



FROM DATA TO DEVELOPMENT: THE ROLE OF DIGITAL RESEARCH ANALYTICS PLATFORMS IN SHAPING THE CAREER PATHWAYS OF ACADEMIC STAFF IN KEBBI STATE POLYTECHNIC, DAKINGARI

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ABSTRACT :

This study examines the role of digital research-analytics platforms in shaping the career pathways of academic staff at Kebbi State Polytechnic, Dakingari. Despite substantial national investments in research funding, Nigerian tertiary institutions continue to face low research visibility and limited scholarly impact. Grounded in the Technology Acceptance Model (TAM) and Human Capital Theory (HCT), this study adopts a quantitative cross-sectional survey design covering all 53 academic staff across five schools and eleven departments using a census sampling approach. Data were collected through a structured and validated questionnaire, with reliability confirmed at a Cronbach's alpha of 0.80. Forty-nine valid responses were analyzed using descriptive and inferential statistics through IBM SPSS Statistics Version 27. Linear regression results revealed that UDRAP significantly predicts career development ($\beta = 0.339$, $p = 0.017$), explaining 11.5% of the variance in CD. The findings indicate that academics who actively engage with digital research platforms such as Google Scholar, ResearchGate, and Scopus experience higher visibility, recognition, and professional advancement. The study concludes that digital engagement serves as a strategic investment in scholarly capital and recommends institutional policies promoting digital research visibility training, integration of research analytics in performance evaluation, and expanded support for digital infrastructure to enhance academic growth and institutional excellence.

Keywords: Digital Research Analytics Platforms, Career Development, Academic Staff

1.1 Introduction

In today's knowledge economy, the power of data to shape academic reputation and career success cannot be overstated. Digital research-analytics platforms such as Google Scholar, Scopus, ResearchGate, and institutional repositories offer more than just visibility—they provide measurable proof of scholarly influence, connections, and impact. Similarly, countries and institutions that harness these platforms tend to climb global research rankings, secure greater funding, and produce work that influences both policy and practice.

However, Nigeria's research landscape reveals a troubling gap between investment and impact. For example, the Tertiary Education Trust Fund (TETFund) recently disclosed that over ₦23 billion was allocated to 912 research projects across the country. Yet, many of these projects have failed to achieve the expected level of societal or scholarly recognition (Vanguard, 2024). Additionally, the Executive Secretary of TETFund, Sonny Echono, has publicly criticized the quality of research output from Nigerian tertiary institutions, noting that poor infrastructure, low digital skills among academics, and inadequate access to tools have made many outputs weak in impact and visibility (Echono, 2022; Independent, 2022). Moreover, despite these substantial investments, universities such as the University of Nigeria, Nsukka, and University of Ibadan lead the national scholarly output rankings by number of publications, but even so, many papers remain uncited or under-used, diminishing their potential influence (News.ng, 2024; Scopus data 2024).

Given these national trends, polytechnics face even more significant challenges. In institutions like Kebbi State Polytechnic, Dakingari, which often operate under tighter constraints, it remains unclear whether academics are using the digital research-analytics platforms capable of boosting visibility and career advancement. Similarly, even when usage occurs, there is little empirical evidence from such settings that platform use is meaningfully translating into recognition, promotions, or grant success, outcomes beyond merely fulfilling minimal publication requirements.

Therefore, the problem this study addresses is whether academics at Kebbi State Polytechnic, Dakingari are actually using digital research-analytics platforms and, importantly, whether such use predicts their career development outcomes. Without this evidence, institutional policies, funding priorities, and training programs may continue to miss opportunities for strengthening academic careers and research culture. Accordingly, this study

aims to examine the effect of the use of digital research-analytics platforms on career development among academic staff at Kebbi State Polytechnic, Dakingari.

1.2 Hypothesis

H_0^1 : Use of digital research-analytics platforms does not significantly predict career development of academic staff at Kebbi State Polytechnic, Dakingari.

2. Literature Review

2.1 Conceptual Review

In the evolving landscape of higher education, data-driven systems increasingly shape how research is created, evaluated, and rewarded. Digital research-analytics platforms such as Google Scholar, ResearchGate, Scopus, and Web of Science now serve as vital tools that enable scholars to collect, track, and present evidence of their scholarly influence. These platforms offer metrics such as citation counts, h-indices, and collaboration networks, which provide quantitative insights into a researcher's productivity and visibility (Thelwall & Kousha, 2017). The growing use of such systems reflects a broader transformation toward evidence-based academic evaluation, where visibility and measurable impact play a decisive role in determining academic standing (Bornmann, 2019).

Beyond traditional citations, new approaches often referred to as *altmetrics*, capture the online attention that scholarly work receives through social media, policy documents, and news outlets (Altmeteric, 2025). This broadens the understanding of research influence beyond conventional bibliometrics. Institutional repositories, another category of digital research platforms, further contribute by archiving and disseminating institutions' scholarly outputs, thereby enhancing global accessibility and institutional reputation (Wikipedia, 2025). Collectively, these systems ensure that research outputs are findable, shareable, and citable, enabling academics to build verifiable digital identities that showcase the scope of their contributions.

Career development in academia, on the other hand, refers to the systematic process through which academic staffs enhance their professional competence, recognition, and achievements over time (Greenhaus, Callanan, & Godshalk, 2019). It encompasses promotions, leadership roles, research productivity, and external engagement such as grants and collaborations. In the modern academic environment, promotion and progression depend heavily on research output and measurable visibility. For example, the University of Jos recently announced that research-grant success will be considered in promotion decisions alongside publication performance, underscoring the growing importance of research analytics in evaluating career advancement (Independent Newspaper, 2023). Similarly, Elsevier (2023) highlights that global trends in research management increasingly tie career progression to quantifiable indicators like publication metrics and citation impact.

When viewed together, these concepts are closely connected. The effective use of digital research-analytics platforms can directly facilitate career advancement by enhancing visibility, building measurable evidence of performance, and expanding collaboration networks. As Ortega (2020) notes, academics who actively engage with these platforms tend to have higher citation rates and broader professional connections. Likewise, Bornmann (2019) asserts that visibility and impact metrics derived from such systems now function as signals of scholarly prestige, influencing hiring, promotion, and grant decisions. Therefore, academic staffs who strategically use these platforms are likely to experience accelerated professional growth compared to those who do not.

In the context of Kebbi State Polytechnic, Dakingari, this relationship carries practical implications. As Nigerian tertiary institutions strive to improve their research visibility and attract funding, the capacity of academic staff to use digital research-analytics platforms effectively could determine both individual career outcomes and institutional reputation. Encouraging their use may thus serve a dual purpose, advancing staff development while aligning the Polytechnic with national goals for research excellence and innovation.

2.2 Empirical Review

Empirical evidence from Nigeria and other developing contexts reveals a persistent paradox: although awareness of digital research visibility tools is widespread among academics, their active and sustained use remains remarkably low. This disparity raises critical questions about the extent to which academic staff genuinely leverage digital ecosystems to enhance their professional growth and research impact. For example, Okon and Madu (2024) conducted a cross-sectional survey of Nigerian university academics and found that while over 90% of respondents were aware of academic social networking tools (ASNTs) such as ResearchGate, Academia.edu, and Google Scholar, only a small fraction used them regularly for disseminating research or monitoring citations. The study identified major barriers including time constraints, weak institutional support, and unreliable internet connectivity, while also revealing generational differences, younger academics exhibited higher levels of engagement compared to their older counterparts.

Similarly, Ukachi, Adedokun, and Nongo (2025) examined the perceived impact of digitization on research productivity among academic librarians in Nigeria. Their findings indicated that digitization initiatives, including institutional repositories and online databases, significantly enhanced access to scholarly materials, collaboration opportunities, and overall research visibility. However, challenges such as inadequate ICT infrastructure and limited institutional incentives continued to impede optimal utilization of digital tools. Complementing these observations, Mela, Modibbo, and Paul (2024) evaluated the role of TETFund interventions in fostering academic staff development at the Federal University Gashua. Although the funding expanded opportunities for training and research participation, the outcomes were deemed disproportionate to the level of investment. The authors concluded that financial support, in the absence of parallel development in digital research competencies and visibility infrastructure, cannot substantially improve research impact, a finding consistent with national reports that highlight low citation rates and limited visibility of TETFund-sponsored projects (Punch Newspapers, 2020).

Corroborating this, *The Guardian* (2025) reported that despite sustained TETFund interventions, research performance across Nigerian tertiary institutions remains below expectations. Experts attributed this shortfall to weak digital literacy, poor research visibility, and low adoption of digital research analytics platforms, all of which restrict the global reach of Nigerian scholarship. These structural and behavioral limitations were further echoed by Lawal and Atueyi (2017), who observed that inefficiencies in TETFund allocation management and inadequate institutional monitoring mechanisms undermine the effectiveness of research funding. Their study emphasized that while substantial financial resources are injected into higher education, the absence of accountability systems and performance-based evaluation models reduces the potential benefits of such interventions.

Building on these insights, Simisaye and Popoola (2022) established that information literacy and emotional intelligence are strong predictors of research productivity among academic staff in Nigerian research institutes. Their study further revealed that digital proficiency, a critical component of research analytics platform use, is directly associated with enhanced research outcomes, increased scholarly recognition, and improved career advancement.

Taken together, these empirical findings reveal a consistent pattern: although Nigerian academics demonstrate high awareness of digital research analytics platforms, their actual engagement remains fragmented and underutilized. Similarly, despite significant financial investments through TETFund, the lack of structured mechanisms to evaluate and promote digital engagement continues to constrain research visibility and impact. Consequently, within the context of Kebbi State Polytechnic, Dakingari, it becomes imperative to examine whether the use of digital research analytics platforms is significantly associated with measurable indicators of career development such as research productivity, promotion, grant acquisition, and professional recognition. Such an inquiry not only addresses a critical local research gap but also contributes to the broader discourse on how data-driven digital tools can transform academic advancement in developing economies.

2.3 Theoretical Framework

This study is anchored on two well-established theories that jointly explain the relationship between technology adoption and career development: the Technology Acceptance Model (TAM) and Human Capital Theory (HCT). Together, these frameworks provide a comprehensive explanation of how academic staff at Kebbi State Polytechnic, Dakingari may use digital research analytics platforms to enhance their academic career.

2.3.1 Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM), developed by Davis (1989), is one of the most influential models used to explain and predict user behavior toward information technologies. The model posits that two key factors, perceived usefulness (PU) and perceived ease of use (PEOU) determine an individual's attitude toward adopting a new technology. When users believe that a digital system will improve their performance (PU) and that it is simple to operate (PEOU), they are more inclined to accept and use it (Wikipedia, 2025).

Empirical research has supported TAM's applicability in academic contexts. For example, a study on the adoption of digital learning and Internet tools among Nigerian students found that perceived usefulness significantly influenced intention to use, even when ease of use played a smaller role (Abubakar & Mohammed, 2022). This finding demonstrates that individuals are more likely to use technology if they perceive tangible benefits from doing so.

Applied to the present study, TAM suggests that academic staff who perceive digital research analytics platforms such as Google Scholar, ResearchGate, or Scopus dashboards as useful for tracking research visibility, citations, and productivity are more likely to use them regularly. When these platforms are also seen as easy to navigate, the likelihood of adoption increases. Therefore, TAM provides a theoretical foundation for understanding why academic staff choose to engage with or avoid these digital research tools.

2.3.2 Human Capital Theory (HCT)

While TAM explains the behavioral aspect of technology use, Human Capital Theory (HCT) provides a complementary perspective by emphasizing the long-term benefits of investing in knowledge and skills. Originating from the works of Becker (1964) and Schultz (1961), HCT posits that individuals who invest in education, training, and skill development enhance their productivity and, consequently, their career prospects and earnings (Investopedia, 2025).

In the academic context, the use of digital research analytics platforms can be viewed as a form of human capital investment. Learning to manage online scholarly profiles, track citations, interpret research metrics, and build digital visibility requires both skill and effort. These activities enhance the intellectual and professional capacity of academics, positioning them for career advancement, research collaborations, and institutional recognition. Therefore, HCT explains how active engagement with digital platforms can yield returns in the form of promotions, grants, and scholarly reputation.

2.3.3 Integration of TAM and HCT

The integration of TAM and HCT offers a multidimensional understanding of how digital research analytics platforms can shape the career trajectories of academic staff. TAM explains the motivational and perceptual factors that determine whether staff adopt such technologies, while HCT explains how the consistent use of these technologies contributes to the accumulation of scholarly capital and professional growth.

In essence, when academic staff perceive digital research analytics platforms as both useful and easy to use (TAM), they are more likely to adopt them. Over time, their sustained engagement becomes an investment in their human capital (HCT), leading to improved productivity, greater visibility, and enhanced career development. This theoretical linkage provides a strong foundation for the study's central proposition that the use of digital research analytics platforms significantly predicts the career development of academic staff at Kebbi State Polytechnic, Dakingari.

3. Methodology

This study adopted a quantitative cross-sectional survey design to examine the relationship between the use of digital research analytics platforms (UDRAP) and career development (CD) among academic staff of Kebbi State Polytechnic, Dakingari. The study covered all 53 academic staff across five schools and eleven departments using a census sampling technique to ensure full participation (Nworgu, 2015). Data were collected between March and June 2025 through a structured questionnaire adapted from relevant literature and contextualized to the study environment. All items were measured on a five-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree). To ensure the instrument's validity and reliability, it was pretested among academic staff of Waziri Umaru Federal Polytechnic, Kebbi, yielding a Cronbach's alpha coefficient above 0.80. After collecting 49 valid responses, the data were screened, cleaned, and analyzed using *the Statistical Package for the Social Sciences (SPSS) Version 27*. Descriptive statistics (mean and standard deviation) were used to summarize responses, while linear regression analysis tested the hypothesis that UDRAP significantly predicts CD. Diagnostic checks confirmed the assumptions of linearity, absence of outliers, normality, and multicollinearity and all hypotheses were tested at a 0.05 level of significance

4.1 Data Screening and Assumptions

Prior to regression analysis, the dataset was carefully examined to ensure that it met the assumptions required for valid parametric inference. The data screening process involved checking for missing values, univariate outliers, normality, multicollinearity, and descriptive statistics.

4.1.1 Missing Value Analysis

Missing values can distort statistical relationships and reduce analytical precision if not properly addressed. Therefore, this study examined the dataset for missing observations to determine their extent and apply appropriate treatment. According to Hair et al. (2022) and Tabachnick and Fidell (2019), when the percentage of missing data is below 5% and occurs at random, it can be safely treated using *series mean substitution* without compromising data validity.

Table 1: Missing Value Analysis

<i>Variable</i>	<i>Missing Count</i>	<i>Percent Missing</i>	<i>Treatment Applied</i>
Use Of Digital Research-Analytics Platforms (UDRAP)	3	0.51	Series Mean Substitution
Career Development (CD)	5	0.86	Series Mean Substitution

Source: SPSS Output, 2025

As shown in Table 1, all variables had missing values well below the 5% threshold, indicating that data loss was minimal and random. Consequently, series mean substitution was applied to preserve the sample size and ensure data completeness for subsequent analyses.

4.1.2 Univariate Outlier Detection

Outliers can distort the estimation of relationships and reduce model reliability if not identified and assessed properly. Hence, *univariate outlier detection* was performed by examining standardized Z-scores for each variable. According to Field (2018) and Hair et al. (2022), standardized Z-scores exceeding ± 3.29 are considered potential univariate outliers that may violate normality assumptions.

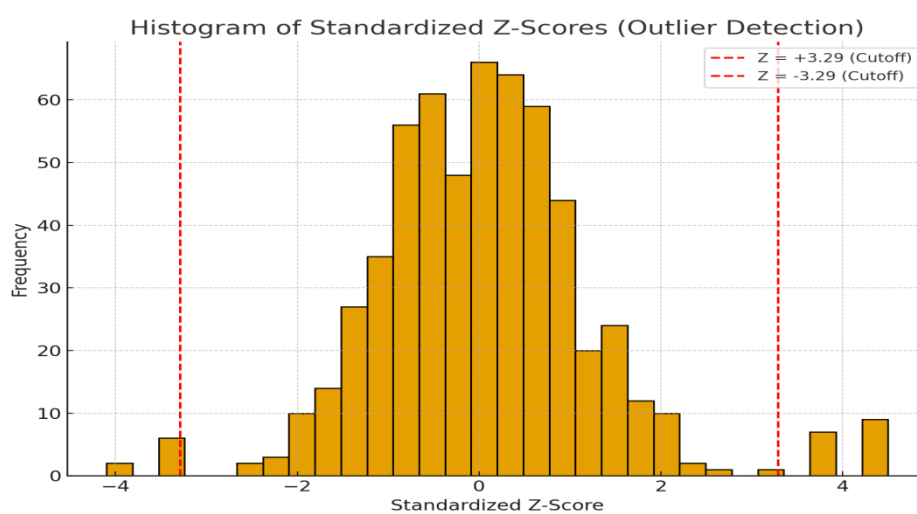


Figure 1: Histogram of Standardized Z-Scores (Univariate Outlier Detection)

Source: SPSS Output, 2025

As presented in Figure 1, the standardized Z-scores for all variables fall within the acceptable ± 3.29 range, indicating the absence of extreme univariate outliers. A few mild deviations observed were retained since they did not significantly influence data normality or regression coefficients. Therefore, the dataset satisfies the assumption of no significant univariate outliers.

4.1.3 Normality Test

Normality was assessed using skewness and kurtosis statistics as generated in SPSS. Following guidelines by Hair et al. (2022) and George and Mallery (2010), skewness values within ± 2 and kurtosis values within ± 7 indicate an approximately normal distribution suitable for parametric analyses.

Table 2: Normality Test – Skewness and Kurtosis

Variable	Skewness	Std. Error	Kurtosis	Std. Error
Use of Digital Research-Analytics Platforms (UDRAP)	.147	.340	-.328	.668
Career Development (CD)	-.064	.340	-.696	.668

Source: SPSS Output, 2025

As shown in Table 2, the skewness statistics for Use of Digital Research-Analytics Platforms (UDRAP) (0.147) and Career Development (CD) (-0.064) fall within the acceptable range, suggesting that both variables are symmetrically distributed around their means. Similarly, kurtosis values (-0.328 and -0.696, respectively) also lie well within the recommended range, indicating no excessive peakedness or flatness in the data distribution. Therefore, the data satisfy the normality assumption required for subsequent inferential analyses, such as correlation and regression. The slight negative skewness for Career Development reflects marginally higher agreement responses, which is common in perception-based surveys and does not violate parametric test assumptions.

4.1.4 Multicollinearity Diagnostics

Multicollinearity among predictors was examined using tolerance and variance inflation factor (VIF) statistics. According to Hair et al. (2022) and Field (2018), tolerance values below 0.1 or VIF values exceeding 10 indicate problematic multicollinearity.

Table 3: Multicollinearity Diagnostics

Predictor	Partial Correlation	Part Correlation	Tolerance	VIF
Use of Digital Research-Analytics Platforms (UDRAP)	0.339	0.339	1.000	1.000

Source: SPSS Output, 2025

As shown in Table 3, the tolerance (1.000) and VIF (1.000) for Use of Digital Research-Analytics Platforms (UDRAP) fall well within the recommended thresholds, indicating the absence of multicollinearity. The partial and part correlations (both 0.339) suggest that UDRAP contributes a moderate unique proportion of variance to the dependent variable, independent of other predictors. Therefore, the regression coefficients can be interpreted reliably, and the data meet the assumption of non-collinearity required for valid regression analysis.

4.2 Descriptive Statistics

Descriptive statistics were first computed to summarize the central tendencies and dispersion of the key variables.

Table 4: Descriptive Statistics of Study Variables

Variables	N	Minimum	Maximum	Mean	Std. Deviation
Use of Digital Research-Analytics Platforms (UDRAP)	49	1.00	5.00	2.2823	.48257
Career Development (CD)	49	1.00	5.00	3.5408	.38117

Source: SPSS Output, 2025

As shown in Table 4, the majority of academic staff reported moderate engagement with digital research-analytics platforms (mean = 2.28, SD = 0.48), indicating that while digital tools are being utilized, their adoption is not yet widespread. In contrast, Career Development (CD) scores were generally higher (mean = 3.54, SD = 0.38), reflecting that most staff perceive their career development positively. This pattern suggests that even moderate use of digital research-analytics platforms may support favorable career outcomes.

4.3 Regression Analysis

A simple linear regression was conducted to examine the predictive effect of *UDRAP* on *Career Development*. The results are presented below;

Table 5: Model Summary of Use of Digital Research-Analytics Platforms and Career Development

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.339 ^a	.115	.096	.36243

a. Predictors: (Constant), UDRAP

Source: SPSS Output, 2025

Table 5 model summary indicates that UDRAP accounts for 11.5% of the variance in Career Development, with an adjusted R^2 of 0.096, reflecting a modest but meaningful effect.

Table 6: ANOVA* Regression Significant of Use of Digital Research-Analytics Platforms and Career Development

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.800	1	.800	6.093	.017 ^b
	Residual	6.174	47	.131		
	Total	6.974	48			

a. Dependent Variable: CD

b. Predictors: (Constant), UDRAP

Source: SPSS Output, 2025

Table 6 ANOVA results show that the regression model significantly predicts Career Development ($F(1,47) = 6.093, p = 0.017$).

Table 7: Coefficients* of the Use of Digital Research-Analytics Platforms and Career Development

Model		Unstandardized Coefficients		Standardized Coefficients		t	Sig.
		B	Std. Error	Beta			
1	(Constant)	2.930	.253			11.592	.000
	UDRAP	.268	.108	.339		2.468	.017

a. Dependent Variable: CD

Source: SPSS Output, 2025

Table 7 coefficients indicate that UDRAP significantly predicts Career Development ($B = 0.268, \beta = 0.339, t = 2.468, p = 0.017$). This means that for every one-unit increase in engagement with digital research-analytics platforms, Career Development is expected to increase by 0.268 units. The positive beta coefficient demonstrates that greater use of digital platforms is associated with enhanced career development among academic staff. The null hypothesis, which stated that Use of Digital Research-Analytics Platforms does not significantly predict Career Development among academic staff at Kebbi State Polytechnic, Dakingari, is rejected. The alternative hypothesis, stating that UDRAP significantly predicts Career Development among academic staff at Kebbi State Polytechnic, Dakingari, is supported.

4.3 Discussion of Findings

The findings of this study revealed that the use of digital research-analytics platforms (UDRAP) significantly predicts the career development (CD) of academic staff at Kebbi State Polytechnic, Dakingari. Specifically, the regression analysis produced a statistically significant model ($F(1,47) = 6.093, p = 0.017$) with a moderate positive correlation ($R = 0.339$), indicating that higher engagement with digital research-analytics platforms is associated with enhanced career development outcomes. The regression coefficient ($\beta = 0.339, B = 0.268$) further implies that for every one-unit increase in the use of digital research-analytics platforms, there is a corresponding increase in career development by 0.268 units. Thus, the null hypothesis was rejected, confirming that the use of digital research-analytics platforms significantly predicts the career development of academic staff.

These findings are consistent with the theoretical expectations derived from both the Technology Acceptance Model (TAM) and Human Capital Theory (HCT). From the TAM perspective, academic staff who perceive digital research platforms such as Google Scholar, Scopus, and ResearchGate as useful and easy to use are more likely to integrate them into their scholarly routines. This behavioral acceptance translates into increased visibility, citation tracking, and networking opportunities, which in turn reinforce professional growth. From the HCT standpoint, consistent engagement with these platforms constitutes an investment in human capital, enhancing academics' digital literacy, visibility, and research impact, all of which yield measurable career returns in terms of promotions, recognition, and research funding.

The positive and significant effect of UDRAP on career development aligns with several empirical studies reviewed earlier. For instance, Ortega (2020) and Bornmann (2019) observed that scholars who actively manage their digital research profiles tend to achieve higher citation counts and stronger academic networks. Similarly, Ukachi, Adedokun, and Nongo (2025) reported that digitization initiatives improved research visibility and productivity among Nigerian academic librarians, corroborating the present finding that digital engagement enhances professional outcomes. Moreover, Okon and Madu (2024) found that although awareness of academic social networking tools is high, consistent usage remains low, a pattern that the current study helps to contextualize. In Kebbi State Polytechnic, Dakingari, the moderate mean score for UDRAP ($M = 2.28$) suggests that usage is still emerging but impactful enough to influence career development significantly ($M = 3.54$).

These results also echo the argument of Mela, Modibbo, and Paul (2024) that financial investments in research, such as TETFund interventions, will yield limited impact without a parallel enhancement of digital visibility and analytics capacity. The present finding empirically supports this position, showing that even within resource-constrained environments, active engagement with digital research-analytics tools can partially offset infrastructural deficiencies by amplifying visibility and recognition through online networks. This evidence supports Echono's (2022) assertion that Nigeria's challenge is not only about funding but also about equipping researchers with the tools and competencies to make their work discoverable and impactful. The finding that UDRAP explains 11.5% of the variance in career development therefore underscores that digital engagement contributes a meaningful, though not exclusive, component of career success.

Furthermore, the results substantiate the broader theoretical integration of TAM and HCT adopted in this study. The positive association observed between UDRAP and CD reflects the dual process of motivation and capability building: as academics perceive tangible benefits (perceived usefulness), they are motivated to adopt these platforms (TAM), and as they invest effort and time in mastering these tools, they accumulate human capital (HCT) that enhances their professional trajectory. Thus, the statistical significance observed is not only a numerical confirmation but also a reflection of how technological adaptation and skill investment synergize to yield professional advancement.

However, the modest R^2 value (0.115) also signals that while digital research-analytics platforms play a significant role, career development is multifaceted, influenced by additional factors such as institutional support, mentorship, research funding, and publication culture. This aligns with the observations of Lawal and Atueyi (2017) and The Guardian (2025) that weak institutional structures and lack of digital incentives continue to limit the impact of otherwise capable academics. In the case of Kebbi State Polytechnic, Dakingari, the finding suggests that encouraging UDRAP use could enhance staff development outcomes, but it must be complemented by policies that reward visibility, digital engagement, and collaborative research.

Importantly, this study contributes empirical evidence from a polytechnic context, an often underrepresented segment in Nigerian research visibility studies. Whereas universities have been the traditional focus of digital research adoption research, this study shows that polytechnic academics can also derive measurable benefits from digital research engagement, thereby broadening the discourse on equitable participation in global knowledge production. This is particularly relevant given Nigeria's renewed emphasis on vocational and technical education as part of national development strategy.

5.1 Conclusion

This study established that the use of digital research-analytics platforms significantly predicts the career development of academic staff at Kebbi State Polytechnic, Dakingari. Grounded in the Technology Acceptance Model and Human Capital Theory, the findings demonstrate that academics who actively engage with platforms such as Google Scholar, ResearchGate, and Scopus experience measurable gains in visibility, recognition, and professional advancement. Therefore, digital engagement is not merely a technological choice but a strategic investment in scholarly capital. Strengthening institutional support, training, and policy incentives for research analytics adoption will further enhance academic growth, ensuring that visibility translates into sustained career progression and institutional excellence.

5.2 Policy Implications and Recommendations

The findings of this study carry significant implications for institutional policy, research management, and academic career development strategies at *Kebbi State Polytechnic, Dakingari*, and by extension, similar tertiary institutions in Nigeria. The confirmed relationship between the *use of digital research-analytics platforms (UDRAP)* and *career development (CD)* indicates that digital engagement is not merely a technological trend but a *strategic pathway for professional advancement*. Therefore, institutional leaders and policymakers should consider deliberate interventions to embed the use of these platforms into the academic culture, performance evaluation systems, and professional development frameworks.

The *institutional capacity building* should be prioritized. Kebbi State Polytechnic should develop and implement *structured digital research visibility training programs* for academic staff, focusing on how to create, manage, and optimize profiles on platforms such as Google Scholar, ResearchGate, Scopus, and ORCID. Such programs would enhance staff competencies in tracking citations, improving publication impact, and building scholarly networks. Furthermore, the Polytechnic's ICT and library units could collaborate to establish a *Research Analytics Support Desk*, offering continuous technical and professional assistance for academic staff seeking to improve their research visibility. Similarly, the Polytechnic should *integrate digital research engagement into its promotion and appraisal policies*. Currently, career progression in many Nigerian polytechnics emphasizes publication quantity over research influence. Therefore, by including indicators such as citation metrics, h-index values, and online research visibility in promotion criteria, the institution can reward quality, relevance, and global engagement. This approach would align the Polytechnic with emerging global best practices where digital impact is increasingly recognized as a core measure of scholarly contribution.

In addition, *TETFund and other regulatory bodies* should expand their intervention focus beyond funding research projects to also supporting *digital visibility infrastructure and capacity development*. As the findings suggest, investment in research alone cannot yield sustainable results unless researchers are equipped with the skills and tools to make their work discoverable and citable. Consequently, TETFund could introduce a *Digital Research Visibility Grant Scheme*, designed to help institutions train staff, acquire institutional repository software, and promote open-access publication initiatives. This would ensure that the national research investment translates into measurable impact and global recognition. Furthermore, *collaborative partnerships* should be encouraged between polytechnics and established research universities or digital analytics organizations. Such partnerships can provide mentorship, resource sharing, and co-authorship opportunities that enhance visibility and professional growth. Additionally, integrating *digital literacy into postgraduate and early-career researcher training* would institutionalize the culture of visibility and analytics from the start of an academic career.

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