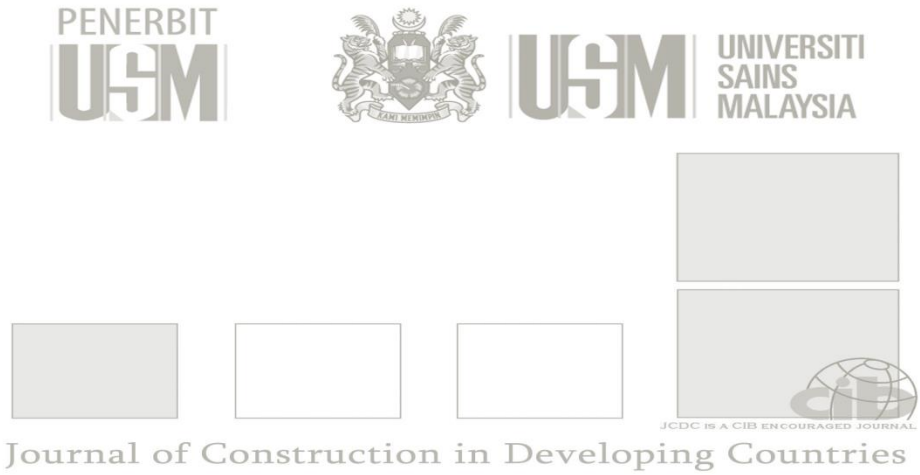

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Authors	Kenneth Otasowie and Ayodeji Oke
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An Assessment of Exhibited Drivers of Mentoring in Construction Professional Firms: A Case of Nigerian Quantity Surveying Firms

Kenneth Otasowie and Ayodeji Oke
Department of Quantity Surveying, School of Environmental Sciences, Federal University of Technology, Owerri
otasowiekenneth@gmail.com

Abstract

Purpose: The paper assessed the exhibited drivers of mentoring practices in construction professional firms in Nigeria with a view to improving the manner at which mentoring schemes are implemented in respective construction firms.

Design/Methodology/Approach: Survey design was utilized in assessing the level of knowledge, mentoring concept adoption, and the exhibited drivers of mentoring relationships in these firms. Quantity surveying firms in Abuja, Nigeria were sampled through the use of structured questionnaire. Percentage, mean, one-sample t-test, and factor analyses were undertaken for the analysis of the data.

Findings: The study reveals there is a good level of knowledge of mentoring concept but not so much with the adoption in the individual firms. This connote that there is a problem with the adoption of mentoring concept in construction professional firms despite knowledge of the concept by the professionals. Also, the study revealed the exhibited drivers of mentoring practices in construction professional firms.

Practical Implications: The findings show the exhibited drivers of mentoring practices in construction professional firms and recommendations were

proposed to further the adoption and implementation of these drivers to ensure the success of mentoring practices in construction professional firms.

Originality/Value: This paper reveals the exhibited drivers of mentoring practices in Nigerian construction professional firms and provides areas that requires attention for the successful implementation of mentoring schemes in the construction firms.

Keywords: Drivers of Mentoring, mentoring concept, mentoring practices, Construction professional firms,

Paper Type: Research

1.0 Introduction

The construction industry is constantly evolving and as a result, it has witnessed the development and adoption of several new initiatives aimed at improving construction process and meeting the ever-changing needs of clients. For example, Ashworth (2012) posited that new strategies in procurement for the purpose of improving the communication system and reducing the likelihood of situations that can negatively affect project objectives are continuously developed, while Rimmington, Dickens, and Pasquire (2015) opined that to integrate the construction process, information technology and computers are been used for sharing data/information electronically. Other initiatives include lean construction, total quality management, and partnering which are geared towards improving the efficiency in the construction industry.

This unending development of initiatives means that the undergraduate degree as posited by Shafie, Mazlina, Khuzzan and Mohyin (2014) will be no more adequate for the sustainability of success required in the construction industry. The implication of this is that programmes aimed at improving the performance of employees, particularly the employees with little or no industrial experience

have to be put in place for maximum productivity, and Schuler and Jackson (2014) identified mentoring as one of such programmes.

Mentoring as opined by Kenneth and Lomas (2015), is an intellectual exchange between a more experienced fellow and a little or no experience fellow, with the mentor giving direction and feedback needed for the support, career, and personal growth of the mentee. It is an on-the-job training technique which aid in transference and retention of requisite knowledge within a profession or an organization and its continuously being used for developmental purpose by organizations. According to Garvey (2012), mentoring has developed into a valuable tool for employee, career support, and professional development. In addition, mentoring is perceived as an instrument with the ability to close the gap in skills that has resulted from globalization and advancement in technology, while Tinaco-Giraldo, Sanchez, and Garcia-Penalvo (2020) further posited that mentoring helps to reduce failure rate.

Despite the need for this all important concept in every industry for sustainability purpose, mentoring is yet to receive the attention it deserved from the Nigerian construction industry (Oke, Aigbavboa, and Odia, 2016). Furthermore, the revelation that emanated from analyzing the extent at which researches relating to mentoring have been conducted in both Nigeria and Africa in general is nothing different from what the concept has suffered in the Nigeran construction industry. This study therefore is assessing the efforts the construction professional firms are putting to drive mentoring practices in their respective firms, in other words, the exhibited drivers of mentoring practices in these firms. This study was conducted in Abuja, the capital of Nigeria. Abuja was considered due to the several ongoing construction activities. The findings of this study therefore can be generalized for all Nigerian and other African countries construction firms. The subsequent sections of this study comprise of the review

of relevant literature, the methodology, and the study's findings. Conclusions were drawn from the findings and relevant recommendations given at the end.

2.0 Brief Literature Review

2.1 Mentoring Concept Overview

To begin the discussion on the concept of mentoring, it is important to take a quick look at knowledge. Knowledge as defined by Davenport and Prusak (1998) is a "fluid mix of framed experiences, values, contextual information and expert insight that provides a framework for evaluating and incorporating new experiences and information. Kelp (2011) refers to it as an inquiry-stopper while Brandom (2010) described it as a tool that makes explicit what is implicit. It originates and is applied in the minds of knowers. In organizations, it often becomes embedded not only in documents or repositories but also in organizational routines, processes, practices, and norms". Knowledge could be tacit or implicit. The tacit knowledge can be seen or shown while the implicit knowledge has to do with years of practical experience and can only be demonstrated by an experienced fellow. The multidimensional nature of knowledge can largely be said to be the reason for the complexity of knowledge transfer otherwise known as mentoring.

The concept of mentoring dates back to the Greek's myth of how Telemachus, Odysseus son, had to be put under the care of a close friend to his father, with the intention of overseeing the personal, professional, and social, development of Telemachus while his father was out fighting in the Trojan war. According to Salter (2014), mentoring is an interpersonal learning relationship where the participants involved give and receive encouragement, guidance, coaching, and advice from each other. Clutterbuck (2014) defined it as an '*offline help from one person to another in making significant transitions in knowledge, work and thinking*'. The word '*Offline*' means that the mentoring relationship is not based on hierarchy or the line-authority. However, Grotrian-Ryan (2015) opined

that after the recognition of relevant studies in the 1980s, most notably the studies of Kram between 1983 and 1988 on career development and psychosocial function being the fundamental model of mentoring, the concept has consistently evolved. Little wonder it is still being used today as a tool for development in various spheres including education, organizations, entrepreneurism, public health, library sciences, amongst others.

Despite the widespread success of mentoring in several spheres, Nor and Egbu (2010) opined that the processes involved in the furtherance of mentoring mechanisms in organizations have been identified to be highly complex and this has resulted in the perceived phenomenon of hostility in knowledge sharing or transfer that has widely dominated organizational reality. Crisp (2016) and Tinaco-Giraldo et.al. (2020) corroborated this by recognizing the potential of mentoring and the challenges associated with the process.

2.2 Mentoring Forms

There are basically two forms of mentoring. There is the formal mentoring and also the informal mentoring. According to Klinge (2015), the organization in question usually structures the formal mentoring through a mentoring coordinator. This form of mentoring is put together with a set of predetermined objectives and goals to be achieved by both the mentor and the mentee. One of the advantages of this form of mentoring is the fact that protégés can be protected from mentors who might have personal problems or lack believe in the values of the organization, as these mentors can be detected early enough and further prevented from transferring the negative energy to the mentees. In addition, Clutterbuck (2014) posited that formal mentoring is in support of the social inclusion notion which involves directing the process of mentorship in order to promote diversity and equal opportunity.

Furthermore, Chen, Liao and Wen (2014) opine that with formal mentoring, the

protégée is able to build a relationship that is based on friendship, trust, and effective communication with the mentor which have the capacity to reduce their turnover intentions. Also, it impacts positively on the organizational commitment, socialization, personal learning, and job satisfaction of a mentee. According to Chun, Sosikand Yun (2012), the benefit of formal mentoring is not limited to mentees, as mentors always have a rewarding experience with protégées, recognition as well as improved transformational leadership. Although, Kenneth and Lomas (2015) do not see it in that light, as they argued that formal mentoring is not as effective as informal mentoring because of the compulsory prescriptions which can lead to reduction in the self-determination and autonomy of the participants.

Informal mentoring on the other hand, is the opposite of formal mentoring in how it is formed. In this form of mentoring, there is no pre-defined arrangement on how partners are paired. Clatterbuck (2014) opined that although there is really no difference between the benefits of formal mentoring and informal mentoring, there seem to exist a better opportunity to build trust and friendship in informal mentoring relationship which could lead to the attainment of set objectives. This was corroborated by Chun, Sosikand Yun (2012) as they submitted that because of the interpersonal affinity and similarity already existing between the mentor and mentee, the mentee's wellbeing becomes more affective. Cox (2005) emphasis is on the similarities which he said is critical in the choice of a mentor or mentee as any difference in values and interest could jeopardize the relationship.

Ayodeji and Adebayo (2015) opined that informal mentoring is more prevalent and effective in Nigeria. This is because of the voluntary nature of informal mentoring which allows for mutual beneficial targets to be set and not prescribed. In this case according to Bynum (2015), confident individuals can make themselves available to be mentors and mentees with the mentees free

to make their choice on the kind of mentor that fits what they want.

2.3 Drivers of Mentoring in an Organization

Institutional and administrative support for mentor programs and mentor relationships as opined by Campbell (2011) is a critical tool for driving mentoring relationships in organizations. When this driver is lacking in an organization, the success of any mentoring relationship will be greatly hindered. While a mentoring relationship will benefit from the support of every participant involved and affected as it will make the relationship successful, Goldman (2011) and Clarke et al. (2012) posited that necessary for the success of mentoring practices in any organization is a preparatory program which identifies guidelines and standards that will prepare and assist mentors to understand what is expected of them.

Furthermore, Ayodeji and Adebayo (2015) opined that there are other drivers of mentoring relationships that contribute to the success of mentoring practice in an organization. One of such drivers is participation in an initial scheme by willing volunteers who desire to succeed and grow. There must be willingness form both the mentor and the mentee for the task ahead as willingness from both parties leads to commitment to the relationship. Finkel, Rusbult, Kumashiro, & Hannon (2002) corroborated this by opining that a successful mentoring relationship is dependent on commitment.

Ayodeji and Adebayo (2015) posited that another driver of mentoring relationship success is that those involved in a mentoring relationship must own process. The participants must be ready to take up their respective roles either as a mentor or as a mentee and be responsible for the relationship to end positively. Gibb (2012) opined that participants of mentoring programmes should view the programme as a function of the circumstances that warranted the need for it and must combine to make the scheme work.

Also, the need for the provision of a supportive learning environment that is well prepared and flexible for every participant involved in a mentoring proramme cannot be over emphasized. McKimm, Jollie and Hatter (2007) posited that when there is an enabling framework and a favourable environmental condition, the success of mentoring relationship in an organization is guaranteed. Management must create a conducive atmosphere for mentoring relationships to thrive. This is because it will show their believe in the entire mentoring process.

Ayodeji and Adebayo (2015) noted that promoting the scheme as a valuable form of professional and personal development is an avenue to ensure mentoring relationship success in an organization. Allen and Eby (2003) opined that mentoring is integral to the learning development of individuals, while Lankau and Scandura (2007) referred to mentoring as a relationship that seek to improve not just the mentee but also the mentor. Therefore, all parties involved must view and promote mentoring as a medium through which they can achieve personal and career development.

The informal form of mentoring is most common in Nigeria than the formal form of mentoring and for this reason there is the need for appropriate awareness, marketing and raising of the scheme to the entire organization and to potential participants (Ayodeji and Adebayo, 2015). This is because the success of a mentoring programme is dependent on the consciousness of the participants of the scheme.

Pryce, Kelly and Keller (2007) posited that some mentoring programs might not be as effective as they could be even when such schemes are directed at a particular youth population. But, Dubois, Holloway, Valentine and Cooper (2002) had earlier opined that the effectiveness of mentoring schemes is a function of scheme practices adopted. That is mentoring relationship success is directly proportion to the specific drivers engaged in the process. Hence, the need to

fully adopt the above drivers of mentoring relationship so as to reap the benefits that accompanies mentoring process.

3.0 Research Methodology

This study is to examine the exhibited drivers of mentoring practices in construction professional firms: a case of quantity surveying firms in Nigeria. For this purpose, a survey research was carried out, and a quantitative approach through questionnaires was used for data gathering from respondents for sake of objectivity. The population for this study were the entire Quantity Surveying consultancy firms practicing in Abuja Nigeria. According to NIQS (2018), eighty (80) Quantity Surveying firms are registered for practice in Abuja. Census sampling was the data collection technique used. This is because the number of Quantity Surveying consultancy firms practicing in Abuja, Nigeria falls within a manageable size. This means all the firms were sampled for the study. The research instrument used in the study was structured questionnaire. Its design was informed by the information gathered from review of relevant literature. The background information of the respondents was the focus of the preliminary section of the questionnaire as the questionnaire was designed in sections. Respondents were presented with the drivers of mentoring practices drawn from literature and were requested to indicate the degree of exhibition of each of the drivers in their respective firms which was based on a five-point Likert rating scale (very high = 5, high = 4, average = 3, low = 2 and little or none = 1). To avoid instances of non-delivery or misplacement in transit associated with posted questionnaires, the administration of the questionnaires was through personal delivery during of the questionnaires. A total of 149 questionnaires were distributed to the firms in Abuja, one questionnaire for each rank or position in the respective firms. The number of usable questionnaires retrieved from the firms was 142 which signifies 95.30% response rate.

In the analyses of the data gathered, the background information was analyzed using percentage and frequency whereas Mean Item Score (MIS) was used in the ranking of the exhibited drivers of mentoring practices, one samples t-test was used to determine the relative importance of each of the identified driver and their significance level, and then Factor Analyses was adopted to help group the drivers in terms of inherent effect.

4.0 Findings

4.1 Background Information

The working experience distribution of the respondents is shown in Table 1. From the result of the analysis, (36.60%) of the respondents possess 0 to 5 years of experience, (2.10%) possess 6 to 10 years while (18.30%) possess between 11 to 15 years of experience, respondents who possess 16 to 20 years of experience make up 9.20% of the distribution and 33.80% of the distribution which is 17 of the total number of respondents have over 20 years of experience. This shows that this study is cogent. The opinions sampled from the respondents cut across higher to lower experience personnel.

[Table 1]

4.2 Knowledge Level and Mentoring Concept Adoption

The study examined the level of knowledge of mentoring concept of respondents, and a scale was fixed. A scale of 0% – 30% for very low, 31% – 50% for low, 51% – 70% for average, 71% – 90% for high while 91% – 100% for very high. Results in Table 2 reveals that a good number of the respondents (64.8%) possess high knowledge of mentoring concept, while for other respondents (35.2%), the knowledge level of mentoring program can be described as average. This shows that respondents are familiar with the mentoring concept, despite the concept of mentoring not receiving the needed attention from the Nigerian

construction industry and Africa at large as discovered from the relevant literatures reviewed.

[Table 2]

Again, the respondents were presented with a scale to rate their perception on the adoption level of mentoring concept in their respective firms. a scale of between 0% – 30% was set for very low, 31% – 50% for low, 51% – 70% for average, 71% – 90% for high while 91% – 100% for very high. Results in Table 3 reveals that 53.5% of the respondents are of the believe that the level of adoption of mentoring concept in their respective firms is average. 25.4% of the respondents believe the adoption is high, while 21.1% believes there is a low adoption of mentoring concept in their respective firms. These findings reveal that mentoring concept have not received much attention in the respective firms though there is knowledge of amongst the respondents.

[Table 3]

4.3 Exhibited Drivers of Mentoring Practices

For the purpose of assessing the exhibited drivers of mentoring practices in construction related firms, two statistical analyses were conducted. They include one sample t-test and factor analysis. The one-sample t-test was used to determine the relative importance of the exhibited drivers while factor analysis was used in determining which of the exhibited drivers could be measuring the same underlying effect.

4.3.1 One Sample T-test

In order to determine the exhibited mentoring practices drivers in construction related firms, mentoring practices drivers obtained from related literature were presented to the respondents for the purpose of ranking them based on their exhibition. A one sample t-test was then performed to discover if the

respondents regarded a particular driver to be exhibited or otherwise. The mean of each driver was ranked and tabulated to offer a clear picture of the response of the respondents. Table 4 to 6 shows the summary of the test result. The mean for each identified driver together with the standard deviation and standard error is shown in Table 4. The null hypothesis for each driver was that the it was unexhibited (H_0: $U = U_0$) and the alternative hypothesis was that the driver was exhibited (Ha: $U > U_0$), where U_0 is the population mean which was set at 3.5 In compliance with conventional risk level, 95% was set as the significance level and based on the five-point Likert rating scale, a driver of mentoring practices was taken to be exhibited if it had a mean of 3.5 or more. In the scenario where two or more drivers have the same mean, the highest ranking of exhibition was assigned to the mean with the lowest standard deviation (Field, 2005). In addition, the Shapiro-Wilk normality test was carried out to ascertain the nature of data gathered.

[Table 4]

[Table 5]

Results in Table 4 shows that the significant value of all the assessed exhibited drivers is above 0.05 which is a required criterion for normality, while Results in Table 5 reveals that the standard error of the respective mean is close to zero relatively which implies that the sample chosen is an accurate reflection of the population. This is because Field (2005) opined that if there is a large standard error between the sampled mean and the population mean, then the population reflection is false. while a small standard error implies otherwise. In addition, the standard deviations obtained from the above table shows that they are all less than 1.0 which implies there is a little difference in the data and consistency in respondents' agreement (Field, 2005).

Nevertheless, it is important to note that the drivers 'Promotion of the scheme as valuable form of personal and professional development' which had a standard deviation more than one (1.003) suggest that there might be differences on how the respondents interpreted how the drivers are exhibited in their respective firms which the t-test below can explained further.

[Table 6]

[Table 7]

Table 5 shows the significance (p-value) of each driver. Although, the p – value is for a two – tailed test. It is important that we note the interest of this study is one – tailed test as shown per the test hypothesis ($U > U_0$). This resulted in the division of significant "sig" value in Table 6 by two and the summary presented in Table 7.

4.3.2 Factor Analysis

For the purpose of establishing variables that could be measuring aspects of the same underlying dimension, Factor Analysis was performed. Before the principal component analysis was carried out, the data suitability was accessed, and the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was deployed to ascertain if the data distribution is adequate for factor analysis.

[Table 8]

The KMO measure of sampling adequacy results is shown in Table 8. It achieved a value of 0.613. Any value above 0.6 is considered acceptable, according to Eiselen et al. (2007), The Bartlett test of sphericity suggests the population matrix was not an identity matrix. It therefore implies that the adequacy of the sample size was in favour of factor analysis to be deployed.

[Table 9]

Table 9 presents the average communality of the drivers after extraction and all values from the table are greater than 0.6. Hence, supporting the use of Factor analysis.

[Table 10]

Table 10 shows the correlation matrix which is the extent to which one driver is correlated to another. In order to show efficient correlation for consideration, the values must be equal or greater than 0.6. However, the researcher may

decide to retain a factor with less than 0.6 because of its theoretical relevance (Eiselen, Uys and Potgieter, 2007). Although some of the drivers show little correlation with other drivers as can be noticed from the above table, but they were only retained because of their theoretical relevance. The coding in Table 10 is based on the serial numbers of mentoring drivers in Table 9.

Table 11 reveals that seven components with eigenvalues greater than 1.0 were extracted. The total variance explained by each component extracted is as follows; component 1 (18.262%), component 2 (13.450), component 3 (12.056), component 4 (8.366), component 5 (6.774), component 6 (5.892), component 7 (4.880). hence, the total cumulative variance for final statistics of the principal component analysis and the components extracted accounted for approximately 70%.

[Figure 1]

A close look at Figure 1 reveals a steep after the seventh driver. It differentiates the larger drivers from the drivers that have eigen values lesser than one. Varimax rotation was carried out to assist with the interpretation of the seven drivers and to resolve the issue of uncorrelated drivers. This generated a rotated matrix as shown in Table 12.

5.0 Discussions

The summary of the one sample t-test carried out reveals that 'Good communications structures between all players' is the most exhibited driver of mentoring practices in QS firms. Ayodeji and Adebayo (2015) opined that good communication between mentors and mentees is fundamental to the success of a mentoring relationship. This is because every relationship; mentoring relationship inclusive thrive on regular communication. When there is poor communication, no matter the intention or the goal of the relation, failure is inevitable. Supportive learning environment ranked second in the exhibited

mentoring drivers in QS firms. This is good for all parties involved in a mentoring programme. According to Campbell (2011) and Goldman (2011), a beneficial and successful relationship is dependent on the support from all parties involved and affected by the mentoring relationship. A supportive learning environment can only be possible when the management of the respective firms are interested in the career and psychological growth of young professionals. This seem to be the case with QS firms considering the mean and rank of this mentoring driver.

Participants full commitment to the process, Linking the mentoring scheme with some other developmental efforts and Administrative and Institutional support completes the top five ranked drivers in exhibition whilst encouraging contracting with a 'no fault' opt out clause, appointment of a coordinator to manage the programme, and establishing specific working arrangements emerged as the least ranked exhibited driver of mentoring practices in QS firms.

Following the discovery of the study, it is important to state that QS firms are committed to driving mentoring practices in their respective firms, which in turn will ensure the career and psychological development of protegees in the firms. This can be observed from the top ranked exhibited drivers of mentoring practices and their means. Although, attention needs to be paid to the mentoring drivers such as appointing a coordinator for the programme, and establishing specific working environment, that ranked low in exhibition.

Generally, the findings largely reveal the exhibited mentoring drivers in QS firms. It is good to see that QS firms strive to create an enabling environment for mentoring practices to thrive. This they do by providing a supportive learning environment and ensuring that all participants are committed to the mentoring process.

Furthermore, owing to the examination of the inherent relationships that exist between the variables under each component in the Factor Analysis conducted, component 1 was termed **Developmental Diagnosis,** Component 2 was termed **Supportive Learning Environment,** Component 3, **Participants full Commitment**, Component 4 **Coordinator's Appointment**, Component 5 **Participants Awareness,** Component 6 **Scheme Monitoring and Evaluation,** and Component 7 was termed **Devising Learning Objectives.** These names were derived from the components using the driver with the highest loading factor.

5.1 Component 1 – Developmental Diagnosis

The five extracted items loaded onto component one are Developmental diagnosis i.e auditing of mentee's needs and requirement (0.846), Ensuring confidentiality in the administration of the program (0.808), Administrative and Institutional support (0.800), Shared expectations between mentor and mentee (0.666), and Encouraging contracting with a 'no fault' opt out clause (0.492). It is important that before a mentoring programme is commenced, that the needs and requirements of the participants are known. These will help shape the focus of the programme and aid in measuring the success of the mentoring scheme. The above loaded factors in this component are essential during the initiation stage of mentoring scheme in an organization as the focus of the factors is the mentee. This is fundamental to the level of success of mentoring practices observed in quantity surveying firms as they give attention to auditing mentees needs and requirements. This is because knowing and meeting these requirements can lead to commitment on the part of the mentee. Commitment as opined by Finkel, Rusbult, Kumashiro, & Hannon (2002) leads to a successful mentoring relationship.

5.2 Component 2 – Supportive Learning Environment

The four extracted items loaded onto component two are Supportive learning environment (0.853), Establishing specific working development (0.820), Good communications structures between all players (0.580), and Preparatory programme that identifies standards and guidelines (0.478). These drivers loaded to this component account for 13.45 percent of the variance. A fundamental way at ensuring the success of mentoring practices in an organization as opined by McKimm, Jollie and Hatter (2007) is to create an enabling framework and conducive environmental condition for the relationship to thrive. The loaded items of this component reveal that the importance of planning cannot be overemphasized in the success of mentoring relationships. Quantity surveying firms lay emphasis on creating an enabling environment as revealed by the study.

5.3 Component 3 – Participants full Commitment

The three extracted items loaded onto component three are Participants full commitment to the process (0.790), Careful and appropriate selection and matching and pairing of partner (0.722), and Building in short stages, say month by month, and flexibility (0.652). These drivers loaded to component three accounted for 12.056 percent of the variance. Successful mentoring relationship is depended on the commitment of parties to the relationship (McKimm, Jollie and Hatter, 2007). In the selection, matching, and pairing of participants, it is important for an organization to make commitment a key requirement. Quantity surveying firms in Nigeria understands the need for participants commitment and this is helping the firms in achieving the objectives of mentoring schemes.

5.4 Component 4 – Coordinator's Appointment

The four extracted items loaded onto component four are Appointment of a coordinator to manage the programme (0.817), Linking the mentoring scheme

with some other developmental efforts (0.726), Setting a time limit in advance for the mentoring relationships (0.617), and Promotion of the scheme as valuable form of personal and professional development process (0.477). The drivers loaded to component four accounts for 8.366 percent of the variance. It is proper to appoint a coordinator that would oversee a mentoring programme as posited by Ayodeji and Adebayo (2015). This will help to ensure the participants are properly guided and play their expected roles for the success of mentoring practice. Although quantity surveying firms do not really practice this as revealed by the study, it should become a practice in not just QS firms but every organization that aims at a successful mentoring relationship.

5.5 Component 5 – Participants Awareness

The two extracted items loaded onto component five are Appropriate awareness of the scheme to the whole organization (0.757), and Making all participants aware of potential risks and problems (0.635). The drivers loaded to component five accounts for 6.774 percent of the variance. Ayodeji and Adebayo (2015) opined that proper awareness of mentoring program to all participants is important as it helps in raising the consciousness of everyone involved in the programmme which will result in the successful implementation of the scheme. In addition, making all participants aware of potential risk and problems is as important as making them aware of the scheme. The need for proper program awareness and risk involved in the scheme to all participants must be understood by Quantity surveying firms in Nigeria as this will help to achieve the fundamental aim of the program.

5.6 Component 6 – Scheme Monitoring and Evaluation

The two extracted items loaded onto component six Continuous monitoring and evaluation of the scheme (0.814) and Participation by willing volunteer (0.447). These components account for 5.892 percent of the variance. Monitoring and

evaluation of mentoring programme is a vital tool for ensuring its success in organizations as lack of this could seriously see the programme failing to meet its objective which in turn will hinder its success. A beneficial and successful mentoring relationship is likewise dependent on willingness of the parties involved and affected by the relationship. When there is willingness of the parties involved, there will be commitment. This according to Finkel, Rusbult, Kumashiro, & Hannon (2002), lead to a successful mentoring relationship.

5.7 Component 7 – Devising Learning Objectives

The only extracted item loaded onto component seven was Devising a set of learning objectives (0.823). This component accounts for 4.880 percent of the variance. The study reveals that QS firms do exhibit this driver of mentoring practices. This driver is particularly important to the mentee as it will help improve the motivation of mentees when they will know what they will achieve at the end of the programme.

6.0 Conclusion

Examining the exhibited drivers of mentoring practices in construction professional firms has become necessary. This is as a result of how important these drivers are to the successful implementation of mentoring scheme. Through the study carried out, the knowledge level of construction professionals on the concept of mentoring have been deduce. In addition, the adoption level of mentoring progrmmes in the respective firms was ascertained. This study has also been able to examine the exhibited drivers of mentoring practices in the surveyed firms as they are fundamental to the successful implementation of mentoring schemes in construction firms generally. This study can draw conclusions based on findings that mentoring concept is well known to the construction professionals; although, the same cannot be said of its adoption in their respective firms. The level of adoption is still average at best. The findings

can further conclude that construction professional firms in Nigeria have good communication structure for the parties involve in mentoring programmes, the firms also create an environment that supports mentoring, have participants that are fully committed to the mentoring process, try to link mentoring scheme with other developmental schemes, and offer administrative and institutional support. These ranked the most exhibited of the drivers of mentoring practices in QS firms. The right environment for mentoring to thrive has been created in QS firms by the adoption these drivers of mentoring practices in the firms. However, the low ranking of appropriate awareness of the scheme to the whole organization, continuous monitoring and evaluation of the scheme, careful and appropriate selection and matching and pairing of partners, appointment of a coordinator to manage the programme, and establishing specific working arrangements, can be said to be the reason behind the feeling of low adoption level of mentoring concept by the professionals in QS firms.

In addition, the exhibited drivers of mentoring practices have been classified into seven main clusters namely, developmental diagnosis, supportive learning environment, participants full commitment, coordinator's appointment, participants awareness, scheme monitoring and evaluation, and devising learning objectives.

There is need for construction professional firms to give particular attention to the low exhibited drivers of mentoring practices such as appropriate awareness of the scheme to the whole organization, continuous monitoring and evaluation of the scheme, careful and appropriate selection and matching and pairing of partners, appointment of a coordinator to manage the programme, and establishing specific working arrangements. This will ensure the whole organization are on same page on what the firm is trying to achieve and the success of the programme. Furthermore, although this study was conducted in quantity surveying firms, studies on the adoption and exhibited drivers of

mentoring practices can be a guide to other consultancy firms within the built environment where such studies are yet to be conducted.

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Table 1: Average Years of Experience

Years of Experience	Frequency	Percent
1-5 years	52	36.6
6-10 years	3	2.1
11-15 years	26	18.3
16-20 years	13	9.2
21 years & above	48	33.8
Total	**142**	**100**

Table 2: Level of Knowledge of Mentoring Concept among Respondents

Rating	Frequency	Percentage
Very High	0	0
High	92	64.8
Average	50	35.2
Low	0	0
Very Low	0	0
Total	**142**	**100**

Table 3: Perception Level of Adoption of Mentoring Concept in QS Firms

Rating	Frequency	Percentage
Very High	0	0
High	36	25.4
Average	76	53.5
Low	30	21.1
Very Low	0	0
Total	**142**	**100**

Table 4: Result of Normality Test

Drivers of Mentoring	Statistics	df	Sig.
1. Administrative and Institutional support	0.285	140	.137
2. Preparatory programme that identifies standards and guidelines	0.664	140	.578
3. Participation by willing volunteer	0.683	140	.549
4. Participants full commitment to the process	0.770	140	.615
5. Appropriate awareness of the scheme to the whole organization	0.692	140	.512
6. Supportive learning environment	0.734	140	.634
7. Promotion of the scheme as valuable form of personal and professional development	0.697	140	.541

8. Appointment of a coordinator to manage the programme	0.648	140	.532
9. Linking the mentoring scheme with some other developmental efforts	0.349	140	.218
10. Building in short stages, say month by month, and flexibility	0.268	140	.135
11. Encouraging contracting with a 'no fault' opt out clause	0.192	140	.089
12. Making all participants aware of potential risks and problems	0.816	140	.748
13. Developmental diagnosis i.e auditing of mentee's needs and requirement	0.776	140	.614
14. Shared expectations between mentor and mentee	0.545	140	.464
15. Good communications structures between all players	0.645	140	.550
16. Careful and appropriate selection and matching and pairing of partner	0.921	140	.878
17. Continuous monitoring and evaluation of the scheme	0.614	140	.560
18. Ensuring confidentiality in the administration of the programm	0.669	140	.580
19. Establishing specific working arrangements	0.462	140	.351
20. Devising a set of learning objectives	0.451	140	.368
21. Setting a time limit in advance for the mentoring relationships	0.333	140	.264

Table 5: Result of T-test showing one sample statistics of exhibited mentoring drivers

Drivers of Mentoring	N	Mean	Std. Dev.	SEM
1. Administrative and Institutional support	142	3.965	.971	.081
2. Preparatory programme that identifies standards and guidelines	142	3.563	.926	.078

3. Participation by willing volunteer	142	3.683	.588	.049
4. Participants full commitment to the process	142	4.070	.659	.055
5. Appropriate awareness of the scheme to the whole organization	142	3.592	.736	.062
6. Supportive learning environment	142	4.134	.869	.073
7. Promotion of the scheme as valuable form of personal and professional development	142	3.697	1.003	.084
8. Appointment of a coordinator to manage the programme	142	3.148	.743	.062
9. Linking the mentoring scheme with some other developmental efforts	142	4.049	.688	.058
10. Building in short stages, say month by month, and flexibility	142	3.268	.629	.053
11. Encouraging contracting with a 'no fault' opt out clause	142	3.092	.816	.068
12. Making all participants aware of potential risks and problems	142	3.416	.885	.074
13. Developmental diagnosis i.e auditing of mentee's needs and requirement	142	3.176	.765	.064
14. Shared expectations between mentor and mentee	142	3.845	.666	.056
15. Good communications structures between all players	142	4.345	.596	.050
16. Careful and appropriate selection and matching and pairing of partner	142	3.289	.847	.071
17. Continuous monitoring and evaluation of the scheme	142	3.514	.712	.060
18. Ensuring confidentiality in the administration of the programm	142	3.169	.953	.080
19. Establishing specific working arrangements	142	3.042	.898	.075
20. Devising a set of learning objectives	142	3.831	.790	.066
21. Setting a time limit in advance for the mentoring relationships	142	3.683	.766	.064

SEM: Standard Error Mean

Table 6: One sample test of Exhibited mentoring drivers

	Test Value = 3.5					
					95% Confidence Interval of the Difference	
Drivers of Mentoring Practices	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
1. Administrative and Institutional support	5.707	141	.000	.465	.304	.626
2. Preparatory programme that identifies standards and guidelines	0.816	141	.416	.063	-.090	.217
3. Participation by willing volunteer	3.711	141	.000	.183	.086	.281
4. Participants full commitment to the process	10.309	141	.000	.570	.461	.680
5. Appropriate awareness of the scheme to the whole organization	1.483	141	.140	.092	-.031	.214
6. Supportive learning environment	8.692	141	.000	.634	.490	.778
7. Promotion of the scheme as valuable form of personal and professional development	2.342	141	.021	.197	.031	.364
8. Appointment of a coordinator to manage the programme	-5.645	141	.000	-.352	-.475	-.229
9. Linking the mentoring scheme with some other developmental efforts	9.52	141	.000	.549	.435	.663
10. Building in short stages, say month by month, and flexibility	-4.401	141	.000	-.232	-.337	-.128
11. Encouraging contracting with a 'no fault' opt out clause	-5.967	141	.000	-.408	-.544	-.273
12. Making all participants aware of potential risks and problems	-1.138	141	.257	-.085	-.231	.062
13. Developmental diagnosis i.e auditing of mentee's needs and requirement	-5.044	141	.000	-.324	-.451	-.197
14. Shared expectations between mentor and mentee	6.172	141	.000	.345	.235	.456
15. Good communications structures between all players	16.895	141	.000	.845	.746	.944

16. Careful and appropriate selection and matching and pairing of partner	-2.972	141	.003	-.211	-.352	-.071
17.Continuous monitoring and evaluation of the scheme	0.236	141	.814	.014	-.104	.132
18. Ensuring confidentiality in the administration of the programm	-4.141	141	.000	-.331	-.489	-.173
19. Establishing specific working arrangements	-6.073	141	.000	-.458	-.607	-.309
20. Devising a set of learning objectives	4.994	141	.000	.331	.200	.462
21. Setting a time limit in advance for the mentoring relationships	2.848	141	.005	.183	.056	.310

Table 7: Summary of t-test showing rankings of exhibited mentoring drivers

Drivers of Mentoring	Mean	Std. Dev.	Ranking	Sig. (1-tailed)
1. Good communications structures between all players	4.345	.596	1	.00025
2. Supportive learning environment	4.134	.869	2	.00025
3. Participants full commitment to the process	4.070	.659	3	.00025
4. Linking the mentoring scheme with some other developmental efforts	4.049	.688	4	.00025
5. Administrative and Institutional support	3.965	.971	5	.00025
6. Shared expectations between mentor and mentee	3.845	.666	6	.00025
7. Devising a set of learning objectives	3.831	.790	7	.00025
8. Promotion of the scheme as valuable form of personal and professional development	3.697	1.003	8	.011
9. Participation by willing volunteer	3.683	.588	9	.00025
10. Setting a time limit in advance for the mentoring relationships	3.683	.766	10	.003
11. Appropriate awareness of the scheme to the whole organization	3.592	.736	11	.070
12. Preparatory programme that identifies standards and guidelines	3.563	.926	12	.208
13. Continuous monitoring and evaluation of the scheme	3.514	.712	13	.407
14. Making all participants aware of potential risks and problems	3.416	.885	14	.129
15. Careful and appropriate selection and matching and pairing of partner	3.289	.847	15	.002
16. Building in short stages, say month by month, and flexibility	3.268	.629	16	.00025
17. Developmental diagnosis i.e auditing of mentee's needs and requirement	3.176	.765	17	.00025
18. Ensuring confidentiality in the administration of the programm	3.169	.953	18	.00025
19. Appointment of a coordinator to manage the programme	3.148	.743	19	.00025
20. Encouraging contracting with a 'no fault' opt out clause	3.092	.816	20	.00025
21. Establishing specific working arrangements	3.042	.898	21	.00025

Table 8: KMO and Bartlett's Test of Mentoring Drivers

Kaiser-Meyer-Olkin Measure of Sampling Adequacy. .613			
Bartlett test of Sphericity 1204.910	Approx.		
	Df	210	
	Sig.	.000	

Table 9: Communalities for Mentoring Drivers Exhibited

Mentoring Drivers	Initial	Extraction
1. Administrative and Institutional support	1.000	.739
2. Preparatory programme that identifies standards and guidelines	1.000	.611
3. Participation by willing volunteer	1.000	.625
4. Participants full commitment to the process	1.000	.692
5. Appropriate awareness of the scheme to the whole organization	1.000	.656
6. Supportive learning environment	1.000	.826
7. Promotion of the scheme as valuable form of personal development	1.000	.665
8. Appointment of a coordinator to manage the programme	1.000	.756
	1.000	.756
9. Linking the mentoring scheme with some other developmental efforts	1.000	.774
10. Building in short stages, say month by month, and flexibility	1.000	.627
	1.000	.648
11. Encouraging contracting with a 'no fault' opt out clause	1.000	.766
12. Making all participants aware of potential risks and problems	1.000	.656
	1.000	.556
13. Developmental diagnosis i.e auditing of mentee's needs and requirement	1.000	.665
14. Shared expectations between mentor and mentee	1.000	.687
15. Good communications structures between all players	1.000	.839
	1.000	.719
16. Careful and appropriate selection and matching and pairing of partner	1.000	.703
	1.000	.665
17. Continuous monitoring and evaluation of the scheme		

18. Ensuring confidentiality in the administration of the program
19. Establishing specific working arrangements
20. Devising a set of learning objectives
21. Setting a time limit in advance for the mentoring relationship

Extraction method: principal component analysis.

Table 10: Exhibited Drivers of Mentoring Practices Correlation Matrix of Factor Analysis

Factors	Md1	Md2	Md3	Md4	Md5	Md6	Md7	Md8	Md9	Md10	Md11	Md12	Md13	Md14	Md15	Md16	Md17	Md18	Md19	Md20	Md21
Md1	1.000																				
Md2	-.025	1.000																			
Md3	.167	-.061	1.000																		
Md4	-.029	.353	-.033	1.000																	
Md5	.089	.319	-.039	.221	1.000																
Md6	-.289	.470	-.375	.231	.086	1.000															
Md7	.062	.292	-.152	.065	.071	.429	1.000														
Md8	-.150	.064	-.119	.138	.124	.123	-.272	1.000													
Md9	.173	-.133	.232	.071	-.016	-.308	-.472	.402	1.000												
Md10	.062	-.054	-.153	-.353	.023	-.066	.062	-.207	.035	1.000											
Md11	.470	.053	.046	.186	.240	-.208	.086	-.163	-.122	.048	1.000										
Md12	-.222	-.123	.050	.180	-.293	-.017	-.257	-.234	-.057	-.074	-.122	1.000									
Md13	.724	-.071	.487	-.011	-.073	-.324	.005	-.121	.239	-.025	.315	-.109	1.000								
Md14	.342	.108	.345	.041	.073	-.001	.046	-.082	.110	-.137	.222	-.215	.443	1.000							
Md15	-.126	.352	-.232	.335	.340	.417	.366	.188	-.111	.036	-.051	-.139	-.150	.171	1.000						
Md16	-.074	.343	.214	.459	.213	-.034	.028	.078	-.012	-.252	.003	.028	.009	-.033	.068	1.000					
Md17	.078	.225	.206	.119	.038	-.032	-.019	.016	.252	.166	.016	-..082	.067	.304	.030	.128	1.000				
Md18	.589	-.117	.274	.162	-.002	-.422	-.235	.045	.345	-.277	.418	.-.008	.650	.343	-.128	.089	-.045	1.000			
Md19	-.015	.244	-.324	.007	.112	.592	.321	-.073	-.233	.105	-.073	-.147	-.145	.094	-.304	-.081	-.090	-.207	1.000		
Md20	.057	.063	-.101	-.086	-.071	.064	.239	-.114	-.102	.020	-.042	-.081	-.021	.098	.125	-.245	.042	-.207	.060	1.000	
Md21	-.282	.054	.012	.297	.046	.085	-.144	.407	.313	-.014	-.316	-.108	-.231	-.180	.210	.131	.210	-.276	-.073	.005	

1.000

Table 11: Total Variance Explained for Exhibited Mentoring Drivers

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.835	18.262	18.262	3.835	18.262	18.262	3.209	15.280	15.280
2	2.824	13.450	31.711	2.824	13.450	31.711	2.622	12.488	27.768
3	2.532	12.056	43.768	2.532	12.056	43.768	2.182	10.390	38.158
4	1.757	8.366	52.134	1.757	8.366	52.134	2.104	10.018	48.176
5	1.423	6.774	58.908	1.423	6.774	58.908	1.651	7.863	56.039
6	1.237	5.892	64.800	1.237	5.892	64.800	1.549	7.377	63.416
7	1.025	4.880	69.680	1.025	4.880	69.680	1.315	6.264	69.680
8	.987	4.698	74.379						
9	.810	3.855	78.234						
10	.749	3.569	81.803						
11	.662	3.153	84.956						
12	.571	2.720	87.675						
13	.513	2.441	90.116						
14	.395	1.879	91.995						
15	.358	1.706	93.701						
16	.347	1.652	95.353						
17	.292	1.392	96.744						
18	.210	1.000	97.744						
19	.179	.852	98.596						
20	.156	.741	99.337						
21	.139	.663	100.000						

Extraction Method: Principal Component Analysis.

Table 12: Rotated component matrix for mentoring drivers

Mentoring Drivers	Components						
	1	2	3	4	5	6	7
1. Developmental diagnosis i.e auditing of mentee's needs and requirement	**.846**	-.165	-.019	-.035	-.039	.139	.021
2. Ensuring confidentiality in the administration of the program	**.808**	-.223	.175	.133	-.005	-.196	-.220
3. Administrative and Institutional	**.800**	-.079	-	-.100	.247	.016	-.007
4. Shared expectations between mentor and mentee	**.666**	.210	.060	.032	-.066	.324	.232
5. Encouraging contracting with a 'no fault' opt out clause	**.492**	-.144	.137	-.323	.451	-.177	-079
6. Supportive learning	-.252	**.853**	.145	-.030	-.073	-.033	.084
7. Establishing specific working	.014	**.820**	-.162	-.109	.011	-.054	-.074
8. Good communications structures between all players	-.071	**.580**	.236	.148	.299	.052	.212
9. Preparatory programme that identifies standards and	-.037	**.478**	.443	-.108	.272	.314	.021
10. Participants full commitment to the process	.040	.191	**.790**	.129	.077	.020	-.083
11. Careful and appropriate selection and matching and pairing of partner	-.077	-.106	**.722**	-.063	.152	.224	-.221
12. Building in short stages, say month by month, and flexibility	-.178	.056	**-.652**	-.168	.259	.406	-.232
13. Appointment of a coordinator to manage the programme	-.086	.087	.129	**.817**	.167	-.170	-.017
14. Linking the mentoring scheme with some other developmental efforts	.266	-.217	-.089	**.726**	-.056	.251	-.192
15. Setting a time limit in advance for the mentoring	-.388	-.020	.191	**.617**	.073	.270	.135
16. Promotion of the scheme as valuable form of personal and professional development	-.021	.438	.070	**-.477**	.229	.038	.431
17. Appropriate awareness of the scheme to the whole	-.003	.117	.228	.027	**.757**	044	-.118
18. Making all participants aware of potential risks and problems	-.173	-.110	.220	-.226	**-.635**	-.051	-.318
19. Continuous monitoring and evaluation of the scheme	.072	.001	.051	.115	.054	**.814**	.028
20. Participation by willing volunteer	.373	-.430	.221	-.016	-.220	**.447**	.060

21. Devising a set of learning objectives	-.028	.031	-.133	-.074	-.013	.024	**.823**

Extraction method: principal component analysis. **Rotation method**: Varimax with Kaiser Normalization.

Figure 1: Scree plot for exhibited drivers of mentoring