



# Personal Time Management Practices and Efficiency of Construction Artisans at Work in Akwa Ibom State

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**Abstract:** This study provides an insight into the influence of personal time management practices on the efficiency of construction artisans for enhanced construction performance. The objectives were to; evaluate the extent of use of time management practices, utilization of productive knowledge, and influence of personal time management on utilization of productive knowledge among construction artisans in Akwa Ibom State. This study adopted the exploratory survey design approach using structured questionnaires purposively administered on 190 artisans with 171 valid responses. Data were analysed using descriptive, relative importance index, Kruskal Wallis and correlation analysis. It was found that 26.3% of the personal time management practices have significant extent of use, while 25.0% of the critical productive knowledge of workers were significantly utilised. The time management practices mostly used are geared towards ensuring early arrival at work, avoiding time wasting tasks, prioritizing tasks daily, delegating responsibility and seeking help at difficult times. The personal critical productive knowledge of workers mostly utilised are practical competence, collaboration and team working ability, negotiation, creative and leadership/control competences. The study concluded that the present use of time management practices have not significantly contributed to the utilization of productive knowledge by the artisans hence low efficiency at work. The study therefore recommended that

artisans should endeavour to use other identified personal time management practices which would enhance the utilization of productive knowledge and high levels of competences for efficiency at work place.

**Keywords:** Artisans; Construction; Efficiency; Productive knowledge; Time management; Akwa Ibom.

## 1.0 Introduction

The construction industry in Nigeria has been noted for its significant contribution to overall national development. Building and construction sector is one of the top five sectors used in measuring the National Gross Capital Formation (NGCF) and the Gross Domestic Product (GDP) of any country and its effect on other sectors, makes it a significant front for sustainable development (Isa, Jimoh and Achuen, 2013). One of the fundamental conditions of achieving successful construction projects is that the projects must be completed within the contracted duration. In view of the importance of time in project performance, literature is replete with various improvement methods to overcome the issues of time performance in construction projects (Memon, Roslan and Zainun, 2014). Human resources have been observed to be central to the performance of the construction industry of most nations (Lerman, 2013). Bamisile (2004) observed that in spite of advancement in technology, plant and equipment and in particular robotics, the construction industry is one of the few that still relies on individual skills of artisans. Similarly, Odediran and Babalola (2013) observed that, the types of manpower mostly needed in large quantity for housing construction in Nigeria and globally are artisans and labourers. Artisans in the construction industry play a crucial role in the practical realisation of any construction project, they are mostly engaged in the

technical aspect of construction and at the management level serve as frontline manager (supervisor); giving the role of interpreting the company policies into practical realization of the organizational goal of employer (Abiola, 2004). The artisans are therefore crucial to time savings in construction business, hence Memon et al. (2014) noted that effective hiring and use of artisans can help to improve the time performance of construction projects. Nowadays, issues of time and timing have become very essential to managers and employees in construction industries. As a result of expanding global competition and increased demands for immediate availability of products and services the temporal dimension of work within the last two decades has become more important (Orlikowsky and Yates, 2002). Omolayo and Oluwafemi (2012) opined that in work organizations, it is highly important that time be consciously used because the effective use of time is an important issue in organizational efficiency, organizational effectiveness, understanding human behaviour, education and travel behaviour. Personal time management, according to Randy (2007), is the act or process of planning and exercising conscious control over the amount of time spent on specific activities especially to increase efficiency or productivity. Personal time management is a necessity in any project development as it contributes to the project completion within the scope and duration. Personal

time management skills increase productivity and positively impact all aspects of an individual worker's activities in construction. Studies have identified the consequences of poor personal time management to include lateness, poor quality jobs, anxiety, stress, poor productivity; poor work progress and general project time overrun (Dodd and Sunheim, 2005; Claessens, Eerde, Rutte, and Roe, 2007 and Elsbahy, Sleem and El Atroush, 2015). According to Claessens (2004) literature on how individuals deal with time at work is relatively scarce when compared to the popular attention for time issues at work. This assertion is particularly true in the Nigerian construction industry as attention has not been given to how an artisan can manage his time for efficiency and general productivity which can improve time performance of projects especially in the study area. British Business Professional Skill Development (BBPSB) (2010) also observed that the Pareto principle of the 80/20 rule applies in the time we spend at home and at work. It means that 80% of our results come from only 20% of our time, implying that only a small portion of our available time is usually spent on top priorities. This study therefore, aims at ascertaining and providing insight on the extent to which personal time management of a worker may influence the extent of utilization of worker's productive knowledge for overall efficiency at work in Akwa Ibom State.

### **1.1 The Objectives of the Study**

The objectives of the study are; (i) to evaluate the extent of use of various time management techniques employed by different construction artisans in Akwa Ibom State, (ii) to evaluate the

extent of utilization of the productive knowledge of the artisans at work, and (iii) to assess the influence of personal time management on the extent of utilization of productive knowledge in the study area.

### **1.2 Research Hypotheses**

Three hypotheses were postulated for this study. The first, states that there is no significant variation in the extent of use of time management practices among construction artisans in Akwa Ibom State. The second, states that there is no significant variation in the extent of utilization of productive knowledge among the artisans and the third, states that there is no significant correlation between the use of the time management practices and the utilisation of productive knowledge by the artisans in the study area. The results of these hypotheses will provide an insight into the importance and influence of time management to the achievement of productive knowledge in the study area. The results will also enlighten the stakeholders in the construction industry on the time management techniques that can enhance the productivity of artisans.

### **2.0 Review of Related Literature**

A number of studies have been carried out on personal time management and productive knowledge which provided basis for the questionnaire formulation for this study. Hassanzabeh and Ebadi (2007) measured the share of the effective factors and time management using a sample of 112 managers to collect data with questionnaire. The result showed that share of each factors and time management are different among managers, with respect to years of experience, background experience in management and education. A relationship was also established

between effective factors in time management and the extent of time management among managers. Omolayo and Oluwafemi (2012) investigated the influence of workers' attitude towards time and work on perceived job performance in private and public sectors. The study which was carried out in Ado-Ekiti and Ibadan metropolis utilized one hundred and eighty (180) workers drawn from five (5) different organizations and found that there was no significant difference in the attitude of workers towards time in private and public sectors; that there is a significant joint influence of workers' attitude towards time and work on perceived job performance as well as on perceived job performance in the private sector, but there is no significant independent influence of workers attitude towards work on perceived job performance in the private sector. It was also found that there was no significant independent influence of workers' attitude towards time and work on perceived job performance in the public sector. Adejo (2012) determined the effect of time management on high organizational performance using LASACO ASSURANCE Company, by administering questionnaire on the company's employees in Nigeria. The study brought out the differences between effective time management and time management, and established that effective time management is an important tool for high organizational performance. Mamman (2013) evaluated time management in the Nigerian civil service. The evaluation and survey research design which was on a stratified random sample of 300 civil servants in Nigeria showed low appreciation of the process of time management and its principles with

traces of time wastage or mismanagement during working hours. Eshaghieh and Eslami (2015) investigated the effect of time management on productivity of human resources in social security organization of Yazd city in Iran. The descriptive survey utilized questionnaire administered on 290 employees of the Social Security (Department of Health) of Yazd city. Partial least squares were used to examine the relationship between time management criteria and employee productivity. The results showed that at 95 percent confidence level, there is a positive and significant relationship between personal, environmental, organizational/time management factors and employee productivity. Most of the studies were not done in Nigeria, and even the viewed ones in Nigeria were not based on artisans hence necessitating this study.

### **2.1 Time and Personal Time Management Practices**

According to Carroll (2010), time is a duration or relation of events expressed in terms of past, present, and future, and measured in units such as minutes, hours, days, months, or years. Time brands moments in the universe, measures the duration that may elapse between events and it is a medium through which we move, hence serving as an agent of change. Ojo and Olaniyan (2008) also stated that time is a limited period during which an action, process, or condition exists or take place. It is an essential resource every manager needs to achieve the goals and objectives of an organization. Time passes at a pre-determined rate whatever happens hence it cannot be saved but can only be spent and once misused it can never be regained

(Haynes, 2001 and Adejo, 2012). Time, which is an important factor in performance, is also noted to be a fundamental asset for both individuals and organizations (Varlamova, 2008). Therefore time, like any other scarce resource must be managed and used judiciously by establishments and individual persons. Personal time management as earlier noted by Randy (2007), is the act or process of planning and exercising conscious control over the amount of time spent on specific activities especially to increase efficiency or productivity. Claessens (2004) opined that time management covers three broad aspects namely: (1) time awareness behaviours (such as, self-awareness of one's time use, which helps to accept tasks and responsibilities that fit within the limit of one's capabilities), (2) planning behaviours (planning and prioritizing tasks and activities), and (3) monitoring behaviours (such as, providing a structure for managing time by an ongoing assessment of progress towards a goal and the implementation of this feedback in task execution). Several studies (Randy, 2007; Varlamova, 2008; Ojo and Olaniyan, 2008; British Business Professional Skills Development- BBPSD, 2010 and Adejo, 2012) identified different time management practices used at work places to include the use of to-do-list daily, prioritizing tasks daily, use of daily planner, delegating responsibility as much as possible, basing work on daily energy, completing more important tasks at optimum energy, scheduling time for interruptions, reducing time through creativity, schedule and control of calls/phone, seeking help at difficult times, grouping tasks, setting goals, setting time limit for tasks, rewarding oneself for

excellence, relaxing at appropriate time, avoiding procrastination, always analyzing/monitoring time spent, avoiding time wasting tasks, and ensuring early arrival at work for planning.

## **2.2 Critical Productive Knowledge Requirements of Construction**

### **Artisans**

According to Vokes and Brennan (2013) the skill acquisition processes lead to the development of some productive knowledge necessary for certain skill behaviour of workers. These critical kinds of knowledge, also referred to as the elements of competence, ability and behaviour determine how effective a worker can carry out a task assigned to him. Some of the critical knowledge identified by previous studies are accuracy and precision, timeliness/time allocation competence, continuity/sustainability awareness, speed and efficiency competence, foundational competence, practical competence, creative competence, situational awareness, integration/reflexive competence, cross-discipline awareness, work development & promotion ability, teaching competence, communication competence, resource allocation competence, collaboration and team working ability, waste avoidance and minimization ability, leadership/control competence, safety consciousness, negotiation competence, flexibility and adaptability competence (Scottish Further Education Unit, 2005; Vokes and Brennan, 2013). These critical productive knowledge requirements therefore served as sources of the twenty critical knowledge used in this study.

### 3.0 Methodology

This study adopted the exploratory, descriptive and deductive approaches with the aid of structured questionnaire which was piloted by survey of construction professionals who are conversant with the topic. This was to determine whether the questions have substantially captured the required home qualities and the housing sustainability attributes. These were tested for reliability and validity and found to be of high level with Cronbach  $\alpha$  ranging between 0.72 and 0.87 thus can be highly acceptable, since the value of alpha is desirable with the range higher than 0.6 (Gliem and Gliem, 2003). The study population consists of construction artisans operating in Akwa Ibom State. From the 190 samples of questionnaire administered on the study population, 171 were completed accordingly. This comprises Masons (44), Carpenters (38), Iron-bender/welders (36), Painters (29), and Electricians (24) selected by stratified purposive sampling to form the study sample. The purposive sampling technique ensured that the sample covered some artisans operating in the three senatorial districts in the State. The variables used for the study were categorized into: personal time management practices and productive knowledge of artisans.

Through the guidance of the group discussion during the pilot study nineteen personal time management practices and twenty critical knowledge requirements of workers, were identified from the related articles reviewed in this study. The measurements were on a five point Likert-scale: poor=1, low=2, moderate=3, high=4 and very high=5. In analyzing the collected data, the total weight value (TWV) was then

calculated for each of the variables. The TWV was arrived at from the summation of the products of the number of responses for the rating of each variable and the respective weight value for each rating. The relative importance index (RII) method was used in this study to determine the respondents' perception of usage level of the time management practices and the extent of utilisation of productive knowledge by the artisans in line with the formula used by Enshassi, Mohamed and Abushaban (2009) as shown in equation 1

$$RII = \frac{\sum W}{A \times N} \dots \dots \dots (1)$$

Where W is the weight given to each variable by the respondents and ranges from 1 to 5; A – the highest weight = 5; N – the total number of respondents.

A cut-off score of RII computed was determined by summing the weights and dividing by the total number of weighting items and highest weight respectively:  $(1+2+3+4+5)/5/5 = 0.60$ . Thus, events that have RII that are higher than 0.60 are defined as significant, those with RII equal to 0.60 are moderate, while those less than 0.60 are insignificant. This approach adapted from Ujene (2014) is with the expectation that the use of 0.60 as reference value will effectively cover only important variables in terms of their usages, influence and application. The variation in the perceptions of use of the time management practices and utilisation of productive knowledge were analysed using Kruskal Wallis tests, while the correlations between the use of time management practices and utilisation of productive knowledge were with spearman rank correlation.

### 4.0 Presentation of Results

The results arising from the analysis of the data are presented as follows:

**4.1 Features of the respondents**

The features of the artisans used for the study were investigated as a background to the understanding and discussion of the respondents used. For this purpose, five features namely: sex, age, senatorial zone of operation, highest educational qualification and years of experience were used to investigate the characteristics of the artisans. The result presented in Table shows that the percentage of the artisans who are males range between 93.1% and 100% among the senatorial zones investigated, while the females ranged between 0 and 6.9 %. About

97% of the artisans investigated were 18 years and above were, while the sampled artisans were uniformly spread across the senatorial zones investigated. The result also shows that majority of the artisans are holders of ordinary level (West African School Certificate and National Examination Council certificate) and first school leaving certificate, while majority of them have working experiences ranging from 6 to 15 years. The result indicates that majority of the artisans sampled have the required knowledge and experience for the information provided in this study.

Table 1: Descriptive results of respondents features

Features	Sub features	Masons		Carpenters		Iron-benders		Painters		Electricians		Total	
		N	%	N	%	N	%	N	%	N	%	N	%
Sex	Male	43	97.7	38	100	36	100	27	93.1	23	95.8	167	97.7
	Female	1	2.3	0	0	0	0	2	6.9	1	4.2	4	2.3
	Total	44	100	38	100	36	100	29	100	24	100	171	100
Age	1-17yrs	2	4.5	1	3.6	1	2.8	1	3.4	0	0	5	2.9
	18-60yrs	31	70.5	24	62.2	26	72.2	22	75.9	18	75.0	121	70.8
	>60yrs	11	25.0	13	34.2	09	25.0	6	20.7	6	25.0	45	26.3
	Total	44	100	38	100	36	100	29	100	24	100	171	100
Senatorial zone of Operation	Eket	14	31.7	12	31.6	11	30.6	10	34.5	8	33.3	55	32.2
	Ikot-Ekpenne	14	31.7	14	36.8	12	33.3	9	31.0	7	29.2	56	32.7
	Uyo	16	36.4	12	31.6	13	36.1	10	34.5	9	37.5	60	35.1
	Total	44	100	38	100	36	100	29	100	24	100	171	100
Qualification	FSLC	13	29.5	9	23.7	9	25.0	8	27.6	4	16.7	43	25.1
	City&Guild	6	13.6	5	13.2	4	11.1	3	10.4	3	12.5	21	12.3
	O/L	14	31.8	15	39.5	14	38.9	10	34.5	10	41.7	63	36.8
	OND/HND	8	18.2	8	21.0	8	22.2	7	24.1	5	20.8	36	21.1
	B.Sc	3	6.9	1	2.6	1	2.8	1	3.4	2	8.3	8	4.7
	Total	44	100	38	100	36	100	29	100	24	100	171	100
Experience	1-5yrs	6	13.6	5	13.2	4	11.1	4	13.8	1	4.2	20	11.7
	6-10yrs	12	27.3	9	23.7	9	25.0	7	24.1	3	12.5	40	23.4
	11-15yrs	14	31.8	15	39.5	14	38.9	10	34.5	10	41.7	63	36.8
	16-20yrs	8	18.2	7	18.4	7	19.4	7	24.1	8	33.3	37	21.6
	>20yrs	4	9.1	2	5.2	2	5.6	1	3.5	2	8.3	11	6.5
	Total	44	100	38	100	36	100	29	100	24	100	171	100

**4.2 Evaluation of extent of use of Time management practices**

In order to evaluate the extent of use of time management practices among construction artisans, nineteen time management practices were identified from literature. Respondents were then requested to indicate their assessment of

the level of use of the time management practices. The results presented in Table 2 show that about 26.3% of the identified personal time management practices have significant extent of use with RII equal or greater than 0.60, while about 73.7% are not significantly practiced by the artisans. The result also

shows that practices mostly used by the artisans are “ensuring early arrival at work”, “avoiding time wasting tasks”, “prioritising tasks daily”, “delegating responsibility” and “seeking help at difficult times”. The result is an indication that the artisans have not been using most of the available techniques of personal time management. The result is similar to that of Mamman (2013) that there is

low appreciation of the process of time management and its principles among the civil servants in Nigeria. The implication of low appreciation of the time management practices may be poor quality jobs, anxiety, stress, poor productivity; poor work progress and general project poor performance (Dodd and Sunheim, 2005; Claessens, Eerde, Rutte, and Roe, 2007).

Table 2: Result of extent of use of time management practices

Time management practices	Masons N=44		Carpenters N=38		Iron-benders N=36		Painters N=29		Electricians N=24		Total N=171	
	RII	Rank	RII	Rank	RII	Rank	RII	Rank	RII	Rank	RII	Rank
Ensuring early arrival at work	0.90	1	0.86	1	0.79	2	0.81	1	0.84	1	0.85	1
Avoiding time wasting tasks	0.86	2	0.83	2	0.83	1	0.80	2	0.79	2	0.83	2
Prioritising tasks daily	0.73	3	0.65	3	0.67	3	0.69	3	0.66	4	0.68	3
Delegating responsibility	0.67	4	0.61	5	0.64	4	0.65	4	0.68	3	0.65	4
Seeking help at difficult times	0.63	5	0.62	4	0.58	6	0.63	5	0.64	5	0.62	5
Relaxing when necessary	0.58	9	0.57	8	0.58	6	0.63	5	0.60	8	0.59	6
Setting time limit for tasks	0.60	8	0.58	7	0.58	6	0.57	8	0.61	7	0.59	6
Setting goals	0.61	7	0.59	6	0.57	9	0.54	10	0.56	10	0.58	8
Basing work on daily energy	0.56	12	0.55	11	0.61	5	0.59	7	0.58	9	0.58	8
Rewarding oneself for excellence	0.57	10	0.56	9	0.56	11	0.57	8	0.62	6	0.57	10
Grouping tasks	0.62	6	0.56	9	0.54	12	0.54	10	0.55	11	0.57	10
Scheduling time for interruptions	0.54	13	0.53	12	0.57	9	0.53	12	0.52	14	0.54	12
Avoiding procrastination	0.57	10	0.52	13	0.49	15	0.50	16	0.55	11	0.53	13
Doing main tasks at optimum energy	0.54	13	0.52	13	0.50	13	0.51	15	0.53	13	0.52	14
Reducing time through creativity	0.52	15	0.47	18	0.50	13	0.52	13	0.49	16	0.50	15
Use of to-do-list daily	0.50	16	0.50	15	0.48	16	0.50	16	0.48	17	0.49	16
Use of daily planner	0.50	16	0.49	16	0.46	17	0.52	13	0.48	17	0.49	16
Always analyzing time spent	0.48	18	0.48	17	0.46	17	0.46	18	0.52	14	0.48	18
Schedule & control of calls/phone	0.43	19	0.39	19	0.39	19	0.43	19	0.44	19	0.41	19

**4.3 Evaluation of extent of utilization of critical productive knowledge**

In order to evaluate the extent of utilization of critical productive knowledge requirements among construction artisans, twenty critical productive knowledge requirements were identified from literature. Respondents were then requested to indicate their assessment of utilization of critical productive knowledge of workers. The result presented in Table 3 shows that about 25.0% of the identified personal critical productive knowledge of workers have significant extent of use with RII equal or greater

than 0.60, while about 75.0% are not significantly utilised by the artisans. The result also shows that personal critical productive knowledge of workers mostly utilized by the artisans are practical competence, collaboration and team working ability, negotiation and creative as well as leadership/control competences. The result is an indication that the artisans have not effectively utilized most of the available critical productive knowledge of workers. This may be attributable to poor time management which hinders effective performance at work in line with the findings of Adejo

(2012). The implication of the artisans' non-attainment of most of the critical knowledge at work place may also be poor quality jobs, anxiety, stress, poor

productivity; poor work progress and poor performance (Dodd and Sunheim, 2005; Claessens, Eerde, Rutte, and Roe, 2007).

Table 3: Result of extent of utilization of critical productive knowledge

	Masons N=44		Carpenters N=38		Iron-benders N=36		Painters N=29		Electricians N=24		Total N=171	
	RII	Rank	RII	Rank	RII	Rank	RII	Rank	RII	Rank	RII	Rank
Critical knowledge required	0.69	1	0.70	1	0.67	1	0.64	3	0.64	3	0.67	1
Practical competence	0.63	4	0.65	2	0.66	2	0.56	11	0.64	3	0.63	2
Collaboration and team working ability	0.58	14	0.65	2	0.61	5	0.66	1	0.58	11	0.61	3
Negotiation competence	0.63	4	0.52	15	0.64	3	0.66	1	0.58	11	0.60	4
Creative competence	0.60	10	0.56	7	0.61	5	0.61	5	0.64	3	0.60	4
Leadership/control competence	0.62	7	0.58	5	0.59	10	0.56	11	0.62	8	0.59	6
Teaching competence	0.63	4	0.55	9	0.61	5	0.53	15	0.63	6	0.59	6
Work development & promotion ability	0.60	10	0.55	9	0.57	12	0.57	10	0.65	1	0.59	6
Communication competence	0.55	18	0.63	4	0.61	5	0.63	4	0.55	16	0.59	6
Waste avoidance and minimization ability	0.61	8	0.53	13	0.57	12	0.60	6	0.61	9	0.58	10
Accuracy and precision	0.59	12	0.54	12	0.59	10	0.60	6	0.59	10	0.58	10
Safety consciousness	0.64	2	0.52	15	0.57	12	0.59	8	0.58	11	0.58	10
Flexibility and adaptability competence	0.55	18	0.57	6	0.51	19	0.59	8	0.63	6	0.56	13
Speed and efficiency competence	0.56	16	0.56	7	0.63	4	0.50	20	0.57	14	0.56	13
Resource allocation competence	0.64	2	0.52	15	0.46	20	0.54	13	0.65	1	0.56	13
Continuity/sustainability awareness	0.59	12	0.51	19	0.60	9	0.54	13	0.53	17	0.56	13
Situational awareness	0.61	8	0.53	13	0.54	16	0.52	17	0.53	17	0.55	17
Foundational competence	0.52	20	0.55	9	0.53	18	0.52	17	0.56	15	0.54	18
Planning /organising competence	0.58	14	0.50	20	0.54	16	0.53	15	0.53	17	0.54	18
Integration/reflexive competence	0.56	16	0.52	15	0.55	15	0.52	17	0.53	17	0.54	18
Cross-discipline awareness												

**4.4 Evaluation of agreement of perception among artisans**

In order to ascertain if significant variation exists among the artisans concerning the extent of use of time management practices and utilisation of critical productive knowledge areas, the first and second hypothesis were postulated as earlier stated. The hypotheses were tested with Kruskal Wallis test at  $p \leq 0.05$ . The decision rule is that if  $p\text{-value} > 0.05$ , the hypothesis is accepted, but if  $p\text{-value} \leq 0.05$  the hypothesis is rejected. The results presented on Table 4 show that the  $p\text{-value}$  for the first hypothesis is 0.892, while that of the second hypothesis is

0.066 both of which were greater than the significance level of 0.05, thus the null hypotheses were accepted, implying that there is no significant variation in the perceptions of the artisans concerning the extent of use of time management practices, as well as the level of utilization of the productive knowledge among the artisans. The similarity in opinion may be attributable to the level of education of majority of the artisans who were holders of ordinary level and first school leaving. The implication of this finding is that stakeholders can rely on the perceptions of any group of the artisans on information concerning their time

management and productive knowledge.

Table 4: Results of Kruskal-Wallis test for Comparison of respondents’ perception

Items compared among Artisans	Extent of use of time management practices	Extent of utilization of critical productive knowledge
No of variables (N)	19	20
Mean Rank of Masons	52.789	60.675
Mean Rank of Carpenters	45.237	36.725
Mean Rank of Iron Benders	44.816	52.675
Mean Rank of Painters	47.342	45.275
Mean Rank of Electricians	49.816	57.150
Chi-Square	1.113	8.819
P-value	0.892	0.066
Significance level	0.050	0.050
Decision	Accept	Accept

**4.5 Influence of time management practices on utilisation of productive knowledge**

In order to evaluate the influence of use of time management practices on utilisation of productive knowledge, the five most significant time management practices which attained the cut of score off 0.60 were correlated with five most important productive knowledge requirements. The third hypothesis postulated was also tested with the spearman rank correlation, with same decision rule as former. The result presented in Table 5 reveals that the test of correlation between ‘ensuring early arrival at work’ and the significant productive knowledge have p-value ranging from 0.053 to 1.000, which are more than 0.05 hence accepting that there is no significant correlation. The correlation between ‘avoiding time wasting tasks’ and the significant productive knowledge have p-value range between 0.195 and 0.723, more than 0.05 thus indicating that there is no significant correlation, except with creative competence with a p-value of

0.001. This implies that ‘avoiding time wasting tasks’ correlated significantly with the creative competence of the artisans. This may be because the artisans through their creativity are able to avoid tasks that could eat up their time. The correlation between ‘prioritizing tasks daily’ and the significant productive knowledge have p-value range between 0.071 and 0.992, more than 0.05 thus indicating that there is no significant correlation, except with leadership/control competence with a p-value of 0.001. This implies that ‘prioritizing tasks daily’ correlated significantly with the leadership/control competence of the artisans. The result also shows that ‘delegation of duty’ and ‘seeking help at difficult times’ did not significantly correlate with practical competence, collaboration and team working ability, and negotiation competence with p-values of more than 0.05, while the two time management practices correlated significantly with creative and leadership/control competence with p-values less than the significance level.

Table 5: Correlation of extent of use of time management practices and level of utilisation of productive knowledge

Variable correlated	Mean	SD	R	P-value	Decision
<b>Ensuring early arrival at work</b>	<b>4.228</b>	<b>0.958</b>			
Practical competence	3.357	0.748	0.148	0.053	Accept
Collaboration and team working ability	3.152	0.695	0.098	0.203	Accept
Negotiation competence	3.058	0.683	0.105	0.171	Accept
Creative competence	3.023	0.833	0.089	0.247	Accept
Leadership/control competence	3.000	0.728	0.000	1.000	Accept
<b>Avoiding time wasting tasks</b>	<b>4.129</b>	<b>1.038</b>			
Practical competence	3.357	0.748	0.100	0.195	Accept
Collaboration and team working ability	3.152	0.695	-0.068	0.376	Accept
Negotiation competence	3.058	0.683	-0.027	0.723	Accept
Creative competence	3.023	0.833	0.221	0.004	Reject
Leadership/control competence	3.000	0.728	0.093	0.224	Accept
<b>Prioritising tasks daily</b>	<b>3.409</b>	<b>1.039</b>			
Practical competence	3.357	0.748	-0.022	0.770	Accept
Collaboration and team working ability	3.152	0.695	-0.022	0.780	Accept
Negotiation competence	3.058	0.683	0.000	0.992	Accept
Creative competence	3.023	0.833	0.138	0.071	Accept
Leadership/control competence	3.000	0.728	0.249	0.001	Reject
<b>Delegating responsibility</b>	<b>3.246</b>	<b>1.187</b>			
Practical competence	3.357	0.748	0.093	0.227	Accept
Collaboration and team working ability	3.152	0.695	-0.088	0.251	Accept
Negotiation competence	3.058	0.683	-0.083	0.280	Accept
Creative competence	3.023	0.833	0.226	0.003	Reject
Leadership/control competence	3.000	0.728	0.252	0.001	Reject
<b>Seeking help at difficult times</b>	<b>3.082</b>	<b>1.299</b>			
Practical competence	3.357	0.748	0.024	0.753	Accept
Collaboration and team working ability	3.152	0.695	-0.053	0.491	Accept
Negotiation competence	3.058	0.683	-0.025	0.743	Accept
Creative competence	3.023	0.833	0.205	0.007	Reject
Leadership/control competence	3.000	0.728	0.305	0.001	Reject

The result generally indicates that the present extent of use the few personal time management practices do not result in adequate utilization of the required productive knowledge of the artisans. This result, which may be attributable to poor usage of the available personal time management practices by the artisans, supports the findings of Eshaghieh and Eslami (2015) which states that a positive and significant relationship exists between

personal, environmental, organizational and time management factors, taken together and employee productivity at work. The implication of this finding is that if artisan and supervisors do not ensure optimal utilization of the available time management practices, then not much of the expected productive knowledge will be attained by the workers, this may thus lead to poor productivity; poor work progress

and poor performance (Dodd and Sunheim, 2005).

### **5.0 Conclusion and Recommendation**

This study has evaluated nineteen personal time management practices and twenty critical productive knowledge requirements of workers, with a view to providing an insight into the influence of personal time practices on the effectiveness of construction artisans for enhanced construction performance in Nigeria. It was found that about 26.3% of the identified personal time management practices have significant extent of use with RII equal or greater than 0.60, while about 73.7% are not significantly practiced by the artisans. The time management practices mostly used by the artisans are ensuring early arrival at work, avoiding time wasting tasks, prioritizing tasks daily, delegating responsibility and seeking help at difficult times. It was also concluded the artisans have the same opinions about the extent of use of the personal time management practices. The study also found that only about 25.0% of the identified personal critical productive knowledge of workers have significant extent of utilisation with RII equal or greater than 0.60, while about 75.0% are not significantly utilised by the artisans. The personal critical productive knowledge of workers mostly utilized by the artisans are practical competence, collaboration and team working ability, negotiation

competence, creative competence and leadership/control competence. It was concluded that the present extent of use of time management practices have not significantly contributed to the utilization of productive knowledge by the artisans hence low efficiency at work. The study therefore recommends that artisans should endeavour to use other identified personal time management practices which would enhance the utilization of productive knowledge and high levels of competences for effectiveness at work place. Supervisors and governments agencies should develop schemes for training artisans for both time and resource management for optimal efficiency at work place.

### **Limitations of the Study**

This study is limited to evaluation of nineteen personal time management practices and twenty critical productive knowledge requirements of artisans in Uyo metropolis. Therefore, the result could be improved by further studies on other towns as well as time management and productive knowledge not covered in this study. In spite of these limitations the result could provide reasonable insight into the extent to which personal time management practices can influence the efficient utilization of productive knowledge of construction artisans for enhanced construction performance in Akwa Ibom State, as well as guide for further studies.

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