimed at developing the competence and the character of inexperienced workers which is imperative for their personal, emotional, and psychological growth in work organizations. Thus, the findings of this work suggest that co-worker and institutional support play a significant role in the professional development of novice or inexperienced academics, and this support can help them (later) adjust to the difficult academic environment of the universities. The findings equally suggest that co-worker and institutional support can facilitate the positive behavioral intentions of inexperienced faculties' retention rate particularly in developing contexts where most academics are eager to leave for greener pastures in developed countries due to unsatisfactory work practices at home.

This point of view appears more visible in the Sub-Saharan landscape and other developing countries where, in spite of the fact that many relationships are established between senior and junior professionals, career development and mentoring practices are almost non-existent. As a result of the dearth of mentoring activities in most higher educational institution in sub-Saharan Africa, a majority of inexperienced academic staff have been unable to successfully navigate the complexities of the academic environment (Abugre & Nyuur, 2014), compelling others to abandon university teaching and research for other career opportunities (Darling-Hammond, Chung, & Frelow, 2002; Ingersoll et al., 2012).

Similarly, the findings suggest that support from management and colleagues would significantly impact the job roles and lives of junior and novice academic faculty leading to improved quality of their academic lives. Hence, this current study contributes significantly to the higher educational literature in establishing some basic determinants of effective academic mentoring in Sub-Saharan Africa and the global academic community as a whole. The findings further suggest the significant influence of (positive) social interaction at both institutional and individual levels. An effective social interaction among co-workers and between management and workers in higher educational institutions will lead to effective engagement of faculty and between faculty and their university. Positive social interaction between faculty leads to useful teamwork and knowledge sharing in the form of mentoring of co-workers and institutional support to faculty.

When faculty members share their knowledge with each other through mentoring processes, inexperienced entrants and those who lack knowledge can begin to solve problems more quickly and more effectively on their own with the knowledge acquired from peers. In universities where peers work on the same kinds of tasks in the form of teaching, researching and publishing, inexperienced faculty will certainly need some relevant skills from experienced faculty in the areas of teaching and research in order to meet institutional and personal objectives. This can impact positively on the culture of research and teaching methods of the inexperienced faculty, and ultimately enhance the academic visibility of the university through strong publication by faculty as they share and learn useful information from each other.

Even though the main objective of the study was to investigate the determinants of academic mentoring, the research also examined the availability of mentoring in the university. Unfortunately, the study results showed a low percentage of academic mentoring at the University of Ghana. Findings showed that only 7.1% of the respondents said they have mentors in the university, whilst 92.9% of the total respondents said they do not or have never experienced mentoring at the university. This is not a good sign for a research university with many young and inexperienced faculty members. The implication of this result is that most of the young and inexperienced faculty are often left to fight their own academic battles, and they are mostly likely to 'sink in the academic waters'.

Thus, this current study focused on interpersonal and institutional-level support from senior faculty and colleagues including management as internal resources for mentoring of staff that have rarely been studied in the context of higher education and specifically in Sub-Saharan Africa. Consequently, institutional career support in the form of a resilient support for academic conferences, research collaborations and faculty training in career development will enhance faculty mentoring. This in turn will improve faculty commitment to the university and possibly reduce faculty behavioral intentions to leave for greener pastures. Second, support from senior faculty will enhance mutual trust, loyalty, interpersonal affect, and respect for senior and junior relationship in the university. This in turn will improve teaching and research performance and consequently improve the citizenship behavior of faculty members in the university. Third, co-worker or peer support will enhance collective problem diagnoses, and strengthen interpersonal faculty relationship through knowledge sharing.

This in turn will improve faculty task and innovativeness at the university. Therefore, the significance of this study in exploring factors that will promote academic mentoring in higher educational institutions is working in the right direction as universities can utilize their internal human resources and capabilities to develop their human capital. This is particularly important for universities in developing countries to begin to rely on their internal resource capabilities in the form of human competencies instead of depending on external funding for the training of personnel. Internal capabilities can be used for effective knowledge transfer within institutions.

The study has important theoretical and practical implications for higher educational mentoring literature. Theoretically, this study argues that faculty support from colleagues and senior officers are a significant determinant of faculty mentoring in the university. The significance of faculty mentoring is also associated with faculty career development. This is because, the more inexperienced faculty members are mentored by experienced faculty, the more the former develop their careers through learning and undergoing the mentoring processes. This is important to the development of human resources in higher education.

Second, by showing that universities can use their internal resources in the form of skills and capabilities of experienced faculty to develop their inexperienced human resources through mentoring, this study contributes to the importance of the dynamic resource-based theory of organizations which describes the importance of institutions to resort to using their internal capabilities and competencies to address their human resource challenges (Teece, Pisano, & Shuen, 1997) which is less costly, and can leverage competitive advantage for higher education. Thus theoretically, universities can benefit from their internal resource as capabilities in developing the less experienced faculty. This is particularly significant for

most universities in sub-Saharan Africa that are suffering from quality standards of teaching, diminished research competence and the lack of proficient support (Otieno, 2003). This work thus invites such contextual universities to utilize their scarcer internal capabilities of senior faculty and mentor the new entrants who are mostly inexperienced.

Similarly, three practical implications emerge from this study. First, universities seeking to develop their inexperienced faculty (the ability to teach and to research by publications) would have to institute policy frameworks (e.g. structures on institutional support to faculty, i.e. grants for research and conference support including skills development in pedagogy). Second, the use of very senior academic staff including those who have retired but are still able to teach can be recalled to mentor and coach inexperienced faculty and new entrants in order to enhance their standard of teaching and research so as to fill the quality void, especially in developing countries. Third, mentoring plays a critical role in developing academic staff in higher education. One important function of management is to develop the capabilities and skills of faculty in order to attract and increase student enrolment both internationally and internally. This works thus serves as a reference point for university authorities and management to recognize the importance of mentoring as an antecedent for training and development of inexperienced academic staff.

Like previous studies, this study has limitations. First, the focus was on the determinants of mentoring at the university rather than investigating the actual mentoring processes. Examining the actual mentoring process would enable researchers to see if people are ready to mentor and be mentored in the studied university. Nevertheless, a study like this one in a developing context where most universities are facing critical student/faculty ratio, low quality of teaching and research (Teferra & Altbach, 2004), it is appropriate to first investigate the determinants of mentoring in order to discover the antecedents of training and career development programs for faculty. Thus, future research can look at the academic mentoring process in the University.

Second, the sample size and context of the research could limit the generalization of this research, as the study is based on a single research university with faculty members teaching and researching within the same university. Future research can therefore increase the sample size and extend the research context to other areas. It is also practical to use a combination of quantitative and qualitative methods to enrich the information gathered on factors that determine academic mentoring instead of a single strand of data gathering as used by this research. Future researchers in higher education can therefore enrich their investigation by using a mixed method of data gathering, and also increase the sample size by replicating the study in other jurisdictions.

Despite the limitations mentioned, the study contributes to the academic mentoring literature by expanding our understanding of the antecedents or factors influencing mentoring programs in higher education. Consequently, some significant theoretical and practical findings have emerged that enrich the literature. Thus, this study advocates that higher educational institutions particularly universities in developing countries can use the capabilities of their senior or experienced faculty in the form of mentoring to create visibility or competitive advantage of their institutions.

## Notes

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