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ICT Use, Cognitive Style and Job Motivation as Determinants of Workers' Creativity in Newspaper Industries

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Abstract

Workers' creativity has become a subject of both theoretical and empirical discourse in recent times. This study investigated creativity among workers in Newspaper houses. The study sought to find out the effects of ICT use, cognitive styles and motivation on workers creativity. A total of 699 workers in newspaper houses in Nigeria were chosen as the study population. Data was gathered using questionnaire as the instrument. 400 questionnaires were administered and 393 were returned and used for the study. The study found out that the use of ICTs (referring generally to computers, videos, hardware, software, and networks) positively influences workers creativity in the newspaper industries. It also revealed that 'learning new ways to think' as a cognitive style was ranked highest in influencing workers creativity (Mean=4.20). The study further revealed that the current use of incentive motivation influences workers job performance in relation to their levels of creativity in media houses. The result of the joint effect of independent variables (ICT Use, Cotgnitive Styles and Motivation) on creativity was significant ($F(3,389) = 94.588$; $R = .649$, $R^2 = .422$, Adj. $R^2 = .417$; $P < .05$). About 42% of the variation was accounted for by the independent variables. The study therefore recommends adequate motivation, provision of ICT facilities and encouragement of good cognitive styles as ways through which workers creativity could be improved.

Keywords: Information and Communication Technology (ICT), Cognitive Styles, Job Motivation, Creativity, Newspaper Workers

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Introduction

Employee's creativity contributes immensely to organizational survival and development (Amabile 1983). Creativity maybe defined as ideas that are both novel and useful, regardless of the type of idea, the reasons behind its production, or the starting point of the process (Amabile, 1999). This implies that, creativity may include creative organizational strategies, creative solutions to organization problems, or creative changes to given tasks and job processes. However, to be considered creative, these outputs should have some levels of peculiarities compared to other ideas (Zhou and George, 2001). When employees are creative, they suggest novel and useful ideas, products or processes that provide an organization with important raw materials for subsequent development and possible implementation (Amabile, 1999).

Due to the important role of employee creativity in an organization, it has become important to identify the conditions that predict creativity of individual employees, including personal characteristics and contextual factors (Oldham and Cummings, 1996). Barron and Harrington (1981) observed that initial creativity research ,focused primarily on creativity as individual characteristics of highly creative people such as independence of judgment, autonomy and self-confidence. Recent views on creativity seem to focus on how contextual factors can affect employees' creativity (Wang, Xue and Su, 2010). Some of these factors are the more objective type, such as the complex nature of jobs, the evaluative context and the support from the group; others are the more subjective type, such as the positive mood, job dissatisfaction, and intrinsic motivation (Shalley, Zhou and Oldham 2004).

Wang, Xue and Su (2010) posited that among these factors, the contribution of work support has received more considerable research attention. According to them, it is found that work support from the group is more important in non-western cultures than in western cultures. In western cultures, people are seen as independent and possessing a unique pattern of traits that distinguish them from other people, whereas people in nonwestern cultures view self as inherently interdependent with the group to which they belong (Markus and Kitayama, 1994). Thus, most researchers think that non-western cultures (collectivism) is an impediment for creativity because individual tend to maintain conformity in group and then hinder the generation of unique and novel ideas.

However, if the group encourage and value new ideas and publicly recognize and reward them, the creativity will be easily fostered. From whatever sphere one may look at it, the individual concerned is the major determinant of his or her creativity at work; this may be in relative to other factors at play at the workplace. This paper considers such factors as ICT use, cognitive style and job motivation. It is generally accepted that computer application affects organizational structure, patterns of employment, quality of service and work life of employees. The importance of computerization has become more apparent as computers move from their traditional role in the 'back-office' to supporting the day to day activities of both employers and employees. The computer's capabilities as an electronic machine used to store, manipulate, access, analyse and communicate data at a greater speed than was possible in pre-computer times have particularly captured the attention of many managers and professionals.

Cognitive style or information processing is an integrated component in an individual's psychological differentiation. This means that a person's cognitive style determines the individual's responses and functioning in different situations (Saracho, 1998). Knowledge about cognitive can therefore be used to facilitate people's ability to recognize their own strengths in problem solving and learning task, and to help them adjust their approaches in order to gain a deeper understanding of their environment..

The intelligence and competence of every worker can only be diligently demonstrated in an organization where motivation is held in high esteem. This means that Managers are responsible for performance, both theirs and that of the people who work under them. In the light of this, it is obvious that workers are not likely to perform the way they ought to if they are not being motivated through the right means and at the right time. In view of this, a definition of motivation, relating it to the work place, helps to give a better insight on the correlation between personnel motivation and creativity.In newspaper organizations where supervisor-sub-ordinate interaction occurs concurrently, personnel who are sub-ordinate have to be well motivated to bring about creativity. Hence if any staff is not well motivated, his or her enthusiasm to work efficiently and effectively would be low and this would ultimately result in poor performance on the part of such staff. Vroom (1982) rightly observed that:

The performance of a person on a job is considered a function of two different variables. One of these refers to the ability or skill of the individual to perform the job and the second refers to his motivation to use this ability or skill in the actual performance of the job.

The above observation indirectly correlates workers creativity to motivation. However, while a lot has been written on the influence of motivation on creativity, just little has been published on the correlation amongst creativity, ICT use and cognitive style of workers.

Statement of the Problem

Having outlined the role of creativity in the operations of organizations, it is uncertain if newspaper house proprietors acknowledge the creative contributions of their employees as to factoring this into their ICT investments profile and designing incentive packages to motivate them. It is necessary to ascertain whether ICT really change the nature of news production process or add to workers' creativity. There is need to identify the role of the organization in encouraging employees with innovative styles, especially those who often tend to be willing to take the risk of violating the agreed-upon way of doing things to develop solutions that are qualitatively different from norms.

Therefore, the present study attempts to investigate the influence of ICT, cognitive styles and incentive packages on the creative contributions of newspaper houses' employees to their organisations.

Objectives of the Study

This study is predicted on the following objectives:

(1) To identify the uses of Information and Communication Technologies (ICTs) In Newspaper Industry.
(2) To determine the frequency of use of ICT tools among workers in the Newspaper Industry.
(3) To identify the cognitive styles of workers in the Newspaper Industry.
(4) To iidentify the creative abilities of workers in the Newspaper industries.
(5) To identify the motivating factors that influence workers creativity

Research Hypotheses

H01: There will be no joint effect of independent variables (ICT Use, Cognitive Styles and Motivation) on Creativity.
H02: There will be no relative effect of independent variables (ICT Use, Cognitive Styles and Motivation) on Creativity.

Review of Related Literature

Newspaper houses and other media are under pressure from a number of different groups (Boyer and Hannerz 2006). They are accountable to their audiences, ensure market competitiveness, properly situate themselves within the wider media landscape, and ensure good public relations with their customers and contacts. In order to achieve these goals, media institutions must strive to become unique, recognisable and stable identities. For print media, this begins with the visual design of the paper, the typeface and grammar. Th content and style of argument are also considered. Print media require very high standards of reporting; Maintaining standards of reporting requires a degree of control over journalistic outputs (Boyer and Hannerz, 2006).

Workers' individual creativity and expertise are responsible for the the written piece and this ownership is marked by their name or initial beneath their written work in the newspapers. Life-stories of individuals are shaped by institutions in which they work; so that after a few years of work in a given organization, employees identify with the organisation; portray their lives in line with institutional ethos, thereby contributing to internal coherence (Gryskiewicz and Stanley, 2000). In print media practice, this shaping of the professional self produces character traits which support inquisitiveness and creativity. As individual editors incorporate the character traits of inquisitiveness and critical thinking into their conduct and work, they hold their own beliefs of how good journalism should be done. They also recognise that working in a corporate environment requires teamwork and sometimes subjugation (Basadur, M, Graen, G. and Wakabayashi, M. (1997)). However, levels of staff creativity may be influenced by other factors including cognitive style, technological proficiency and job motivation.

Buchanan (2001) observed that the cognitive processes that generate creative outcomes do not differ from everyday activities. Leonard and Straus (1997) define cognitive differences as "varying approaches to perceiving and assimilating data, making decisions, solving problems and relating to others". Creativity relies heavily on a sound knowledge base. Buchanan (2000) noted that background knowledge is an essential element that distinguishes deliberate acts of creation from "accidental creativity." Background knowledge not only help to create ideas, it also measures the the level and value of creativity (Kuhn 1970). Researchers have posited that creative problem solving also involves two different thinking processes. One is convergent or analytical thinking and the other is lateral or associative thinking (Dacey and Lennon 1998). Oldham and Cummings (1996) noted that analytic thinking is associated with an adaptive problem-solving style, while divergent thinking is associated with an innovative problem-solving style.

Creative abilities can also be enhanced through practical application of information and communication technology (ICT) (Rogers, 1995). The use of ICT can enable workers to have an immediate 'hands on' facility where they can feel in control of their own learning and experiment on the job, thereby releasing their creative potentials (Shalley, Zhou & Oldham, 2004). Through the use of ICT, creativity is achievable by all workers, regardless of their academic attainment, provided conditions are conducive and the workers have acquired the relevant skills and knowledge. (Amabile and Regina,1999).

Many scholars have argued that both intrinsic and extrinsic motivation can enhance workers' creativity on the job (Oldham and Cummings, 1996). Under such conditions, individuals seem to be curious, cognitively flexible, willing to take risks, persistent and consistent in the face of barriers characteristics that should facilitate the development of new and potentially useful ideas. Moreover, intrinsically motivated individuals tend to experience positive mood states, such as excitement and enthusiasm, which enable them to make more connections among stimuli and to integrate a variety of available resources, again contributing to higher creativity (Isaksen, Dorval and Treffinger, 2000).

The challenge and complexity of jobs has long been considered an important contributor to employees' intrinsic motivation and creativity (Amabile, and Regina 1999).

Generally, complex jobs (i.e., those characterized by high levels of autonomy, skill variety, and significance)encourage higher levels of intrinsic motivation and creativity than jobs that are relatively simple and routine in nature. Oldham & Cummings (1996) observed that when jobs are complex, workers in an organization become excited and enthusiastic about their work activities and interested in performing them. With regard to the possible link between job complexity and creativity, Isaksen, Babij and Lauer (2003) demonstrated that a job complexity measure, significantly and positively predicted an indicator of creativity—the number of suggestions employees contributed to a formal involvement system.

However, there is little or no literature on the combined effects of ICT use, cognitive styles and job motivation on creative of workers especially in the newspapers industry. This study is therefore an attempt to fill this gap.

Methodology

The study adopts the survey research design. Babbie (1990) stated that the purpose of survey research is to generalise from a sample to a population so that inferences can be made about some characteristics, attitude or behaviour of this population. Surveys are used to study a population from which a sample will be drawn. The main sources of information for the data are: the editors, reporters, secretaries, sport analysts, production managers, marketing managers, staff writers, photo-journalist and typists from twelve selected Newspaper Industries in South-West Nigeria. These media houses are: The Punch, The Nigerian Tribune, ThisDay, Nigerian Compass(The Westerner), The Nation, The Sun, National Mirror, The Newswatch, The Guardian, The Tell, Complete Sport and Vanguard.

Table 1: Sample size

Media Houses	Population	Sample size
Complete Sport	55	32
National Mirror	60	34
Newswatch	60	34
Nigerian Compass	48	28
Nigerian Tribune	45	37
The Guardian	65	40
The Nation	60	29
The Punch	62	30
The Sun	69	38
The Tell	66	33
ThisDay	36	20
Vanguard	73	38
Total	**699**	**393**

The instrument used for collecting data for this research work is questionnaire. The questionnaire was administered to respondents at their places of work. Four hundred (400) questionnaires were administered in all the media houses while three hundred and ninety-three were retrieved.

Validity and Reliability of the Instrument

Pre-test was carried out in Nigerian Tribune to see how the questionnaire would work out and whether changes were necessary before the start of the full-scale study. The following is the result for the reliability of the instrument; ICTs - 0.835, motivation - 0.803, Cognitive styles - 0.835 reliability while creativity gave 0.6 reliability.

Data Analysis

Data collected were analysed by employing regression analysis, Pearson Product Moment Correlation (PPMC), mean, standard deviation, frequencies and percentages. The results were tabulated for clarity.

Objective 1: Uses of ICT

Table 2: Uses of ICTs in Newspaper industries

/n	Statements	SD	D	A	SA	Mean	S.D
1	ICTs (referring generally to computers, videos, hardware, software, and networks) increase my knowledge and skills as an employee in the publishing business	1 0.3%	1 0.3%	87 22.1%	304 77.4%	3.77	0.45
2	As far as I know, ICTs can be used to effectively manipulate printing, editing, and graphical designs	2 0.5%	7 1.8%	100 25.4%	284 72.3%	3.69	0.53
3	In my view ICTs can be used as designing and printing in the publishing house		12 3.1%	114 29.0%	267 67.9%	3.65	0.54
4	In the publishing house, ICTs are more powerful tools than other methods without the use of ICTs.	1 0.3%	4 1.0%	151 38.4%	237 60.3%	3.59	0.53
5	I know that ICTs can spread knowledge and information faster than traditional methods		7 1.8%	192 48.9%	194 49.4%	3.48	0.53
6	I use /have used ICTs for work processes in my job	5 1.3%	5 1.3%	178 45.3%	205 52.2%	3.48	0.59
7	In my view, ICTs are more effective for work in the publishing house than manual processes	1 0.3%	6 1.5%	197 50.1%	189 48.1%	3.46	0.54
8	I know that many forms of ICT tools and techniques can be used in the publishing business	5 1.3%	5 1.3%	207 52.7%	176 44.8%	3.41	0.59
9	I can avoid problems in many areas such as in hand writing and in organizing ideas when I use ICTs	9 2.3%	8 2.0%	189 48.1%	187 47.6%	3.41	0.65
10	ICTs can be used as advanced instructional tools I n the publishing house	2 0.5%	5 1.3%	218 55.5%	168 42.7%	3.40	0.55
11	I know about ICT-related tools that I can use for my work and research	12 3.1%	5 1.3%	192 48.9%	184 46.8%	3.39	0.67

12	My friends who learn about and use ICTs use them for editing and research purposes	11 2.8%	9 2.3%	212 53.9%	161 41.0%	3.33	0.66
13	I have obtained and developed ICT-based material for use in my job	20 5.1%	32 8.1%	233 59.3%	108 27.5%	3.09	0.74
14	Generally speaking, I have enough and satisfactory information about ICTs	14 3.6%	98 24.9%	203 51.7%	78 19.8%	2.88	0.76
15	I have limited experiences in using ICTs	40 10.2%	76 19.3%	250 63.6%	27 6.9%	2.67	0.75
16	I think ICTs do not have noteworthy values for human societies in general	157 39.9%	209 53.2%	18 4.6%	9 2.3%	1.69	0.67
17	I think ICTs do not offer business values in the publishing house	182 46.3%	186 47.3%	20 5.1%	5 1.3%	1.61	0.65

Table 2 reveals that 'ICTs (referring generally to computers, videos, hardware, software, and networks) increase my knowledge and skills as an employee in the publishing business' (Mean=3.77) was ranked highest by the mean score rating and was followed in succession by 'ICTs can be used to effectively manipulate printing, editing, and graphical designs' (Mean=3.69). The table further revealed that only a few of the respondents agreed that ICTs do not offer business values in the publishing house (Mean=1.61).

Objective 2: Frequency of Use of ICT Tools

Table 3: Mean scores of use of Information and Communication Technologies by the respondents

S\N	Items	1	2	3	4	5	6	Mean	S.D.
1	TELEPHONE	19 4.8%	2 0.5%	1 0.3%	5 1.3%	10 2.5%	356 90.6%	5.68	1.14
2	COMPUTERS	14 3.6%	3 0.8%	2 0.5%	14 3.6%	75 19.1%	285 72.5%	5.51	1.08
3	WAN/LAN INTERNET	12 3.1%	4 1.0%	13 3.3%	9 2.3%	87 22.1%	268 %68.2	5.44	1.11
4	Printer	16 4.1%	8 2.0%	6 1.5%	13 3.3%	111 28.2%	239 60.8%	5.32	1.20
5	T.V. set	34 8.7%	6 1.5%	8 2.0%	8 2.0%	136 34.6%	201 51.1%	5.06	1.46
6	CAMERA	29 7.4%	8 2.0%	16 4.1%	114 29.0%	46 11.7%	180 45.8%	4.73	1.49
7	Radio	57 14.5%	-	10 2.5%	43 10.9%	132 33.6%	151 38.4%	4.64	1.67
8	DVD/VCD	46 11.7%	4 1.0%	5 1.3%	25 6.4%	229 58.3%	84 21.4%	4.63	1.47
9	Sound recorder	158 40.2%	18 4.6%	10 2.5%	12 3.1%	35 8.9%	160 40.7%	3.58	2.32
10	Walkie-Talkie	309 78.6%	6 1.5%	16 4.1%	6 1.5%	28 7.1%	28 7.1%	1.78	1.62

Key: 1 – Don't Know 2 - Annually 3 - Quarterly 4 – Monthly 5 – Weekly 6 - Daily

Table 3 reveals that TELEPHONE (Mean =5.68) was ranked highest by the mean score rating and was followed by COMPUTERS (Mean =5.51), WAN/LAN INTERNET (Mean =5.44), Printer (Mean =5.32), T.V. set (Mean =5.06), CAMERA (Mean =4.73), Radio (Mean =4.64), DVD/VCD (Mean =4.63), Sound recorder (Mean =3.58), and lastly by Walkie-Talkie (Mean =1.78).

Objective 3: Cognitive Styles of Workers

Table 4: Mean scores of cognitive styles of workers in Newspaper industries

S/N	Statements	SD	D	U	SA	A	Mean	S.D
1	Learning new ways to think would be very appealing to me	17 4.3%	24 6.1%	10 2.5%	156 39.7%	186 47.3%	4.20	1.05
2	I trust my initial feeling about people	21 5.3%	29 7.4%	36 9.2%	93 23.7%	214 54.5%	4.15	1.18
3	I enjoy intellectual changes	19 4.8%	39 9.9%	8 2.0%	130 33.1%	197 50.1%	4.14	1.16
4	I usually have clear, explainable reasons for my decisions	21 5.3%	7 1.8%	12 3.1%	238 60.6%	115 29.3%	4.07	0.93
5	I enjoy solving problems that require hard thinking	22 5.6%	32 8.1%	13 3.3%	162 41.2%	164 41.7%	4.05	1.13
6	Using logic usually works well for me in figuring out problems in my life	19 4.8%	61 15.5%	8 2.0%	177 45.0%	128 32.6%	3.85	1.18
7	I have a logical mind	26 6.6%	23 5.9%	31 7.9%	221 56.2%	92 23.4%	3.84	1.06
8	I can usually feel when a person is right or wrong, even if I can't explain how I know	17 4.3%	27 6.9%	56 14.2%	205 52.2%	88 22.4%	3.81	1.00
9	Using my "gut feelings" usually works well for me in figuring out problems in my life	31 7.9%	20 5.1%	38 9.7%	210 53.4%	94 23.9%	3.80	1.10
10	I like to rely on my intuitive impressions	17 4.3%	55 14.0%	32 8.1%	178 45.3%	111 28.2%	3.79	1.13
11	When it comes to trusting people, I can usually rely on my gut feelings	53 13.5%	28 7.1%	15 3.8%	176 44.8%	121 30.8%	3.72	1.33
12	I often go by my instincts when deciding on a course of action	35 8.9%	32 8.1%	25 6.4%	234 59.5%	67 17.0%	3.68	1.12

13	I believe in trusting my hunches	27 6.9%	50 12.7%	66 16.8%	131 33.3%	119 30.3%	3.67	1.22
14	I think there are times when one should rely on one's intuition	38 9.7%	45 11.5%	48 12.2%	198 50.4%	64 16.3%	3.52	1.18
15	I think is foolish to make important decisions based on feelings	92 23.4%	43 10.9%	15 3.8%	103 26.2%	140 35.6%	3.40	1.61
16	I have no problem in thinking things through clearly	135 34.4%	18 4.6%	2 0.5%	99 25.2%	139 35.4%	3.23	1.74
17	My snap judgment are probably not as good as most people's	46 11.7%	119 30.3%	36 9.2%	95 24.2%	97 24.7%	3.20	1.40
18	I would not want to depend on anyone who described himself or herself as intuitive	96 24.4%	34 8.7%	67 17.0%	163 41.5%	33 8.4%	3.01	1.35
19	I don't think it is a good idea to rely on one's intuition for important decisions	104 26.5%	62 15.8%	21 5.3%	175 44.5%	31 7.9%	2.92	1.41
20	I suspect my hunches are inaccurate as often as they are accurate	89 22.6%	38 9.7%	135 34.4%	94 23.9%	37 9.4%	2.88	1.27
21	I enjoy thinking in abstract terms	25 6.4%	162 41.2%	91 23.2%	99 25.2%	16 4.1%	2.79	1.02
22	I don't like situations in which I have to rely on intuition	92 23.4%	86 21.9%	57 14.5%	152 38.7%	6 1.5%	2.73	1.24
23	If I were to rely on my gut feelings, I would often make mistakes	115 29.3%	110 28.0%	114 29.0%	43 10.9%	11 2.8%	2.30	1.09
24	I am not very good in solving problems that require careful logical analysis	114 29.0%	173 44.0%	12 3.1%	81 20.6%	13 3.3%	2.25	1.18
25	I don't have a very good sense of intuition	119 30.3%	172 43.8%	29 7.4%	61 15.5%	12 3.1%	2.17	1.12

26	I don't like to do a lot of thinking	129 32.8%	163 41.5%	39 9.9%	56 14.2%	6 1.5%	2.10	1.06
27	I'm not that good at figuring out complicated problems	146 37.2%	143 36.4%	52 13.2%	46 11.7%	6 1.5%	2.04	1.05
28	I try to avoid situations that require thinking in depth about something	166 42.2%	140 35.6%	21 5.3%	55 14.0%	11 2.8%	1.99	1.14
29	Reasoning things out carefully is not of my strong points	144 36.6%	176 44.8%	14 3.6%	53 13.5%	6 1.5%	1.98	1.04
30	Thinking is not my idea of an enjoyable activity	230 58.5%	69 17.6%	31 7.9%	53 13.5%	10 2.5%	1.84	1.19
31	Knowing the answer without having to understand the reasoning behind it is good enough for me	245 62.5%	79 20.1%	37 9.4%	16 4.1%	16 4.1%	1.67	1.07

Key: SD – Strongly Disagree D – Disagree U – Undecided SA – Strongly Agree
A – Agree

Table 4 shows that 'Learning new ways to think would be very appealing to me' (Mean=4.20), was ranked highest by the mean score rating and was followed by 'I trust my initial feeling about people' (Mean=4.15). 'Knowing the answer without having to understand the reasoning behind it is good enough for me' was ranked least (Mean=1.67)

Objective 4: Creative abilities of workers in the selected Newspaper industries

Table 5: Mean scores of workers' creative abilities in Newspaper industries

S\N	Items	TVLE	TLE	TSE	TSLE	TVLE	Mean	S.D.
1	To what extent do you keep yourself informed?	20 5.1%	9 2.3%	8 2.0%	238 60.6%	118 30.0%	4.08	.93
2	To what extent do you discuss matters with direct colleagues?	13 3.3%	39 9.9%	30 7.9%	153 38.9%	158 40.2%	4.03	1.08
3	To what extent do you generate ideas on how to optimize knowledge?	12 3.1%	11 2.8%	57 14.5%	201 51.1%	112 28.5%	3.99	.90
4	To what extent do you generate ideas to improve.. services	22 5.6%	3 0.8%	107 27.2%	143 36.4%	118 30.0%	3.84	1.04
5	To what extent do you realize ideas within your department?	12 3.1%	22 5.6%	40 10.2%	299 76.1%	20 5.1%	3.75	.77
6	To what extend do you make your supervisor enthusiastic.	22 5.6%	14 3.6%	67 17.0%	256 65.1%	34 8.7%	3.68	.89
7	To what extent do you collaborate with colleagues?	19 4.8%	15 3.8%	80 20.4%	242 61.6%	37 9.4%	3.67	.88
8	To what extent do you generate new solutions	18 4.6%	14 3.6%	139 35.4%	135 34.4%	87 22.1%	3.66	1.01
9	To what extent do you try to detect impediments to…	13 3.3%	50 12.7%	42 10.7%	244 62.1%	44 11.2%	3.65	.95
10	Tow what extent do you generate ideas concerning..	21 5.3%	4 1.0%	111 28.2%	216 55.0%	41 10.4%	3.64	.88
11	To what extent do you actively engage in gathering information..	21 5.3%	7 1.8%	98 24.9%	236 60.1%	31 7.9%	3.63	.86

12	To what extent do you get to transform new ideas in a way	14 3.6%	25 6.4%	108 27.5%	205 52.2%	41 10.4%	3.60	.89
13	To what extent do you sort out new possibilities to gain…	17 4.3%	18 4.6%	106 27.0%	215 54.7%	37 9.4%	3.60	.88
14	To what extent do you actively engage in the thinking…	15 3.8%	10 2.50%	187 47.6%	158 40.2%	23 5.6%	3.42	.80
15	To what extent do you c\eliminate obstacles in the process…	14 3.6%	17 4.3%	178 45.3%	157 39.9%	27 6.9%	3.42	.83
16	To what extent do you experiment with new ways of working	24 6.1%	22 5.6%	149 37.9%	176 44.8%	22 5.6%	3.38	.91
17	To what extent do you mobilize support form colleagues..	11 2.8%	19 4.8%	245 62.3%	106 27.0%	12 3.1%	3.23	.71
18	To what extent do you sort out new ways to use…	25 6.4%	27 6.9%	211 53.7%	102 26.0%	28 7.1%	3.21	.91
19	To what extent do you suggest news ways of communication..	16 4.1%	73 18.6%	188 47.8%	100 25.4%	16 4.1%	3.07	.87
20	To what extent do you independently sort out and deploy new computer technologies	30 7.6%	52 13.2%	216 55.0%	52 13.2%	43 10.9%	3.07	1.00

Key : TVLE – To a Very Little Extent, TLE – To a Little Extent, TSE – To Some Extent, TSLE – To Some Large Extent, TVLE – To a Very Large Extent

Table 5 reveals that 'To what extent do you keep yourself informed' (Mean =4.08) was ranked highest by the mean score rating as most of the respondents indicated that they kept themselves informed to a very large extent and was followed in succession by 'To what extent do you discuss matters with direct colleagues?' (Mean =4.03); many of the respondents also indicated that they discussed matters with their colleagues to a very large extent. 'To what extent do you independently sort out and deploy new computer technologies was ranked least (Mean =3.07).

Table 6: Motivating factors that determine workers' creativity

S\N	Items	SD	D	A	SA	Mean	S.D
1	My superior always recognizes the work done by me	7 1.8%	17 4.3%	263 66.9%	106 27.0%	3.19	.59
2	In our organization, there is fair amount of team spirit	8 2.0%	45 11.5%	231 58.8%	109 27.7%	3.12	.68
3	The lunch break, rest breaks and leaves given …	16 4.1%	93 23.7%	210 53.4%	74 18.8%	2.87	.76
4	The quality of the relate, In the informal work group is quite important to me	5 1.3%	120 30.5%	201 51.1%	67 17.0%	2.84	.71
5	Visibility with top management is important to me	29 704%	93 23.7%	197 50.1%	74 18.8%	2.80	.83
6	Financial incentives motivate me more than…	74 18.8%	44 11.2%	187 47.6%	88 22.4%	2.74	1.01
7	The management allows participation of staff/workers…	23 5.9%	144 36.60%	140 35.6%	86 21.9%	2.74	.87
8	Good physical working conditions are provided in the organization	20 5.1%	114 29.0%	234 59.5%	25 6.4%	2.67	.67
9	There is support for dev. & training in my organization	23 5.9%	125 31.8%	209 53.2%	36 9.2%	2.66	.73
10	There is good salary package for staff …	54 13.7%	151 38.4%	164 41.7%	24 6.1%	2.40	0.8
11	The retirement benefits available are sufficient for workers.	20 5.1%	224 57.0%	128 32.6%	21 5.3%	2.38	.67
12	I feel secured in my job	23 5.9%	247 62.8%	76 19.3%	47 12.0%	2.37	.77
13	The medical benefits provided in the org. are satisfactory	25 6.4%	256 65.1%	85 21.6%	27 6.9%	2.29	.69

Table 6 shows the responses on Job Motivations as determinants of workers'creativity in the selected Newspaper industries:

'My superior always recognizes the work done by me' (Mean =3.19), was ranked as the highest motivating factor while 'the medical benefits provided in the organisation are satisfactory' (Mean =2.29).was ranked as the least motivating factor

Research Hypothesis 1 : There will be no joint effect of independent variables (ICT Use, Cognitive Styles and Motivation) on Creativity

Table 9: Joint effect of independent variables (ICT Use, Cognitive Styles and Motivation) on Creativity

Model	Sum of Squares	DF	Mean Square	F	Sig.
Regression	3013.871	3	1004.624	94.588	.000
Residual	4131.600	389	10.621		
Total	7145.471	392			

$R = .648$, $R^2 = .422$, Adj $R^2 = .417$

It was shown in the table above that the joint effect of independent variables (ICT Use, Cotgnitive Styles and Motivation) on Creativity was significant ($F(3,389) = 94.588$; $R = .649$, $R^2 = .422$, Adj. $R^2 = .417$; $P < .05$). About 42% of the variation was accounted for by the independent variables.

Research Hypothesis 2: There will be no relative effect of independent variables (ICT Use, Cognitive Styles and Motivation) on Creativity.

Table 10: Relative effect of independent variables (ICT Use, Cognitive Styles and Motivation) on Creativity.

Model	Unstandardized Coefficient		Standardized Coefficient	T	Sig.
	B	Std. Error			
(Constant)	4.222	1.146		3.685	.000
ICT Use	.295	.044	.297	6.745	.000
Cognitive Styles	.422	.052	.376	8.104	.000
Motivation	.113	.035	.138	3.221	.001

The result above shows the relative contribution of each of the independent variables on the dependent: ICT Use ($\beta = .297$, $P < .05$), Cognitive Styles ($\beta = .376$, $P > .05$) and Motivation ($\beta = .138$, $P < .05$).

It is shown that all the independent variables (ICT Use, Cognitive Styles and Motivation) are significant with Creativity.

Table 11: Relationship between Creativity and Gender, Age, Marital Status, Education, Job Tenure, Job Position ICT Use, Cognitive Styles and Motivation

	Creativity	Gender	Age	M.S.	Education	Job Position	Job Tenure	ICT use	Cognitive Style	Motivation
Creativity	1									
Gender	.046	1								
Age	.030	-.164**	1							
M.S.	.019	.098	.361**	1						
Education	.088	-.086	.328**	.169**	1					
Job Position	.029	-.023	.078	.050	.099	1				
Job Tenure	-.088	-.045	.474**	.232**	.124*	-.033	1			
ICT Use	.514**	.037	-.011	.026	-.022	.062	-.072	1		
Cognitive Style	.575**	.026	-.041	.064	.058	.054	-.040	.471**	1	
Motivation	.384**	.040	.030	.032	.059	.088	-.011	.291**	.423**	1
Mean	23.2112	1.39	32.87	1.73	3.68	3.4504	4.69	21.57	24.39	20.73
S.D.	4.27	0.49	7.60	0.66	1.11	0.55	3.24	4.29	3.81	5.22

** = Sig. at .01 level
* = Sig. at .05 level

Table 11 depicts the correlation matrix showing the relationships among creativity personnel factors (gender, age, marital status, education, job tenure, job position, ICT use cognitive styles and work motivation of the respondents.

It can be seen clearly from the table that cognitive styles ($r = 0.575$, $P < 0.05$), Information and Communication Technologies (ICTs) use ($r = 0.514$, $P < 0.05$) and work motivation ($r = 0.384$, $P < 0.05$) had significant correlations or relationships with creativity of the respondents.

Discussion of Findings

The study was conducted by sampling twelve Newspaper industries in South - West Nigeria on the use of Information and Communication Technology tools, cognitive styles and motivation as determinants of workers' creativity. The findings revealed that the use of ICTs (referring generally to computers, videos, hardware, software, and networks) positively influences workers creativity in the newspaper industries.

Majority of the respondents agreed that the use of ICT increases knowledge and skills of workers in media houses (Mean=3.77 was ranked highest by the mean score rating).

This is in conformity with Boyer and Hannerz, (2006), who observed that there appears to be general optimism that the new technologies have helped to advance journalism practice rather than undermine or complicate the process.

The finding revealed further that 'learning new ways to think' as a cognitive style was ranked highest in influencing workers creativity (Mean=4.20), This is in conformity to Paciuk (1989) that cognitive style was concerned with a variety of mental processes including memory, learning, comprehending language, problem solving, and creativity. They also asserted that cognitive style existed on the borderline between intellectual function and personality, and argue that employees are more likely to engage in innovative activities when they feel higher levels of concern and ownership of the problems confronting them in the workplace.

The study also revealed that the current use of incentive motivation adequately influence workers job performance in relation to their levels of creativity in media houses. Incentive motivation includes good salarry that is paid on time, management financial and moral support, payment of bonuses and various allowances, psychological reward and job security and future prospect, others are interpersonal relationship among the staff and promotion in the media house. This agrees with Hargadon, and Sutton (2000) who submitted that motivation enhances creativity.

The joint effect of independent variables (Gender, Age,. Marital Status, Education, Job Tenure, Job Position ICT Use, Cotgnitive Styles and Motivation) on Creativity was significant. About 44% of the variation was accounted for by the independent variables.This is in conformity with Parker, Wall and Jackson (1997) that employees are more likely to engage in innovative activities when they feel higher levels of concern and ownership of the problems confronting them in the workplace.

The result of the joint effect of independent variables (ICT Use, Cotgnitive Styles and Motivation) on Creativity was significant ($F(3,389) = 94.588$; $R = .649$, $R^2 = .422$, Adj. $R^2 = .417$; $P < .05$). About 42% of the variation was accounted for by the independent variables. This is in conformity with Gregory 1979 who opined that creativity requires free access to information and knowledge.

Conclusion

The findings of this study have shown that ICT, job motivation and cognitive style are necessary factors that contribute to workers' creativity in organizations. If an individual in an organization performs and therefore succeeds, the performance and success can be attributed to motivation, his cognitive ability and compliance in the use of ICT. It is clear that few of the workers possess the necessary skills or knowledge to use various ICTs optimally.

Recommendations

The findings of the study inform the following recommendations:

(1) New Information and Communication Technology tools should be provided for workers in order to improve on their services and to increase their level of creativity.
(2) Newspaper industries should motivate their employees by paying bonuses, good salary, allowances, promotion and ensuring job security so as to improve creativity of their employees.
(3) Creative skills training should be introduced in all the Newspaper industries through which other employees can develop themselves.
(4) Appropriate ICTs should be acquired and used to enhance creativity of the workers in the Newspaper industries in South- West, Nigeria.
(5) The management of Newspaper industries in South- West Nigeria should endeavour to take into consideration the cognitive styles of the new staff to be recruited and workers in order to foster creativity in them.

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