



## Diagnosing the Causes of Quackery in Quantity Surveying Practice in Lagos State, Nigeria

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### Abstract

The purpose of this paper is to examine the causes of quackery in quantity surveying practice to address the menace for enhanced service delivery. Using survey research design, primary data were collected through the administration of structured questionnaires on quantity surveyors in the 125 registered quantity surveying firms in Lagos State, Nigeria. The respondents were asked to rate the identified 34 causes of quackery in quantity surveying practice on a 5-point Likert scale. The elicited data were analysed using mean score analysis. Factor analysis was, after that, used to explore and detect the underlying relationship among the identified variables and categorise them into key factors. The results of the mean score statistics identified 32 important causes of quackery in quantity surveying practice, with the four most important ones being an unwillingness to seek professional advice and consultation, unwillingness to pay for professional services, lack of effective systems of punishment for quacks and inadequate monitoring by the quantity surveying professional association and regulatory body. It was concluded that the causes of quackery in quantity surveying are multidimensional and can be narrowed down to unethical practices, client engagement, job security, regulatory and corruption-related issues. The identified causes of quackery in quantity surveying practice will be useful in formulating policy and serve as future research agenda towards eradicating the menace and engendering an enhanced service delivery.

**Keywords:** Causes of quackery; Nigeria; Quackery; Quantity surveying; Service delivery.

### 1. Introduction

Quackery is a menace that has plagued virtually every profession, including Engineering, Health, and Law, across all nations of the world (Adeyemi, 2015). The act of quackery, as widely experienced across all professions in the built environment (Adeyemi, 2016), has caused many damages in the industry. For quantity surveying practice, the roles of quantity surveyors have evolved significantly in recent times. However, they are constantly confronted with the issue of the incursion of quacks and invasion of unprofessional personnel, as well as unhealthy competition from allied professionals. While the regulatory body of the profession in Nigeria, the Quantity Surveyors Registration Board of Nigeria (QSRBN), has taken measures to regulate the practice of the profession within the codes of professional ethics and conduct, the

profession is being encroached by quacks. This is making the profession suffer continuous poor public perception (Iyortyer, 2016).

Currently, the quantity surveying profession is witnessing unregulated practices occasioned by incursion and invasion of quacks, by an army of unprofessional personnel of all manners, into the fields unrelated to their area of competency (Njoku, 2011; Ibrahim, 2012). This has led to unhealthy competition from allied professionals, outright disrespect for professionalism and far-reaching untoward consequences on construction project delivery (Nnadi and Ugwu, 2014). Traditionally, quantity surveyors are responsible for construction projects' cost and contract management functions (Shafiei and Said, 2008; Ekung and Okonkwo, 2015). They possess expertise that enhances the design process through the logical use of cost parameters to sustain viable

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links relating to price, utility and forms, which assist in attaining construction project objectives within the predetermined budget (Maarouf and Habib, 2011). Quantity surveyors add value, predominantly, to the financial and contractual management of projects. They contribute to overall project performance by deploying appropriate competencies (Nkado and Meyer, 2001; Dada and Jagboro, 2012). These competencies are aimed at accomplishing projects that meet clients' value expectations (Olanrewaju and Anahve, 2015). However, quackery has caused many damages to the practice of the profession, with attendant consequences on the patronage of quantity surveying services and construction project delivery at large. This paper, therefore, reports the results of an exploratory survey aimed at examining the causes of quackery in the profession and factorising them into key components.

## 2. An Overview of Quackery in Built Environment Professions in Nigeria

The term 'built environment' refers to the man-made surroundings that provide the setting for human activities (Olapade, 2016). It consists of professionals who involve in the design, construction and maintenance of the built environment. These built environment professionals include Architects, Engineers, Builders, Estate Surveyors and Valuers, Quantity Surveyors, Land Surveyors and Urban and Regional Planners (National Building Code, 2006; Owolabi and Olatunji, 2014; Olapade, 2016). Each of these professionals has a unique role to play in the successful development of a nation. However, quack practices cut across all professions in the built environment (Adeyemi, 2016). This corroborates Kuroshi's (2017) view and Chendo and Obi (2015) as they confirmed quack activities in the building profession and showed how their activities have contributed to substandard buildings resulting in building collapse in Nigeria. Kuroshi (2017) defined a quack in the building profession as a trained professional not registered and licensed by the Council of Registered Builders of Nigeria (CORBON) and is involved in building production management. Kuroshi condemned the way and manner construction processes were being managed and executed in the country because of the belief that all the professions should be involved in the building process. Tanko et al. (2013) affirmed that quacks had penetrated the engineering profession at all levels, from design to construction and maintenance phases of engineering structures and services. They explicated how these activities have led to human and financial losses due to the engineering failure of buildings by pointing out typical examples of the failure of buildings either during or after construction being experienced regularly. They also noted how the profession's integrity is being eroded gradually because of the activities of quacks.

Asor (2015) classified quacks into three groups. The first group are real professionals who engage in the act of quackery. Second are non-professionals who claim to be professionals and engage in the act of quackery. The last group are those who have no knowledge of a particular profession but learn the trade and practice the profession because of their intelligence. Olapade (2016) identified

six possible causes of the incursion of quacks into the real estate profession and considered "misinterpretation of roles by professionals in the built environment" as "major". Nemieboka (2010) argued that the activities of quacks in the real estate sector are responsible for the high sales and rental values of real estate. A study by Oladokun and Ojo (2011) looked into the incursion of non-professionals in property management practice in Nigeria, while Oloyede et al. (2011) discussed the issues confronting the estate surveying and valuation profession in Nigeria and gave four reasons why trespassers continue to flow into real estate business. The first reason was given as the inadequacy of registered estate surveyors and valuers to satisfy the local demand for their services. The second reason was poor service delivery, while the third was given as greed and high financial gain derivable from property management practice. Finally, the fourth reason was identified as a shortage of qualified personnel.

The activities of quacks have resulted in a lot of confusion and problems within the industry and society. Didigwu (2017) and Nwannekanma (2016) confirmed a high influx of other professionals into the town planning profession. They opined that most land surveyors engage in layout plans design even when the law categorically vests the power to prepare a layout plan on the registered town planner. It was further posited that some architects, draftsmen and numerous quacks interfere with the practice. Thus, quackery in the built environment professions is causing much damage to the construction industry.

## 3. Causes of Quackery in Quantity Surveying Practice

Akomolade (2006) classified quacks, who often parade themselves as professional quantity surveyors, into two groups. The first category is the educated ones who studied other disciplines different from quantity surveying at a University or Polytechnic. This category takes advantage of lack of work or economic viability in their hitherto business areas to venture into other disciplines diametrically. If they had been successful in their professional callings, the need for encroaching on other fields would not have arisen. The second class are quantity surveying graduates without professional certification or licence. Finally, the worst quacks are persons from fields unrelated to the construction industry like Economists, Lawyers, Accountants, and quantity surveying practices for which they have no clue.

Studies have revealed the possible causes of quackery in the quantity surveying profession. Osubor (2017) submitted that in Nigeria, the quantity surveyor's relevance/value and services are not maximised, especially in civil and heavy engineering projects. This has resulted in leaving construction cost experts forced out of their professional role by others not competent in those areas. Osubor (2017) further posited that external threats from other professions usurping the duties of the quantity surveyor, lack of publicity of the quantity surveyor, and ignorance of global best practices are other factors that contribute to the situation. Olapade (2016) explained that unlike other professions such as Medicine, Pharmacy and Law, where graduates are subjected to

further practical training before being licensed to practice, further training in the built environmental courses is acquired in active and non-active professional firms upon graduation. This has accounted for the lack of uniformity of practical training. Nnadi and Alintah-Abel (2016) added the issue of unwillingness to pay for professional services, especially by private building clients. Jimoh et al. (2016) opined the difficulty of clients in identifying the right professionals and the opinion that the same results will be obtained when non-professionals are given construction projects to handle as instrumental to the prevalence of quackery. Omeife and Windapo (2013); Dahiru, Salau and Usman (2014); and Babalola and Anifowose (2015) have also alluded to the naivety of clients, owing to restriction to professional service advertisement in compliance with the professional code of conduct, as contributing to the menace of quackery. Aniekwu, Anthony and Kehinde (2015) and Inuwa, Usman and Dantong (2014) identified corruption as a cause of quackery. Olanrewaju and Anifowose (2014) established that rivalry among the professionals in the industry causes professional quackery. Njoroge (2013) submitted that lack of an effective regulatory framework (i.e. poor implementation of existing policies and programmes or lack of harmonisation and coordination) causes quackery in a profession. Jimoh (2012) also supported the fact that the roles of a particular profession, when not well appreciated by the public, can cause quackery. Ede (2011) opined that when trained professionals operate illicitly (without a license) in the different fields of construction, quacks tend to infiltrate into the profession. From the review carried out, it is evident that quackery, in the quantity surveying practice, is prevalent and cannot be underestimated. There are many factors responsible for the actions that need to be critically examined to enhance the quantity surveying service delivery.

#### 4. Research Method

This research examined the causes of quackery in quantity surveying practice. The survey research method was adopted for the study. The method is based on statistical sampling through questionnaire, has been frequently used for data collection in exploratory research. It is appropriate for collecting data because of its advantage in yielding responses in standard format from many respondents and the benefit of collecting data from respondents from geographically dispersed locations.

A structured, self-administered questionnaire was used in eliciting the necessary data required for the research. The first part of the questionnaire elicited general information about the respondents, including respondents' designation, years of experience, academic and professional qualifications, and their organisations. The other part dealt with issues relating to the causes of quackery in quantity surveying. The respondents' answers ranged on a 5 - point Likert scale from least significant to most significant. The study was carried out in Lagos State, given the high concentration of respondents in the State. A copy of the questionnaire was administered to a quantity surveyor in each of the 125 registered quantity surveying firms practising in Lagos State (NIQS, 2018).

In all, a total of 57 filled (appropriate for analysis) copies of the questionnaire were returned. This represents 45.6% of the total number of copies of the questionnaire administered. Data obtained were analysed using both descriptive and inferential statistics.

#### 5. Data Analysis

Thirty-four possible causes of quackery in quantity surveying practice were used for the study. These were synthesised from the reviewed literature. Most of the variables were identified from Olapade (2016); Osubor (2017); Nnadi and Alintah-Abel (2016); Jimoh et al. (2016); Anthony and Kehinde (2015); Inuwa et al. (2014); Omoife and Windapo (2013) and Olanrewaju and Anifowose (2014). The variable constructs were set out for the respondents to rate their significance levels. The Statistical Package for Social Sciences (SPSS) was used to rank the variables based on the mean values of the responses. In order to gain insights into the variables, factor analysis was employed to analyse the structure of interrelationships among the variables by defining a set of common underlying factors. Given the plethora of variables involved, several significant variables will measure the same criteria. The fundamental concept underlying factor analysis is the ability to statistically manipulate the empirical relationship among several variables to help reveal conjectural constructs of relationships (Neuman and Kreuger, 2003). This view is usually adopted to reduce several variables to a smaller set of underlying factors that summarise the essential information contained in the variables (Pallant, 2010; Coakes and Steed, 2001). The sample size determines the reliability of factor analysis as correlation coefficients change from one set to another. The suitability of the data collected was assessed through Kaiser-Meyer-Olkin (KMO – test) to measure sampling adequacy and Bartlett's Test of Sphericity.

#### 6. Results and Discussion

##### 6.1 Respondents' information

The demographic features of the questionnaire administered to the respondents include the present position in their firm, years of experience in the industry, academic and professional qualification. This was to ascertain the suitability and reliability of their responses. As presented in Table 1.

Table 1: Background Information of the Respondents

| Parameters  | Frequency | %    |
|---|-----------|------|
| <b>Present position in the firm</b>                     |           |      |
| Principal Partner                                       | 9         | 15.8 |
| Associate QS  | 15        | 26.3 |
| Senior QS   | 28        | 49.1 |
| Assistant QS  | 5         | 8.8  |
| <b>Years of experience in the construction industry</b> |           |      |
| 6-10 years  | 16        | 28.1 |
| 11-15 years   | 14        | 24.6 |
| 16-20 years   | 12        | 21.0 |
| Above 20 years  | 10        | 17.5 |
| <b>Academic qualification of respondent</b>             |           |      |

|   |           |            |
|---|-----------|------------|
| Higher National Diploma (HND)                   | 11        | 19.3       |
| BSc./B.Tech                                     | 30        | 52.6       |
| MSc./M.Tech                                     | 13        | 22.8       |
| PGD   | 3         | 5.3        |
| Higher National Diploma (HND)                   | 11        | 19.3       |
| <b>Professional qualification of respondent</b> |           |            |
| MNIQS   | 41        | 71.9       |
| FAQS  | 9         | 15.8       |
| RICS  | 2         | 3.5        |
| Other   | 5         | 8.8        |
| <b>Total</b>                                    | <b>57</b> | <b>100</b> |

the results indicate that most respondents were in the top echelon of their firms with over ten years of experience and requisite academic and professional qualifications. Furthermore, the results show that the respondents were both academically and professionally qualified, and therefore, the information given by them is reliable. Ho and Ng (2003) considered experience as an

important attribute for quantity surveyors. Also, the level of experience and years spent in quantity surveying practice provides a solid foundation for any survey (Smith, 2009).

**6.2 Awareness of Environmental Waste Management Practices**

The results of the causes of quackery in quantity surveying practice are as presented in Table 2, show that the mean scores (MS) range from 2.82 to 4.33. Unwillingness to seek professional advice and consultation was the most important cause of quackery in the study area with MS = 4.33 (SD = 1.11). Unwillingness to pay for professional services was ranked second most important cause of quackery with MS = 4.33 (SD = 1.22). The third most important cause of quackery was lack of effective punishment systems for quacks with MS = 4.28 and the fourth being inadequate monitoring by the quantity surveying professional association and regulatory body (NIQS and QSRBN) with MS = 3.98.

Table 2: Causes of Quackery in Quantity Surveying Practice

| Causes of Quackery in quantity surveying  | MS   | SD   | Rank |
|---|------|------|------|
| Unwillingness to seek professional advice and consultation                                  | 4.33 | 1.11 | 1    |
| Unwillingness to pay for professional services  | 4.33 | 1.22 | 2    |
| Lack of effective systems of punishment for quacks  | 4.28 | 1.00 | 3    |
| Inadequate monitoring by the QS professional association and regulatory body (NIQS & QSRBN) | 3.98 | 0.98 | 4    |
| Politics in the award of contract/Godfatherism  | 3.97 | 0.93 | 5    |
| Weaknesses of the legal and regulatory framework  | 3.90 | 0.78 | 6    |
| Societal corruption   | 3.81 | 0.97 | 7    |
| Clients inability to identify professionals   | 3.79 | 0.80 | 8    |
| Loss of priority by the professional association and regulatory body                        | 3.64 | 0.85 | 9    |
| Excessive love for money/greed  | 3.63 | 0.84 | 10   |
| Unfair award of contract to quacks  | 3.63 | 1.02 | 11   |
| Underpayment of consultancy fees  | 3.63 | 1.11 | 12   |
| Lack of transparency in contract award procedures   | 3.61 | 1.07 | 13   |
| Leaking of tender information to quacks   | 3.60 | 1.03 | 14   |
| Lack of fairness in the award of quantity surveying jobs                                    | 3.60 | 1.11 | 15   |
| Weaknesses in investigative structures of the professional association and regulatory body  | 3.58 | 0.92 | 16   |
| Lack of political will in regulating the quantity surveyors' activities                     | 3.58 | 0.99 | 17   |
| Socio-economic challenges   | 3.53 | 0.97 | 18   |
| Monopoly of practice  | 3.52 | 0.88 | 19   |
| Collusion between quacks and procurement officials  | 3.52 | 1.00 | 20   |
| Lack of discretion by the professional association and regulatory body                      | 3.50 | 0.95 | 21   |
| Tailoring of a contract to favour quacks  | 3.48 | 1.05 | 22   |
| Professional indiscipline and unethical behaviour   | 3.44 | 0.99 | 23   |
| Availability of national database of skilled quantity surveyors                             | 3.38 | 1.29 | 24   |
| Hiding tender document information from professionals                                       | 3.38 | 1.35 | 25   |
| Profit maximisation by professionals  | 3.37 | 1.25 | 26   |
| Lack of interdisciplinary collaboration to live up to professional expectations             | 3.36 | 1.08 | 27   |
| Attitudes of procurement officials  | 3.35 | 1.17 | 28   |
| High cost of engaging professionals   | 3.35 | 1.28 | 29   |
| Job insecurity  | 3.34 | 0.96 | 30   |
| Procurement officials demanding money from quacks   | 3.25 | 1.08 | 31   |
| Lack of transparency by the professional regulatory body                                    | 3.08 | 1.03 | 32   |
| Lack of uniformity in practical training  | 2.99 | 1.20 | 33   |
| Ageing population of highly skilled quantity surveyors                                      | 2.82 | 1.09 | 34   |

The results of the survey are aligned with the findings of Nnadi and Alintah-Abel (2016), Jimoh et al. (2016); Inuwa, Usman and Dantong (2014); Njoroge (2013) and Omeife and Windapo (2013), who identified

unwillingness to pay for professional services, clients' inability to identify the right professionals, corruption, lack of effective regulatory framework and unwillingness to seek professional advice as causes of quackery. Quacks

believe in the value of the services they offer and reject both the contrary evidence provided by professional associations and regulatory bodies and the authority of these bodies to influence their behavior. Dada and Jagboro, (2012) opined that quantity surveyors need to continuously engage in lifelong learning to keep abreast with rapid advances in technology and knowledge that have profound impact on their current and evolving service offerings. In doing this, quantity surveyors will be able to deliver excellent services thereby increasing quantity surveying awareness, win clients' trust and limit their patronage for individuals who cannot give them professional services. On a general note, there exist more possibilities of recording higher rates of quackery in developing nations of the world due to issues ranging from poverty to weak government policies and enforcement of the same.

### 6.3 Factor Analysis of Causes of Quackery in Quantity Surveying Practice

In exploring the underlying relationship among the identified variables, the factor analysis statistical technique was used to categorise them into key factors. Bartlett's measure tests the null hypothesis that the original correlation matrix is an identity matrix. For factor analysis to be adequate, Kaiser (1974) recommended a minimum value of 0.5 as acceptable. Furthermore,

Table 4: Reduced Component of Factors Causing Quackery in Quantity Surveying Practice

| Communalities  | Initial | Extraction |
|--|---------|------------|
| <b>Factor Component</b>  |         |            |
| Loss of priority by the professional association and regulatory body                       | 1.000   | 0.606      |
| Lack of political will in regulating the quantity surveyors' activities                    | 1.000   | 0.725      |
| Lack of interdisciplinary collaboration to live up to professional expectations            | 1.000   | 0.641      |
| Excessive love for money/greed   | 1.000   | 0.709      |
| Politics in the award of contract/Godfatherism   | 1.000   | 0.515      |
| Professional indiscipline and unethical behaviour  | 1.000   | 0.327      |
| Societal corruption  | 1.000   | 0.581      |
| Unwillingness to pay for professional services   | 1.000   | 0.653      |
| Unwillingness to seek professional advice and consultation                                 | 1.000   | 0.547      |
| Underpayment of consultancy fees   | 1.000   | 0.724      |
| Job insecurity   | 1.000   | 0.614      |
| Lack of transparency by the professional association and regulatory body                   | 1.000   | 0.547      |
| High cost of engaging professionals  | 1.000   | 0.450      |
| Profit maximisation by professionals   | 1.000   | 0.610      |
| Inadequate monitoring by the QS professional association and regulatory body (NIQS, QSRBN) | 1.000   | 0.737      |
| Lack of transparency in contract award procedures  | 1.000   | 0.692      |
| Lack of discretion by the professional association and regulatory body                     | 1.000   | 0.507      |
| Weaknesses of legal and regulatory Framework   | 1.000   | 0.556      |
| Attitudes of procurement officials   | 1.000   | 0.540      |
| Monopoly of practice   | 1.000   | 0.392      |
| Weaknesses in investigative structures of the professional association and regulatory body | 1.000   | 0.609      |
| Lack of fairness in the award of quantity surveying jobs                                   | 1.000   | 0.463      |
| Tailoring of a contract to favour quacks   | 1.000   | 0.747      |
| Leaking of tender information to quacks  | 1.000   | 0.770      |
| Collusion between quacks and procurement officials   | 1.000   | 0.840      |
| Hiding tender document information from professionals                                      | 1.000   | 0.830      |
| Procurement officials demanding money from quacks  | 1.000   | 0.686      |
| Unfair award of contract to quacks   | 1.000   | 0.604      |
| Lack of effective systems of punishment of quacks  | 1.000   | 0.590      |
| Clients inability to identify professionals  | 1.000   | 0.634      |
| Lack of national database of skilled quantity surveyors                                    | 1.000   | 0.656      |
| Socio-economic challenge   | 1.000   | 0.681      |

Extraction Method: Principal Component Analysis

Hutcheson and Sofroniou (1999) recommended values between 0.7 and 0.8 as good, values between 0.8 and 0.9 as excellent and values above 0.9 as superb. As shown in Table 3, the KMO is 0.719, which falls into the good category; hence, factor analysis is appropriate for the data set.

Table 3: KMO and Bartlett's Test of Causes of Quackery in Quantity Surveying Practice

| Kaiser-Meyer-Olkin Measure of Sampling Adequacy 0.719 |                       |                 |
|---|-----------------------|-----------------|
| Bartlett's Test of Sphericity                         | Approx. Chi-Square Df | 1537.577<br>496 |
|   | Sig.                  | 0.000           |

Similarly, Bartlett's test of Sphericity is highly significant ( $p = 0.000$ ), suggesting that the responses were valid and suitable. Also, the communality, which describes the total amount of original variance shared with all other variables in the analysis and useful in determining the final variables extracted, was established. The average commonality of the variables after extraction was 0.62. This indicates the significance of the variables for further analysis (Kaizer, 1974; Braeken and van Assen, 2016).

Having established that data collected were suitable for conducting factor analysis, using varimax normalisation, the data were subjected to factor analysis, presented in Table 4. The results were subjected to further analysis to extract the eigenvalues of the factors that cause quackery in quantity surveying practice. The factors with eigenvalues greater than 1.0 were retained for this

purpose. Six out of the 32 variables met these criteria (Table 5). The six extracted factors cumulatively explained 61.817% of the variation in the data. This supports the proportional variance criterion of at least 50% variation of the extracted variables (Coakes and Steed, 2001; Pallant, 2010).

Table 5: Total Variance Explained for Causes of Quackery in Quantity Surveying Practice

| NO | 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  | 8.672                         | 27.099        | 27.099       | 8.672                               | 27.099        | 27.099       | 5.863                             | 18.320        | 18.320       |
| 2  | 3.014                         | 9.418         | 36.518       | 3.014                               | 9.418         | 36.518       | 3.719                             | 11.621        | 29.942       |
| 3  | 2.363                         | 7.385         | 43.903       | 2.363                               | 7.385         | 43.903       | 3.043                             | 9.508         | 39.450       |
| 4  | 2.158                         | 6.742         | 50.645       | 2.158                               | 6.742         | 50.645       | 2.930                             | 9.155         | 48.604       |
| 5  | 1.947                         | 6.084         | 56.730       | 1.947                               | 6.084         | 56.730       | 2.270                             | 7.093         | 55.697       |
| 6  | 1.628                         | 5.088         | 61.817       | 1.628                               | 5.088         | 61.817       | 1.958                             | 6.120         | 61.817       |
| 7  | 1.421                         | 4.441         | 66.258       |                                     |               |              |                                   |               |              |
| 8  | 1.269                         | 3.965         | 70.224       |                                     |               |              |                                   |               |              |
| 9  | 1.170                         | 3.657         | 73.881       |                                     |               |              |                                   |               |              |
| 10 | 1.070                         | 3.345         | 77.225       |                                     |               |              |                                   |               |              |
| 11 | 0.917                         | 2.865         | 80.091       |                                     |               |              |                                   |               |              |
| 12 | 0.728                         | 2.276         | 82.366       |                                     |               |              |                                   |               |              |
| 13 | 0.631                         | 1.973         | 84.339       |                                     |               |              |                                   |               |              |
| 14 | 0.564                         | 1.763         | 86.102       |                                     |               |              |                                   |               |              |
| 15 | 0.495                         | 1.547         | 87.649       |                                     |               |              |                                   |               |              |
| 16 | 0.464                         | 1.451         | 89.100       |                                     |               |              |                                   |               |              |
| 17 | 0.419                         | 1.309         | 90.408       |                                     |               |              |                                   |               |              |
| 18 | 0.399                         | 1.246         | 91.654       |                                     |               |              |                                   |               |              |
| 19 | 0.373                         | 1.165         | 92.819       |                                     |               |              |                                   |               |              |
| 20 | 0.335                         | 1.047         | 93.866       |                                     |               |              |                                   |               |              |
| 21 | 0.297                         | 0.928         | 94.794       |                                     |               |              |                                   |               |              |
| 22 | 0.248                         | 0.776         | 95.570       |                                     |               |              |                                   |               |              |
| 23 | 0.240                         | 0.750         | 96.320       |                                     |               |              |                                   |               |              |
| 24 | 0.218                         | 0.682         | 97.006       |                                     |               |              |                                   |               |              |
| 25 | 0.209                         | 0.652         | 97.654       |                                     |               |              |                                   |               |              |
| 26 | 0.173                         | 0.541         | 98.195       |                                     |               |              |                                   |               |              |
| 27 | 0.156                         | 0.488         | 98.683       |                                     |               |              |                                   |               |              |
| 28 | 0.112                         | 0.349         | 99.032       |                                     |               |              |                                   |               |              |
| 29 | 0.091                         | 0.285         | 99.317       |                                     |               |              |                                   |               |              |
| 30 | 0.084                         | 0.262         | 99.579       |                                     |               |              |                                   |               |              |
| 31 | 0.074                         | 0.233         | 99.811       |                                     |               |              |                                   |               |              |
| 32 | 0.060                         | 0.189         | 100.000      |                                     |               |              |                                   |               |              |

*Extraction Method: Principal Component Analysis*

This shows that 61.817% of the common variance shared by the 32 variables can be accounted for by six components. However, following the recommendations of Field (2005); Gosling, Rentfrow and Swann (2003); Little, Linderberger and Nesselroade (1999) and Velicer and Fava (1998), stating that a limit should be set to the maximisation process since the number of items per factor is crucial and thus recommended adherence to no fewer than three items per factor. It was found that one of the six components had less than three loading items. Therefore, the component with less than three items was discarded. The observed variance of the five remaining variables accounted for 56.728% of the observed variance.

Table 6 presents the rotated component matrix of the five major factors. Before interpretation of the five extracted factors, it is essential to name them. The name given to each factor was generated based on the interrelated characteristics and coupled with the loading value. The five factors extracted for this study were named unethical practice related factor, client engagement related factor, job security related factor, regulatory factor and corruption-related factor. The loading values of variables in all the factor components range from 0.579 to 0.860. From the overall ranking of all the variables based on their factor loadings, the top most ranked cause of quackery factor was collusion between quacks and procurement officials with a factor loading of

0.860. Other causes of quackery include hiding tender documents/information from professionals, leaking of tender information to quacks, procurement officials demanding money from quacks, unfair award of contracts to quacks, tailoring of contracts to favour quacks,

monopoly of practice, the attitude of procurement officials and lack of fairness in the award of quantity surveying jobs. This result considerably agrees with the results of top-ranked causes of quackery in quantity surveying practice in Table 2.

Table 6: Principal Factor Extraction and Total Variance Explained of Causes of Quackery in Quantity Surveying Practice

| Components   | Factor Loadings | Initial eigenvalue | % of total variance explained before extraction | Cumulative % of total variance explained after rotation |
|--|-----------------|--------------------|---|---|
| <b>Component 1-Unethical practice related factor</b>                                       |                 | 8.67               | 27.09   | 18.32   |
| Collusion between quacks and procurement officials   | 0.860           |                    |   |   |
| Hiding tender document information from professionals                                      | 0.853           |                    |   |   |
| Leaking of tender information to quacks  | 0.829           |                    |   |   |
| Procurement officials demanding money from quacks  | 0.792           |                    |   |   |
| Unfair award of contract to quacks   | 0.707           |                    |   |   |
| Tailoring of the contract to favour quacks   | 0.662           |                    |   |   |
| Monopoly of practice   | 0.580           |                    |   |   |
| Attitudes of procurement officials   | 0.556           |                    |   |   |
| Lack of fairness in the award of quantity surveying jobs                                   | 0.552           |                    |   |   |
| <b>Component 2-Client engagement related factor</b>  |                 | 3.01               | 9.41  | 11.62   |
| Unwillingness to pay for professional services   | 0.784           |                    |   |   |
| Clients inability to identify professionals  | 0.744           |                    |   |   |
| Lack of effective systems of punishment of quacks  | 0.671           |                    |   |   |
| Unwillingness to seek professional advice and consultation                                 | 0.645           |                    |   |   |
| Lack of national database of skilled quantity surveyors                                    | 0.592           |                    |   |   |
| <b>Component 3-Job Security related factor</b>   |                 | 2.36               | 7.38  | 9.51  |
| Lack of transparency by the professional association and regulatory body                   | 0.661           |                    |   |   |
| Job insecurity   | 0.638           |                    |   |   |
| Socio-economic challenge   | 0.630           |                    |   |   |
| Profit maximisation by professionals   | 0.588           |                    |   |   |
| Underpayment of consultancy fees   | 0.545           |                    |   |   |
| <b>Component 4-Regulatory factor</b>   |                 | 2.15               | 6.74  | 9.16  |
| Inadequate monitoring by the QS professional association and regulatory body (NIQS, QSRBN) | 0.707           |                    |   |   |
| Weaknesses of legal and regulatory Framework   | 0.700           |                    |   |   |
| Lack of transparency in contract award procedures  | 0.655           |                    |   |   |
| Lack of discretion by the professional association and regulatory body                     | 0.516           |                    |   |   |
| <b>Component 5-Corruption related factor</b>   |                 | 1.94               | 6.08  | 7.09  |
| Excessive love for money/greed   | 0.832           |                    |   |   |
| Politics in the award of contract/Godfatherism   | 0.598           |                    |   |   |
| Societal corruption  | 0.579           |                    |   |   |

Extraction Method: principal component analysis, rotation method: varimax with Kaiser normalisation, rotation converged in 11 iterations.

#### Factor 1: Unethical practice related factor

As detailed in Table 6, factor 1 was labelled unethical practice. It accounted for 27.099 % of the observed variance, with nine loading variables having load scores that ranged  $\geq 0.552 \leq 0.860$ . Variables loaded under this factor included collusion between quacks and procurement officials, hiding tender document information from professionals, leaking of tender information to quacks, procurement officials demanding money from quacks, among others. These are purely unethical practices that are unacceptable in any professional climate.

#### Factor 2: Client factor

The second factor, which explained 9.418% of the total variance and named client factor, has five loading variables with scores within the range  $\geq 0.592 \leq 0.784$ . Notable variables loaded under this component factor include unwillingness to pay for professional services, clients' inability to identify professionals and unwillingness to seek professional advice and consultation. These variables are related to the bidding of clients. The results obtained agree with Nnadi and Alintah-Abel (2016); Jimoh et al. (2016), who confirmed unwillingness to pay for professional services and

difficulty of clients to identify the professionals as factors causing quackery. The study confirms that these key variables need adequate consideration in mitigating the quackery of quantity surveying practices. The quantity surveying professional association and regulatory body must make a concerted effort to advocate and showcase the profession. The issue of remuneration for service rendered should also be examined.

*Factor 3: Job security-related factor*

The third factor was job security-related factors that accounted for 7.385% of the observed variance, with five loading variables with loading scores ranged between  $\geq 0.545$  and  $0.661$ . Notable among the variables that loaded under this component factor were: lack of transparency by the professional association and regulatory body, job insecurity, and socio-economic challenge. A stable political environment that promotes job security, adequate legislation to protect services being rendered, and a supportive, vibrant economy where jobs are readily available will seriously limit the involvement of quacks in quantity surveying practice. On the other hand, competition, unavailability of alternative jobs and high demand for quantity surveying services could be why other professionals dabble into quantity surveying practice. Therefore, job security and the social needs of professionals should be taken seriously for more proficient service.

*Factor 4: Regulatory factor*

Factor four accounted for 6.742% of the observed variance, with four loading variables having loading scores in the range of  $\geq 0.516 \leq 0.707$ . Variables loaded under this factor were: inadequate monitoring and weaknesses in investigative structures (of "who is who" in the professional practice) by the QS professional association and regulatory body (NIQS and QSRBN). For quackery of quantity surveying practices to be exterminated, the support of the professional regulatory body is highly vital to develop strong investigative structures, legal and regulatory framework to curtail quackery (Pheng and Ming, 1997). The ideology and operations of the professional regulatory body will enhance and maintain the functionality of quantity surveying practices. These results agree with the opinion of Njoroge (2013) that lack of effective regulatory framework, harmonisation and coordination causes quackery in a profession. Activities of the professional association and regulatory bodies are very crucial to the growth of a profession. Regulations provide a basis for the enforcement of good professional practice (Opaleye and Talukhaba, 2014). Regulatory bodies are forces that help curb quackery and create effective firms and competent professionals (Geroski, Mata and Portugal, 2007). The findings of this study, in this regard, were in harmony with Njoroge (2013) and Ede (2011) that lack of an effective regulatory framework of quantity surveying activities and priority by the professional regulatory bodies to check professionals operating illicitly (without a license) are factors causing quackery.

*Factor 5: Corruption related factor*

The fifth factor accounted for 6.084% of the observed variance, with three loading variables having loading scores that ranged  $0.579 \leq 0.832$ . Variables loaded under this factor were: excessive love for money/greed, politics

in the award of contract/Godfatherism and societal corruption. As postulated by Inuwa, Usman and Dantong (2014) and Hogarth-Scott and Owusu (2007), corruption, inefficient legal system, and lack of transparency in contract awards promote institutional quackery.

## 7. Conclusion and Recommendations

This paper examined the causes of quackery in quantity surveying practice in Lagos State, Nigeria, based on an explorative survey of quantity surveying practitioners. Among the thirty-four causal variables investigated, the survey showed thirty-two of them as important. The topmost of these are: "Unwillingness to seek for professional advice and consultation", "Unwillingness to pay for professional services", "Lack of effective systems of punishment for quacks", "Inadequate monitoring by the quantity surveying professional association and regulatory body (NIQS and QSRBN)", "Politics in award of contract/God fatherism", "Weaknesses of legal and regulatory framework", and "Societal corruption". From the initially identified causes, factor analysis was used to determine the underlying principal grouping of the causal variables. The findings revealed that the causes of quackery in quantity surveying practice are multidimensional. These are unethical practices, client factor, job security factor, regulatory issue and corruption-related issues. The identified causes of quackery in the quantity surveying profession can help in policy formulation and serve as a base for future research towards eradicating the challenge of quackery in the profession. By dealing with quackery, quantity surveying professional service delivery will be enhanced, which promotes an improved construction project delivery. Therefore, there is a need to reposition the profession by ensuring that quacks and non-professionals do not bastardise it. In this regard, a lot has to be done in guarding against the activities of quacks in the profession. The outcome of the study calls for far-reaching actions to be taken. Thus, the following recommendations are proffered.

It is crucial that licensed professionals and established professional governing bodies maintain the forefront in proactively blowing the whistle against unethical practices in the profession on the unethical practice issue. There should also be effective systems in the implementation of disciplinary action against unethical conduct by professional members. Furthermore, there is a need for continuous sensitisation and education of the general public about the quantity surveying profession and services rendered and the future benefits on the client issue. Finally, regarding clients' inability to identify the right and authentic professionals, there is a need to publish a regularly updated database of practising quantity surveyors continuously.

For job security, there is a need to develop a structure distinguishing the roles and functions of quantity surveyors, which could guard against function overlap among the professionals in the construction industry. Furthermore, the issue of underpayment for service rendered should be examined. In all this, the issue of regulation cannot be overemphasised. As such, the development of the regulatory framework and a good

implementation plan by the professional association and regulatory body (NIQS and QSRBN) will play a significant role in curbing the activities of quacks. Lastly, the anti-corruption crusade in Nigeria should be faithfully implemented in the process of construction project procurement. While this may be beyond the purview of

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- quantity surveyors, the antigrift agencies must do their bit in ensuring transparency in the award of contracts and eventual construction processes. If these recommendations are faithfully implemented, it will strengthen the effort to eliminate the infiltration of quacks into quantity surveying practice.
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