THE UTILIZATION OF ICTs IN HUMAN RESOURCES UNITS FOR EFFICIENT SERVICE DELIVERY IN NIGERIA: IMPLICATION FOR MILLENNIUM DEVELOPMENT GOALS (MDGs)

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Abstract
The shortage of information technology (IT) skills presents a major hindrance to countries of the region seeking to participate in a global economy. Thus, this paper empirically examined ICTs utilization in human resources units in Nigeria and its implication for MDGs. The study adopted a purposeful random sampling technique in the selection of 300 personnel from fifteen (15) well established organizations including academia (public and private) in Ogun and Lagos States. The age range of the respondents was between ages 25 and 57 years with mean age of 34.82 and standard deviation of 13.03. The expost-facto research design was employed. A 30-item self developed questionnaire of the sense of competence scale designed to elicit data on ICTs self-efficacy, MDGs and Human Resources for sustainability was used in generating data for the study. Participants responded to a 5-point Likert-type scale for each factor. Data were analyzed using the t-test, and analysis of variance statistical tools. Research findings demonstrate that personnel’s Computer self-efficacy significantly and directly influences continuous use of ICTs. MDGs significantly and indirectly influence continuous use of ICTs for sustainable development in Nigeria; while a significant influence of ICTs on Human Resources Development was noticed on the sustainability and efficient service delivery of the organizations. On the basis of the findings, it was suggested that organization heads should imbibe the technology culture in enhancing the efficiency of their HR unit as well as improving organizational performance.

Keywords: ICT, Computer Self-efficacy, MDGs, Human Resources Development, Sustainability.

Introduction
The problem of development is a global challenge and the MDGs is a response by world leaders to that effect. The MDGs provide a platform to engage the development process. Therefore, the goals of millennium development include those dedicated to eradicating poverty, achieving universal primary education, promoting gender equality and empowering women, reducing child mortality, improving maternal health, combating HIV/AIDS, malaria and other diseases, ensuring environmental sustainability and developing a global partnership for development.

Over the last ten years significant steps forward have been made in identifying the HRM – performance relationship. However, serious gaps in our understanding still remain with respect to the causal ordering of the variables involved in the HRM – performance relationship (Purcell, Kinnie, Hutchinson, Rayton, & Swart, 2003; Wright, Gardner, Moynihan, & Allen, 2005). Specifically, analysing the impact of HRM
and ICTs on organisational performance in developing a global partnership for development (one of the MDGs goals) is necessary.

Information and Communication Technology (ICT) could be seen as the totality of methods and tools that are used in gathering, storing, processing and communicating information. As Mlitwa (2005) and InfoDev (2006) observed, however, academic commentators, medical practitioners, policy makers, and technology practitioners use various concepts when talking about a technology and most of these concepts often reflects the purpose for which a technology is used.

Tsui (1987) cited by Wachira (2010) affirmed that technology helps the HR function to develop relationships with its constituency and provides it an opportunity for greater effectiveness and satisfaction of both parties. Documented evidence has shown that ICT can be effectively used in HRM to reduce costs, improve services, re-define responsibilities in the organization and improve strategic orientation of HRM.

ICT has potential to generate a more strategic role for HR other than as administration clerks. It may provide the HR function opportunity to create new avenues for contributing to organizational effectiveness through such means as knowledge management and creation of intellectual and social capital and in facilitating flexible working conditions. Use of ICT can establish more virtual customer relationships within the organization thus enabling it to provide strategic value. Through social networking, it can improve employee voice (Martin et al 2009). It frees HR managers to become strategic members of the top management team (Strohmeir, 2006) and helps to connect HRM to business. It gives HR increased credibility and power through enabling them to generate more reliable data which improves decision making.

Researchers have investigated empirically the effects of HRM practices on organizational performance (Becker & Huselid, 1998; Boselie, 2002). Recent studies reflect an impressive influence of HRM practices on organizational performance. Researchers have divergent views about impact of HRM practices and firms’ performance. They argue that HRM practices and performance research have common attributes as well as contradictions (Boselie et al., 2005; Katou & Budhiwar, 2006; Wall & Wood, 2005, Wright & Boswell, 2002).

Rizov and Croucher (2008) empirically found that collaborative form of HRM practices (characterized by valuing employees as assets and core partners, creating and communicating a culture of partnership between employer and employees as well as among employees, communicating organization’s mission, values, goals and strategy statement through explicit open communication policy and strong support for employees consultative bodies like unions and committees) reflected positive and statistically significant association with firms’ performance.

Several studies have found a positive association between HRM practices, ICTs usage and firms’ performance (Chang & Kuo, 2004; Jarventaus, 2007; Rizov & Croucher, 2008). Most of these studies have been undertaken in the United States, and Europe (Boseli et al., 2001) and Asia (Bjo’rkman, and Xiucheng, 2002; Kundu & Malhan, 2007). Within Nigeria therefore, limited research has been done to examine the influence of ICTs usage on human resources personnel and efficient service delivery.
In spite of the availability of information and communication technologies (especially in terms of computer and internet usage) in our society today, it is observed that most HR units in most organizations in Nigeria (public and private alike) are not familiar with its use and so, they are not able to explore the numerous opportunities it offers to enhance sustainability and efficiency service delivery system. This has adverse effect on the totality of service delivery system in most HR units in Ogun and Lagos States.

Generally, there is a paucity of researches on correlates of ICTs usage in HR units for efficient service delivery. Therefore, this study is designed to fill such research gaps in Nigeria. Specifically, this study investigated the utilization of ICTs and Human Resources for sustainability and efficient service delivery in most HR units in Ogun and Lagos States in Nigeria. Also, the study investigated the HR personnel computer self-efficacy; as well as continuous adoption and utilization of ICTs for efficient service delivery.

**Research Questions**
1. To what extent will Computer self-efficacy influence the continuous use of ICT by HR Personnel?
2. Will MDGs procedure for ICTs usage influence the continuous adoption and utilization of ICTs for sustainability development in human resources unit?
3. Will there be any significant difference between the adoption and utilization of ICTs by HR personnel for efficient service delivery of the organizations?

**Research Hypotheses**
In order to achieve the purpose of this study, the following hypotheses were formulated for testing at the 5% error margin.
1. Computer self-efficacy will not significantly influence continuous use of ICT by HR Personnel.
2. MDGs will not significantly influence the continuous adoption and utilization of ICTs for sustainability development in human resources unit.
3. There is no significant difference between the adoption and utilization of ICTs by HR personnel for efficient service delivery of the organizations.

**METHODOLOGY**

**Research Design**
This study adopted an ex-post facto survey research design where questionnaire instruments were used to collect data from the respondents on the studied variables without any manipulation of the variables.

**Participants**
A purposeful random sampling technique was adopted in the selection of 300 personnel from fifteen (15) well established organizations including academia (public and private) in Ogun and Lagos States. The age range of the respondents was between ages 25 and 57 years with mean age of 34.82 and standard deviation of 13.03
Measures
A 30-item self-developed questionnaire of the sense of competence scale designed to elicit data on ICTs self-efficacy, MDGs and Human Resources for efficient service delivery and was used in generating data for the study. Participants responded to a 5-point Likert-type scale for each factor. The items are scored on a five-point scale ranging from Strongly Disagree (1) to Strongly Agree (5). The reliability coefficient for the 30-items scale was .81. Using the Cronbach’s alpha model, the reliability coefficient was calculated at 0.77.

Procedure
The questionnaire for assessing the variables of the study was administered on the sample through assistance of six (6) colleagues. A total of 300 questionnaires were distributed and found useful for the data analysis.

Data Analysis
CS – Pro was used for the data entry while analysis was done using SPSS 17.0. The data analysis was based on earlier set hypotheses which involved the use of t-test and multiple regression analysis statistical packages.

RESULTS

Table 1: Summary of Analysis of variance on the effect of computer self-efficacy on continuous use of ICT by HR Personnel

<table>
<thead>
<tr>
<th>Source of variation</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>508.179</td>
<td>1</td>
<td>508.179</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residual</td>
<td>4499.683</td>
<td>298</td>
<td>14.989</td>
<td>33.903</td>
<td>.010</td>
</tr>
<tr>
<td>Total</td>
<td>5007.862</td>
<td>299</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The calculated value of f = 33.903 which is greater than the critical value of f = 2.38 indicates that computer self-efficacy have significant influence on the continuous use of ICT by HR Personnel. Therefore, the null hypothesis that stated that computer self-efficacy will not significantly influence continuous use of ICT by HR Personnel is rejected in favour of the alternate hypothesis. This means that computer self-efficacy will significantly influence continuous use of ICT by HR Personnel for sustainability in Nigeria.

Table 2: Model Summary of the Multiple Regression Analysis of the effect of MDGs on adoption and utilization of ICT for sustainable development

<table>
<thead>
<tr>
<th>R</th>
<th>R²</th>
<th>Adj. R²</th>
<th>SE</th>
<th>R² Change</th>
<th>F Change</th>
<th>d f 1</th>
<th>d f 2</th>
<th>Sig. F Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Predictor Variables</td>
<td>.786</td>
<td>.715</td>
<td>.691</td>
<td>2.139</td>
<td>.691</td>
<td>57.086</td>
<td>2</td>
<td>298</td>
</tr>
</tbody>
</table>
The results in Table 2 revealed that continuous adoption and utilization of ICT reflects the effect of MDGs for sustainability development by human resources personnel in Nigeria ($R = .786; R^2 = .751; F (2,298) = 57.086; P < .05$). This revealed that continuous adoption and utilization of ICT by human resources personnel in Nigeria accounted for 69.1% of the total variance in the effect of MDGs for sustainability development. This finding rejected the hypothesis, which stated that MDGs will not significant influence the continuous adoption and utilization of ICT for sustainability development in human resources unit.

| Table 2: Model Summary of the Multiple Regression Analysis of the effect of MDGs on adoption and utilization of ICT for sustainable development |
|----------|----------|----------|-------------|----------|----------|----------|----------|----------|
|          | R        | R²       | Adj. R²    | SE       | R² Change| F Change | d.f.1  | d.f.2    | Sig. F Change |
| Model    |          |          |            |          |          |          |        |          |              |
| Predictor | .786     | .715     | .691       | 2.139    | .691     | 57.086   | 2      | 298      | .000          |
| Variables|          |          |            |          |          |          |        |          |               |

The results in Table 2 revealed that continuous adoption and utilization of ICT reflects the effect of MDGs for sustainability development by human resources personnel in Nigeria ($R = .786; R^2 = .751; F (2,298) = 57.086; P < .05$). This revealed that continuous adoption and utilization of ICT by human resources personnel in Nigeria accounted for 69.1% of the total variance in the effect of MDGs for sustainability development. This finding rejected the hypothesis, which stated that MDGs will not significant influence the continuous adoption and utilization of ICT for sustainability development in human resources unit.

| Table 3: T-test analysis showing difference in the adoption and utilization of ICT for HR sustainability and efficient service delivery. |
|---------------------------|-----------------|----------|----------|----------|----------|----------|----------|
| Variable                  | N               | X        | SD       | Df       | T-cal    | T-crit   |
| Adoption                  | 300             | 57.84    | 11.73    | 598      | 2.964    | 1.96     |
| Utilization               | 300             | 53.09    | 13.15    |          |          |          |

P<.05

The table 3 shows that HR adoption of ICT for sustainability is high (57.84) but its utilization for sustainability and efficient service delivery of the organizations is low (53.09). A further analysis revealed that there is a significant difference in the adoption and utilization of ICT of HR unit for sustainability and efficient service delivery of the organizations ($t = 2.964$, df = 598, $P < 0.05$). The calculated $t$ - value of 2.964 is greater than the critical table value of 1.96. Thus, the earlier null hypothesis stated cannot be sustained.

**Discussion**

The findings of the first hypothesis indicated that that computer self-efficacy will significantly influence continuous use of ICT by HR Personnel for sustainability in Nigeria. The result corroborates the findings of Strohmeir, (2006) that ICT frees HRM managers to become strategic members of the top management team and helps to connect HRM to business. It also gives HR increased credibility and power through
enabling them to generate more reliable data which improves decision making. This result is also in line with the findings of Dzenowagis (2005), WHO (2005), InfoDev (2006) and Wachira (2010) who affirmed that ICT is a tool that can be used to reach a series of desired outcome, which provides an opportunity for greater effectiveness.

The outcome of the second hypothesis revealed that MDGs will significant influence the continuous adoption and utilization of ICT for sustainability development in human resources unit. Results in Table 2 show the regression value for the effect of MDGs (.786) and the adjusted R$^2$ (.691). This implies that that continuous adoption and utilization of ICT by human resources personnel in Nigeria accounted for 69.1% of the total variance in the effect of MDGs for sustainability development. The table also shows that the f-value (57.086) is significant at .000, a level that is less than 0.05. The findings of Wachira (2010) lend a good credence to this study that technology helps the HR function to develop relationships with its constituency and provides it an opportunity for greater effectiveness and satisfaction of both parties.

The findings of the third hypothesis indicated that there is a significant difference in the adoption and utilization of ICTs on Human Resources Development on the sustainability and efficient service delivery of the organizations ($t = 2.964$, df = 598, $P < 0.05$). The calculated $t$-value of 2.964 is less than the critical table value of 1.96. Results in table 3 show that HR adoption of ICT for sustainability is high (57.84) but its utilization for sustainability and efficient service delivery of the organizations is low (53.09). The hypothesis was rejected. The implication of this finding is that most of the organizations either public or private are not technology oriented but the HR unit may lack necessary skills on technology usage.

**Conclusion**

This study examined the utilization of ICTs and Human Resources for sustainability and efficient service delivery in most HR units in Ogun State Nigeria. Research findings demonstrate that personnel’s Computer self-efficacy significantly and directly influences continuous use of ICTs. MDGs significantly and indirectly influence continuous use of ICTs for sustainable development in Nigeria; while a significant influence of ICTs on Human Resources Development was noticed on the sustainability and efficient service delivery of the organizations. On the basis of the findings, it was suggested that organization heads should imbibe the technology culture in enhancing the efficiency of their HR unit as well as improving organizational performance.

**References**


