

Review Article

Mental Accounting and Research Productivity: Does the Consolidated Academic Tools Allowance (CATA) Improve the Quantity and Quality of Research Output among University Academics in Nigeria? A Conceptual and Theoretical Review

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Abstract: Research productivity remains a persistent challenge for Nigerian university academics, and existing scholarship has focused almost entirely on funding adequacy and institutional support explanations. This paper introduces a behavioural lens to an evolving ring-fenced research-related emolument termed the Consolidated Academic Tools Allowance (CATA). Drawing on mental accounting theory, we argue that CATA's effect on research output is conditional rather than automatic, and operates through two distinct behavioural levels: macro and micro. At the macro level, CATA is a labeled, statutorily distinct allowance, which mental accounting theory predicts should be psychologically protected against diversion into ordinary household spending. At the micro level, however, CATA bundles five distinct research-cost categories into a single undifferentiated sum, with no earmarking across them; mental accounting theory predicts that broad bracketing of this kind will produce uneven, need-salience-driven internal allocation that may crowd out high-value but lumpy costs, such as article processing charges (APCs), in favour of more recurring, visible costs, such as internet access. The paper further situates the relationship between CATA and research productivity within the real, currently observable variance in policy implementation - full disbursement (with arrears) in federal universities versus widespread non-implementation in several state universities as of mid-2026, which offers a natural, quasi-experimental basis for future empirical testing. We develop a two-level conceptual model, derive seven testable propositions and outline a survey-based methodology for empirical validation and draw out implications for academics, university managements, federal and state governments.

Keywords: Mental Accounting, Behavioural Finance, Consolidated Academic Tools Allowance, FGN-ASUU 2025 Agreement, Research Productivity, Nigerian Universities

1. Introduction

Research productivity is central to the mission of the university. Universities are expected to generate knowledge, solve social and economic problems, train researchers and contribute to national development through scholarly output. In the contemporary higher education environment, the research performance of academic staff is evaluated not only by how much they publish, but by where, how visible and how influential that output is. Research productivity is therefore increasingly understood along two dimensions: quantity (journal articles, conference papers, book chapters, grants, working papers) and quality (placement in indexed journals, citation impact, journal ranking, and scholarly influence).

In Nigeria, concerns about academic productivity are inseparable from the political economy of university funding, staff welfare, research infrastructure and industrial relations. Nigerian public universities have historically faced underfunding, inadequate research support, unstable academic calendars, weak infrastructure, high teaching loads and recurrent labour disputes. Against this backdrop, the Federal Government's renegotiated 2025 Agreement with the Academic Staff Union of Universities (ASUU) signed on 14 January 2026 and taking financial effect from 1 January 2026 reviewed the emolument of University Academic Staff upwards by 40%, explicitly framed as a mechanism for improving morale, productivity and the global competitiveness of Nigerian universities, while reversing brain drain (FGN/ASUU Agreement, S.3.2a). The salary structure comprises the Consolidated University Academic Staff Salary (CONUASS) and a distinct standing allowance named the Consolidated Academic Tools Allowance (CATA). S. 3.2c of the Agreement provides that the 40% increase will be represented by CATA which is peculiar to University Academic Staff. The Agreement describes CATA as tax-free and intended to cover journal publications, conference participation, internet access, learned society membership and books.

On its face, the policy logic is straightforward. If academic staff receives dedicated financial support for research-related tools and activities, research productivity should improve. Yet this assumption deserves closer scrutiny. Income supplements do not automatically translate into productive academic investment. The same allowance can be used in very different ways by different academics, particularly in an environment of inflation, household income strain and competing financial obligations. One academic receiving CATA may use it to pay article-processing charges, purchase datasets, subscribe to software, attend conferences or renew professional memberships; another, under financial pressure, may absorb the same funds into transport, school fees, rent, food or medical expenses. These divergent uses are not simply a matter of income level. They can also be understood through mental accounting. Mental accounting is the behavioural

process by which individuals categorise money into separate cognitive “accounts” and assign different spending rules to each category (Thaler, 1985, 1999).

Applied to CATA, mental accounting suggests that the allowance's productivity effect depends on two distinct behavioural questions, not one. The first is whether academics mentally ring-fence CATA as a research fund at all, as opposed to treating it as an undifferentiated salary top-up, a question of macro-level labeling. The second, more subtle question is how academics allocate CATA internally across its five bundled sub-purposes, given that the allowance is disbursed as a single undifferentiated sum rather than as five separately earmarked amounts, a question of micro-level bracketing. This paper develops both strands and argues that they jointly determine whether CATA converts into measurable gains in research quantity and quality.

Statement of the Problem

The introduction of CATA reflects a policy assumption that providing academics with a dedicated, research-oriented allowance will improve scholarly productivity. Yet the pathway from allowance to output is not straightforward, and three gaps justify the present study.

First, is a policy evaluation gap. CATA is a very recent intervention, and there is not yet a body of published evidence on whether it has improved, or is likely to improve, research performance in Nigerian universities. Public discourse to date has concentrated on labour relations, implementation logistics and arrears, rather than on measurable research outcomes.

There is a behavioural gap, where discussion of CATA has generally assumed that once staff receive funds nominally intended for research, they will spend them accordingly. This assumption overlooks the reality that academic staff in Nigeria operate under multiple, often competing, financial pressures, and may allocate the same allowance quite differently depending on how they mentally categorize it; both whether they treat it as research money at all, and how they divide it among its five bundled sub-purposes.

Finally, a measurement gap exists which usually treats research productivity as publication count, whereas a serious evaluation of CATA's effectiveness must examine both the quantity and the quality of output. An allowance may increase publication output without necessarily improving the quality or impact of research. For example, academics may use the additional funding to pursue the cheapest and fastest publication outlets, thereby increasing the number of papers without enhancing their scholarly impact. Alternatively, the allowance may enable them to produce fewer but high-quality papers published in more reputable journals. Quantity and quality must therefore be separated and jointly examined rather than conflated.

The problem addressed in this paper, therefore, is that while CATA is explicitly designed to support research productivity, the behavioural mechanisms through which it may affect academic output and the conditions under which it does or does not do so

remain insufficiently theorized. This paper addresses that gap by developing a mental accounting model of the CATA–research productivity nexus.

Objectives of the Study

- i. To review the theoretical foundations of mental accounting theory, with particular attention to labeling and choice bracketing.
- ii. To document CATA as a specific, currently unfolding Nigerian higher-education policy instrument, including its design and its uneven implementation.
- iii. To distinguish the macro-level (allowance vs. salary) and micro-level (within-allowance, across sub-purposes) mental accounting mechanisms relevant to CATA.
- iv. To develop a two-level conceptual model linking CATA disbursement, mental accounting, and research productivity (quantity and quality).
- v. To derive testable propositions and outline a methodology for future empirical validation, exploiting real implementation variance across institutions.

Justification and Scope

This paper is conceptual and theoretical rather than empirical. No primary data are collected. Its contribution is threefold. In line with its underlying motivation, (i) it offers one of the earliest scholarly treatments of CATA as a higher-education policy instrument in Nigeria, (ii) it extends mental accounting theory into the domain of academic labour and research funding, and (iii) it reframes the question of academic allowances from a purely compensation issue into a behavioural productivity problem. This helps to explain why the same nominal policy may fail to produce uniform research outcomes across staff, disciplines and institutions.

2. Literature Review

Background to CATA and Its Design as a Compound, Purpose-Tied Allowance

CATA emerged from the 2025 FGN-ASUU Agreement, described by the union as the first comprehensive pact between both parties since the landmark 2009 agreement. The agreement was signed on 14 January 2026 and took financial effect from 1 January 2026. It provides for three related but distinct components of academic staff remuneration namely: the general Consolidated Academic Allowance (CAA), which is a broad salary-level adjustment; the Earned Academic Allowance (EAA), a duty-based payment tied to specific responsibilities such as postgraduate supervision, external moderation, fieldwork, and industrial-training supervision, paid only when those duties are performed; and CATA itself, described by the Ministry of Education as a tax-free, standing allowance earmarked to cover journal publications, learned society, conference, internet access and books, captured and circularised by the National Salaries, Incomes and Wages Commission (NSIWC), with its cost reflected in the 2026 federal budget (TheCable 2026; Vanguard News, 2026a). Unlike EAA, CATA is not contingent on the performance of a specific duty; it is paid as a routine, recurring entitlement to eligible academic staff.

This design differs in two important respects from a purely general wage increase. First, CATA is normatively purpose-tied: government statements explicitly link it to five specific categories of research-related expenditure, namely: journal publication (including article-processing charges), conference participation, internet access, learned society membership and books - framing it as a financial instrument for professional and research-related use rather than general consumption. In this respect, CATA functions, at the point of policy design, as exactly the kind of labeled allowance that mental accounting theory would predict to be behaviourally protected, in contrast to the pre-CATA situation in which comparable purposes were funded either out of an undifferentiated consolidated salary or not at all. Second, in being paid as a separate, tax-free, statutorily distinct line rather than folded into the basic salary or the general CAA increase, CATA arguably reverses a longer-run administrative trend. Under the earlier Consolidated University Academic Salary Structure (CONUASS and CONUASS II), several previously itemised allowances, including research, journal and learned society allowances, had been merged into the undifferentiated basic salary. CATA reintroduces a labeled research-related account, at least at the macro level, even though it does not itemise its own five component purposes.

Despite this purpose-tied framing, CATA is, however, disbursed as a single, undivided sum rather than as five separately itemised or reimbursable amounts. There is, to date, no payslip-level or administrative breakdown indicating how much of CATA corresponds to each of its five stated purposes, nor any requirement that recipients account for spending against each sub-category. This distinguishes CATA from a fully itemised or reimbursement-linked allowance structure, and it is this specific design feature of consolidation across sub-purposes, rather than consolidation into general salary that motivates the theoretical argument developed in this paper.

Implementation Status and Institutional Variance

As of mid-2026, the implementation of CATA has been markedly uneven, and this variance is directly relevant to the arguments developed in this paper. Federal universities began receiving CATA payments from January 2026, but arrears accumulated over the first several months; in June 2026, the Minister of Education directed the release of funds to clear five months of outstanding CATA payments owed to eligible academic staff, with universities that had advanced payment from internally generated revenue instructed to seek reimbursement from the federal allocation (Vanguard News, 2026a). By contrast, ASUU branches in several states including Ondo, Cross River (notably the University of Cross River State), and Kebbi reported, as at June and July 2026, that CATA, EAA, and the Professorial Allowance had not yet been implemented by their state governments, six months or more after the agreement's effective date, prompting strike threats and, in some cases, ongoing industrial action (Vanguard News, 2026b; Channels Television, 2026b). ASUU's National Executive Council also faulted the Federal Government in May 2026 for delays in constituting the Implementation Monitoring Committee envisaged under the agreement, describing the resulting rollout as “selective and distorted” (Channels Television, 2026a).

This uneven rollout means that, at any given point in 2026, Nigerian academics have been distributed across at least three CATA-relevant conditions: (i) receiving CATA regularly, (ii) receiving CATA irregularly or as delayed lump-sum arrears, and (iii) not yet receiving CATA at all despite formal entitlement. This real-world variance offers a natural point of comparison for empirical work on the allowance-productivity relationship, and is itself theoretically significant: mental accounting theory suggests that a delayed, lump-sum arrears payment may be mentally coded differently, more like a windfall gain than the same amount received as a small, predictable, monthly sum.

Why this matters is that research in Nigerian universities typically takes place under significant resource constraints. For many academics, the costs of publishing, attending conferences, maintaining subscriptions, purchasing books, paying for data, or accessing research software are borne substantially out of pocket. This is especially true in disciplines where external grant funding is weak or highly concentrated. In this context, a dedicated allowance can matter a great deal but whether it matters enough to shift measurable research outcomes depends on several intertwined issues such as the real purchasing power of the allowance after inflation; the regularity and predictability of payment; whether staff perceive it as genuinely dedicated to research; institutional bottlenecks such as teaching load, electricity and internet reliability; disciplinary differences in research cost structures; and crucially, how recipients mentally allocate the funds once received. This paper is concerned primarily with this last issue.

Research Productivity: Quantity and Quality

Research productivity is generally understood as the measurable output of an academic's scholarly activity over a given period, assessed along two related but distinct dimensions: quantity and quality. Quantity refers to the volume of output; the number of journal articles, book chapters, conference papers, monographs and technical reports produced (Ladipo, Alegbeleye, Soyemi, & Ikonne, 2022). Quality refers to the standing of that output like placement in peer-reviewed, indexed or high-impact journals, citation performance and h-index measures (Igiri et al., 2021). The two dimensions do not always move together. An academic under pressure to meet a promotion-driven publication quota may increase quantity while placing work in lower-tier or predatory outlets, precisely the kind of quality erosion that under-resourcing for legitimate, indexed-journal publication (which typically carries article-processing charges, requires paid statistical or language-editing support and depends on continuous literature access) can produce.

Nigerian studies converge on a picture of research productivity that is, at best, average and constrained by a recurring set of institutional factors: organisational culture, environmental conditions, motivational factors, and funding (Ladipo et al., 2022). Among 540 academic staff surveyed across six federal universities, funding emerged as a significant positive predictor of research productivity even though it was, on average, the institutional factor rated least adequate (Ladipo et al., 2022). A separate, larger study of 2,350 researchers and lecturers across Nigerian universities, research institutes, and polytechnics found that a plurality of respondents identified lack of research funding as

their primary challenge, and that a large majority believed adequate funding would be the single most effective factor for improving their research performance (Igiri et al., 2021).

Theoretical Framework

Mental Accounting Theory

Mental accounting theory, developed by Richard Thaler, describes the cognitive operations individuals use to code, categorise, and evaluate financial outcomes (Thaler, 1985, 1999). Its central claim is that people violate the economic principle of fungibility (the idea that money is entirely interchangeable regardless of its source or designated use) by mentally partitioning income and wealth into separate, non-substitutable accounts. Thaler (1999) identifies three interlocking components of the theory: individuals code outcomes as gains or losses relative to a reference point rather than in terms of final wealth; both the sources and the intended uses of money are labeled, so that spending is implicitly or explicitly constrained by budget categories tied to those labels; and accounts are evaluated with varying frequency and “bracketing” – narrowly, transaction by transaction, or broadly, across a longer horizon and a wider set of purposes.

A large and consistent body of behavioural evidence supports the labeling component in particular. Money that is physically or notionally earmarked for a specific purpose is treated with more discipline and is less likely to be diverted to competing uses than the same sum received as undifferentiated income. Windfall gains are spent more freely than salary income precisely because they lack the anchoring label of routine earnings, and this distinction matters directly for CATA arrears, discussed as follows.

Level 1: Macro Labeling – CATA versus General Salary

At the macro level, CATA is, by policy design, a labeled mental account: it is a statutorily distinct, tax-free, standing allowance rather than an unmarked increment folded into basic pay. Mental accounting theory predicts that this design feature should, in principle, raise the psychological and social cost of diverting CATA to rent, school fees, transport or other household obligations, relative to the pre-CATA situation in which comparable research costs competed directly, and without any label, against every other claim on general salary. This is the sense in which CATA represents a potentially positive behavioural intervention distinct from its naira value: it reintroduces, at the macro level, the kind of earmarking that had been eroded under the CONUASS consolidation of research-related allowances into undifferentiated basic salary.

This protective effect is not, however, guaranteed to hold uniformly. Where overall household income is inadequate, or where CATA is received as delayed, lump-sum arrears rather than as a small, predictable monthly amount, academics may be more likely to mentally recode CATA as a windfall to be applied to the most pressing need of the moment, which, given the financial strain documented in Nigerian research productivity literature (Igiri et al., 2021), is often a non-research obligation. The strength of the macro-labeling effect is therefore expected to depend on payment regularity and income adequacy, treated in this paper as moderators.

Level 2: Micro Bracketing – Allocation within CATA

The second, less obvious mechanism concerns what happens after CATA has been protected as a research account. Because CATA bundles five distinct cost categories: journal/APC costs, conferences, internet, society dues and books into one undifferentiated sum, choice bracketing theory predicts that recipients will evaluate and spend it broadly rather than against five separate sub-budgets. Under broad bracketing, allocation across the five purposes is expected to be driven less by each purpose's contribution to research output and more by its salience, recurrence and immediacy. Internet access, for example, is a recurring, highly salient and relatively low-cost need that is easy to fund continuously from CATA; article-processing charges and book purchases, by contrast, are lumpy, less frequent and often larger single expenditures that are easier to defer or forgo, even though APCs in particular may matter more directly for indexed-journal publication – the specific output dimension used to assess research quality.

This micro-level mechanism implies that CATA can succeed at the macro level, genuinely protecting the allowance from household diversion while still under-delivering on research quality, specifically, if its internal allocation systematically favours the sub-purposes that support day-to-day academic functioning (internet, society dues) over the sub-purposes most directly linked to indexed publication (APCs). This distinction between macro protection and micro allocation is the paper's central theoretical contribution, and is why CATA's effect on research productivity is modelled here as conditional rather than automatic.

Payment Regularity and the Windfall-versus-Routine-Income Distinction

The uneven implementation of CATA – current, predictable payment in federal universities against delayed, lump-sum arrears or outright non-payment in several state universities provides a further point of theoretical leverage. Mental accounting theory distinguishes routine income, which is typically absorbed into ongoing budget categories, from windfall income, which is more readily spent on discretionary or one-off purchases. A five-month CATA arrears payment received as a single lump sum is, in mental accounting terms, closer to a windfall than to routine income and may therefore be spent differently – potentially on larger, one-off items (a laptop, a conference trip) rather than sustained across the year on recurring subscriptions and access fees. This suggests that payment regularity, not only payment adequacy, is a relevant determinant of how CATA translates into research spending patterns.

Complementary Theoretical Perspectives

Mental accounting is not offered here as a substitute for the institutional and motivational explanations already established in Nigerian research productivity literature, but as a complementary, individual-level behavioural mechanism operating alongside them. Institutional-support and expectancy-theory explanations (as used by Ladipo et al., 2022) account for why the environment around the academic - funding availability, mentoring, and workload shapes research output. Mental accounting theory adds an account of what

happens after money nominally intended for research inputs reaches the individual: whether it survives as protected, well-targeted research spending, or is absorbed into general consumption, or is unevenly allocated across competing research sub-purposes.

3. Methodology

The study adopts a conceptual and theoretical review design. This approach is appropriate because the study seeks to synthesize existing knowledge, examine theoretical perspectives, identify gaps in the literature and develop an integrated conceptual framework rather than generate or analyze primary empirical data. The study relies exclusively on secondary materials obtained from peer-reviewed journal articles, policy documents, institutional reports and publications from reputable organizations relevant to the subject matter.

4. The CATA-Research Productivity Model

The study presents a two-level conceptual model. At Level 1 (macro labeling), CATA disbursement is either coded as a distinct research account, and therefore protected from household diversion, or mentally merged with general income and diverted to competing needs. At Level 2 (micro bracketing), the protected “research tool budget” is allocated across CATA's five bundled sub-purposes; because these are not separately earmarked, broad bracketing is expected to produce an uneven allocation that favours recurring, salient costs over lumpy, high-output-value costs such as article-processing charges. Both levels jointly determine the extent to which CATA converts into research productivity, measured as the quantity of output and the quality of placement.

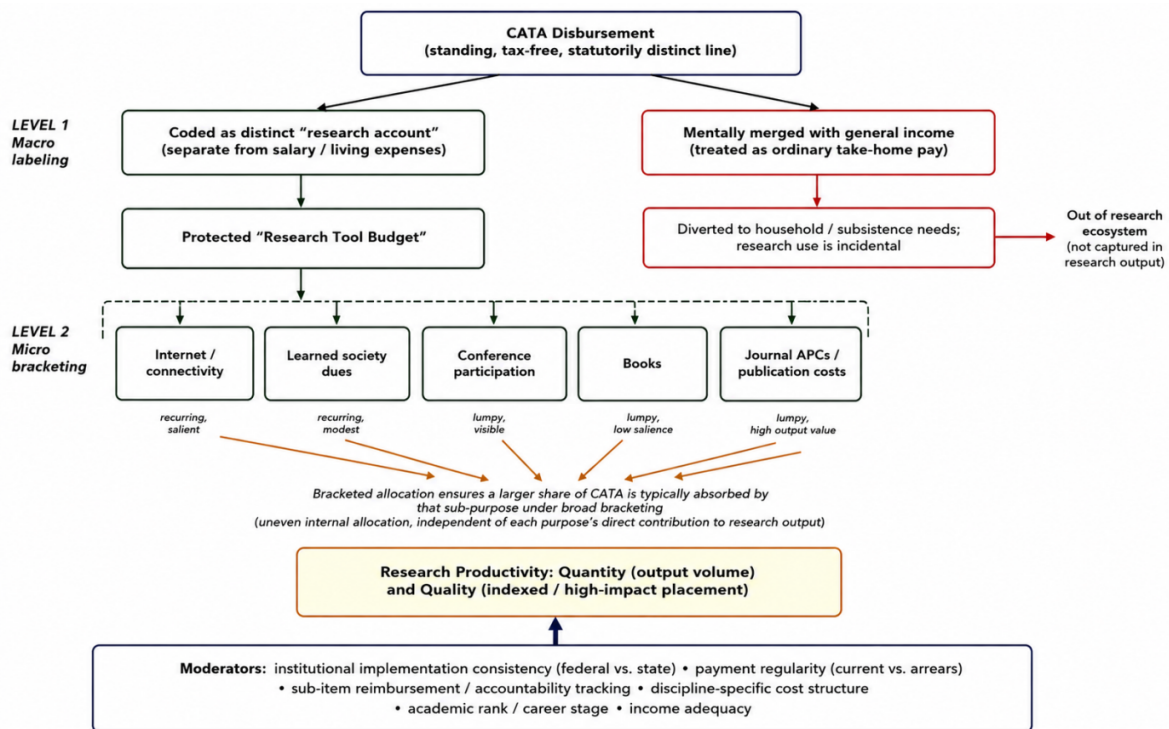


Figure 1: Conceptual Model: Two-level Mental Accounting of the Consolidated Academic Tools Allowance (CATA)

From Figure 1, the relationship is proposed to be moderated by institutional implementation consistency, payment regularity, sub-item accountability mechanisms, discipline-specific cost structures, academic rank, and income adequacy.

- i. Institutional implementation consistency (federal vs. state): as at mid-2026, federal universities have received CATA payments (with arrears since cleared) (Vanguard News, 2026a), while several state universities had not yet implemented CATA at all; this variance is expected to directly moderate any observed CATA–productivity relationship.
- ii. Payment regularity (current vs. arrears): predictable monthly disbursement is expected to reinforce the macro-labeling effect more strongly than delayed, lump-sum arrears payments, which are more likely to be mentally treated as windfall income.
- iii. Sub-item accountability/reimbursement tracking: where institutions require or encourage documentation of CATA spending against its five stated purposes, the micro-bracketing crowding-out effect is expected to be weaker.
- iv. Discipline-specific cost structure: disciplines with high APC norms and expensive data or laboratory-adjacent costs (e.g., sciences) may experience the micro-bracketing problem more acutely than disciplines where books and conference travel dominate research costs (e.g., humanities and social sciences).
- v. Academic rank/career stage: early-career academics facing publication pressure for promotion may be more sensitive to both macro labeling and micro allocation of CATA than senior academics with access to external or institutional grants.
- vi. Income adequacy: where overall household income is insufficient, the protective effect of CATA's macro-level labeling is expected to weaken, regardless of the allowance's internal design.

The conceptual model above yields the following testable propositions for future empirical validation:

Proposition 1: Academics who receive CATA will report a higher proportion of research-related expenditure funded from a distinctly labeled source than academics who funded equivalent research costs solely from general salary prior to CATA's introduction.

Proposition 2: The strength of the macro-labeling effect in Proposition 1 will be weaker where CATA is received as delayed, lump-sum arrears than where it is received as regular, predictable monthly payments.

Proposition 3: Within CATA, allocation across its five bundled sub-purposes (journals/APCs, conferences, internet, society dues, books) will be uneven, with a disproportionate share directed toward recurring, salient sub-purposes (e.g., internet access) relative to lumpy, less frequent but output-critical sub-purposes (e.g., article-processing charges).

Proposition 4: The uneven allocation described in Proposition 3 will be weaker among academics whose institutions require or encourage itemized accountability or reimbursement for CATA spending.

Proposition 5: CATA receipt will be positively associated with research output quantity, but its association with research output quality (indexed/high-impact placement) will be smaller and more conditional, reflecting the micro-bracketing crowding-out of APC-related spending.

Proposition 6: The CATA-productivity relationship will be stronger among academic staff in universities where CATA implementation has been more consistent, than among staff in some state universities where CATA remains unimplemented or delayed, independent of nominal salary differences.

Proposition 7: Perceived allowance labeling (the degree to which academics psychologically code CATA as “research money” distinct from general income) will mediate the relationship between CATA receipt and protected research spending.

Theoretical Implications

This paper extends mental accounting theory, developed primarily in consumer-finance and household-budgeting contexts, into the domain of professional remuneration and knowledge production, and introduces a within-account bracketing mechanism that has not previously been applied to academic allowance design. It also nuances the funding-adequacy narrative that dominates Nigerian research productivity scholarship: the finding that funding matters (Ladipo et al., 2022; Igiri et al., 2021) may understate the policy-relevant question of how a given allowance is labeled and internally structured, not only how much of it there is or whether it exists at all.

Policy Implications

- i. The Federal Government and state governments should prioritise full, consistent, and predictable implementation of CATA across all eligible institutions; on the argument developed here, irregular or arrears-based payment is likely to blunt CATA's intended behavioural effect even where the cumulative naira value eventually paid is unchanged.
- ii. University managements and the Implementation Monitoring Committee envisaged under the 2025 Agreement could consider a lightweight itemisation or reimbursement-linked disbursement model for CATA. For example, sub-allocating indicative shares to journals/APCs, conferences, internet, society dues, and books to counter the micro-bracketing crowding-out risk identified in this paper without requiring the heavier administrative burden of a fully receipt-based grant scheme.
- iii. Given evidence that APC and indexed-journal costs are the sub-purpose most vulnerable to crowding-out under broad bracketing, institutions or TETFund-adjacent bodies could consider a supplementary, separately labeled publication-support fund specifically for article-processing charges, distinct from the general CATA pool.

Practical Implications for Academics

Academics who wish to protect their own research output, irrespective of institutional or governmental implementation pace, may benefit from self-imposed sub-labeling strategies consistent with mental accounting theory for example, mentally or physically dividing CATA (or its equivalent from general salary, where CATA has not yet been implemented) into indicative sub-budgets for APCs, conferences, internet, society dues, and books at the point of receipt, rather than treating it as a single undifferentiated research fund to be drawn down as needs arise.

5. Suggested Methodology for Empirical Validation

As a conceptual paper, this work does not test the propositions above; it lays the theoretical groundwork for doing so. A cross-sectional survey of academics across a purposively selected sample of Nigerian federal, state and private universities can be adopted, following a design broadly similar to that used by Ladipo et al. (2022) and Igiri et al. (2021). The real, currently observable variance in CATA implementation - federal universities with regular payment, state universities with delayed or absent payment and institutions with recent lump-sum arrears settlement offers a valuable natural comparison that should be built directly into the sampling design rather than treated only as a control variable. Table 1 shows the operationalization of key constructs.

Table 1 Measurement of Constructs

Construct	Suggested Measurement Approach
CATA receipt and regularity	Categorical: not yet receiving CATA / receiving as delayed arrears / receiving as regular monthly payment; institution type (federal/state/private).
Perceived macro labeling	Multi-item Likert scale: degree to which respondent mentally treats CATA as separate from general salary.
Within-allowance (micro) allocation	Self-reported percentage breakdown of CATA spending across the five stated sub-purposes over the last 12 months.
Institutional accountability	Categorical/ordinal: whether institution requires or encourages itemised reporting or reimbursement for CATA spending.
Research productivity – quantity	Count of publications, conference papers, and technical reports over a 3-year window (as in Ladipo et al., 2022).
Research productivity – quality	Indexed/non-indexed placement, journal quartile or impact tier, citation count, h-index.
Moderators	Income adequacy scale; academic rank; discipline; institution type and CATA implementation status.

Source: Authors' compilation (2026)

Structural equation modeling (SEM) would be appropriate for testing the mediating role of perceived labeling (Proposition 7) and the moderated relationships in Propositions 2, 4, and 6, consistent with the SEM approach developed in Onoja and Onoja's (2026) MAAHS framework. Hierarchical regression, controlling for total remuneration, institution type and the institutional factors identified by Ladipo et al. (2022), would be sufficient for testing the direct effects in Propositions 1, 3, and 5. Given the live and evolving nature of CATA implementation, a follow-up wave 12-18 months after initial data collection would allow the federal/state implementation gap to narrow or persist, strengthening causal inference beyond what a single cross-section can support.

5. Conclusion

The Consolidated Academic Tools Allowance represents a genuinely new and still-unfolding attempt by the Nigerian government to link academic remuneration directly to research inputs. This paper has argued that CATA's eventual effect on research productivity cannot be assumed from its existence or its naira value alone, but depends on two distinct behavioural mechanisms: whether academics mentally protect CATA as a labeled research account rather than treating it as an ordinary salary and how they internally allocate CATA across its five bundled sub-purposes in the absence of any itemised earmarking. Mental accounting theory provides a coherent account of both mechanisms, and situates CATA's likely quantity and quality effects as conditional on payment regularity, institutional accountability, discipline and the currently uneven pace of implementation across federal and state universities. The conceptual model and propositions developed here are offered as a foundation for empirical testing; if supported, they would suggest that the government's and universities' attention should extend beyond simply paying CATA in full, to how predictably it is paid and how its five underlying purposes are tracked and supported with a lightweight itemization mechanism, or a dedicated publication-support supplement, potentially offering a low-cost, high-leverage improvement in both the quantity and the quality of research output among Nigerian university academics.

References

1. Channels Television. (2026a, May 25). ASUU threatens fresh strike over delayed 2025 agreement implementation.
<https://www.channelstv.com/2026/05/25/asuu-threatens-fresh-strike-over-delayed-2025-agreement-implementation/>
2. Channels Television. (2026b, July 2). ASUU threatens strike over Ondo govt's delay in implementing 2025 agreement.
<https://www.channelstv.com/2026/07/02/asuu-threatens-strike-over-ondo-govts-delay-in-implementing-2025-agreement/>
3. Federal Government of Nigeria & Academic Staff Union of Universities. (2026). FGN-ASUU 2025 Agreement (signed 14 January 2026).
4. Igiri, B. E., Okoduwa, S. I. R., Akabuogu, E. P., Okoduwa, U. J., Enang, I. A., Idowu, O. O., Abdullahi, S., Onukak, I. E., Onuruka, C. C., Christopher, O. P. O., Salawu, A. O., Chris, A. O., & Onyemachi, D. I. (2021). Focused research on the challenges and productivity of researchers in Nigerian academic institutions without funding. *Frontiers in Research Metrics and Analytics*, 6, 727228.

5. Ladipo, S. O., Alegbeleye, G. O., Soyemi, O. D., & Ikonne, C. N. (2022). Research productivity of lecturers in federal universities in Nigeria: The place of institutional factors. *International Journal of Research in Library Science*, 8(2), 134–150.
6. National Universities Commission. (2026). FG releases five-month CATA arrears for university lecturers. <https://www.nuc.edu.ng/fg-releases-five-month-cata-arrears-for-university-lecturers/>
7. Onoja, A. I. & Onoja, E. A. (2026). Towards a Mental Accounting Architecture of Household Savings (MAAHS): Conceptualizing savings behaviour among low-income urban households. *International Journal of Research and Innovation in Social Science*, 10 (6), 18455 - 18474
<https://doi.org/10.47772/IJRISS.2026.100601267>
8. Thaler, R. H. (1985). Mental accounting and consumer choice. *Marketing Science*, 4(3), 199–214.
9. Thaler, R. H. (1999). Mental accounting matters. *Journal of Behavioral Decision Making*, 12(3), 183–206.
10. The Cable. (2026, June 5). FG releases funds for five months academic tools allowance owed to university lecturers.
<https://www.thecable.ng/fg-releases-funds-for-five-months-academic-tools-allowance-owed-university-lecturers/>
11. Vanguard News. (2026a, February 10). FG begins implementation of renegotiated ASUU agreement with 40% allowance increase for lecturers.
<https://www.vanguardngr.com/2026/02/fg-begins-implementation-of-renegotiated-asuu-agreement-with-40-allowance-increase-for-lecturers/>
12. Vanguard News. (2026b, July). Unpaid allowances: ASUU threatens indefinite strike in state universities across Calabar.
<https://www.vanguardngr.com/2026/07/unpaid-allowances-asuu-threatens-indefinite-strike-in-state-universities-across-calabar/>

APPENDIX

ARCHETYPAL MACATAR-P SURVEY INSTRUMENT

Mental Accounting, the Consolidated Academic Tools Allowance (CATA) and Research Productivity among University Academics in Nigeria

Model Instrument developed for “Mental Accounting and Research Productivity: Does the Consolidated Academic Tools Allowance Improve the Quantity and Quality of Research Output among University Academics in Nigeria?”

Introduction and Consent

You are invited to take part in a study examining how the Consolidated Academic Tools Allowance (CATA) is received, managed, and used by university academic staff in Nigeria, and how this relates to research output. The questionnaire takes approximately 12–15 minutes to complete. Participation is voluntary, your responses will be treated as confidential, and no individually identifiable data will be reported. You may skip any question you prefer not to answer and may withdraw at any point before submission. Completing and submitting this questionnaire is taken as your consent to participate.

This instrument is intended for empirical validation after 12-18 months of CATA implementation. Where CATA has not yet been implemented at your institution, please answer Sections A and B only, then proceed to Section H, as instructed.

SECTION A — Respondent and Institutional Profile

Please tick (✓) or fill in as appropriate.

A1. Institution type:

- ☐ Federal university
- ☐ State university
- ☐ Private university

A2. Academic rank:

- ☐ Graduate Assistant / Assistant Lecturer
- ☐ Lecturer II / Lecturer I
- ☐ Senior Lecturer
- ☐ Reader / Associate Professor
- ☐ Professor

A3. Discipline / field (e.g., Accounting, Physics, English, Medicine):

A4. Broad disciplinary cluster:

- ☐ Sciences, Engineering, Technology, or Medicine (high APC / lab / data cost norms)
- ☐ Social Sciences and Management
- ☐ Humanities, Arts, and Education

A5. Years of academic experience:

- ☐ Less than 5 years
- ☐ 5–10 years
- ☐ 11–20 years
- ☐ More than 20 years

A6. Highest qualification:

- ☐ Master's degree
- ☐ PhD
- ☐ Postdoctoral / other advanced qualification

A7. Gender:

- ☐ Male
- ☐ Female
- ☐ Prefer not to say

SECTION B — *CATA Receipt and Payment Regularity (Propositions 1, 2, 6)*

B1. Does your institution currently pay the Consolidated Academic Tools Allowance (CATA)?

- ☐ Yes, I have received at least one CATA payment
 - ☐ No, CATA has been approved but not yet paid at my institution
- ☐ Not sure / not applicable

If you answered “No” or “Not sure” to B1, please skip to Section H.

B2. In the last 12 months, how many months' worth of CATA have you actually received (including any arrears paid in a lump sum)?

Number of months: _____

B3. How would you best describe your most recent CATA payment?

- ☐ Regular, predictable monthly payment
 - ☐ Delayed, lump-sum settlement of arrears covering several months
- ☐ A mix of both

B4. On average, how many months' delay typically occurs between when a CATA payment is due and when it is actually paid?

Approximate months of delay: _____

B5. Approximately what proportion of your total monthly take-home pay (salary plus all allowances) does CATA represent?

- ☐ Less than 5%
- ☐ 5–10%
- ☐ 11–20%
- ☐ More than 20%
- ☐ Not sure

SECTION C — *Macro-Level Mental Accounting: Is CATA Treated as a Distinct “Research Account”? (Propositions 1, 2, 7)*

Please indicate how much you agree or disagree with each statement about how you personally think about and treat your CATA.

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
ML1. I think of my CATA payment as different from my regular salary.	☐	☐	☐	☐	☐
ML2. I have a mental “research budget” that is separate from my household budget.	☐	☐	☐	☐	☐
ML3. When CATA is paid, I try to spend it specifically on research-related things before spending it on anything else.	☐	☐	☐	☐	☐
ML4. I would feel uncomfortable using my CATA money to pay for non-research household expenses.	☐	☐	☐	☐	☐
ML5. I keep track of how much of my CATA I have spent on research activities versus other things.	☐	☐	☐	☐	☐
ML6. Once CATA is paid into my account, it becomes indistinguishable from my regular salary. (reverse-scored)	☐	☐	☐	☐	☐
ML7. I set aside CATA funds in a separate account, envelope, or budget line specifically for research use.	☐	☐	☐	☐	☐
ML8. If I am short of money for a non-research need, I would consider using my CATA to cover it. (reverse-scored)	☐	☐	☐	☐	☐

SECTION D — *Micro-Level Allocation: How CATA is Divided Across Research Purposes (Proposition 3, 4)*

Thinking about how you have used your CATA over the last 12 months, please estimate what percentage went to each of the following categories. Your entries should add up to approximately 100%.

Category	Approximate % of CATA spent here
Journal article-processing charges (APCs) / publication costs	_____ %
Conference registration, participation, and related travel	_____ %

Category	Approximate % of CATA spent here
Internet access / data / connectivity	_____ %
Learned society membership dues	_____ %
Books and reference materials	_____ %
Other research-related use (please specify below)	_____ %
Non-research household or personal use	_____ %
Total	100 %

If “Other,” please specify: _____

Please indicate how much you agree or disagree with each of the following statements.

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
MB1. I plan in advance how I will divide my CATA across different research needs (journals, conferences, internet, society dues, books).	☐	☐	☐	☐	☐
MB2. I tend to spend CATA on whichever research need comes up first, rather than following a plan.	☐	☐	☐	☐	☐
MB3. I sometimes have too little of my CATA left for article-processing charges or journal costs because it has already gone to other things.	☐	☐	☐	☐	☐
MB4. I find it easy to save part of my CATA for a large, infrequent cost like an article-processing charge or conference registration.	☐	☐	☐	☐	☐

SECTION E — Institutional Accountability and Monitoring (Proposition 4)

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
IA1. My institution requires me to report or account for how I spend my CATA.	☐	☐	☐	☐	☐

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
IA2. My institution requires receipts or other evidence of research-related expenditure from CATA.	☐	☐	☐	☐	☐
IA3. My department or faculty monitors how research-related allowances are used.	☐	☐	☐	☐	☐

SECTION F — *Income Adequacy and Financial Strain (Proposition 2 moderator)*

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
IN1. My overall monthly income (salary and allowances combined) is sufficient to meet my household's basic needs.	☐	☐	☐	☐	☐
IN2. I regularly have to use money meant for one purpose to cover a different, more urgent financial need.	☐	☐	☐	☐	☐
IN3. Financial strain often affects my day-to-day spending decisions.	☐	☐	☐	☐	☐

SECTION G — *Perceived Autonomy over CATA Use (Moderator)*

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
AU1. I feel free to decide how to spend my CATA without pressure from my institution or colleagues.	☐	☐	☐	☐	☐
AU2. I feel a clear institutional or professional expectation that CATA should be spent strictly on research activities.	☐	☐	☐	☐	☐

SECTION H — *Research Productivity – Quantity (Outcome variable; all respondents)*

Please indicate the number of each type of output you have produced in the last 3 years (2023–2026).

Type of output	Number (last 3 years)
Journal articles (indexed – Scopus, Web of Science, or similarly recognised)	_____
Journal articles (non-indexed / local journals)	_____
Conference papers / proceedings	_____
Book chapters	_____
Books / monographs (authored or edited)	_____
Technical reports / working papers	_____
Research grants secured (institutional or external)	_____

SECTION I — Research Productivity – Quality (Outcome variable; all respondents)

I1. Of your indexed journal articles in the last 3 years, approximately how many were published in each quartile (where known)?

Quartile	Number of articles
Q1	_____
Q2	_____
Q3	_____
Q4	_____
Not sure / quartile not tracked	_____

I2. Approximately what is your total citation count across all databases you are aware of (e.g., Google Scholar, Scopus)?

Approximate citation count: _____

I3. What is your approximate h-index, if known?

h-index: _____

I4. In the last 3 years, how many times have you published in a journal you later learned, or suspected, was predatory or of questionable quality?

Number of times: _____

SECTION J — Open-Ended Reflection (Optional)

J1. In your own words, how has CATA (or its absence) affected the way you fund and carry out your research over the past year? Please feel free to mention any specific research costs that are easy or difficult to cover.

Thank you for completing this questionnaire. Your responses will contribute to a better understanding of how research support allowances translate into scholarly output in Nigerian universities.

Appendix: Construct and Proposition Mapping

The table below maps each section and item set of the questionnaire to the construct and proposition it is designed to operationalise, for use in the methods section and in reliability/validity reporting.

Section	Construct	Linked Proposition(s)
B	CATA receipt, regularity, and share of income	P1, P2, P6
C (ML1–ML8)	Macro-level mental accounting / labeling of CATA	P1, P2, P7
D (allocation table + MB1–MB4)	Micro-level bracketing / within-allowance allocation	P3, P4
E (IA1–IA3)	Institutional accountability / reimbursement monitoring	P4
F (IN1–IN3)	Income adequacy / financial strain (moderator)	P2 (moderator)
G (AU1–AU2)	Perceived autonomy over allowance use (moderator)	Moderator
A4	Discipline-specific cost structure (moderator)	Moderator
A1	Institutional implementation consistency (federal vs. state)	P6
H	Research productivity – quantity	P5
I	Research productivity – quality	P5

Note on scoring: Items ML6, ML8, and MB2 are worded in the reverse direction and should be reverse-scored before computing scale means. The macro-labeling scale (ML1–ML8) and the micro-bracketing indicator items (MB1, MB3, MB4, with MB2 reverse-scored) are intended as multi-item Likert scales; a confirmatory factor analysis or reliability check (Cronbach's alpha) is recommended before use in the structural model described in the parent paper's suggested methodology section, given that these items are newly developed for this study rather than adapted from a previously validated scale.



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