

Assessment of Methods and Applications of Competency Frameworks in the Nigerian Private Sector Organizations

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Abstract- The study examines the aspects of job-competency management [JCAM] tools that are applicable in Nigerian organizations in particular to establish the level of awareness and specify the areas of applications using a sample of human resource managers from different sectors. The study found that the JCAM tools is widely known and applied across the sectors particularly in areas of human resourcing with limited applications to performance management, talent and leadership development while compensation-based application is low. The study recommends the adoption of the JCAM tools as viable HRM models for improving performance effectiveness and enhancing organizational competitive advantage in Nigeria.

Index Terms— Job-competency; human resources, performance management, organizational effectiveness, core competence

I. INTRODUCTION

The work of McClelland (1973) pioneered the competency framework where he argued that assessment of competencies is more valid than the intelligence and other assessment methods that were popular at that time. From its conception by McClelland (ibid) the competency framework was conceived as a recruitment validation tool but which later authors find applicable to other human resource management [HRM] applications. Both Boyatzis (1982) and Spencer and Spencer (1993) are influential literature in competency studies that perhaps no discussion of the topic may be complete without reference to them. The job-competency assessment method [JCAM] that began as a tool for recruiting and predicting performance of foreign state intelligence officers in the United States of America in..... has grown to become one of the most influential HRM tool of the century. The model has spread across the Atlantic to Europe and Scandinavian countries. It was however only in the late 1990's that the term competency appears in the Nigeria press as a human resource management tool by few multinational companies particularly in the oil sector with limited applications to recruitment (Samuel, 2001).

The last decade has witnessed rapid adaptation of the JCAM into corporate management in Nigeria with varied applications to human resource management. One of the most visible areas of application continues to be in recruitment and selection. For example, a survey of 500 managerial position advertisements by two major Nigerian dailies by the author [2012-2015] shows that 69% of the positions stated either personal characteristics or competencies of required applicants. This indicates a possible familiarity with and adaptation of the JCAM into the recruitment system in majority of the organizations. What is however unclear is the degree of

application of the JCAM in the recruitment and selection system, how the competencies are developed or determined, what metrics are used in the measurement of the competencies, whether there are other areas of human resource management to which the JCAM are applied. This study is designed to answer the questions whether JCAM is an integral part of HRM in the selected organizations, and if yes, what are the specific areas of applications and the degree of differences in practice across the sectors. The answers to the above questions are not only critical to professional HRM but to show that the tools are beneficial to organizational effectiveness in Nigeria.

Competency Defined

The term competency is generally used to refer to the characteristics of people and the dimensions of their behaviours, which underlie effective performance in defined context. Such context could be on specific jobs, situation or environment [Samuel, 2002; 2012]. A competency connotes a dimension of individual characteristics that can be measured reliably and that distinguishes effective from ineffective behaviours at statistical levels of significance. This is one of the major appeals of the JCAM to people management and organizational development. Particularly if organizations have the DNA for predicting effective behaviours and superior performance, they are more likely to improve their performance level by recruiting and developing for such behaviours. This is certainly a simplistic way of viewing the concept as Spencer and Spencer (1993) shows, competency is more complex characteristics of people and finds expression in terms of trait, motive, skill or knowledge, and social role that impact on behaviour and job outcomes. There is therefore need to discuss the different forms and usage of the term competency as we will proceed below to devote some times to review the literature on aspects of the subject.

Competency versus competence

The first and major distinction that one needs to make is that between competency and competence. The impact of the management guru Peter Drucker on the development of management practice in the 1970's and 1980's seem to be a foundational issue for confusing 'competency' and 'competence' particularly whether the two terms mean the same thing as they are commonly used synonymously. While Drucker for example, in his book 'People and Performance' explained the differences between 'efficiency and effectiveness' he used the term 'competence' without corresponding distinction with 'competency' and when the term competency was used in management, many people see

the two terms as a matter of choice of word not as distinct phenomenon. The evolving concept of competence and competency has many confusing meanings, which has led to it being regarded as a 'fuzzy concept' (Dubois, 1993; Stuart & Lindsay, 1997). Three issues highlight the lack of clarity in the literature regarding the meanings of these terms. Scholars in the United States and the United Kingdom originated the competency and competence concept, leading to the so called the US and UK schools (Cheng et al, 2005; Wood & Payne, 1998). US scholars define competency as the underlying characteristics of superior/or effective performing jobholders from a worker-orientation perspective, whereas the UK school identifies competence from the work-orientation perspective as the output associated with appropriate standards of job performance (Stuart & Lindsay, 1997; Tate, 1995).

The Internet resource www.differencebetween.com shows that the word competence, though common in day-to-day parlance as ability or qualification of an individual, has many connotations in different fields. For example, in biology, competence refers to the ability of a cell to take up DNA and in geology, competence of the rock refers to the resistance it offers against erosion. In jurisprudence, competence of a witness means the mental capacity of the person to participate in legal proceedings. However, our relevant use of competence is organizational-based where it has come to refer to specific requirements from an individual to perform a given job. Competency on the other hand, refers to description of skills and knowledge along with experience and other attributes that are necessary to perform a task or job. In simple words, competencies are skills required for a job i.e., what has to be done and how well. Consequently, while competence is an outcome measure (Stuart & Lindsay, 1997; Tate, 1995), competency is one of the sets of behavior that the person must have and be able to display in order to perform the tasks and functions of a job with competence' (Tate, 1995, p. 83).

Personal Competence versus Organizational core-competence

Another issue is the difference between personal and organizational competence. Both Boyatzis (1982) and Spencer & co. [1993] agree that competency is context sensitive and occurs within organizational context. In this case competence of individual can only occur using specific organizational measures, which are transferrable from one context to the other but may not necessarily result in the same level of effectiveness if other organizational variables such as resources, leadership or culture amongst others are not similar. Lahti (1999) and Kennedy and Dresser (2005) claimed employee competence is psychologically similar to and strategically directed by organizational core competence, but only few studies demonstrated their similarity and how to link them. Organizational core competence can be seen as a portfolio of individual competences (Bergenhengouwen et al., 1996; Lahti, 1999), which generally must endure over time as employees flow in and out of the organization (Wright, Dunford, & Snell, 2001). Employee competence qualities forge the status of core competence (Shippmann et al., 2000). Hence, skills and knowledge competence, which subsume both firm-specific techniques and scientific understanding (Leonard-Barton, 1992), are relatively pragmatic, observable and directly related to performance. According to Prahalad and Hamel (1990), visible core competence includes skills, knowledge and

technologies, which are the most visible part of core competence (Drejer, 2002) and can be termed as strategic skills and knowledge. However, skills and knowledge in core competence are 'strategic' to the degree that organizations strategically plan what skills and knowledge they need in the future. In other words, strategic skills and knowledge are developed according to the mission and future strategic direction of the organization (Cardy & Selvarajan, 2006). The strategic intent in core competence drives an organization to define the future and bridge the gap between the present and the future so that it continually sets itself new challenges, thereby renewing it and achieving competitive advantage (Bergenhengouwen et al., 1996). Chen et al. (2010) concludes that competence and core competence exist as hidden and unique characteristics that convert to visible and valuable organizational characteristics.

Threshold versus Differentiating Competencies

The importance of distinguishing the differences between thresholds and differentiating competencies is not just an academic exercise but also a fundamental requirement in the set up for the design of any competency framework. A threshold competency consist of those requirements expected to guaranty minimally adequate or average level performance while the differentiating competencies are those characteristics that clearly distinguishes average from superior performance in a job situation. The threshold and differentiating competencies of a given job provides the template for determining the requirements for personnel specifications and source of input for performance management and development. Spencer and Spencer (1993) use the personality iceberg to further explain the differences and assert that like the iceberg, threshold competency such as skill [as determined for example by training, qualifications and experience] is at the surface of the iceberg and can be easily assessed but they do not predict superior performance. The differentiating competencies are located deep in the personality iceberg and are difficult to assessed- they actually account for the variances in performance levels between those that are successful and those less effective in job situations at statistical levels of significance. Assessing them correctly help to validate a competency framework but such knowledge still resides more to expert domain.

Theoretical Framework

In job-competency approach, analysis starts with the person-in-the-job without prior assumptions as to what characteristics needed to perform the job-well and determines from open-ended behavioral event interview [BEI] which human characteristics are associated with job success [Spencer & Spencer, 1993]. The JCAM emphasizes criterion validity what actually causes superior and /or effective performance in a job and not what factors most reliably describe all the characteristics of the person [ibid]. Those competency characteristics are based on the grounded theory, which asserts that the best way to predict what a person will do in future is to evaluate what the person has done in similar situation in the past. The BEI process ask the person for samples of critical incidents and a detailed description of the incident- for example what happened, who was involved, what the person did, what was the outcome and how he felt about that outcome. The samples are then analyzed through 'thematic analysis'

process for identifying themes and patterns in the behaviors for competency coding.

Both Boyatzis (1982) and Spencer (1993) classified competencies as [1] operant or respondent, [2] knowledge or procedural, and [3] declarative traits respectively. The operant characteristics include motives, self-concepts, attitudes, and values such as occupational preference. Knowledge or procedural traits involve content knowledge such as accounting principles, criminal or civil law, which can be recalled when needed. Declarative traits are the general dispositions to attend to certain stimuli or behavior in certain ways. The operant traits constitute the intrinsic drive to act in the absence of environmental pressures or rewards. This was argued by psychologists (i.e., McClelland, 1973) to predict what a person left on his own will do which most managerial jobs entail. The variances in managerial performance effectiveness between superior and average or poor performing managers were shown to be highly related to the differences in the skill level of the differentiating competencies but not threshold competencies such as knowledge or procedural skills. A major debate here is that the simple reason that a person knows what to do is not a guaranty that he/she will do it. In fact Samuel (2001) found a high percentage of managers reporting that there are tasks that they could do without doing them. Furthermore, in classifying these differentiating competencies, they can be placed along a continuum on the Just Noticeable Difference (JND) scale ranging from lowest to highest on each dimension reported in the dictionary of competencies (Spencer and Spencer, 1993). It is expected that more effective managers use the higher level of the skills of the competencies more often than the average managers.

However, there still exist some differences in perspectives on how competencies should be categorized. Sparrow and Hiltrop (1994) suggest that competencies fall into categories i.e., behavioral and managerial competencies respectively. Behavioral competencies are defined as behavioral repertoires, which employees bring to and input on the job. The level of analysis used in assessing these competencies is the person and the job with clear specifications that these competencies are what employees need to bring to the role/job to perform to the required level of effectiveness i.e., functional technical and behavioral frameworks. Managerial competencies on the other hand tend to be defined as knowledge, skills and attitude and a small number of personal behaviors. The unit of analysis for managerial competencies is the organization and there is an assumption that such competencies are generic, externally transferable and there is an entry threshold standard (Spencer and Spencer, 1993). These competencies are categorized into clusters of the management variables that they predict (Samuel, 2002). Furthermore Spencer and Spencer [op cit.] define the cognitive level of competence and core competence as the self-concept and organizational image, which play cognitive roles moderating how people behave and feel in a social context. The cognitive mechanisms operate as translators of the other internal characteristics and environmental expectations. For example, self-image and social role are moderators of motives and traits in determining actual behavior, and help select what actions to take by defining the appropriateness of these actions (Boyatzis, 1982). Individual values, beliefs and attitudes and organizational values, beliefs and norms manifest cognitive mechanisms. Through comparing and assessing these cognitive manifestations, individuals can judge how to behave as

members of an organization and how they fit in to each other by setting standard of expectations that manifests in form of organizational culture. This applies or controls organizational members' interactions with each other and influence how people respond to a situation and how they interpret the environment surrounding the organization (Jones, 2004). Motives and traits yield intent, providing the drive or 'push' for required knowledge or skills, and cause action toward an outcome (Spencer & Spencer, 1993).

Competency Frameworks Applications

The JCAM applications in the areas of human resource management in Nigeria is still relatively novel and the applications is expected to reflect this history as well. Generally JCAM has found useful applications to HRM in the following areas.

Career Path and Retention

Job Competency Models provide detailed maps for existing employees to follow as they plan their careers and self-development. The model for any given job describes the exact competencies necessary to advance to that job, giving aspirants both secure information and incentive to acquire those competencies. Some models actually specify the behavioral anchor levels expected at various management levels such as supervisory, managerial, executive and director levels, which serves as motivating factor for retention of talented and key employees desirous of advancing the corporate ladder.

Recruitment and Selection

Wood and Payne [1998] provide a detailed framework for competency-based recruitment and selection. The advertisement design is a critical element for the success of a competency-based application. Job information is clearly stated in-terms of behavioral content needed for the job performance i.e., what the role involves, what personal attributes will be required not simply qualifications and experience. The competency-based advertisement takes more space and more costly, however, it provides a self-selecting mechanism to narrow on the right applicants. Competency-based interviews are open-ended structured questions that allow the candidates to be compared along similar job requirements. A major area in selection of applicants is to differentiate between hard and soft skills needed in the job and placing a premium on the mix for each job category and management levels.

Performance Management

Job Competency Modeling provides an excellent base for performance management. As with development and recruitment, employee assessment is based on accurate, detailed information about job performance. To appraise this performance effectively managers need:

- Accurate job-performance standards
- Clear descriptions of job behaviors required to perform specific job tasks
- Indicators of both average and superior job competencies

When competency models provide these data, assessments yield useful, practical recommendations. Competency-based compensation systems also explicitly tie rewards to the development of key competencies. This gives employees

greater control over their professional development and offers incentive for excellence to workers and managers at every level.

Training and Development

Blank (1982) asserts that competency modeling provides a truly ideal framework for training programs. Studies show that competency-based programs offers a return on investment (ROI) nearly ten times higher than the ROI of traditional training methods [Spencer, 1997]. Some models of competency-based training include steps outlined below:

- Step 1. Identification of Required Competencies: Job Competency Models supply this information, or a simpler, less detailed system can be used for non-critical jobs.
- Step 2. Assessment: Employees assess their current competencies and compare them to a template examples of superior performance. Performance assessments by managers are obvious tools as well. Employees and managers then decide which skills to focus on.
- Step 3. Observation and Study: Employees study sample characteristics of superior performance and encouraged to repeat them. Trainers provide supporting information to aid participants' comprehension.
- Step 4. Practice: After acquiring a basic understanding of the concepts involved, participants move to practical, job-related applications of their new knowledge.
- Step 5. Feedback: Trainers observe participants applying their new knowledge and offer constructive feedback and reinforcement.
- Step 6. Goal-Setting: Trainers work with employees to set specific goals and action plans for applying new competencies back on the job.
- Step 7. On-the-Job-Support: Supervisor and peers reinforce and support each individual's demonstration of newly acquired skills.

When employees enter this cyclical process of planning their own development and acquiring necessary training, everyone benefits. They take responsibility for their own career paths, their own job security, and the organization gain an ever more skilled and competent workforce. The resultant improved performance, bonuses, increased productivity, and career advancement guaranty success for everyone.

Competency-based compensation [skill-based] system.

The phrase "skill-based pay" refers to programs where compensation is based on the skills of the employee, rather than that employee's job, so it is a *person-based approach* rather than a *job-based approach*. This means that rather than inventorying and establishing a pay structure based on the monetary value of *jobs*, it requires inventorying and

establishing a pay structure based on the monetary value of *skills*. The Premier Football League in Britain is an example of a skill-based compensation structure where players are paid different rates for their skills and marketability. A summarized procedure for establishing a skill-based compensation is as follows:

- Determine the skill requirements of the organization. This includes skills currently needed as well as those anticipated for the future. The step entails inventorying, organizing and establishing progressive paths and timetables for skills and their development. Note that the application of this approach to professional and managerial employees typically focuses on *competencies*, which are considered broader and higher level than skills (which tend to be narrower and more task-oriented).
- Inventory current employee skills/competencies. The BEI provides the best data though other methods such as direct observation, questionnaires may be used but it is required that managers develop the practice of keeping a folder for each employee detailing current skills and levels of proficiency, areas for development and plans to help the employee acquire new skills.
- Value skills/competencies and establish corresponding pay structure. This involves using market pricing to determine the monetary value of skills and skill sets, a challenge since most pay surveys are job-based (rather than skill-based)
- Establishing skill certification procedures. Another potentially big stumbling block for skill-based pay systems; there must be a process and set of procedures for certifying employee skill acquisition before associated pay increases are awarded. This must address "on what basis certifications will be granted, who will conduct them, when they will be conducted and whether re-certification is necessary for seldom used skills". The National Vocational Qualification [NVQ] in UK offers such certification process.

The competency mapping process:

The first and most crucial step in this process is to define the critical roles in the organization for which this mapping is to be done. It is difficult to perform this kind of mapping for each role as it would be a time consuming process. A job analysis needs to be done using job descriptions, key deliverables, position information questionnaires or even studying organization structures.

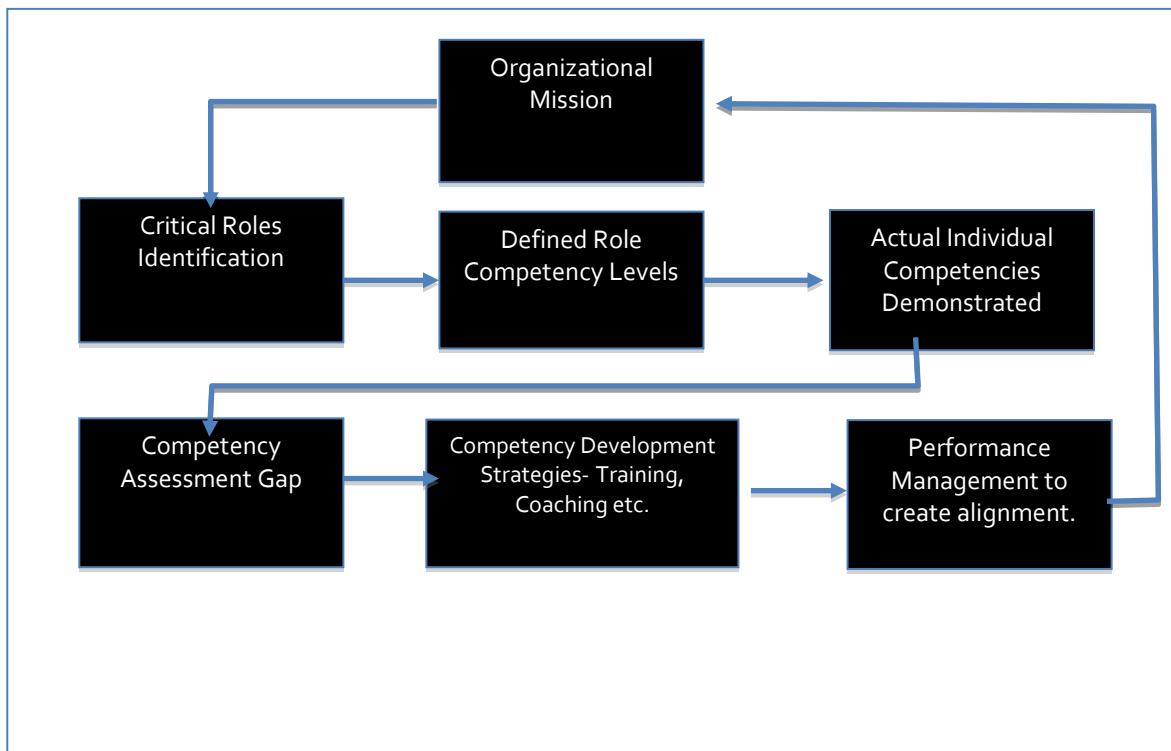


Figure 1: A Competency Assessment Flow Model

Identification of threshold and differentiating competencies for each of the roles, gaps are identified between the actual competencies exhibited by the individual performing the role and the list of desired competencies at hand. The gap should be filled with precise training and development programs, coaching and mentoring.

The Assessment Center Method is most proven techniques that can be used to understand the gap between actual and desired competencies. In this process multiple assessments are generally made, one on the person performing the role and the other through the immediate supervisor. These assessments can be made through questionnaires. Weights are generally assigned to both responses with a higher weight assigned to the supervisor response in order to take care of the bias. A suitable statistical method could be used to come up with the compensation factor for each role.

The second method, which is also widely used, is the Critical Incidence Technique. This technique involves observations made by supervisors during the course of time on an individual performing a particular task. It is imperative here that observations be noted down as they happen. It is an appropriate tool to identify behavior, which contributed to the success or failure of an individual at a particular task. Immediate recording of the incidence is crucial in avoiding distortions, which would occur if they were recorded at a later time. Caution should be exercised to ensure that there is no bias in judgment on the supervisor’s part (Spencer & Spencer op cit.).

II. METHODS

Participants and Procedure:

The sample of study consisted of respondents who were mainly Human Resource Managers from various sectors of the private sector attending a professional conference in Lagos. 50 questionnaires were distributed with a return rate of 76%. Four [4] of the questionnaires were not properly assessed and therefore not part of this analysis. The choice of respondents was based on the specialization of the HR function and the JCAM tool that is applied to HRM and the respondents are in the best position to form opinions on its application of the JCAM in their organizations.

Research Instrument

The structured questionnaire was employed to obtain information on both the knowledge of JCAM applications, the current applications to HR functions on a three scale of availability =1; somewhat =2 and never =3. Section C of the questionnaire seeks to inquire the future prospects of JCAM applications on a 5 scale from very significant to very insignificant. The origin of any competency framework is considered very important and the last question seek to determine how any JCAM tool application in the organizations were developed whether: Not available [0], locally [1], Foreign HQ [2], Consultants [3], Off-the-shelve [4]. Key organizational characteristics such as sector, the employee population, equity structure and the size of the HR department were operationalized to influence the application of JCAM to HR functions

Table 1. Frequency Table showing Sectorial distribution of Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Conglomerate	4	11.8	11.8	11.8
	Food & Beverages	4	11.8	11.8	23.5
	Personal/Household	2	5.9	5.9	29.4
	Financial Services	6	17.6	17.6	47.1
	Insurance	4	11.8	11.8	58.8
	Healthcare	2	5.9	5.9	64.7
	Building Materials	4	11.8	11.8	76.5
	Oil & Gas	4	11.8	11.8	88.2
	Hospitality	4	11.8	11.8	100.0
	Total	34	100.0	100.0	

III. RESULTS AND DISCUSSIONS

The questionnaire was analysed using the SPSS Rel. 21 package to determine frequencies and analysis of variance [ANOVA] along the dimensions of organizational characteristics. Results are presented in the tables [see the Appendix]. The response to the question to determine the level of awareness of the JCAM shows that 100% of the respondents are familiar with the job-competency assessment methods but with varied level of application. In terms of application, recruitment advertisement, selection, interviews, training and

development, leadership and talent development applications rank highest. Apparently compensation/skill-based competency application attracts the least application while for example advertisement [60%], interviews [50%] and selection test [41%] of the organizations use the applications as part of their human resourcing tools consistently. All the organizations have reported the use of JCAM or somewhat tools for human resourcing and an agreed area of significant applications in the future. The fact that all the organizations in one form or the other applies the JCAM tools is an indicator for the readiness of the organizations to adopt the JCAM applications in Nigeria.

Table. 2: Showing the Application of JCAM in the Respondent Organizations.

Item	Available 100%	Some What 100%	Never 100%	Cumulative %
Recruitment Advertisement	55.9	44.1	0	100
Selection Test	44.1	55.9	0	100
Interviews	50	50	0	100
Performance Management	23.5	76.5	0	100
Career Path	17.6	52.9	29.4	100
Job Description	0	70.6	29.4	100
Placement	0	88.2	11.8	100
Succession Planning	0	70.6	29.4	100
Leadership/Talent Development	0	82.4	17.6	100
Training & Development	0	94.1	5.9	100
Functional Frameworks	0	50	50	100
Compensation /Skill-based	0	38.2	61.8	100

Source: Questionnaire response administered by author.

The study was also interested in establishing the origins of the JCAM in application in the organizations (see Table 3 below). The data show that 29.4% of the organizations have imported tools from overseas mother companies especially the conglomerates while 26.5% reported locally developed by use of consultants. The study did not distinguish whether consultants were foreign or local but only 5.9% reported in-

house JCAM development and 23.5% have no existing JCAM application framework.

The study also attempted to establish whether there are significant variances in the JCAM applications between the organizations. The equity structure and size of HR departments are too major variables that show differences in application at statistical level of significance at $p = \leq 0.05$ except for training

and development [p=.109] and job description applications [p=.488] for HR department size. Also, significant variances in the applications of JCAM by equity structure of the organizations. This shows some variations at statistical level of significance in JCAM applications to selection test [p=.02], recruitment advertisement [p=.000], performance management [p=.011],

in job interviews [p=.004], career path [p=.004] and functional frameworks [p=.004]. Significant variances according to the sectors appear in training and development application [p=.025]; job description [p=.009], and in leadership and talent development [p=.011]. See appendix 1 to 4 for details.

Table.3: Showing the Framework Origin

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No Framework in use	8	23.5	23.5	23.5
	Locally Developed	2	5.9	5.9	29.4
	Foreign Parent Company	10	29.4	29.4	58.8
	Develop Locally by Consultants	9	26.5	26.5	85.3
	Off-the-shelve purchase	5	14.7	14.7	100.0
	Total	34	100.0	100.0	

Source: Questionnaire analysis by author

Apparently, the data show that the two most important drivers of the JCAM application in Nigeria is the size of HR department and the ownership structure of the organizations. Organizations with more than 5 employees in their HR department are more likely to adopt a form of JCAM to their HR applications while those with foreign equities are more likely to adapt JCAM frameworks from their HQ than indigenous firms.

IV. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

An effective application of the job-competency assessment methods involves many levels of analyses. Level one begins with the determination of the driving competencies for the organization’s strategic mission. This is followed by the identification of key principal jobs critical to achieve the mission and thereafter, the identification and alignment of individual competencies with the core competence of the organization. Since competencies are identifiable in diverse tasks/activities, the measurement procedures vary according to the style of competency model applied. A combination or use of the job function/task analysis; the expert panel approach, survey and the behavioral event interview methods are however common. This paper attempts to clarify some misconceptions in the use of terminology and context of competencies and asserts that competencies within the organizational context are the input characteristics, which employees bring to the job role that enables an organization, achieve its goals. We further highlight the strengths of the frameworks to improve a range of HR functions. Competencies are generally classified between threshold and differentiating competencies and can be further classified into functional and behavioral competencies. The threshold competencies can be looked at as the minimum requirement needed to perform a job role while differentiating competencies are behavioral domain like attitude and personal characteristics which when present; enable a person to perform a role exceedingly well. Every individual is assumed to carry a set of competencies with him

or her to the workplace. The role of organizations is to ensure that the gap between “bringing to” and “using at” the workplace is bridged with regards to individual competencies. Factors such as leadership, supervision, motivation, resources and culture (Samuel, 2001) were found to impact on the transferability of competencies across organizations. For example, an employee with high level of initiative and risk taking competencies may not do well in organizations that do not support entrepreneurial skills.

Furthermore, whereas the study show popular JCAM application across industries in Nigeria to human resourcing the important areas like placement, talent management and succession planning needs to be developed. For placement and succession planning for example, competency mapping when done right allows an organization to fit the right person into the right role which in turn allows it to achieve its goals more effectively. Another important JCAM application is the functional framework. A competency template for a function helps to define those characteristics required for effective performance in that function and could be defined as technical and behavioral. It is an effective instrument for recruitment and placement as well as talent development for critical organizational functions such as predicting who will be effective salesperson or customer services manager etc. This application is not actively applied in Nigeria according to the study data probably as a result of low-level technical expertise to develop in-house frameworks. Most of the local JCAM applications are consultants developed or off-the-shelve applications. There is always a need to exercise caution in adaptation of tools developed abroad in view of varied cultural and environmental operational systems (Samuel, 2001).

Given the high level of awareness of the JCAM application tools in Nigeria, it is a cheerful development that the applications that have been instrumental in developing the HR functions in USA, Europe and the Scandinavian countries is finally taking root in the Nigerian organizations. It is hoped that as the organizations apply the JCAM tools, that the level of expertise will improve and home grown differentiating

competencies will be identified and develop into useful templates. For example, what are the competencies of Nigerian entrepreneurs? What competencies are required by various functions to perform well in Nigeria? What specific competencies do we need to see in the law enforcement agencies to enhance level of professionalism etc., the enhancement of local expertise in JCAM will improve the efficiencies and effectiveness required to generate high performance and productivity for advancing the competitiveness of the Nigerian organizations. On this basis, we strongly recommend the advancement of the JCAM applications to cover broad HR applications in Nigeria.

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Appendix
Appendix 1: ANOVA Table According to Sectorial Application of JCAM

			Sum of Squares	df	Mean Square	F	Sig.
Sector * Functional Frameworks	Between Groups	(Combined)	47.059	1	47.059	3.254	.081
	Within Groups		462.824	32	14.463		
	Total		509.882	33			
Sector * Compensation	Between Groups	(Combined)	.622	1	.622	.039	.844
	Within Groups		509.260	32	15.914		
	Total		509.882	33			
Sector * Succession Planning	Between Groups	(Combined)	7.782	1	7.782	.496	.486
	Within Groups		502.100	32	15.691		
	Total		509.882	33			
Sector * Placement	Between Groups	(Combined)	9.416	1	9.416	.602	.443
	Within Groups		500.467	32	15.640		
	Total		509.882	33			
Sector * Training&Dev	Between Groups	(Combined)	75.007	1	75.007	5.519	.025
	Within Groups		434.875	32	13.590		
	Total		509.882	33			
Sector * Job Description	Between Groups	(Combined)	100.149	1	100.149	7.822	.009
	Within Groups		409.733	32	12.804		
	Total		509.882	33			
Sector * Leadership & Talent Development	Between Groups	(Combined)	94.835	1	94.835	7.312	.011
	Within Groups		415.048	32	12.970		
	Total		509.882	33			
Sector * Career Path	Between Groups	(Combined)	33.882	2	16.941	1.103	.344
	Within Groups		476.000	31	15.355		
	Total		509.882	33			
Sector * Performance Appraisal	Between Groups	(Combined)	39.421	1	39.421	2.681	.111
	Within Groups		470.462	32	14.702		
	Total		509.882	33			
Sector * Interviews	Between Groups	(Combined)	1.882	1	1.882	.119	.733
	Within Groups		508.000	32	15.875		
	Total		509.882	33			
Sector * Selection Test	Between Groups	(Combined)	4.465	1	4.465	.283	.599
	Within Groups		505.418	32	15.794		
	Total		509.882	33			

Sector * Recruitment Advert	Between Groups	(Combined)	23.777	1	23.777	1.565	.220
	Within Groups		486.105	32	15.191		
	Total		509.882	33			

**Appendix 2: ANOVA Table for JCAM Application by
Company Ownership**

			Sum of Squares	df	Mean Square	F	Sig.
Ownership * Selection Test	Between Groups	(Combined)	1.965	1	1.965	5.987	.020
	Within Groups		10.505	32	.328		
	Total		12.471	33			
Ownership * Recruitment Advert	Between Groups	(Combined)	4.211	1	4.211	16.314	.000
	Within Groups		8.260	32	.258		
	Total		12.471	33			
Ownership * Performance Appraisal	Between Groups	(Combined)	2.317	1	2.317	7.301	.011
	Within Groups		10.154	32	.317		
	Total		12.471	33			
Ownership * Interviews	Between Groups	(Combined)	2.941	1	2.941	9.877	.004
	Within Groups		9.529	32	.298		
	Total		12.471	33			
Ownership * Leadership & Talent Development	Between Groups	(Combined)	.137	1	.137	.356	.555
	Within Groups		12.333	32	.385		
	Total		12.471	33			
Ownership * Career Path	Between Groups	(Combined)	3.759	2	1.880	6.689	.004
	Within Groups		8.711	31	.281		
	Total		12.471	33			
Ownership * Training&Dev	Between Groups	(Combined)	.596	1	.596	1.605	.214
	Within Groups		11.875	32	.371		
	Total		12.471	33			
Ownership * Job Description	Between Groups	(Combined)	1.037	1	1.037	2.903	.098
	Within Groups		11.433	32	.357		
	Total		12.471	33			
Ownership * Compensation	Between Groups	(Combined)	1.211	1	1.211	3.440	.073
	Within Groups		11.260	32	.352		
	Total		12.471	33			
Ownership * Succession Planning	Between Groups	(Combined)	.237	1	.237	.621	.437
	Within Groups		12.233	32	.382		
	Total		12.471	33			
Ownership * Functional	Between Groups	(Combined)	2.941	1	2.941	9.877	.004

Frameworks							
	Within Groups		9.529	32	.298		
	Total		12.471	33			
Ownership * Placement	Between Groups	(Combined)	.004	1	.004	.010	.921
	Within Groups		12.467	32	.390		
	Total		12.471	33			

Appendix 3: ANOVA Table for JCAM Application by HR Department Size

			Sum of Squares	df	Mean Square	F	Sig.
HR Size * Selection Test	Between Groups	(Combined)	11.720	1	11.720	13.472	.001
	Within Groups		27.839	32	.870		
	Total		39.559	33			
HR Size * Recruitment Advert	Between Groups	(Combined)	20.436	1	20.436	34.198	.000
	Within Groups		19.123	32	.598		
	Total		39.559	33			
HR Size * Performance Appraisal	Between Groups	(Combined)	14.299	1	14.299	18.115	.000
	Within Groups		25.260	32	.789		
	Total		39.559	33			
HR Size * Interviews	Between Groups	(Combined)	21.441	1	21.441	37.870	.000
	Within Groups		18.118	32	.566		
	Total		39.559	33			
HR Size * Performance Appraisal	Between Groups	(Combined)	14.299	1	14.299	18.115	.000
	Within Groups		25.260	32	.789		
	Total		39.559	33			
HR Size * Interviews	Between Groups	(Combined)	21.441	1	21.441	37.870	.000
	Within Groups		18.118	32	.566		
	Total		39.559	33			
HR Size * Leadership & Talent Development	Between Groups	(Combined)	5.547	1	5.547	5.219	.029
	Within Groups		34.012	32	1.063		
	Total		39.559	33			
HR Size * Career Path	Between Groups	(Combined)	20.325	2	10.163	16.380	.000
	Within Groups		19.233	31	.620		
	Total		39.559	33			
HR Size * Training&Dev	Between Groups	(Combined)	3.090	1	3.090	2.711	.109
	Within Groups		36.469	32	1.140		
	Total		39.559	33			
HR Size * Job Description	Between Groups	(Combined)	.600	1	.600	.493	.488
	Within Groups		38.958	32	1.217		
	Total		39.559	33			

HR Size * FunctionalFrameworks	Between Groups	(Combined)	21.441	1	21.441	37.870	.000
	Within Groups		18.118	32	.566		
	Total		39.559	33			
HR Size * Placement	Between Groups	(Combined)	6.592	1	6.592	6.399	.017
	Within Groups		32.967	32	1.030		
	Total		39.559	33			

Appendix 4: ANOVA Table for Employee Size Application of JCAM

			Sum of Squares	df	Mean Square	F	Sig.
NoEmployees * Selection Test	Between Groups	(Combined)	.359	1	.359	.128	.723
	Within Groups		89.670	32	2.802		
	Total		90.029	33			
Sector * Recruitment Advert	Between Groups	(Combined)	23.777	1	23.777	1.565	.220
	Within Groups		486.105	32	15.191		
	Total		509.882	33			
NoEmployees * Performance Appraisal	Between Groups	(Combined)	5.770	1	5.770	2.191	.149
	Within Groups		84.260	32	2.633		
	Total		90.029	33			
NoEmployees * Interviews	Between Groups	(Combined)	4.971	1	4.971	1.870	.181
	Within Groups		85.059	32	2.658		
	Total		90.029	33			
NoEmployees * Leadership & Talent Development	Between Groups	(Combined)	12.018	1	12.018	4.930	.034
	Within Groups		78.012	32	2.438		
	Total		90.029	33			
NoEmployees * Career Path	Between Groups	(Combined)	13.685	2	6.842	2.778	.078
	Within Groups		76.344	31	2.463		
	Total		90.029	33			
NoEmployees * Training&Dev	Between Groups	(Combined)	5.561	1	5.561	2.107	.156
	Within Groups		84.469	32	2.640		
	Total		90.029	33			
NoEmployees * Job Description	Between Groups	(Combined)	13.671	1	13.671	5.729	.023
	Within Groups		76.358	32	2.386		
	Total		90.029	33			
NoEmployees * FunctionalFrameworks	Between Groups	(Combined)	24.735	1	24.735	12.123	.001
	Within Groups		65.294	32	2.040		
	Total		90.029	33			
NoEmployees * Placement	Between Groups	(Combined)	5.663	1	5.663	2.148	.153
	Within Groups		84.367	32	2.636		
	Total		90.029	33			

NoEmployees * Compensation	Between Groups	(Combined)	3.077	1	3.077	1.132	.295
	Within Groups		86.952	32	2.717		
	Total		90.029	33			
NoEmployees * Succession Planning	Between Groups	(Combined)	5.404	1	5.404	2.044	.163
	Within Groups		84.625	32	2.645		
	Total		90.029	33			