Demographic and Maslow’s Motivation Predictors of Job Satisfaction of Information Technology Artisans in Nigeria

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Abstract
A new artisanship crop moored to information technology has emerged, and it is being heavily embraced in Nigeria. Guided by Maslow’s hierarchy of needs, this study examined job satisfaction among the information technology artisans in Nigeria. Job satisfaction was measured by whether the artisans wish to stay on the job, perceive their income as high or low, or consider the profession as having a good prospect; and on a binary scale of yes or no. The study also investigated how the socio-demographic characteristics of the respondents relate to their needs. Data was collected from 950 artisans randomly selected from two major locations in Nigeria with the aid of a questionnaire and an interview schedule. A breakdown of the Maslow’s variables predicted different job satisfaction differently just as the demographic and social characteristics of the respondents predicted the artisans’ needs differently.

Keywords: information technology, artisans, Job satisfaction, Maslow, Nigeria


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1. Introduction

The IT industry is dynamic and versatile, continuously accentuating, reconfiguring and redefining roles, structure and functions for human and non-human components of the society. A typical reference is the emergence of IT artisanship, which has sprouted to cater for the needs of IT product and service consumers. IT artisans have knowledge about how to solve various IT problems. They can build personal computers from the beginning, run some hardware and software tests, diagnosis and provide technical support. IT artisanship services sometimes include software programming, web-site developing, and provision of internet services in cyber cafés and other places, and some forms of consultancy services. The tasks of IT artisans are sometimes complex and demanding - they face the challenge of keeping up with the complex and rapid changes in information technology. Artisans are generally characterized by manual skills acquired through either formal or informal apprenticeship processes (Nwagwu and Olatunji 2012). They generally have low threshold of expertise, require minimal start-up capital, and flexible work hours; they have the ability to work at home and freedom to manage their own business. Their offices and workshops can be located in open spaces, temporary wooden structures, or at home; and they employ few or in some cases, no salaried workers or rely mostly on family members and apprentices (Kayanula and Quartey 2000). There are also other operators whose businesses are relatively well established.

IT artisans constitute the major IT service providers in Nigeria, and entry into the businesses is not usually based on educational qualification or background (The Basel Action Network 2005). All over Nigeria, people engaged in IT artisanship businesses can be spotted in various setups – ranging from well-organized and established setups to shanty and roadside shops, providing services that cover mobile phones, computers hardware and software sales and services, and repairs and maintenance. A firsthand experience in these artisanship activities and in the key locations in Ikeja and Alaba in Lagos show that the IT artisanship business is bustling. The profession is dominated by males, while females are involved in sales and also provide daily need services such as sales of food and provisions. The participants in the trade are mixed in terms of educational status – both university graduates and non-graduates can be found in the business. A scan of the communities suggests a high level of economic activities, and the outlook of the businesses suggest further that the communities consist of businesses operators from both low and high social statuses.

According to Manhart et al., (2012), Ikeja Computer Village and Alaba Market in Lagos alone comprise of 2500 and 3000 small businesses in the field of refurbishing and sales of used computers and mobile phones. Other clusters in Lagos area are found in Westminster Market located close to the seaport, and Lawanson Market in Lagos mainland, which are mid-sized second-hand electrical and
electronic equipment markets. It is from these locations that IT artisanship businesses have spread to all the cities in Nigeria, and in fact West Africa.

Why are many young people in Nigeria embracing artisanship trade? What comes to mind is the high level of unemployment (Oyelaran-Oyeyinka 2006). In respect of unemployment in Nigeria, The World Bank has reported that: “Unemployment rates have been steadily increasing and younger Nigerians are encountering increasing difficulty in finding gainful employment”... “Job creation in Nigeria has been inadequate to keep pace with the expanding working age population” (World Bank 2013:9...10). In the face of this fact, the population is teeming, estimated at 173 million in 2013, with 46% poverty headcount ratio, and a poverty rate of 64.2% (National Bureau of Statistics 2013). There is also the unstudied myth that the business is highly profitable, a trait that could be a pull factor to young people. Besides these normative and intrinsic factors are probably the more socially situated factors such as IT profession being trendy and attractive to young people. There is also the possibility that the communitarian approach to business in the clusters could attract people who wish to initiate into new business ventures such as IT artisanship. The interdependency both on professional and daily sustenance matters could act as stay-factors and buffers to practitioners who are at their earliest stages of development in the business or who are learning the trade.

Most artisanship trades in Nigeria obtain mainly in clusters, although there exist sprinkles of practitioners in most part of the cities. The Otigba Computer Hardware cluster in Lagos otherwise known as the Ikeja Computer Village where the artisanship trade first sprouted, and Alaba International Market in Nigeria are the most popular ICT clusters both in Nigeria and West Africa generally (Abiola 2006, Oyelaran-Oyeyinka 2006). The Otigba cluster evolved from trading in imported ICT equipment, components and products in the early 90s. By the year 2002-2003 the Otigba ICT cluster had outlets spreading all over the country. Over time, the cluster has grown to become a beehive of ICT activities. The cluster consists of trained and untrained experts and artisans who engage in trading, supplying, repairing, ICT facilities of all types ranging from computers, telecommunication equipment, satellite technologies and services and mobile phones. According to Oyelaran-Oyeyinka (2006), this network organization of suppliers, buyers, clone builders, and components traders at Otigba cluster has generated an intense competitive environment and a local milieu that provides for a significant knowledge base for the future of Nigeria’s ICT revolution. A defining feature of the Otigba cluster is the considerable reservoir of tacit knowledge shared by the clustered firms. Despite fierce competition among the clustered firms there are endogenous and exogenous formal and informal institutions that could stabilize the businesses, and promote its long-term interests (Oyelaran-Oyeyinka and McCormick 2007).

The growth of these clusters might have been stimulated by the increasing demand for computers and peripherals from individuals and businesses in Lagos which home to more than 60% of industrial production in Nigeria. Also, meeting the needs of academic institutions, and research institutes and government agencies which are mainly located in the city could spur the high consumption of ICT products and services. The key learning mechanism for new entrants in the cluster has been largely through apprenticeship and the inter-personal exchange of information. There exist collective action within the cluster in the form of inter-personal credit facilities, and technical support in the form of knowledge sharing (Oyelaran-Oyeyinka 2006). The operators rely to a large measure on their own savings and tend to access much of the information they require on products and services through informal social networks within and outside the cluster. In late economically challenged countries such as Nigeria with teeming youth population and access to basic needs of life is limited and public provision of safety nets to the unemployed is lacking, the sprawling of IT businesses requires an examination of the factors that motivate participation of young people in the trade as well whether they derive job satisfaction from the trade.

Lagos is the commercial nerve centre and information technology hub of Nigeria. The major IT artisanship clusters in Nigeria such as Ikeja Computer Village and Alaba International Markets are, at their best, slums. Referring to Ikeja Computer Village as “the jungle” (Gboneme 2012), the PMNEWS, an online Nigerian blog said:

The market has also proven to be one of the biggest employers of labour as thousands of youth struggle to eke out a living by repairing phone and laptops. However, like most markets in Lagos, Computer Village is always overcrowded and this has been a source of worry for all stakeholders in the market (PMNEWS 2014).

However, blogs and soft news spots are full of testimonies about the success of the artisans in Lagos; for example: “One thing is certain about Computer Village, You can repair every and anything, I mean
anything. I really hope there can be a suitable platform for the technicians at Computer Village. They are pretty good at what they do” (Gboneme 2012). Bamiro (2003) and Oyelaran-Oyeyinka (2006) have studied the Computer Village in Lagos from the perspective of innovation development. Many other studies about the IT artisanship communities focused on electronic waste which result from the IT business in the communities (Schmidt 2006; Manhart et al. 2012; Adegbola and Oladeji 2012; Nwagwu and Okuneye: in peer review).

There are several reasons why a study about the job satisfaction of the artisans is very important. The artisanship businesses are small scale businesses owned by individuals and not by the states, and they have no financial support from the state. Although there are, in principle, policies to support small business initiatives, small IT businesses have not benefitted from these policies (Oyelaran-Oyeyinka 2006). Again, industrial and other sectoral policies in Nigeria such as the ICT policy (Nigerian National Information Technology Policy 2012) are not explicitly differentiated across size and product groups to make meaningful impact on IT businesses. The national ICT policy does not define any IT product groups and ways to foster the growth and development of small scale IT initiatives.

The overarching aim of professions is to solve social problems and meet human needs. This is exactly an apt inference from Maslow (1954) who posited that human needs serve as a major reason for human actions and reactions. Maslow postulated the theory of hierarchy of needs which suggested that humans meet their needs, starting with the most obvious, that is, survival and then pursue the needs for visibility, influence and personal development. Maslow further posited that thereafter humans struggle to meet their desire for quality work life, being satisfied with their jobs and having knowledge of what is going on in the society. Maslow’s theory has been expounded and applied in several studies and scenarios (Kaya 1995, McOliver and Nwagwu 1996, Meetei and Singh 2012).

Maslow’s approach to understanding human motivation has been heavily criticized as being ethnocentric and extrinsic, fitting mainly the lifestyle of the American youth in the mid twentieth century. Particularly, the works of Hofstede (1984) showed that human needs could hardly follow a strict hierarchy, and proved empirically with multi-country data that cultural differences mean that different people have different value systems and that this influences what they consider as acceptable quality of work life. In his own study, Das (1999) has added that psychological, social, organizational, technological and economic factors, some of which are not properly captured in Maslows theory play significant roles for an individual to derive satisfaction in any work. A recent study by Pink (2009) used various illustrations to show that Maslow’s theory was carrot and stick in approach; according to Pink, at various stages in life and in different human communities, intrinsic rather than extrinsic factors constitute the major human motivating factors.

However, without being considered as a hierarchy in which one need must be met before another, Maslow’s model provides a useful categorization of human needs. In his PhD thesis in 2008, Reid-Cunningham (2008) supported the refutal of the directional hierarchy that Maslow proposed – there was no clear hierarchy or order in which needs appear to become predominant, but he supported the existence of lower and higher needs. The various stages in Maslow’s model can be viewed as independent clusters of factors, and not necessarily in linear procedural sequence as originally suggested by Maslow. Although Maslow supplied elements to the various stages in his model, rapid development in the human society, for instance, information technology, is expected to render the elements in Maslow’s original clusters as inexhaustive, thus permitting some adjustments. Maslow himself envisaged this development when he suggested the possibility that majority of people would attain the basic needs and then turn massively to esteem a need.

There exist some studies on information behavior of artisans in Nigeria, including those by Mooko and Aina (2007), Mukora (2008), Sahadevan (2009), O’Reilly-Briggs (2010), McDowell et al. (2011), Nwagwu and Olatunji (2012) and Meetei and Singh (2012) can be identified. However, none of these studies are focused on IT artisans, or on the factors that motivate their embracing of the profession and their satisfaction with the job. This study is designed to examine socio-demographic and motivational characteristics of the IT artisans in Nigeria. Specifically, the study examined how basic needs, safety needs, belongingness needs, self-esteem needs and self-actualization needs explain job satisfaction of IT artisanship practitioners. Addressing this observation will provide information that could guide the government, policymakers and other stakeholders on how to support and develop the informal IT subsector to address the unemployment problem in Nigeria. The information will also be useful for ensuring that people engaged in informal IT services derive maximum satisfaction from their work.
2. Literature review

Maslow’s Theory of Needs
In several research efforts, Maslow (1943a, 1943b, 1954a, 1954b, 1970) developed and elaborated on the popular model of hierarchy of needs which has tremendously contributed in guiding the understanding of human motivation and personal development for many years. Although Maslow himself has further adjusted his original model (Maslow 1996), all the Maslow perspectives generally posit that everyone has needs, and that these needs explain people’s actions and reactions. In order words, human needs motivate their actions. Motivation could be described as a driving force that makes people to willingly want to put in their best in what they do (Saleem, Mahmood and Mahmood 2010). It can also be viewed as an inner force that drives individuals to attain personal and organizational goals (Tasnim 2006, Louca et al 2013).

Knowledge and application of Maslow’s hierarchy of needs is now ubiquitous; a summary of the original model that follows suffices for this study:

i. Basic needs— These needs consist of biological and physiological needs. These needs include food, water, shelter, air, warmth, sex, and sleep, etc.

ii. Safety needs – These include the need for protection, security, order, law, limits, and stability. Meeting these needs is expected to secure the future satisfaction of the fundamental needs.

iii. Belongingness and love needs– These are work group, family, affection, and relationships issues, among others. They are also known as social needs. At this level, individuals seek friendship and love relationships and tend to bring others within their own defense mechanisms.

iv. Esteem needs – These needs are made up of a person's level of self-esteem, achievement, mastery, independence, status, dominance, prestige and managerial responsibility. Here, people want to be appreciated, and feel that they belong; they want to fit into a network of social relationships.

v. Self-actualization needs – which involve people realizing their personal potential in life, attaining self-fulfillment, and seeking personal growth and peak experiences.

According to Maslow’s original thought, one must satisfy each need in turn, starting with the most obvious or lower order needs for survival. After the lower order needs of physical and emotional well-being are satisfied, the individual expresses concerns for the higher order needs of influence and personal development. Conversely, if the satisfaction of lower order needs is not achieved, human beings may not be capable of addressing the maintenance of higher order needs.

Job Satisfaction
Job satisfaction results from the achievement of the goals that one expects through his contribution in the job (Saleem, Mahmood and Mahmood, 2010). Factors related to job satisfaction are relevant in the prevention of frustration and low job satisfaction or dissatisfaction because workers will be motivated to work harder and perform better if they are satisfied with their jobs (Bowen, Radhakrishna and Keyser...
1994; Boltes, Lippke and Gregory 1995). Recognition is an essential factor that helps to increase confidence and self-esteem thus influencing job satisfaction (Ventrice 2010). Enjoyment at work and being comfortable with the people with whom we work are necessary factors that enhance one’s job satisfaction (Perrewé and Gangster 2007, Hodson 2001).

Some studies have revealed that there is a relationship between job satisfaction and work motivation - a person’s satisfaction in a job acts as a motivation to work. Saleem, Mahmood and Mahmood (2010) stated that job satisfaction is dependent on work motivation. There can be no job satisfaction where there is no motivation (Das, 1999). In addition, Baschad and Piot (2005) showed that, adequate compensation raises one’s performance and interest in the job. Louca et al. (2013) revealed that income is a good motivator that can influence job satisfaction. Walker and Sorce (2009) claimed that income, the opportunity to be creative, how challenging a job is and the feeling of personal gratification when performing a job contributes to the overall job satisfaction of an individual.

A critique of Maslow’s motivation and extrinsic job satisfaction perspectives

Although Maslow’s theory has guided research on human needs for long, Maslow’s theory was not without criticism even very early in its publication (see the review of Reid-Cunningham 2008). However, the works of Hofstede (1984) stands out in respect of empirical refutal of Maslow’s model. Hofstede viewed quality of life from the perspective of quality of work life, averring that cultural factors are major influence to quality of work life. He posited that there are societies which stress job challenge, achievement and job satisfaction of intrinsic needs and those in which primary loyalties are to family, relatives or clan. In this regard job satisfaction depends on which society the individual is obliged to. According to him, job motivation and job satisfaction are matters that concern total quality of life, but they are culturally influenced because they are based on values. Based on a study that covered 53 countries, Hofstede found that it is fruitless to universalize the notion that meeting higher order needs will improve people’s quality of life, because different cultures have different hierarchies of needs. According to him, Maslow’s (1954) hierarchy of needs and Mccelland’s (1961) achievement motivation theory are ethnocentric and apply mainly to North America. His opinions were supported by a previous study by Haire, Ghiselli and Porter (1966) in which managers in 14 different countries were asked to rate the importance of, and their satisfaction, with the fulfillment of a number of needs. They found that the country whose response fitted Maslow’s need theory was the United States of America. Besides the ethnocentric attribution to Malsow’s theory, Reid-Cunningham has shown that Maslow was reliving his personal experiences while growing up, citing Maslow’s biography by Hoffman (1988) very extensively.

There are also opinions that suggest that Maslow’s hierarchy of needs appears so individualistic putting autonomy and self-actualisation as top priorities and neglecting values that are very dominant in collectivist societies such as family support and harmony. However, Maslow was influenced by the mid twentieth century values choices of the United States middle class. Even if Maslow’s needs are to be followed in modeling societies, Maslow’s variables will cluster differently in different cultures. The implication of this observation is that improving people’s quality of life would not necessarily be achieved by offering to people satisfactions that are higher in their hierarchy of needs, but rather on the understanding that different cultures have different need hierarchies.

In a more recent book Pink (2009) has shown in a very graphical manner that human beings are motivated by different factors from the extrinsic explanations of Maslow and Mccleland. While extrinsic motivation would appear to motivate workers at first sight, there are more socially situated factors that are often undermined. In a rather comical manner, she illustrated the vanity of extrinsic motivation thus:

*If some scientists believe that “if-then” motivators and other extrinsic rewards resemble prescription drugs that carry potentially dangerous side effects, others believe they’re more like illegal drugs that foster a deeper and more pernicious dependency. According to these scholars, cash rewards and shiny trophies can provide a delicious jolt of pleasure at first, but the feeling soon dissipates—and to keep it alive, the recipient requires ever larger and more frequent doses.*

The consciousness of the significance of the likelihood that socially situated variables will explain job satisfaction has been growing ever since Hofstede’s research in the 80s. Just as the Newtonian first law of motion that an object in motion will stay in motion, and an object at rest will stay at rest, unless acted on by an outside force runs into problems at the subatomic level, carrots and sticks can achieve precisely the opposite of their intended aims when baseline rewards are adequate and equitable. This observation is also related to Hofstede’s cultural postulation of job satisfaction – job satisfaction is value laden and values are often mainly cultural. The experiments and studies of Greene and Nisbett 1973; Deci, Ryan
and Koestner (1999); Baard, Deci and Ryan (2004); Lepper, and Reeve (2005), Green (2006); Chirkov, Ryan, Kim and Kaplan (2008) illustrate circumstances under which intrinsic factors explain job motivation.

There are many studies that have adopted Maslow's theory in Nigeria, with varying results. In his article, Ifedigbo (2012) and Akusoba (2014) suggest that the theory is still applicable in Nigeria, but Ifedili and Ifedili (2012) study among university workers did not uphold the theory. In a popular blog Morakinyo (2014) has observed that Maslow's theory can no longer be used to describe motivation in Nigeria. According to him,

*Many hungry people are now on social networks (Facebook, Twitter, LinkedIn, Myspace, etc) seeking to make friends with well to do people who might be generous enough to help or employ them. Virtually all religious adults in Nigeria belong to one religious group or the other. Even when they have not eaten and area not fasting, they give offerings. Young people renew their blackberry subscriptions before they think of buying lunch* (Morakinyo 2014).

But there is no identifiable empirical study that has tested Maslow’s motivation theory in Nigeria based on cultural perspectives of Hofstede. It is therefore both not clear how the Maslow’s motivation variables will cluster in Nigeria in respect of job satisfaction, and there is no understanding of the other variables that may account for job satisfaction aside of Maslow’s. Although there is strong indication from the studies of Hofstede, and, Haire *et al* that cultural factors will influence people’s job satisfaction and quality of life, African countries were not included in the 53 countries in his studies.

It should be recalled though that, in his theory, Maslow postulated the possibility of the inversion of the triangle, such that in the future it might be possible for human communities to develop to the extent that most people will not be concerned with the basic needs; rather, the focus will be on the higher order needs. In most countries of the world, this expectation is yet to be achieved; but the situation is obviously worse in developing countries.

**Research questions**

Two broad research questions can be synthesized from the discussion so far to guide the analysis.

1. Is there a significant relationship between the motivation variables and job satisfaction (retention intention, perception about income and perceived development prospects) among the artisans in Lagos Nigeria?

2. What is the relationship between the motivational variables and the socio-demographic characteristics of the artisans?

**Artisans and Artisanship**

The word ‘artisan’ describes any skilled manual worker who employs creative thinking, dexterity and specialized knowledge to make or recreate functional or decorative items (O’Reilly-Briggs 2010, Nwagwu and Olatunji 2012). Examples of artisans include carpenters, tailors, hairdressers, shoe cobblers, barbers, electricians, mechanics, welders etc. Artisans often acquire their skills through apprenticeship. McDowell *et al* (2011) has described apprenticeship as the way through which skills are transferred from the master to the apprentice, and showed that this directly contributes to the quality of skilled trade, and workforce. Apprenticeship may constitute a combination of on-the-job training and related classroom/workshop instruction in which workers learn the practical and theoretical aspects of a highly skilled occupation (Tech Collective, 2008). As a means of livelihood, artisanship provides an ideal avenue for creative productivity and promotes independence and entrepreneurship. In addition, it offers opportunities for employment; the IT sector in Nigeria is often a default occupation for many individuals such as those who have limited options of employment (Hnatow 2009).

Using a survey method, Mooko and Aina (2007) studied the information environment of artisans in Botswana and they discovered that majority of the respondents were male; a high percentage of the respondents were single while few were married. In addition, Mooko and Aina found that the age groups of artisans varied from less than 20 years to over 70 years. However those within the age groups of 21–30 and 31–40 were larger and the majority of the respondents were in the age group of 21–50. Mooko and Aina (2007) also showed that only few of the artisans had ever had any form of education, few had read up to junior secondary and senior secondary while very few artisans had undergone vocational training. Only few could write in their native language and others in the English language only.

Nwagwu and Olatunji (2012) also adopted a survey approach to examine lifesaving information behaviours of commercial motorcyclists in Nigeria. Majority of the respondents in the study were relatively mature adults, aged above 25 years, while 54.2% were married. The income levels of the respondents
were generally poor although a large number (36.9%) reported that they had senior secondary school education. The apprenticeship experience of the respondents was very low, and inexistent in many instances. In a more recent study, Nwagwu and Igwe (in peer review) studied the information behavior of artisanal and small scale miners in selected locations in Nigeria using theory of planned behavior. The overarching objective the study was to establish whether a significant relationship exist between the demographic characteristics of the miners and the theory of planned behavior variables. The miners were mainly males, aged 36 years on the average, and many were married. The study found that there existed no significant relationship between primary education and safety information seeking, as well as with attitude towards safety information and subjective norm although miners with primary education reported that they could control their behavior in this regard. As would be expected of persons with higher education, those miners with tertiary education have information behaviour that is moderated by their positive attitude towards what others feel about their actions.

Meetei and Singh (2012) have clearly stated that artisans are inspired in their professions majorly by economic factors. Other studies such as Das (1999) and Meetei and Singh (2012) suggested that physiological, organizational, technological and economic factors are of importance to artisans' motivation. Generically, socio demographic factors including education, social interaction, age, gender, marital status etc (Adewale, 2005) also influence embracing of artisanship profession. Etang (2008) included gender, income-level, household size, number of children and group membership while Buenaflor and Kim (2013) suggested that demographic characteristic may also include technical experience.

**Research Framework**

The study was based on the five constructs in Maslow’s theory of needs. The approach adopted here is that the needs were not considered as hierarchical. Rather the study was designed to look out for which of the clusters of needs the respondents belonged to at any time, and not whether one need is met before another is. These constructs are physiological needs, safety needs, belongingness needs, self-esteem needs, and self-actualization needs. Safety needs have been defined to include income, financial security, employment security and stability. Belongingness needs include family, peer relationships and societal belongingness. Self-actualization needs include self-fulfillment, sense of achievement, self-growth and development and new experiences. Figure 1 shows that job motivation and job satisfaction relate to the Maslow’s needs variables but that this relationship is however moderated by individual artisans’ social and demographic characteristics. It should be recalled that Maslow’s model did not consider the role of social and demographic characteristics of people, an inclusion that reinforces the departure of the use of the model from the original linear hierarchical thinking of Maslow.

![Figure 1: Research framework](image-url)
3. Research Methodology

This study adopted the sample survey research design to study IT artisans in Lagos and Ibadan metropolis Nigeria. The restriction of the study to these two cities was due mainly to budget constraints, but the two cities represent the study focus very adequately. Lagos is the information technology hub of Nigeria, while Ibadan, the largest city in Nigeria, has the next largest presence of information technology artisans. The population of respondents in this study is undefined; the artisans are scattered in every part of the cities and there is no statistical source that documents the artisans and their activities. However, to improve the representativeness of our study sample, the researchers adopted a multistage non-proportional sampling technique to develop a sample of IT artisans in the two cities. At the first stage, 20 locations were randomly selected in Lagos while 25 were selected in Ibadan, and we embarked on a snowball post-listing in which identified artisans supplied us the names, addresses and age of other artisans they know in the locations. At the end, we had a total of 13,760 eligible participants. At the second stage, and based on the random number table, 25 artisans were randomly selected from each of the 20 locations in Lagos while 15 were selected from each of the 30 locations in Ibadan (i.e. 500 from Lagos and 450 from Ibadan). A subtle issue in selecting the subjects for this study was the difficulty in distinguishing between artisans on the one hand, and importers and traders in fairly used equipment on the other. This challenge was handled by informing the would-be respondents that the study was focused mainly on only those who are involved in repairing IT equipment, even if they engaged in some forms of intermediary sales of new and old items periodically, but not people involved in importing and/or trading only.

A questionnaire was considered a suitable instrument for data collection because the physical area of coverage in the study is large, and so is the number of respondents. It was deliberate to ensure that the interview schedule and the questionnaire dealt with the same questions for the purpose of balancing and cross validation of findings. This study is not aimed at comparing artisans in the two cities and the difference in the size of number of respondents is small enough to offset the impact of non-proportional sampling.

Instrument development, validation, reliability and data collection and analysis

To develop the instruments for the study, a list of the motivation variables were sent to fifteen scholars in economics, management and information science in different universities in Nigeria in March 2013, and a short note explaining the focus of the study and background of the respondents was attached. The assessors were requested to suggest questions that could be used to gauge the artisans’ opinions on motivation and job satisfaction constructs. Thirteen of the assessors returned responses, which were synthesized to tease out the variables that guided the construction of the final questionnaire and interview schedule. The resultant research instruments were validated by seeking the opinions of five experts in economics at the University of Ibadan, Nigeria who raised issues about repeated variables. This observation was addressed resulting to the reduction in the number of variables per construct, as well as the overall total. The detail and measures in the final questionnaire which has seven sections are as follows:

(i) Demographic and social characteristics of the respondents - This section captures data on the demographic characteristics of respondents such as age, gender, religion, marital status, level of education, length of apprenticeship, age in the profession, income level and how the practitioners entered the profession.

(ii) Physiological needs - The researchers measured this construct by asking questions about whether the respondents were on the job in order to find food, shelter and clothing.

(iii) Safety needs - The researchers constructed safety needs around whether the respondents felt secured in their job.

(iv) Belongingness needs - This section consists of three items focusing on whether the respondents actually love to be identified with the IT job, merely got influenced by friends to join the profession, and consider themselves to be sufficiently informed about IT.
(v) Self-esteem needs - This section was measured by asking respondents whether they feel achieved, have mastery of IT, have a sense of independence, and belong to a high social status in the society by virtue of their job.

(vi) Self-actualization needs - This section consists of questions on whether the respondents feel fulfilled and are anticipating meeting their future expectations in life through their jobs.

All the Maslow’s motivation variables were conceptualized as nominal variables of five categories that could be considered mutually exclusive at some time and continuous at other time. For instance, the variables measured on a five point Likert scale of strongly disagree (=1), disagree (=2), neutral (0), agree (=3) and strongly agree (4) could be considered nominal in respect of those who agree (agree +strongly agree) and in respect of those who do not agree (disagree +strongly disagree). But when the consideration is shifted to one group alone, for instance, those who agree, the variable exhibits can be considered ordinal. This reasoning has been used by Zhu and Zhou (2002).

(vii) Job satisfaction - Job satisfaction was evaluated by asking about:(a) the respondents’ retention intention on the job measured with wish to stay, wish to leave and anyhow; (b) whether the respondents are happy with their current jobs measured with a yes (1) or no (0); (c) whether respondents consider themselves as respected in the society by virtue of their jobs measured with a yes (1) or no (0) and (d) have opportunity for self-development - measured with great opportunity, slim opportunity and no opportunity, and (e) income measured with sufficient, manageable and bad.

It was deliberate to measure job satisfaction using many variables to ensure maximum chances of establishing how much the motivation and demographic variables contribute to job satisfaction among the respondents. It was obvious from the measures of the dependent variable, job satisfaction, that advanced statistical approaches would be most suitable to appropriately understand the relationships. It should be noted that data was collected on the income earned by the respondents as a socio-demographic variable, but further data was collected on how much the respondents were satisfied with their income. In this study, the former is a socio-demographic variable while the later was response variable. The same reasoning was adopted in understanding the Maslow’s motivation variables, which were used to predict job satisfaction on one hand, and were also predicted by the socio-demographic variable. The questionnaire which took about 30 minutes to complete and an interview schedule were administered by the two researchers and 10 assistants. A maximum of three visits were made to each of the selected respondents during April to July 2013 before any possible change could be made.

To administer the tools, the researchers introduced the intent of the research to each respondent and solicited for consent and maximum support after which the questionnaire was given out to them, and the interview administered, as the case may be. The interviews were administered only on the respondents who were willing to supply further information after completing the questionnaire. Analysis of the questionnaire data involved quantitative approaches using the Statistical Package for Social Science (SPSS) for coding, summarizing and analysis. Information obtained from the interviews were recorded and transcribed, synthesized and interpreted. Some highlights of the responses to the interviews were edited for grammatical purposes without changing the content.

Cronbach alpha approach was deployed to show that the categories of safety needs, belongingness needs, self-actualization needs, job motivation and job satisfaction scales are sufficient measures (see table 1).

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<th>Table 1: Means, Standard Deviations, Maximums, Minimums, and Inter-correlation Coefficients of motivation variables</th>
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<td>Safety needs</td>
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<tr>
<td>Belongingness</td>
</tr>
<tr>
<td>Self esteem</td>
</tr>
</tbody>
</table>

Table 1 shows that the audience is more positive about safety need with a mean of 3.341 on a five point Likert scale, followed by belongingness (3.071) and self-esteem (3.032). Although the respondents are
almost neutral on basic needs (2.56), the descending order of ranks of the needs after basic needs is striking. Table 1 also contains information about how the motivation needs relate between them. Except the relationship between safety needs and self-esteem (0.56), the correlation values between other pairs are generally very low.

4. Results

Socio-Demographic Characteristics of Respondents
Table 2 shows that over 75.0% of the respondents were males while less than 25.0% were females. The result also shows that 51.7% of the respondents were single, 41% were married, 2.7% were divorced, 2.3% were widowed and 3.0% were cohabitating. Also, 47% of the respondents were between ages 21 and 30 years, 21.7% were between 31 and 40 years, 20.3% were below 20 years, 8.7% were between ages 41-50 years while only 1.3% of the respondents were above 50 years of age. The average age of the respondents is 38.75 (SD=0.994). Furthermore, 17.3% of the respondents had a household size ranging from 1-3, 48.3% ranged from 4-6 while 17.5% ranged from 7-10, while 16.9% reported having households with more than 10 persons. The average household size is as high as 6 (SD=0.760). In respect of educational level of the respondents, 2.7% had no formal education, 4.3% had primary education, 57.7% had secondary education, and 31.6% had acquired tertiary education.

Table 2: Demographic characteristics of Respondents

<table>
<thead>
<tr>
<th>Demographic Characteristic</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>719</td>
<td>75.7</td>
</tr>
<tr>
<td>Female</td>
<td>231</td>
<td>24.3</td>
</tr>
<tr>
<td>Marital status (N=944)</td>
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<td></td>
</tr>
<tr>
<td>Single</td>
<td>498</td>
<td>51.7</td>
</tr>
<tr>
<td>Married</td>
<td>406</td>
<td>41.0</td>
</tr>
<tr>
<td>Divorced</td>
<td>18</td>
<td>2.7</td>
</tr>
<tr>
<td>Widowed</td>
<td>22</td>
<td>2.3</td>
</tr>
<tr>
<td>Age (years, N=948)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Below 20</td>
<td>192</td>
<td>20.3</td>
</tr>
<tr>
<td>21-30</td>
<td>446</td>
<td>47.0</td>
</tr>
<tr>
<td>31-40</td>
<td>206</td>
<td>21.7</td>
</tr>
<tr>
<td>41-50</td>
<td>76</td>
<td>8.0</td>
</tr>
<tr>
<td>Above 50</td>
<td>28</td>
<td>3.0</td>
</tr>
<tr>
<td>Household size (N=946)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-3</td>
<td>164</td>
<td>17.3</td>
</tr>
<tr>
<td>4-6</td>
<td>457</td>
<td>48.3</td>
</tr>
<tr>
<td>7-10</td>
<td>165</td>
<td>17.5</td>
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<tr>
<td>Above 10</td>
<td>160</td>
<td>16.9</td>
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<tr>
<td>Educational level (N=920)</td>
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<td></td>
</tr>
<tr>
<td>No formal education</td>
<td>25</td>
<td>2.7</td>
</tr>
<tr>
<td>Primary education</td>
<td>40</td>
<td>4.3</td>
</tr>
<tr>
<td>Secondary education</td>
<td>509</td>
<td>57.7</td>
</tr>
<tr>
<td>Tertiary education</td>
<td>273</td>
<td>31.6</td>
</tr>
<tr>
<td>Others</td>
<td>34</td>
<td>3.7</td>
</tr>
</tbody>
</table>

Table 3 relates to the social characteristics of the respondents. With a mean number of 3.2 years, many of the artisans (34.7%) reported spending zero years in apprenticeship, while the largest number of respondents (37.0%) spent one to three years in apprenticeship. Surprisingly, some of the respondents reported spending 4-7 years (16.3%), 7-10 years (9.7%) and above ten years (2.3%). The respondents have spent an average of 4.22 years on the job underpinning the recency of the profession; moreover, 53.3% reported joining the profession in the last three years. The number of entrants decreased as one progressed upwards in number of years spent, with only 5% reporting being on the job ten years ago. The largest number of the

Table 3: Social characteristics of the respondents
Social characteristic | Frequency | Percentage
--- | --- | ---
Length of Apprenticeship (N=902) | | |
None | 313 | 34.7 |
1-3 | 334 | 37.0 |
4-6 | 147 | 16.3 |
7-9 | 87 | 9.70 |
Above 9 | 21 | 2.30 |
How long have you been practicing this job? (N=942) | | |
0-3 | 505 | 53.4 |
4-7 | 239 | 25.3 |
7-10 | 154 | 16.3 |
Above 10 | 47 | 5.0 |
Who introduced you into this job? (N=942) | | |
Friend | 259 | 27.5 |
Parents | 209 | 22.2 |
Siblings | 195 | 20.7 |
Self | 69 | 7.3 |
Spouse | 38 | 4.0 |
Others | 172 | 18.3 |
Income level per Annum (Naira) (N=744) | | |
Below 50000 | 288 | 30.322 |
50000-150000 | 157 | 16.526 |
151000-250000 | 194 | 20.421 |
251000-350000 | 139 | 14.631 |
351000 – 450000 | 48 | 5.053 |
451000 – 550000 | 59 | 6.211 |
Above 550000 | 33 | 3.473 |
Don't know | 32 | 3.368 |

Artisans was introduced into the profession by their friends (27.5%), those introduced by friends and siblings were also relatively large in number, 22.2% and 20.75% respectively. Compared with the number of those who had other forms of introduction into the profession (18.3%), those that joined the profession by self-introduction or by spouse’s counsel are very few (7.3%) and 4.0% respectively.

Further information on how the respondents joined the profession was gathered through an interview. In addition to the sources obtained through the questionnaire, oral interviews with the respondents showed that many of them acquired interest in the field through a variety of ways.

**Box 1**

I started it by chance because I studied Zoology in my first degree and environmental biology for my masters. During my school days, my friend and I usually went to computer village to get things for people and we were good with repairing things. So when we graduated, I didn’t get a job, and my friend had already opened a workshop and invited me join him since I had the expertise so that we could manage the business together because I detect faults well and he is good in soldering.

The response (see Box 1) from an advanced university degree artisan highlights some very important pull and push factors into the profession. The respondent considered himself good in “repairing things”, and took the profession as an alternative instead of seeking for the unavailable paid employment un-end, and then initially partnered with someone who had some skill on the job whom he had known some time ago and whose skill he could compliment for better performance.

**Box 2**

“I was introduced by my brother in Lagos who was a computer engineer. I admired him and was impressed with his work. Also, Nigeria is becoming advanced technology-wise, that is why I joined”.

“I heard about this job from my friends.”

“Initially, I was always hearing of computer training but someone linked me to my boss and that was how I started this job”.

“I studied insurance at polytechnic Ibadan but jobs are not available after school and I wanted to do something to be busy so as not to be idle.”

“Nobody told me about it, but because we are in the computer age I know that I have prospects in this job so I developed interest on my own and trained in it for a year and some months.”

“For me it’s inborn. Since I was young I have always been interested in technology”

“I graduated from polytechnic Ibadan and I studied civil engineering. The state governor told us not to
(11.01%) who did not answer this question and another relatively large number that reported not knowing how much they earn per annum. A visit to the computer village however shows that some of the operators of the business are wealthier than this average suggests.

Job satisfaction

i. Do the artisans wish to remain the job or would they want to try something else to make a living?

Only as few as 18.78% reported that they would want to remain in the job, 79.52% wish to leave and 1.70% had no answer to the question. However, 46.78% reported that they are happy with their job while 47.36% were not; 5.86% did not answer the question.

ii. Do the respondents have respect from people in the society as a result of their job?

Only a few respondents answered this question: 25.55% in the affirmative and 29.56% in the negative, the rest were undecided.

iii. Do the respondents feel that they have opportunity for development in the job?

In respect of opportunity, as high as 57.54% reported that they have opportunity for future development on the job, 35.16% said that the opportunity was slim while 7.30% said that there was no opportunity.

iv. Income

In respect of the opinions about their income (not in table), 71.12% reported that their income was not sufficient, 6.17% could manage the income while 22.71% reported that their income was sufficient for them.

The interviews highlighted this pattern of response. Box 3 shows the responses of the unsatisfied respondents, mentioning a crucial element in their job satisfaction namely the attitude of clients.

Box 3

“No I’m not really satisfied because customers don’t pay for the worth of the services they receive, and they do not regard the work we do respectfully”.

“For me, no! Because I’m not supposed to be here. I was initially interested in electronics. But at times when I meet enlightened customers who value my service it becomes encouraging and I can say I get a feeling of fulfillment at that time and after that it might just go again. It’s a sort of euphoria”.

“I actually want to pull out of this profession because they don’t trust your capabilities. Most of my customers are referrals so they tend to demean what we do”.

“Human wants are insatiable so I am not contented I want to learn more outside the country especially China. So I’m not contented yet”.

The artisans want to be considered as people whose job is very important in the society and also wish to be accorded due respect as a result of the job that they do. The expression of desire to pull out indicates a high level of dissatisfaction, and this is coming from an electronic engineer whose nature of training fits the profession. Another respondent addressed the job satisfaction question by referring to a universal and historical observation that human wants are insatiable, although the desire expressed to go and learn more outside might suggest that he was not very satisfied with the job.

Box 4 contains the responses from satisfied respondents. The first two respondents

Box 4

“I’m satisfied because I find what I want in this business; I’m able to carter for my kids from this business.”

“Yes I’m satisfied with this job because I got married from this job and so far, I have been able to manage my marital and life affairs.

“Generally, the job is interesting. I encourage people to know more about computer and become computer literate”.

“This is what is in vogue many people come with questions and ideas and you meet people so it is not boring at all”.

“I think 20 years from now there is nothing that will not partake to computer so I’m secured in this job, and I feel fulfilled”

Determinants of retention, perception about income and perceived prospect
Multinomial logistic regression is used to predict a categorical placement in or the probability of a category membership on a dependent variable based on multiple independent variables. The independent variables can be either dichotomous (i.e. binary) or continuous (i.e., interval or ratio in scale). Multinomial logistic regression is a simple extension of binary logistic regression that allows for more than two categories of the dependent or outcome variable. Multinomial logistic regression is often considered an attractive analysis because; it does not assume normality, linearity, or homoscedasticity. In this analysis, we have only one dependent categorical variable, namely the stay status of the respondents but it has three categories, that is, whether they want to stay, leave or undecided. It is sufficient to code the categories into binary forms to deploy binary logistic regression technique but the intent here is to reveal the situation with respect to each of the three categories.

Because the dependent variables are on nominal scale variable, we have used multinomial logistic regression (MLR) for the analysis. Each of the MLR coefficients in the table represents the probability of an individual falling into one category versus the probability of the person belonging to the baseline category (i.e., wish to stay in the job). We have used ordinary least squares (OLS) regression language to report and interpret the results for ease of comprehension by those who do not have deep statistical training. Therefore, when we say “X has a significant impact on Y,” it means that X has a significant impact on Y to be in Category A as opposed to being in Category B or C.

**Research Question One:** Is there a significant relationship between the motivation variables and perception about job satisfaction among the artisans in Lagos Nigeria?

Table 4 shows that physiological need of food has significant relationship with the perception of income as high and opportunity for development being great, whereas shelter has significant relationship with retention and future development prospects. The significant impact of security as a basic need is expected: there is a significant relationship between wishing to stay, having high income and having high prospect for development on the job. Of the four belongingness variables, three namely loving to be identified, love to feel belonged and being considered informed about IT have significant relationship with intention to remain in the profession. However only being informed about IT relates significantly to both high income and great chances of development in the job. For esteem needs variables, feeling achieved, having mastery of the profession and feeling belonged to a high social class in the society predicted retention intention of the respondents. These variables also predicted high income; and except feeling achieved, predicted great expectation of development on the job.

| Table 4: Multinomial Logistic Regression Coefficients Predicting retention, income and prospect |
|-----------------------------------------------|-----------------------------------------------|-----------------------------------------------|-----------------------------------------------|
| Retention                                    | Income                                       | Development                                   |
| Wish to stay Vs Wish to leave Vs Anyhow       | High Vs Low Vs Manageable                     | Great Vs Slim Vs None                         |
| **Physiological needs**                      |                                              |                                              |
| Food                                         | −2.029                                       | 0.137***                                     | 2.883***                                     |
| Shelter                                      | −0.663***                                    | −0.322                                       | −1.114 ***                                    |
| Clothing                                     | −0.501                                       | −0.050                                       | −0.060                                        |
| **Safety needs**                             |                                              |                                              |                                              |
| Security                                     | 0.649 ***                                    | 0.042***                                     | 0.144***                                     |
| **Belongingness needs**                      |                                              |                                              |                                              |
| Love to be identified                         | −0.137***                                    | 0.267                                        | 0.150***                                     |
| Influenced by friends                        | −0.020                                       | 0.153                                        | −0.154                                        |
| Informed about IT                            | −0.604***                                    | −0.104**                                     | 0.010 ***                                    |
| **Esteem needs**                             |                                              |                                              |                                              |
| Feel achieved                                | 1.147                                        | 1.097***                                     | 2.071***                                     |
| I have mastery                               | 0.112***                                     | −1.112***                                    | 0.715***                                     |
| Feel belong to a high social                 | 0.629***                                     | 1.120***                                     | 0.609                                        |
| **Self-actualization needs**                 |                                              |                                              |                                              |
| Genuine interest in my job                   | 0.186***                                     | −1.078                                       | 0.002                                        |
| Feel fulfilled in my job                     | −0.205                                       | 3.100                                        | −0.015                                        |
| Met my expectations                          | −0.108***                                    | −2.138                                       | 1.184                                        |
| I have opportunity                          | −0.010                                       | 0.092                                        | −0.077                                        |
| **Age**                                      |                                              |                                              |                                              |
| Married                                      | −0.325                                       | 0.786                                        | −0.059                                        |
|                                              | −0.526                                       | 0.367                                        | 0.649                                        |
Single & 0.060*** & 0.043*** & 0.0416***  
Household size & -1.147*** & -1.629*** & 1.007  
Educational level  
No formal education & 2.009 & 1.100** & 1.190***  
Primary education & 2.721 & 1.109 & 2.891  
Secondary education & 0.998 & 1.121 & 2.121  
Tertiary education & 0.198 & 0.008*** & -0.118***  
Length of Apprenticeship training & 1.190*** & 0.998 & 2.721  
How long have you been practicing this job? & 2.008*** & 3.118 & 0.091  
Who introduced you into this job?  
Friend & 1.000 & 0.009*** & 0.110  
Parent & 0.010*** & 1.100 & 0.109  
Sibling & 1.200 & 3.011 & 2.111  
No one & 1.100*** & 1.101*** & 0.194***  
Spouse & 0.867 & 0.108 & 0.138  
Income per annum & 3.154*** & -1.067*** & 2.004***  
Intercept & 5.688*** & 2.830*** & 4.006***  
McFadden pseudo $R^2$ & 0.562 &  
Number of cases & 950 &  

**Note:** ***=significant at 0.05 level of significance

Self-actualization needs variables present a different picture altogether. Genuine interest in the job and the job meeting the expectations of the respondents were significant predictors of the respondents wishing to remain on the job, attaining expected heights in life predicted income; the other relationships are not significant. Then come the socio-demographic variables. Those who are married wish not to remain on the job, as the slope of the relationship is significant but negative. But both those who are married and those who are single would wish to have higher income than they are getting now, while only those who are single reported a significant relationship with positive future prospect in the job. Age did not predict any of the dependent variables. With positive slopes for all the three categories of dependent variables, the larger the household size the more the respondents would want to retain in the job and wish to have higher income; the relationship with high prospect in the job is not significant.

Is there any significant relationship between educational status of the respondents and the categories of the dependent variables? Table 4 shows that tertiary, secondary and other forms of education did not predict respondents’ intention to remain on their jobs; secondary education positively predicted income and prospects in the job. Other category of educational status only predicted income. Also, table 2 has implication that the longer the respondents spent to acquire the skill of IT artisanship, the more the likelihood that such respondents would remain in the job. This is the result of the positive and significant relationship between length of apprenticeship and retention in the job. Length of apprenticeship did not predict whether or not the respondents would be satisfied with the income or have a prospective future in the job.

**Determinants of Job Satisfaction**

**Research Question Two:** Is there a significant relationship between the motivation variables and job satisfaction among the artisans in Lagos Nigeria?

A single question in the questionnaire inquired from the respondents whether they considered themselves satisfied with their jobs or not. Since this variables was measured as yes (=1) or no (=0) responses, binary logistic regression was considered very suitable in addressing the relationship between the demographic characteristics and this variable. The direct binary logistic regression shows that the physiological needs of food positively predicted job satisfaction, but shelter and clothing did not. Safety needs did predict job satisfaction. In respect of belongingness needs, a major element in the job satisfaction of the respondents is their love to be identified with the profession, which this significantly and positively predicted the dependent variable. Being informed about IT also predicted job satisfaction positively although the slope is fractional.

**Table 5: Binary Logistic Regression Predicting Job Satisfaction**
The esteem needs performed better than the rest motivation variables going by the number of categories that successfully predicted job satisfaction. Feeling achieved, having mastery of the IT task and the feeling that one belongs to a respectable profession all predicted job satisfaction of the respondents. Genuine interest in the profession and feeling of having attained in life were the self-actualization needs that predicted job satisfaction, but not so the case with meeting expectations and opportunity for growth.

Age is not a predictor of job satisfaction among the artisans; but there is a negative but significant relationship between being married and job satisfaction in relation to those respondents with other than single marital status. This might be associated with why single did not also predict job satisfaction compared with those respondents who have other statuses. Educational status presents a very interesting picture: lower educational statuses, namely non formal education, primary education and secondary education predicted job satisfaction positively and significantly, but tertiary education predicted job satisfaction negative but significantly. Another interesting result is that the longer the respondents reported spending in apprenticeship the more likely that they will report to be satisfied with their jobs. The
same result does not apply to length of time spent in the professional; although the relationship is significant, the negative slope suggests that the longer the stay in the job, the less the job satisfaction derived. Finally, those respondents who joined the profession from their own choice reported being satisfied with the job in comparison with those who reported joining the profession through other persuasion.

Determinants of PH, SN, BN, SEN and SAN
Both the title of this study and the theoretical model adopted demand investigation of the role of demographic and socioeconomic characteristics of individuals on the motivation constructs. The weak influence of individual characteristics on PN, SN, BN, SEN, and SAN in the foregoing analysis only suggests that the motivation constructs may be independent of the individual differences. It is surmised that this weak influence might have resulted from multi-collinearity between the individual characteristics and PN, SN, BN, SEN, and SAN. The relationship between demographic variables and the motivation variables are tested here using OLS. It is informative that this analysis pertains only to those respondents who reported agreed and strongly agreed to the questions on the motivation variables.

Research Question Three: What is the relationship between the motivational variables and the demographic characteristics of the artisans?

Table 6 shows how demographic characteristics of the artisans relate to their motivation needs.

| Table 6: Ordinal least squares regression coefficients predicting the motivation variables |
|-----------------------------------|------------------|------------------|------------------|------------------|------------------|
|                                   | Physiological needs | Safety needs | Belongingness needs | Self-esteem needs | Self-actualization needs |
| Age                               | 2.561              | 0.460***       | -12.271***         | 0.462***         | -1.740           |
| Marital status (Others=0)         |                   |                |                   |                 |                  |
| Married                           | 0.419***           | -0.111***      | 0.460             | 0.326           | 0.460***         |
| Single                            | -0.510             | 2.56***        | -0.510***         | -0.201***       | -0.121***        |
| Household size                    | 0.411***           | -0.511***      | 0.336             | 0.901           | 0.756            |
| Education                         |                   |                |                   |                 |                  |
| No formal                         | 1.513***           | -1.56          | 0.786             | -0.121***       | -0.711           |
| Primary                           | -12.272***         | 2.11           | -0.911            | 0.006           | 1.106            |
| Secondary                         | -20.742            | 0.46           | 2.56              | 0.46            | 0.476            |
| Tertiary                          | 1.727              | -0.351         | 0.246***          | -0.151          | -0.531***        |
| Length of Apprenticeship          | 0.400              | 0.051***       | 0.310***          | 1.110***        | 0.912            |
| How long on the job?              | 1.056              | 2.090          | -2.271***         | 0.740           | 1.703***         |
| Who introduced you?               |                   |                |                   |                 |                  |
| Friend                            | -1.501             | 0.356          | 0.006***          | 0.116           | 0.106***         |
| Parents                           | 0.356              | -0.171***      | -0.511            | -0.231          | -0.211           |
| Siblings                          | 0.416              | 0.126          | 1.264             | 0.230           | 0.506            |
| No one                            | -0.151             | 0.309          | 0.164***          | 0.143***        | 0.304            |
| Spouse                            | 0.442***           | -0.119         | -0.251            | -0.412          | -0.105           |
| Income/Annum                      | 2.522***           | 0.146***       | 12.271***         | 20.741***       | 1.712***         |

Age significantly and positively relates with safety needs and self-esteem needs, and significantly but negatively with belongingness needs. Married status relates with physiological, safety and self-actualization needs, whereas single status has significant relationship with all the motivation needs; however, the relationship with all, except safety needs, is negative. With a positive slope, household size predicts physiological and safety needs. Education variables present a more interesting result – no formal education predicts only physiological needs while secondary did not predict any of the motivation needs at all. The results also suggest that those who have tertiary education are more focused towards pursuing higher order needs of belongingness, self-esteem and self-actualisation needs. Length of apprenticeship has a positive and non-fractional relationship with all except physiological needs; length of stay in the job predicts belongingness and self-esteem. On how the respondents got into the business, friends has a significant relationship with belongingness and self-esteem, parents only predicts belongingness needs, self predicts belongingness needs and self-esteem while spouse predicts physiological needs and self-actualisation needs. Income presents an interesting result – it predicted all the needs.

5. Discussion of findings
The result of this study shows that the IT artisanship job presents a whole range of ambiguities and highlights some contradiction to our understanding of job satisfaction among self-employed people. The initial diagnosis suggests that basic needs are not the primary issue among the audience; issues about what to eat, wear, and air breathe or where to sleep may not be the motivating factor. Rather, the decreasing order of the mean weights of the needs after basic needs suggest that the artisans are more focused on achieving safety needs, and they may then move ahead to seek for further fulfillment. How does one account for this pattern of needs in view of Maslow’s popular hierarchy of needs theory? Despite the poor economic conditions in Nigeria, IT artisans are meeting basic needs or are not giving serious concern to meeting basic needs, but they are still concentrated on safety need matters. Although further analysis shed light on the needs and how they relate or are related to the respondents’ characteristics, the relative lower mean weight of self-actualization in comparison with suggests that the artisans’ needs might not be following the hierarchy Maslow’s model.

An important aspect of this study is to address the question of who the artisans are really in terms of selected demographic and social characteristics. The artisans are mainly males – the nature of the task involves technical activities, an aspect of employment sector where women do not have a good presence both in Nigeria generally (National Bureau of Statistics 2013). More than half are not married, informing that most of them are probably youth at employment age. Given the relative large number of single persons in the study, the reported household sizes could be considered high – the respondents are probably living with extended family members and friends, a common safety net for survival in the hard pressed Nigerian economy (Onipede and Isiugo-Abanihe 2013). With majority reporting having secondary school education, IT artisans have higher educational status than artisan miners in Nwagwu and Igwe (upcoming) and commercial taxi operators in Nwagwu and Olatunji (2012). Also, the responses in the interview expressing consciousness of the future prospects of information technology business support the relative high level of enlightenment among the respondents. Coming from innovation perspective, Oyelaran-Oyeyinka (2012) has pointed out the opportunities for science and technology development in Nigeria, an inference that is supported by this result.

Contrary to what is known about artisans (Mooko and Aina 2007; Nwagwu and Olatunji 2013; Nwagwu and lgwe forthcoming), a relatively very large number of the artisans did not undergo any apprenticeship process; three such respondents were interviewed to understand why. Two were electronic/electrical engineers and one functions as a radio/TV technician. All the three accepted that apprenticeship would be good to improve on their practical skills, and to know the market, but the engineer said: “Apprenticeship would require at least one more year, after spending five years in the university to study engineering, who will take care of me during the training and how will I manage my life?” The other said that age was not on his side and that he needed to “start doing something to make money”, and that he started the job by running errands for those who were already established. These responses probably highlight the circumstances under which the artisans embraced the job and the challenges the artisans, particularly those that have university education, confront in initiating in the job. These young people have struggled to be gainfully employed in formal sectors, but took to the artisanship job as an alternative.

The length of time respondents have spent on the job shows that there is an increasing transition of labour to IT artisanship subsector in the last ten years. Although there are reports that are optimistic about the economic future of Nigeria, a synthesis of the interviews and inferences from them suggest that the rush in the last three years into a profession whose income is generally low may be informing that the bright prospect of the country in the near future might not have translated to the wellbeing of young and unemployed people. This is also exactly the position of World Bank (2013) in its analysis of employment and wellbeing data from the Nigeria’s Bureau of Statistics in 2013. Inference from Oyelaran-Oyeyinka’s (2012) analysis of a cluster of IT workers in Ikeja, Lagos Nigeria suggests that this influx is due to high level of unemployment.

A wide variety of sources of introduction into the job, and the resort to friends for ideas about job, may mean that many of these youth probably scamper around for job, and finally settle on what their friends are doing to survive, or on the advice of their parents and others. The result on income presents some difficult situation. Related previous studies on computer businesses found that the artisans are making high profits (Oyelaran-Oyeyinka 2013), but those studies focused mainly on a cluster in Lagos whereas this present study consists of artisans outside the cluster in Oyelaran-Oyeyinka’s study.

Table 4 suggests that if the basis for assessing job satisfaction variables of income and development prospects would be food, then the respondents would want to remain in the job. This is not a contradiction to the result obtained during the diagnostics in table 1; rather it supports the observation that the respondents are able to find food to eat and maintain their lives and those of their dependents. As
would be expected, although the respondents appeared not to be on the job primarily to get shelter, shelter constitutes an important component in whether the respondent would want to remain in the job and whether the respondents would consider their prospects in the job as great. Jiboye (2011) and Oyelaran-Oyeyinka (2013) have shown that simple refuge that affords privacy and protection against the elements in the environment is still beyond the reach of most people living in Lagos and Ibadan respectively. Furthermore, whether the respondents would feel willing to stay on the job consider their income as high or consider prospects as promising would be strongly determined by whether the respondents felt some sense of security on the job. Several factors could make this factor important in the mind of the artisans – in a study on artisans in South Africa, Jordan and Barry (2009) have shown that job security among artisans could be affected by income and prospects for future development.

Although majority of the respondents joined the profession through their friends, influence from friends is not an important belongingness is not a determinant of whether the respondents would stay in the job, perceive their income as good or develop a positive perception about the future of the job. Rather, the significance of identification and personal assessment of being very knowledgeable with the IT industry are very strong determinants of wishing to remain in the job. Identification could mean that an individual’s skill is recognized among peers even if the individual had not made a financial breakthrough; it could also mean that the individual ranks his ability so highly. This idea should relate very strongly with self-appreciation of one’s knowledge level about IT which clearly determines all the dependent variables. By inference, individuals would stay on the job, make or perceive their income as high and expect that the future would be bright in the profession if their assessment of their level of knowledge about IT is very high.

Self-esteem constructs determined most of the constructs of job satisfaction in this study, except the wish to remain in the profession and perception about the future in the job. Mastery of the job, a sense of achievement and feeling belonged to a high social class relate with evaluation of income as adequate, but mastery does this prediction negatively. The likelihood is that those who have mastery over the IT artisanship business might also consider their income as sufficient for the labour. Those who feel belonged to the society by virtue of the job would wish to remain on the job and consider their income as sufficient even if they are not sure of their future in the profession.

Self-actualization exhibited a different characteristic; only two of its constructs namely having genuine interest on the job and meeting expectations predicted wishing to remain in the profession, the later predicting the dependent variable negatively. It could be recalled that self-actualization had the least weight among other motivational constructs, after basic needs. Those who are not married are most likely to be younger, and have less family challenges compared with those who are. Hence, they are optimistic about the future, even if things are not working out well now. This may be the reason why single positively predicted all the dependent variables. The reverse is the case with household size; larger household sizes would require better income, such persons are the most to desire change of jobs, and consider their income as low.

Those who have no formal education are more satisfied with the job than those who have, as they reported hope for a better future and income. Although it is not clear whether those with tertiary educational qualification wish to remain in the job or not, they are happier with their income but did not report a prospective future. Evidently, those who spent a long time learning the trade were associated with low level of education while those who have been in the trade for a long time reported wishing to remain in the profession. Self-introduction into the job relates to all the dependent variables; these people seem to know what they want and have decided to patiently pursue their dreams. Those who joined the profession through their friends are in the business to make money, but might wish to change jobs if the opportunity arises while those introduced by their parents wish to stay on the job. As expected, those who make high income would want to stay on the job; they did report their income as high or sufficient although they have hope for better future in the job.

The study has provided evidence for the impact of various needs of the artisans on their job satisfaction. Basically, the study has highlighted the specific elements in the Maslow’s needs constructs that command the most influence in respect of job satisfaction of the artisans, and not pn whether the needs are in hierarchy. On a scale of yes or no, food and shelter, love to be identified and being informed about IT, love to belong, feeling fulfilled and meeting expectations, are the major elements in the five-level hierarchy of needs that describe the job satisfaction of the artisans. A curious point would be the need to seek to establish whether these predictors integrate to a new constructs which may be used to understand further and improve the level of job satisfaction among the artisans. This suggestion is important in view of the observation that factors that explain job satisfaction among the artisans are unevenly distributed in the motivation needs. It is also very interesting to observe that the variables
predict job satisfaction differently when job satisfaction is viewed as consisting of other constructs. But it is informative however that some of the constructs, for instance, food, predicted job satisfaction irrespective whether job satisfaction was viewed as single constructs or as consisting of other constructs. The foregoing synthesis also applies to the impact of demographic characteristics on job satisfaction. While age, for instance did not explain any of the components of job satisfaction, it explained job satisfaction when considered as a single construct. In consonance with Zhou and Zhu (2002), this result suggests that achieving job satisfaction among the artisans would require a deconstruction of the concept in achieve a more efficient result.

Needs are behavioural. They influence other behaviours and can also be influenced by other variables (Anholt, Mackay and Trudy 2010). The ordinal regression result suggests that the older the artisans get, the more likely he is to be concerned with safety, belongingness and self-esteem needs, but not self-actualization. It is a natural expectation that older persons are more likely to have high number of dependents, and confront more challenges such as achieving personal goals in life than younger persons. Also, older persons may be considered to have lesser time for personal development and to pursue new careers compared with younger persons. Education remains one of the most important variables in human development; it is vital in determining how well people prepare, develop and confront the future in their respective endeavours (World Bank 2007). Those who hold lower and no formal educational statuses appear to be satisfied meeting physiological needs while those that hold tertiary educational qualifications seek to be focusing on belongingness and self-actualization needs.

The result of this study has implications for the importance of apprenticeship in this IT artisanship profession – apprenticeship relates to skill acquisition. It has been shown earlier that longer apprenticeship relates negatively to educational status. It can be inferred therefore that those that have lower education and who spent longer time in apprenticeship are more likely to be seeking to meet safety needs, belongingness needs and self-esteem needs, just as those who have spent a long time in the job have tendency to be seeking for belongingness and self-actualization needs. They probably have an expanded customership base, have better control of the business and may be older in age to seek for new careers. Crucially, income is a predictor of all the needs; increased income could create access to meeting other needs.

It is reiterated here that this study was not designed to fit the Maslow’s hierarchy of needs model; rather the variables in the model guided the study.

Conclusions
The focus of this study has been how basic needs and demographic characteristics of IT artisans in Nigeria relate to their job satisfaction. Artisanship IT business is blossoming in major cities in Nigeria; determining whether the artisans are satisfied with their undertaking is very important in deciding investment in the profession and in making policies that are aimed at developing the IT sector generally. Utilizing data collected from a large number of randomly selected respondents, the study has established the relationship between job satisfaction of the artisans and their motivation needs and demographic characteristics. The rush into the profession by many unemployed people might be because of its trendiness and attractiveness, and not necessarily that those in the artisanship segment of IT business are satisfied with the job. Basically, what is required is an intervention of government and the private sector to upgrading the performance capacity of the artisans through policies that will incorporate and recognise their roles as small scale enterprises.

References


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