

GARP INTERNATIONAL JOURNAL OF BUSINESS AND MANAGEMENT SCIENCES



<https://garp.org.ng/gjibms>

Vol.1, Issue 3, Pp. 47-59; AUG., 2026

HUMAN RESOURCE ACCOUNTING: A CRITICAL THEORETICAL REVIEW OF ORGAN MODEL AND ITS RELEVANCE TO ORGANIZATIONS IN NIGERIA

**¹AGABIELESIN, Rasidat Aderonke; ²JOSIAH, Mary PhD.
& ³BOSUN-FAKUNLE, Yemisi PhD.**

Department of Accounting, College of Business and Management Studies,
Igbinedion University, Okada, Edo State Nigeria.

Email: rasidat.agabielesin@iuokada.edu.ng; Josiah.mary@iuokada.edu.ng, & bosunfakunle.yemisi@iuokada.edu.ng

Corresponding Author: rasidat.agabielesin@iuokada.edu.ng

Abstract

This paper undertakes a critical theoretical review of the Organ Model, one of several valuation models proposed by human resource accounting (HRA) scholars for measuring the economic worth of human capital. Human resource is increasingly regarded as the most valuable asset available to a modern organisation, since capital and physical assets cannot by themselves generate value without the skill, effort and judgement of the people who deploy them. Yet conventional financial accounting continues to treat expenditure on employees as a period cost rather than as an investment in an appreciable, income-generating asset. Several models including those of Flamholtz, Likert, Lev and Schwartz, Morse and Organ have been advanced to correct this omission, but a review of the extant literature shows that both the conceptual and applied dimensions of these models, particularly the Organ Model, remain thinly researched. Developed by Pekin Organ in 1976, the Organ Model conceives of the organisation as an interconnected organism and values human assets according to their contribution to the different functions of the business. Using a library-based, content-review methodology, this paper examines the model's theoretical foundations, valuation logic, strengths and weaknesses, and considers the suggestions necessary for refining and extending its usefulness, with particular reference to the Nigerian organisational environment. The review finds that the subjective determination of an employee's "certainty factor" and net benefit to the organisation remains the model's central weakness, limiting it to a largely theoretical rather than practical tool. The paper concludes that the Organ Model, in common with other HRA valuation approaches, remains at a developmental stage particularly in developing economies such as Nigeria and that further research, together with a universally acceptable valuation and disclosure standard, is required before human resource can be reliably reported as an accounting asset.

Keywords: Human Resource Accounting; Organ Model; human capital valuation; measurement theory; Nigeria

ARTICLE INFO

Received Date: 30th Jul., 2026

Date Revised Received: 10th Aug., 2026

Accepted Date: 24th Aug., 2026

Published Date: 31th Aug. 2026

Citation: Agabielesin, R. A., Josiah, M. & Bosun-Fakunle, Y. (2026): Human Resource Accounting: A Critical Theoretical Review of Organ Model and its Relevance to organizations in Nigeria: GARP INTER J. of Bus. & Mgt. Sci. Vol. 1, Issue 3, Pp. 47-59, Aug. 2026.

Introduction

Human Resource Accounting (HRA) has gained increasing traction as organisations acknowledge that people, rather than capital or machinery alone, are the decisive economic asset of the modern enterprise. Employee knowledge, skill, experience, creativity and capability are now widely accepted as central to organisational performance and value creation (Flamholtz et al., 2002; Bontis & Fitz-enz, 2002). Traditional accounting, however, continues to treat salaries, recruitment and training expenditure as costs to be expensed in the period incurred rather than as investments capable of generating future economic benefit. The theoretical impetus for challenging this position derives from human capital theory: Schultz (1961) and Becker (1964) demonstrated that expenditure on education, training and skill development constitutes an investment that yields future economic returns in the same manner as investment in physical capital. This insight prompted accounting scholars from the 1960s onward among them Hermanson (1964), Likert (1967), Brummet et al. (1968), Lev and Schwartz (1971) and Flamholtz (1971) to develop methods for identifying, measuring and reporting human resources within the accounting framework.

The resource-based view of the firm (Barney, 1991) reinforces the case for HRA by showing that resources which are valuable, rare and difficult to imitate qualities that specialised human knowledge, expertise and organisational capability typically possess are a principal source of sustainable competitive advantage. Yet human resources present distinctive accounting difficulties: employees cannot be owned in the manner of physical assets, their productivity fluctuates, their future contribution is uncertain, and they are free to leave the organisation. These characteristics create conceptual, measurement and ethical obstacles to recognising human resources as accounting assets (Flamholtz et al., 2002), which is why HRA has developed principally as a means of generating insight into human-resource investment, cost and potential contribution rather than as a definitive mechanism for placing a monetary value on employees.

Several valuation approaches have emerged in response to this challenge, broadly classified as cost-based (historical cost, replacement cost, opportunity cost and standard cost methods) and value-based approaches (including the Lev and Schwartz present-value-of-earnings model, the Flamholtz stochastic rewards model, the Morse net-benefit model and the Organ Model). Among these, the Organ Model developed by Pekin Ogan in 1976 occupies a distinctive position because it conceives of the

organisation as a living organism whose value derives from the interconnected contribution of its human parts, rather than from the discounted future earnings of individual employees considered in isolation. Because human resources possess characteristics that set them apart from conventional physical assets mobility, variable productivity, motivation and uncertainty of future contribution a thorough theoretical review of the model is necessary to establish whether its assumptions, measurement implications, strengths and limitations remain defensible and relevant to contemporary organisations.

This question is especially pertinent to Nigerian organisations. Sectors such as banking, telecommunications, manufacturing, oil and gas, and professional services depend heavily on the knowledge and managerial competence of their employees, and HRA could, in principle, improve the way such organisations understand their investment in recruitment, training, and retention while enhancing stakeholders' insight into the human capabilities underlying performance. In practice, however, HRA implementation in Nigeria continues to be constrained by the absence of universally accepted measurement standards, the difficulty of assigning reliable monetary values to employees, weak human-capital information systems, employee mobility, and the limited integration of human-capital data into financial reporting. These constraints underline the continuing need for theoretical inquiry into HRA models including the Organ Model and their relevance to the Nigerian context. In sum, HRA signals a conceptual shift from viewing employees as a cost to recognising those as a potential source of economic value; but questions of measurement reliability, objectivity and practical applicability remain substantially unresolved, and it is to these questions, as they bear upon the Organ Model, that this paper is addressed.

Statement of the Problem

The growing recognition that knowledge, skill, experience and competence create organisational value exposes a persistent shortcoming of conventional financial accounting: human capital is largely absent from the financial statements even though its contribution to performance is widely acknowledged (Awodiji et al., 2026; Obakpolor, 2025). This creates an information gap, since conventional statements do not fully capture the resources that generate organisational value, a gap compounded by the practical difficulty of measuring human capital given employee turnover, uncertainty about future contribution, and the absence of a universally

accepted valuation method (Obakpolor, 2025). The Organ Model brings these theoretical and measurement questions into sharp focus. The central challenge of HRA is not simply whether employees are valuable but whether that value can be identified, measured and communicated in a manner that is reliable, valid, comparable and useful for organisational decision-making; ongoing research continues to identify subjectivity, measurement difficulty and the absence of standardisation as the principal obstacles to this task (Obakpolor, 2025).

Objectives of the Study

The main objective of this study is to critically review the Organ Model of Human Resource Accounting and to assess its theoretical foundations, measurement logic, relevance and limitations. The specific objectives are to:

1. explain the measurement and valuation logic of the Organ Model;
2. critically evaluate its strengths and limitations; and
3. assess its relevance to contemporary organisations, with particular reference to Nigeria.

Research Questions

The study addresses three questions:

1. How does the Organ Model measure and value human resources?
2. What are the strengths and limitations of the Organ Model?
3. To what extent is the Organ Model relevant to Nigerian organisations?

Methodology

This study adopts a qualitative, library-based research design appropriate to a theoretical and doctrinal review. Rather than collecting primary data or testing hypotheses statistically, the paper proceeds by content review of the extant scholarly literature on Human Resource Accounting in general and the Organ Model in particular. Sources were drawn from peer-reviewed journal articles, foundational HRA texts, and recent Nigerian empirical studies (predominantly 2015–2026), located through established academic databases and journal repositories, and supplemented by seminal works on human capital theory, the resource-based view, measurement theory and agency/stakeholder theory that inform the study's analytical framework. Materials were selected on the basis of their direct relevance to human-resource valuation models, their theoretical treatment of measurement validity and reliability, and their empirical engagement whether direct or indirect with human-resource expenditure, disclosure or performance in the Nigerian

organisational context. The literature was analysed thematically: first, to establish the conceptual meaning and scope of HRA; second, to identify the theoretical perspectives most relevant to evaluating a valuation model of the Organ type; third, to synthesise empirical findings bearing on the cost-versus-value distinction central to the model; and finally, to extract a critical assessment of the model's strengths, weaknesses and continuing relevance. This approach is consistent with established practice in theoretical accounting review papers, where the objective is critical synthesis rather than primary measurement, and it is particularly appropriate given the acknowledged scarcity of Nigerian studies that engage directly with the Organ Model's assumptions.

Literature Review

Conceptual Review: The Meaning and Scope of Human Resource Accounting

Human Resource Accounting has attracted growing scholarly interest as a technique for measuring the economic value of an organisation's human capital and its contribution to overall performance. The American Accounting Association (1973) defines HRA as the process of measuring data on human resources and communicating that information to interested parties recognising and quantifying human resources for the purpose of assisting effective management. Friedman and Lev (1974) and Lau and Lau (1978) similarly view HRA as a means of systematically measuring both the asset value of labour and the value created through personnel activities, thereby incorporating the economic benefit attributable to human resources alongside their cost. Newman (1999) emphasises the ability of employees at every level to produce value from their knowledge, a definition especially suited to the modern service economy, while Gyorgy (2016) treats HRA as a management information system that tracks changes in the value of human resources over time, including investment and replacement costs, in order to support hiring and retention decisions. Flamholtz's widely cited formulation treats HRA as accounting for people as an organisational resource, encompassing both the recruitment, training and development costs incurred and the economic value that people contribute since, without human effort, capital and material resources cannot be effectively deployed toward organisational goals. Rahaman et al. (2013) likewise regard HRA as the recognition, for valuation and reporting purposes, of expenditure on human resources.

Although these definitions differ in emphasis, they converge on a common core: HRA is the system through which information on the acquisition, development, maintenance and utilisation of human

assets is generated, valued and made available to stakeholders, enabling a more realistic assessment of the firm to be presented to investors, financiers, creditors, government and the wider public. Notwithstanding this convergence, considerable disagreement persists among scholars regarding the valuation of human resources and their recognition in the financial statements, which has stimulated the development of numerous competing models. These are broadly classified as monetary and non-monetary approaches, with the monetary approaches further divided into cost-based methods (historical cost, replacement cost, opportunity cost, standard cost and current-cost purchasing-power methods) and value-based models (including the Lev and Schwartz present-value-of-future-earnings model, the Flamholtz reward-valuation model, and the Morse net-benefit approach). Cost-based models are designed principally to capture the expenditure associated with recruiting, training, developing and replacing employees, whereas value-based models seek to determine the present value of human resources to the organisation; most organisations are oriented toward value-based measurement because it offers a clearer analysis of the costs and benefits associated with individual and group employees.

Each family of models nonetheless carries significant weaknesses. Cost-based approaches typically disregard an employee's unique skill, capability and potential to create long-term value, and overlook intangible factors such as motivation and engagement; more generally, HRA valuation is constrained by the limited availability of relevant market data, a tendency to overlook long-term value creation, and the difficulty of relating human-capital investment precisely to financial outcomes. It is within this context that the Organ Model is best understood. The model conceives of the organisation as a living organism composed of interconnected parts working toward common goals, and values human resources not solely by individual performance but by the effectiveness with which employees contribute to the functioning of the whole. Its key components are the roles and responsibilities of employees, their skills and capabilities, and the organisational structure that facilitates their work. The model treats human resources as analogous to physical assets, whose acquisition, development and maintenance costs should be capitalised and amortised over an assumed productive life, in the same manner as depreciable physical assets (Monday, 2017) an approach intended to provide a more accurate representation of the firm's true worth by acknowledging the significant role human capital plays in organisational success.

In practice, the Organ Model requires an organisation to assess the impact of employees on the various functions of the business how effectively individuals perform their roles, collaborate with colleagues, and apply their skills toward organisational objectives and to translate that contribution into a monetary value, thereby offering managers a more informed basis for decisions on hiring, training and retention (Uysal, 2016). By emphasising the interconnectedness of employees within the organisational structure, the model is presented as a tool for identifying strengths and weaknesses in human-resource allocation, for rewarding employees according to their contribution to overall performance, and for aligning human-resource practice with wider business objectives.

Theoretical Framework

HRA is an inherently interdisciplinary field, drawing on economics, accounting, strategic management and organisational theory, and resting on the proposition that employees possess knowledge, skill, experience and capability capable of generating future economic benefit. Early HRA scholarship concentrated on developing measurement and reporting models, while later research turned to questions of measurement validity, reliability and managerial usefulness (Flamholtz, 1974; Mirvis & Macy, 1976). Four theoretical perspectives are particularly relevant to a critical evaluation of the Organ Model: Human Capital Theory, the Resource-Based View, Measurement Theory, and Agency/Stakeholder Theory.

Human Capital Theory, associated with Schultz (1961) and Becker (1964), conceptualises education, training and productive capability as forms of investment that generate future economic return, thereby supplying the economic justification for treating employee-related expenditure as more than a current-period cost. The theory is directly relevant to the Organ Model, whose valuation logic seeks to move beyond historical cost toward the economic benefits generated by human resources over time. Its principal limitation is that it does not resolve the accounting questions of control, ownership, separability and measurement reliability that arise because an employee's knowledge belongs to the individual and can move between organisations. Human Capital Theory thus supplies the rationale for believing that human resources possess future economic value, without itself furnishing a precise valuation mechanism.

The *Resource-Based View* (RBV), associated with Barney (1991), explains competitive advantage in terms of internal resources that are valuable, rare, and difficult to imitate or substitute characteristics that human knowledge, expertise and organisational capability commonly possess (Lepak & Snell, 1999).

RBV is relevant to HRA because it redirects attention from employee cost to employee-generated value, an emphasis consistent with the Organ Model's concern with net benefit rather than historical expenditure. However, RBV does not itself provide a precise valuation methodology, nor does it resolve the difficulty of establishing objectively whether particular human resources are genuinely rare or inimitable; it therefore lends strategic, rather than measurement, support to the model.

Measurement Theory is arguably the most consequential of the four perspectives for a critical evaluation of the Organ Model, since the central problem of HRA is not whether employees are valuable but whether that value can be measured reliably and validly. Flamholtz (1976) and Mirvis and Macy (1976) emphasised validity, reliability and usefulness as the criteria against which HRA models should be judged, and these criteria validity, reliability, objectivity, verifiability, comparability and usefulness provide a systematic basis for assessing the Organ Model rather than merely describing it. Applying these criteria exposes the model's principal weakness: because future human-resource benefits are uncertain and difficult to isolate from other organisational resources, even a theoretically defensible model may remain practically subjective. Measurement Theory therefore supplies the strongest analytical framework for judging whether the Organ Model is reliable and useful as an accounting measurement system, and not merely conceptually appealing.

Agency Theory (Jensen & Meckling, 1976) is relevant because human resources represent a significant source of organisational value about which conventional financial statements provide little information, creating an information asymmetry between managers and external stakeholders that HRA could, in principle, help to close. At the same time, agency theory highlights the risk that managers may select valuation assumptions that portray performance favourably, underscoring the need for objectivity and transparency in any HRA model. *Stakeholder Theory* similarly supports the case for human-resource information on the grounds that employees are an important stakeholder group and a source of organisational capability, but it does not necessarily justify reducing that information to a single monetary estimate, since stakeholders may require qualitative as well as quantitative human-capital information.

For the purposes of this review, Human Capital Theory and Measurement Theory are regarded as the principal theoretical foundations of the analysis, with RBV providing strategic support and

Agency/Stakeholder theory contributing a reporting and accountability perspective. Human Capital Theory explains why human resources possess economic value; Measurement Theory supplies the criteria for asking whether that value can be measured with sufficient reliability and validity to satisfy accounting purposes. This distinction is central to the critique developed later in the paper: the existence of human-resource value does not, by itself, establish that the value can be measured objectively, and HRA literature has long identified measurement validity, subjectivity and the absence of standardised methods as continuing and unresolved problems.

Comparative Positioning of the Organ Model within HRA Valuation Approaches

The distinctive character of the Organ Model is best appreciated by comparison with the other principal value-based HRA models. The Lev and Schwartz (1971) model values an employee at the present value of the wages the organisation expects to pay over the individual's remaining service life, discounted at an appropriate rate; its chief merit is analytical tractability, but it has been widely criticised for equating an employee's value with expected future remuneration rather than with the economic benefit generated for the organisation, and for its heavy dependence on assumptions about tenure, promotion and discount rates (Akintoye et al., 2015, 2018). Flamholtz's (1971) stochastic rewards model instead treats an employee's value as a function of the probability of occupying various organisational roles ("service states") over time and the value of the services associated with each state; this is conceptually richer than the Lev and Schwartz approach but correspondingly more demanding of data on role-transition probabilities that most organisations do not systematically collect. Morse's net-benefit model, in turn, values human resources as the present value of the net benefit an employee is expected to generate that is, the value of services rendered net of the compensation and associated costs paid to secure them and it is this net-benefit logic that Emovon and Ogbonmwan (2023) identify as the direct conceptual ancestor of the Organ Model.

Organ's Model extends the net-benefit logic of Morse by embedding it within an explicitly organismic conception of the firm: rather than valuing employees as discrete, separable units, the model treats the organisation as a system of interconnected functions to which employees contribute jointly, and it introduces the "certainty factor" as an explicit adjustment for the probability that the employee's contribution and therefore the associated net benefit will actually be realised. In principle, this represents an advance over

both the Lev and Schwartz and the Flamholtz approaches, since it attempts to capture organisational interdependence and to discount explicitly for uncertainty rather than relying solely on a market-based discount rate. In practice, however, the model's failure to specify precisely how the certainty factor and the net benefit are to be estimated leaves it less operationally defined than either of its predecessors, notwithstanding its greater conceptual ambition. This tension between the model's theoretical sophistication and its practical indeterminacy is the central thread running through the remainder of this review.

Empirical Review

A substantial body of Nigerian empirical literature has examined the relationship between human-resource-related expenditure or disclosure and firm performance, generally using proxies such as staff cost, training and development expenditure, remuneration, or disclosure indices rather than a direct valuation of human resources under a named HRA model. Table 1 summarises the principal studies reviewed.

Table 1: Summary of selected empirical studies on Human Resource Accounting in Nigeria

Author(s) & Year	Focus / Variables	Key Finding	Gap Relative to the Organ Model
Korolo (2025)	HRA and financial performance, listed insurance firms, 2020–2024	Flamholtz-based HR recognition affected gearing, EPS and ROA	Uses expenditure proxies; historical cost may not reflect future employee value; Organ Model not examined
Okeke & Monday (2025)	Staff acquisition/development cost and EPS, ROI, DPS, industrial firms, 2015–2024	Positive association between HR investment and investor-relevant indicators	Costs, not value, measured; possible reverse causality; theoretical valuation issues unaddressed
Moses et al. (2025)	AI and HRA practice in Nigeria	AI seen to improve HR data collection and reporting	Does not resolve the cost–value distinction or examine specific valuation models
Odiase & Uagbale-Ekatah (2025)	AI (machine learning, automation, predictive analytics) and HRA, manufacturing firms	AI enhances processing of human-capital information	Data quality, bias and privacy concerns; Organ Model not addressed
Obakpolor (2025)	Review of Nigerian HRA literature	Identifies measurement difficulty and absence of standardisation as persistent gaps	Limited comparative treatment of individual models, including Organ's
Oyaide et al. (2024)	Remuneration, training, healthcare cost and bank performance, 2018–2022	Mixed relationship between HR cost and performance	Cost proxies, not valuation; causality not established
Adegbayibi et al. (2024)	Remuneration, health/safety cost, retirement benefits and ROCE, banks	Health/safety costs positively, remuneration/retirement negatively related to ROCE	Expenditure-based; Organ Model not examined
Korolo & Korolo (2024)	Directors' remuneration, salaries, pensions and EPS, banks	Disaggregated HR costs associated with EPS	Expenditure rather than value; single performance indicator
Ilugbo et al. (2024)	VAIC human-capital efficiency and share price, insurance firms	Human-capital efficiency associated with market performance	VAIC is an efficiency, not a valuation, framework
Emovon & Ogbonmwan (2023)	Conceptual review of HRA models (Flamholtz, Likert, Lev & Schwartz, Morse, Organ, Chakraborty)	Positions Organ's Model as an extension of Morse's net-benefit approach	Conceptual only; limited evidence on practical validity/reliability
Yahaya et al. (2022)	Training, salary changes, post-employment benefits and profitability, conglomerates 2010–2019	Positive influence on profitability	Expenditure proxies; small sample; no model-specific analysis

Author(s) & Year	Focus / Variables	Key Finding	Gap Relative to the Organ Model
Abraham et al. (2022)	Remuneration, training, health/safety cost and bank performance	Training cost significantly affected market value	Expenditure, not valuation; theoretical assumptions unexamined
Nwaiwu & Joseph (2021)	HR cost disclosure and ROE, upstream oil & gas firms	Significant relationship between disclosure and ROE	Disclosure ≠ valuation
Momoh & Odion (2021)	HRA and firm performance, Procter & Gamble Nigeria (survey)	HR affects both financial and non-financial outcomes	Single-firm, perceptual data; no monetary valuation
Asamu et al. (2020)	HRA disclosure, manufacturing firms	Disclosure increasingly relevant to reporting	Disclosure ≠ recognition or valuation
Adejuwon et al. (2020)	Determinants of HRA disclosure, banks	Profitability and size positively associated with disclosure	Disclosure, not measurement/valuation
Arogundade et al. (2020)	Critique of the historical-cost model	Historical cost objective but fails to reflect current/future value	Does not evaluate Organ's Model specifically
Idowu (2019)	Policy challenges of HRA implementation, Nigeria	Weak policy frameworks and technical capacity identified as barriers	Conceptual; no model-specific readiness assessment
Akinjare et al. (2019)	Gross staff cost, training cost and firm performance, oil & gas, 2012–2016	Positive and significant effects	Small sample; expenditure-based; possible reverse causality
Akintoye et al. (2018)	Lev & Schwartz model applied to Cadbury Nigeria, Dangote Cement, others	Estimated HR values altered reported financial position	Small sample; assumption-dependent; Organ Model not examined
Osemeke (2017)	Issues, benefits and challenges of HRA	Conventional statements inadequately reflect human-resource value	Descriptive; no model-specific evaluation
Nwosu & Eze-Nwosu (2016)	Appraisal of HRA in Nigeria	Employees-as-expense treatment fails to reflect contribution	Conceptual; Organ Model not specifically examined
Akintoye et al. (2016)	HRA disclosure before/after IFRS, 11 banks	IFRS adoption did not significantly improve disclosure	Disclosure-focused; valuation problem unaddressed
Edom et al. (2015)	Training/development cost and profitability, Access Bank, 2003–2012	Significant positive relationship	Single-firm; cost, not value, measured
Ogenyi Oladele (2015)	HRA adoption challenges (accountants' views)	Recognition and disclosure barriers identified	Perceptual; no model-specific assessment
Akintoye et al. (2015)	Feasibility of recognising HR as an asset (Lev & Schwartz)	Estimating future earnings/tenure raises reliability concerns	Focused on Lev & Schwartz, not Organ's Model

Taken together, these studies demonstrate three recurring patterns. First, the overwhelming majority operationalise “human resource accounting” through expenditure proxies staff cost, training cost, remuneration, or disclosure indices rather than through a genuine valuation of human resources under a specified model; this conflates human-resource cost with human-resource value, the very distinction the Organ Model was designed to address. Second, where a positive statistical association between HR

expenditure and performance is reported, the studies rarely establish causality, since more profitable firms may simply possess greater capacity to invest in their employees; reverse causality and omitted-variable concerns are pervasive. Third, and most importantly for the present review, almost none of the studies examine the theoretical assumptions or valuation mechanics of the Organ Model specifically; only Emovon and Ogbonmwan (2023) situate the model conceptually, as an extension of Morse's net-benefit approach, without empirically testing its assumptions. This pattern confirms the assessment offered in the introduction: notwithstanding growing Nigerian empirical interest in the broad relationship between human-resource investment and firm outcomes, the Organ Model itself remains substantially under-examined, both theoretically and empirically.

A further observation from Table 1 concerns the sectoral concentration of Nigerian HRA research. The overwhelming majority of the studies reviewed focus on the banking and, to a lesser extent, oil and gas and insurance sectors, reflecting the relative availability of published financial statements and human-resource cost data in these heavily regulated industries. Sectors such as telecommunications, manufacturing outside a handful of large firms, and professional services; each identified in the first section as heavily dependent on employee knowledge and competence; remain comparatively under-represented in the empirical literature. This sectoral imbalance is itself a barrier to assessing the Organ Model's relevance across the Nigerian economy, since a model whose central premise is organisational interconnectedness might reasonably be expected to perform differently in knowledge-intensive service industries than in capital-intensive extractive or manufacturing settings. The near-total absence of studies applying, or even directly testing, the Organ Model's assumptions; as distinct from studies that merely cite it alongside other models in a conceptual listing; also suggests that Nigerian accounting research has yet to move from acknowledging the existence of value-based HRA models to critically interrogating their internal logic, which is precisely the task this paper undertakes in the sections that follow.

Critical Evaluation of the Organ Model

Strengths

The Organ Model's principal contribution lies in its systemic conception of the organisation. By treating the firm as an interconnected organism rather than a simple aggregation of individually priced employees, the model draws attention to the collaborative and structural dimensions of value creation that purely individual, cost-based approaches tend to overlook.

This is consistent with the Resource-Based View's emphasis on organisational, as opposed to purely individual, sources of competitive advantage, and it gives the model an intuitive appeal to managers concerned with organisational design, teamwork and cross-functional performance. The model also shares with other value-based approaches (such as those of Lev and Schwartz, and Morse) the conceptual merit of directing attention toward the future economic benefit generated by employees, rather than confining measurement to historical acquisition and training cost; an orientation consistent with Human Capital Theory and better aligned with the economic substance of human-resource investment. Finally, by treating human-resource cost as a capitalisable and amortisable outlay, the model offers a framework, at least in principle, for integrating human-resource information with conventional asset accounting and depreciation logic, which may make it more intuitively accessible to accounting practitioners than purely behavioural or non-monetary HRA approaches.

Weaknesses

Against these strengths, the Organ Model suffers from limitations serious enough to have constrained its practical adoption. The most fundamental is the acute subjectivity involved in isolating and measuring the contribution of an individual employee to organisational success (Monday, 2017; Uysal, 2016). Because the model requires the determination of a "certainty factor" reflecting the probability that an employee's services will continue to benefit the organisation, and because it requires the estimation of a human "net benefit" whose precise components are not clearly specified, the model leaves several foundational questions unanswered: how is the certainty factor to be determined; what precisely constitutes the net benefit of an employee to the organisation; and under what conditions is the model appropriately applied at all? The absence of settled answers to these questions renders the model, in its present form, more a conceptual framework than an operational valuation technique.

A related weakness is that assigning a monetary value to human resources under the model is unlikely to capture the full range of intangible contributions employees make; such as increased productivity, improved morale, and enhanced organisational reputation; all factors that, in principle, ought to inform the value disclosed in the statement of financial position but which resist reliable quantification. The model, moreover, largely ignores external factors; market trends, economic conditions and regulatory change; that can materially affect the value of human-

resource investment; Pekin Ogan's original formulation gives these factors little explicit weight.

The model's scope is also limited: important dimensions of human-capital risk, including turnover, absenteeism and declining productivity, are not systematically incorporated into the valuation, leaving significant sources of variability in human-resource value unaccounted for.

Evaluated against the criteria supplied by Measurement Theory, these weaknesses are especially consequential. The model performs poorly on reliability (different evaluators applying the same assumptions are unlikely to reach the same result), objectivity (the certainty factor and net-benefit estimates are inherently judgement-based), verifiability (the underlying assumptions are difficult for an independent party to test), and comparability (valuations are unlikely to be consistent across firms, industries or reporting periods). Because these are the very properties on which the credibility of any accounting measurement rests, the model's practical defensibility remains substantially weaker than its conceptual attractiveness would suggest a conclusion consistent with the broader finding, evident throughout the empirical literature reviewed in section 2.4, that no Nigerian study has yet subjected the Organ Model's assumptions to direct empirical testing.

The model's weaknesses are compounded by a set of practical implementation obstacles that are conceptually distinct from, but closely related to, its measurement problems. Applying the model presupposes the existence of a human-resource information system capable of tracking individual and group contributions across organisational functions over time; an infrastructure that even well-resourced organisations rarely maintain in the detail the model implicitly requires. It further presupposes a degree of professional and managerial consensus on how the certainty factor should be estimated, without which two accountants applying the model to the same organisation could reasonably arrive at materially different valuations, undermining the comparability on which financial reporting depends. Finally, because the model was formulated in 1976, within an organisational and technological environment markedly different from that of contemporary knowledge-based and increasingly digitised organisations, questions arise as to whether its assumptions about the nature of organisational interconnectedness remain fully applicable to modern work arrangements, including remote and hybrid work, gig and contract employment, and algorithmically mediated performance management, none of which existed in a form the model's original architect could

have anticipated. This temporal gap between the model's formulation and contemporary organisational practice is a limitation distinct from, but reinforcing, the measurement weaknesses discussed above, and it further explains the model's limited uptake in the recent Nigerian empirical literature summarised in Table 1.

Suggestions for Improving the Application of the Organ Model

Several measures could help address the limitations identified above. First, organisations applying the model should consider supplementing its quantitative estimates with structured qualitative assessment, performance evaluations, peer review and structured feedback mechanisms; capable of capturing intangible contributions that resist direct monetisation. Second, organisational network analysis tools could be used to visualise and measure the interconnectedness of employees within the organisational structure, providing an empirical basis for the systemic contribution the model seeks to value, rather than relying solely on subjective managerial judgement.

Third, the certainty factor and net-benefit estimates that lie at the model's core should be subjected to continuous refinement using feedback and data analytics, so that valuations evolve in line with the organisation's changing composition and dynamics rather than resting on static, one-off assumptions.

Fourth, because the model's central premise is the organisation's interconnectedness, its effectiveness is likely to depend on the extent to which an organisation actively cultivates a culture of collaboration, knowledge-sharing and cross-functional teamwork; conditions that are themselves prerequisites for the systemic value the model purports to measure.

Finally, from a standard-setting perspective, professional and regulatory bodies should work toward a more precisely specified, empirically testable set of valuation criteria for models of this kind, since the absence of a universally accepted method continues to impede both the credibility and the comparability of human-resource disclosures.

Beyond these model-specific measures, the broader HRA research agenda would benefit from studies that move past expenditure-based proxies toward genuine tests of value-based models, including the Organ Model, using matched samples, longitudinal designs and, where feasible, triangulation between accounting estimates and independent indicators of organisational performance such as productivity, innovation output or employee-driven revenue growth. Professional accounting bodies in Nigeria, including the Institute of

Chartered Accountants of Nigeria and the Financial Reporting Council; could usefully commission pilot studies applying the Organ Model, alongside competing value-based approaches, within a small number of consenting organisations, in order to generate the empirical evidence on reliability and comparability that the conceptual literature has so far been unable to supply. Such pilot evidence would allow the suggestions offered here to be tested directly, rather than remaining, as they currently do, at the level of theoretical recommendation.

Relevance to Nigerian Organisations

The theoretical case for HRA is arguably stronger, not weaker, in the Nigerian context, given the extent to which sectors such as banking, telecommunications, oil and gas, manufacturing and professional services depend on employee knowledge and managerial competence for competitiveness. Yet the practical obstacles to applying a model as measurement-intensive as Organ's are also more acute in Nigeria than in more developed reporting environments. The empirical literature reviewed in section 2.3 shows that Nigerian HRA research to date has concentrated overwhelmingly on the relationship between employee-related expenditure and financial performance, rather than on the direct valuation of human resources; disclosure-focused studies (e.g., Adejuwon et al., 2020; Akintoye et al., 2016) further show that even where regulatory change (such as IFRS adoption) has occurred, human-resource disclosure has not materially improved. This suggests that Nigerian organisations currently lack both the information systems and the professional consensus necessary to operationalise a model such as Organ's, a conclusion consistent with Idowu's (2019) identification of weak policy frameworks and limited technical capacity as barriers to HRA implementation more generally. For the Organ Model specifically to become relevant to Nigerian practice, therefore, the suggestions outlined in section 4, particularly the development of more objective, data-supported estimation techniques and continuous refinement of valuation assumptions, would need to be matched by improvements in organisational human-capital information systems and by regulatory encouragement of more consistent human-capital disclosure.

The relevance of the Organ Model to Nigeria should also be assessed against the country's distinctive labour-market characteristics. High rates of employee mobility between organisations, a comparatively young and rapidly growing workforce, significant informal-sector employment, and pronounced skill shortages in specialised technical and managerial roles all bear directly on the model's core assumptions.

Employee mobility, in particular, complicates the estimation of the certainty factor central to the model, since the probability that a given employee's contribution will continue to benefit the organisation is arguably more volatile in the Nigerian labour market, characterised by active inter-firm and inter-sectoral movement, particularly among skilled professionals in banking, technology and oil and gas, than in more stable, lower-turnover labour markets. At the same time, the growing presence of multinational and digitally native firms operating in Nigeria, many of which already maintain more sophisticated human-capital information systems than the domestic average, suggests that pockets of organisational readiness for a model such as Organ's may exist even where economy-wide readiness remains limited. A differentiated approach—encouraging early application of value-based HRA models, including Organ's, within better-resourced organisations while continuing to build the information-system and professional-consensus preconditions necessary for wider adoption, may therefore be more realistic than expecting uniform adoption across the Nigerian corporate landscape in the short term.

Conclusion

This paper has undertaken a critical theoretical review of the Organ Model of Human Resource Accounting, examining its conceptual foundations, its grounding in Human Capital Theory, the Resource-Based View, Measurement Theory and Agency/Stakeholder Theory, and the empirical literature bearing, directly or indirectly, on its application, with particular attention to the Nigerian context. The review confirms that the Organ Model offers a theoretically distinctive and intuitively appealing perspective on human-resource value, one that emphasises the interconnected, organism-like character of the firm rather than the isolated valuation of individual employees. At the same time, the model's practical application is constrained by the subjectivity inherent in determining an employee's certainty factor and net benefit, by its limited treatment of external and risk-related factors, and by the almost complete absence of empirical testing of its assumptions in the literature reviewed.

Organisations seeking to apply the model would therefore be well advised to combine its quantitative logic with qualitative assessment, network-analysis techniques and continuous data-driven refinement, while regulators and professional bodies work toward more precisely specified and empirically verifiable valuation standards. More broadly, the review supports the conclusion that the Organ Model, in common with other approaches to human-asset valuation, remains at a developmental stage, particularly in developing

economies such as Nigeria, and that further research, together with the development of a universally acceptable method of valuation and disclosure by the relevant professional and regulatory authorities, is necessary before human resources can be reliably and consistently recognised as accounting assets.

The theoretical contribution of this paper lies in its explicit application of Measurement Theory, alongside Human Capital Theory, the Resource-Based View and Agency/Stakeholder Theory, as a structured framework for evaluating a specific HRA valuation model rather than treating the model as a self-contained technique to be described in isolation. This framework is not confined to the Organ Model and could usefully be applied to a comparative critical evaluation of the Lev and Schwartz, Flamholtz and Morse models, an undertaking that would extend the present review and further clarify which, if any, existing HRA valuation approach is best positioned to satisfy the reliability, objectivity and comparability criteria that contemporary financial reporting demands. Future researchers are accordingly encouraged to pursue such comparative theoretical evaluations, and, where organisational access permits, to complement them with the pilot empirical testing recommended in section 4, so that the promise of human resource accounting, recognising employees as the valuable, income-generating asset that both theory and practice increasingly confirm them to be, can be matched by measurement practice of comparable rigour and credibility.

Recommendations

Based on the critical review of the Organ Model of Human Resource Accounting, the study recommends that Nigerian organisations should begin to strengthen their human-capital measurement and reporting practices. Although human resources contribute significantly to organisational value, conventional accounting does not adequately reflect this contribution in financial statements. Organisations should therefore develop systematic mechanisms for documenting investments in recruitment, training, development, retention and employee capabilities as part of their internal management information systems.

The study further recommends that the Organ Model should be refined before being adopted as a formal accounting valuation tool. In particular, greater attention should be given to the subjective determination of the employee certainty factor and the estimation of net benefits, which the review identifies as major weaknesses of the model. Researchers and accounting professionals should work toward developing clearer, more objective and verifiable procedures for estimating these components.

There is also a need for professional accounting bodies, regulators and researchers in Nigeria to promote the development of generally accepted human-resource measurement and disclosure guidelines. The absence of universally accepted standards, difficulties in assigning reliable monetary values, weak human-capital information systems and employee mobility remain important barriers to HRA implementation in Nigeria. A standardised framework would improve consistency, comparability, transparency and usefulness of human-capital information to managers, investors and other stakeholders.

Finally, further empirical research should be undertaken to test the practical applicability of the Organ Model across different sectors of the Nigerian economy. Future studies should move beyond theoretical discussion and examine how the model performs when applied to real organisational data, while comparing it with other HRA models such as the Lev and Schwartz, Flamholtz and Morse approaches. Since existing Nigerian studies have largely relied on proxies such as staff costs, training expenditure, remuneration and disclosure indices rather than direct application of named HRA models, further model-specific empirical investigation is particularly necessary.

References

- Adejuwon, A. M., Olurankinse, F., & Jinadu, O. (2020). Corporate determinants and human resource accounting disclosure of listed banks in Nigeria. *International Journal of Human Resource Studies*, 10(4), 303–317.
- Akinjare, Y. S., Idowu, M. A., & Sule, T. O. (2017/2019). The impact of human resource accounting (HRA) on the performance of Nigerian firms.
- Aljamaan, B. (2017). Human resources accounting: Concepts, objectives, models and criticism. *Global Journal of Human Resource Management*, 5.
- American Accounting Association. (1973). *Report of the Committee on Human Resource Accounting*. Accounting Review Supplement.
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99–120. <https://doi.org/10.1177/014920639101700108>
- Becker, G. S. (1964). *Human capital: A theoretical and empirical analysis, with special reference to education*. Columbia University Press.
- Bontis, N., & Fitz-enz, J. (2002). Intellectual capital ROI: A causal map of human capital antecedents and consequences. *Journal of*

- Intellectual Capital*, 3(3), 223–247. <https://doi.org/10.1108/14691930210435589>
- Bontis, N., Dragonetti, N. C., Jacobsen, K., & Roos, G. (2000). The knowledge toolbox: A review of the tools available to measure and manage intangible resources. *European Management Journal*, 17(4), 391–402. [https://doi.org/10.1016/S0263-2373\(99\)00019-5](https://doi.org/10.1016/S0263-2373(99)00019-5)
- Brummet, R. L., Flamholtz, E. G., & Pyle, W. C. (1968). Human resource measurement—A challenge for accountants. *The Accounting Review*, 43(2), 217–224.
- Dhanabhakym, M. (2015). Models of human resource accounting and its applicability in the valuation of a faculty member. *EPRA International Journal of Economic and Business Review*, 3(6).
- Edom, G. O., Inah, E. U., & Adanma, E. S. (2015). The impact of human resource accounting on the profitability of a firm: Empirical evidence from Access Bank of Nigeria Plc. *European Journal of Accounting, Auditing and Finance Research*, 3(7), 72–90.
- Enofe, A. O., Mgbame, C., Otuya, S., & Ovie, C. (2013). Human resources accounting disclosures in Nigeria quoted firms. *Research Journal of Finance and Accounting*, 4(13), 7–12.
- Flamholtz, E. G. (1971). A model for human resource valuation: A stochastic process with service rewards. *The Accounting Review*, 46(2), 253–267.
- Flamholtz, E. G. (1974). Human resource accounting: A review of theory and research. *Journal of Management Studies*, 11(1), 44–61. <https://doi.org/10.1111/j.1467-6486.1974.tb00872.x>
- Flamholtz, E. G. (1976). Human resource accounting: A measurement perspective. *Academy of Management Review*, 1(2), 40–47. <https://doi.org/10.5465/amr.1976.4408668>
- Flamholtz, E. G., Bullen, M. L., & Hua, W. (2002). Human resource accounting: A historical perspective and future implications. *Management Decision*, 40(10), 947–954. <https://doi.org/10.1108/00251740210452818>
- Guthrie, J., Petty, R., & Johanson, U. (2004). Using content analysis as a research method to inquire into intellectual capital reporting. *Journal of Intellectual Capital*, 5(2), 282–293. <https://doi.org/10.1108/14691930410533704>
- Hermanson, R. H. (1964). *Accounting for human assets*. Bureau of Business Research, Michigan State University.
- Ilugbo, A. N., Josiah, M., & Ozele, C. E. (2024). Human resource accounting and share price performance: Evidence from listed insurance firms in Nigeria. *FUDMA Journal of Accounting and Finance Research*, 2(3), 98–109. <https://doi.org/10.33003/fujafr-2024.v2i3.102.98-109>
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behaviour, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305–360. [https://doi.org/10.1016/0304-405X\(76\)90026-X](https://doi.org/10.1016/0304-405X(76)90026-X)
- Kirfi, M. M., & Abdullahi, A. (2012). Human capital accounting: Assessing possibilities for domestication of practice in Nigeria. *Research Journal of Finance and Accounting*, 3(10), 57–63.
- Lepak, D. P., & Snell, S. A. (1999). The human resource architecture: Toward a theory of human capital allocation and development. *Academy of Management Review*, 24(1), 31–48. <https://doi.org/10.5465/amr.1999.1580439>
- Lev, B., & Schwartz, A. (1971). On the use of the economic concept of human capital in financial statements. *The Accounting Review*, 46(1), 103–112.
- Likert, R. (1967). *The human organization: Its management and value*. McGraw-Hill.
- Mirvis, P. H., & Macy, B. A. (1976). Human resource accounting: A measurement perspective. *Academy of Management Review*, 1(2), 74–83. <https://doi.org/10.5465/amr.1976.4408668>
- Muralidhar, D. (2023). Human resource accounting methods practices in India—Conceptual framework. *International Journal for Multidisciplinary Research*. E-ISSN: 2582-2160
- Nwauzor, C. O., & Tamunoemi, B. L. (2020). Human capital accounting and firm performance: A study of oil and gas firms in Nigeria. *Journal of Economics, Management & Social Science*, 6(2).
- Obakpor, K. (2025). Human resource accounting: A review of the literature and research direction. *Journal of the Department of Business Administration, University of Ilorin*, 23(1).
- Odiase, O. V., & Uagbale-Ekatah, R. E. (2025). Artificial intelligence and human resources accounting of manufacturing companies in Nigeria. *UMYU Journal of Accounting and Finance Research*, 8(1), 273–283. [https://doi.org/10.61143/umyujfr.8\(1\)2025.018](https://doi.org/10.61143/umyujfr.8(1)2025.018)
- Ojokuku, R. M., & Oladejo, K. S. (2015). Human resource accounting and human capital valuation in Nigeria: Prospects and challenges. *International*

- Journal of Economics, Commerce and Management*, 3.
- Olaoye, C. O., & Afolalu, A. B. (2020). Effect of human capital accounting on earnings per share of equity owners of deposit money banks in Nigeria. *African Journal of Business Management*, 14(11), 485–497. <https://doi.org/10.5897/AJBM2020.9008>
- Olayinka, A. O., & Adegbe, F. F. (2020). Human resource accounting and quality of financial reporting of quoted oil and gas companies in Nigeria. *International Journal of Accounting, Finance and Risk Management*, 5(4), 195–206. <https://doi.org/10.11648/j.ijafrm.20200504.14>
- Onuora, J. K., & Akwuobi, B. (2022). Human resource accounting and sustainability in the Nigerian public sector. Department of Accountancy, Nnamdi Azikiwe University, Awka, Anambra State. ISSN 2672-4235
- Onyinyechi, O. C., & Ihendinihu, J. U. (2017). Human resource accounting and financial performance of firms in Nigeria: Evidence from selected listed firms on the Nigerian Stock Exchange. *International Journal of Interdisciplinary Research Methods*, 4.
- Osemeke, M. (2017). Human resources accounting: Issues, benefits and challenges. *International Journal of Economics, Finance and Management Sciences*. Department of Business Administration, College of Management and Social Sciences, Samuel Adegboyega University, Ogwa, Nigeria.
- Oyaide, F. A., Aminu, I. Y., & Lateef, S. A. (2024). Impact of human resource accounting on the financial performance of deposit money banks in Nigeria. *FUDMA Journal of Accounting and Finance Research*, 2(4), 74–81. <https://doi.org/10.33003/fujafr-2024.v2i4.142.74-81>
- Pedro, A., & Sotomayor, A. M. (2013). Measurement models of human capital accounting: A case study. *Global Advanced Research Journal of Economics, Accounting and Finance*, 2(4).
- Pradip, K. D. (2018). A critical appraisal of human resource accounting models. *International Journal of Social Sciences*. ISSN 2454-5899
- Schultz, T. W. (1961). Investment in human capital. *The American Economic Review*, 51(1), 1–17.
- Sharma, C. S., & Sameer, L. (2017). A critical evaluation of measuring the immeasurable: Human resource accounting (HRA).
- Thomas, A. (2016). Human resources accounting: A suggested model for measurement and valuation.