HUMAN RESOURCE ACCOUNTING AND THE MANAGEMENT OF HUMAN RESOURCES BY FINANCIAL TECHNOLOGY (FINTECH) FIRMS IN LAGOS STATE

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Abstract
The sustenance of the fintech firm depends on how human resources activate other resources for effective and efficient management of disruptive technology. The main objective of this paper is to assess human resources accounting while the specific objective is to evaluate the influence of human resources accounting on management of disruptive technology by Fintech firms. The study adopted a survey design to gather data from the target population which comprises employees in human resources and account / finance departments of fintech company in Lagos Central business district of Lagos State. Using purposive sampling, questionnaires were administered, and the data collected were analyzed using parametric and non-parametric tests. Findings show that there is a significant relationship between human resources accounting and management of disruptive technology in the fintech company. It, therefore, concludes that financial statement of fintech industry is incomplete without accounting for human resources as an asset. Also, human resources accounting would influence the management of disruptive technology in terms of planning for operational efficiency and effectiveness as well as decision usefulness. It, therefore, recommends that accounting practitioners should engage the accounting standard setters to facilitate the development and usage of a standard on human resources accounting around the world.

Keywords: Operational Efficiency, Decision Usefulness, Human Resources

1. Introduction
The management of disruptive technology by fintech firms requires concerted effort by all stakeholders. Indeed, Financial technology (fintech) firms in the financial segment of the economy is a product of the age of disruptive technology. Disruptive technology, also referred to as innovation technology is usually associated with Clayton Christensen. According to Kawamoto and Spers (2018), the research academic paper and books of Clayton Christensen obtained high reference grades and commercial success respectively. The development of innovative technologies, the degree to which they affect human resource roles and responsibilities as well as the speed with which they spread across borders, firms, and industries are vital key in the study of economic growth, economic inequality, entrepreneurship, and firm dynamics (Bloom, Hassan, Kalyani, Lerner, & Tahoun, 2021) as well as human resources accounting. According to Raghavan (2021), accountants help their clients with the adoption of disruptive technology by identifying new innovations in the fintech business environment. Moreover, the efficient management of disruptive technology depends on how human skills are
properly tooled and coordinated to meet with the advancement in disruptive technology. Also, the ability of fintech firms to meet up with changing techniques required for efficient operational performance in disruptive technology requires the engagement as well as the retention of capable human resources. However, the resources of fintech firms are classified into animate and inanimate resources. The animate resources represent human resources that are further categorized into technical and non-technical staff. The recognition of the disruptive technological resources such as machines as an asset in the financial statement while the human resources that organizes and energizes the inert potentials in the inanimate resources are not recognized as an asset in the financial statement calls for concern. Therefore, despite all technological improvements, the significance of the human resource has in no way lessened (Samartha, Rajesha, Hawaldar, & Souza, 2019). Remarkably, despite the significant contribution of the human resource to the achievement of organizational objectives, little attention was given to it as evident in the lack of regulatory framework through which accountability could be rendered (Akintoye, Awoniyi, Jayeoba & Ifayemi, 2015). In the light of the above, this paper attempts to evaluate human resources accounting with an objective of assessing the influence of human resources accounting on the management of disruptive technology by Fintech firms. Following this introduction is section two that deals with a review of relevant literature on human resources accounting. Section three and four deals with research methods and data presentation respectively. However, the conclusion and recommendations are presented in the final section.

2 Review of literature

2.1 Concept of Human resources accounting

According to the Akintoye et al., (2015), human resource accounting is the offshoot of various research studies conducted in the areas of accounting and finance. The approach to human resource accounting (HRA) was first developed in the United States of America in the year 1691 and according to Flamholz (1971), human resource accounting (HRA) is the measurement and reporting of the cost and value of people as organizational resources. The American Accounting Association (1973) further explained it as the process of identifying and measuring data about human resources and communicating this information to interested parties. According to Bullen and Eyler (2013) cited by Akintoye, Siyanbola, Adekunle and Benjamin (2018), human resource accounting, also termed accounting for human resources entails accounting for the fund incurred on human resources as assets instead of upholding traditional accounting means of treating human resources as expenses. The treatment of the fund expended on human resources as expenses led to a reduction in profit of the organization. According to Hannson (1997) in Samartha et al. (2019), human resources accounting is a systematic methodology used to recognize and measure intangible values of human resources in an organization and disclosing the human resources value as information to stakeholders. Akintoye (2005) cited by Akintoye et al., (2015) asserted that the essential appreciation of goodwill in firms could be a function of an effective and efficient business environment managed by well-experienced managers who had
put in quality time to understand organizational policies and ethical values. They, therefore, based their argument on these backdrops that the relevance of human resource accounting in any organization or business entity cannot be over-emphasized. Onyeukwu, Ihedinihu, and Nwachukwu (2021) described HRA as the accounting for investment in the personnel of a corporation with a view of maximizing the shareholders’ value and attaining corporate goals. Furthermore, they espoused that the current traditional accounting of human resources as an expense is a sub optimization of the financial reporting system. They observed that human resources accounting as a branch in the field of accounting is advocating for the recognition of human capital as a cost to be capitalized as against the traditional practice of treating expenditure on human capital as an immediate charge against periods’ revenue. Proponents of human resource accounting are of the view that costs incurred on any asset should be capitalized when it is incurred so as to yield future benefits measurable in terms of money irrespective of whether it incurred on human assets or real assets. However, the real work on the subject of human resource accounting gained relevance from 1960, when behavioral scientists vehemently criticized, the conventional accounting practice of not valuing human resources along with other material resources. Accountants and economists all over the world became conscious of the fact that the appropriate methodology and procedures have to be developed for finding the cost and value of the people in the organization. To the American Accounting Association, it is the process of identifying and measuring data concerning human resource and communicating same to accounting information users. Khan (2021) in Mohammed (2021) explained that the concept of human resource accounting comprises the art of valuing, recording and presenting the value of human resources in the account of an organization in a systematic manner. This definition stipulates three features of human resource accounting as the valuation of human resources, recording the valuation in the relevant accounting books and the disclosure of financials in the corporate financial report. According to Pandurangarao, Basha and Rajasekhar (2013), the benefit of human resource accounting was that it would disclose the cost of developing the workforce in an organization. This will enable the management to ascertain the total cost incurred on labor. Also, it would disclose the adequacy and control of investments in human resources and support management decision usefulness in terms of transfers, promotions, training, retirement and retrenchment of human resources. Furthermore, it would motivate employees to increase their performance, thus engendering employee efficiency. According to Aljamaan (2017), the most important objective of HRA is to provide companies with information about the cost and value of its human resources as well as with a guide for human resource decisions about acquiring, allocating, developing, and maintaining human resources to attain cost-effectiveness. According to Kouhy et al., (2009) in Aljamaan (2017), human resource accounting is necessary because it provides useful information to corporate executives, financial analysts and employees. It supports the management for the employment, placement and utilization of human resources.

a Lev and Schwartz Model
The computation of the present value of human resource using this model is based on the identification of two variables. The two variables are the remaining service life of human resource and the cost of capital adopted by the organization for valuing human resources. Subsequently, the present value of an employee will be derived by discounting the estimated future earnings of the employee vis a vis his remaining service life by the cost of capital.

a  Flamholtz’s Model (Determinants of Individual Value to Formal Organization)

This model computed the value of an employee by assessing the present value of relevant services that such employee will render to the organization in the future. Notably, as an employee moves from one position to another, at the same level or at different levels, his job profile is likely to change. Therefore, the present cumulative value of all relevant services that might be rendered by such employee while working with the organization is the value of the employee.

b  Flamholtz Model (Reward Valuation Method)

According to this model, the ultimate measure of an individual’s value to an organization is his expected realizable value. However, the expected realizable value is based on the assumption that there is no direct relationship between cost incurred on an individual and his value to the organization at a particular point of time. Also, an individual’s value to an organization can be defined as the present worth of a set of future service that he is expected to provide during the period he remains in the organization.

c  Morse Model (Net Benefit Model)

This approach has been suggested by Morse in 1973. According to this approach, the value of human resources is equivalent to the present value of net benefit derived by the organization from the service of its employees at a discount rate set by management as a value for human resources.

In conclusion, human resources accounting is the process of identifying, recording and measuring cost data and information about human resources of an organization, and treating the outcome of the measurement of cost data as an asset in the statement of financial position.

2.2 Empirical Review

Akintoye (2012) studied the relevance of human resource accounting to effective financial reporting due to the agitation and the need for harmonization of human resources with other resources in the financial reporting framework. He used Oceanic Bank Plc as a case study and adopted the Lev and Schwartz model to determine the value of human resources. Also, simple linear regression was used to analyze the impact of human resource to an effective financial reporting using investment in the human capital, profitability and capital employed. The study revealed that human resources have a positive effect on the profit and capital employed by the bank. He espoused that this study corroborates Ashton (2005) that there is an association between components of the intellectual capital and firm-market level financial outcomes as well as Akintoye (2003) that published financial reports might be incomplete without accounting for
human resources. However, Enofe, Mgbame, Otuya and Ovie (2013) conducted a study to ascertain the relationship between firms’ financial performance and human resources accounting disclosures on one hand, and the differences in human resources accounting disclosures reporting level between financial sector and non-financial sector companies quoted in the Nigerian Stock exchange. The study found that financial companies are disclosing human resources accounting information more than non-financial companies. Also, that the profitability positively influenced companies to account for the human resources in their annual report. They, therefore, concluded that human resource accounting is highly significant to firms’ operational efficiency and recommended that standards should be created for the identification and measurement of human resources in the statement of financial position. Falayi and Falayi (2014) assesses the usefulness of human resource accounting and the need to promote its wide acceptance through international financial reporting standard (IFRS). The study revealed appreciable result when the human resource value was capitalized than when it was expensed. They therefore recommended that IASB should develop a standard on treatment of human resources. Akintoye, Awoniyi, Jaiyeola and Owoyemi (2015) examined the effect of the adoption of the international financial reporting standard on human resource accounting disclosure in the financial statement of Eleven banks in Nigeria. The study revealed that there was no difference in the means of disclosing human resources in the financial statements prepared under the statement of accounting standard (SAS) compared with the disclosure of human resources accounting during the pre and post adoption of IFRS in Nigeria. Furthermore, the study revealed that the adoption of IFRS had an insignificant effect on the disclosure of human resources accounting practices. In conclusion, they argued that the general assumption of IFRS providing all-inclusive disclosures in all aspect is a myth. And that in reality human resources accounting disclosure is a developing aspect of accounting which IFRS is yet to imbibe into its extensive disclosure requirement. They, therefore, recommended that separate standards should be established for the disclosure of human resources accounting. This is because human resources accounting is a vital aspect of the financial reporting system. Onyinyechi and Ihendinhu (2017) investigated human resource accounting and financial performance of listed firms on the Nigerian Stock Exchange. The result revealed that human resources accounting had a significant and positive impact on the profit after tax, while it has a negative impact on the net asset. They concluded that the contributions of human resources towards the financial growth of firms cannot be overemphasized. Moreover, they recommended that firms should imbibe a culture of training, development and motivation. This will engender the personnel to put in their best for the financial growth of the organization. Akintoye et al (2018) examined how the inclusion of human assets in the statement of financial position of companies could serve as a panacea towards answering the reliability question in financial reporting, since most of the said scandals have been attributed to human behavior. They adopted Lev & Schwartz present value of future earnings model to recognize the human assets in reports with the amended financials revealing an improvement in the value of the companies. The study concluded that human resource accounting may resolve some unethical challenges relating to the reliability of the financial reporting system. They recommended that accounting
standard setters should issue an exposure draft on human resource accounting. Onyekwelu and Ironkwe (2021) examined the effect of human resource accounting on corporate financial performance of insurance companies quoted on Nigeria Stock Exchange for the period 2012 to 2017. The results showed that human resource accounting disclosure and training cost significantly affect return on asset and return on equity positively and recommended that insurance firms should increase their human resource accounting disclosure. In a recent study by Mohammed (2021) on the disclosure of human resources accounting in Iraq, he found that the disclosure of human resources as an asset in the financial report signaled a new field and stage of development and distinction in the accounting profession. This enhances the level of disclosure of its financials by including its human resources. He, therefore, described human resources as the main engine for the success and continuity of an organization and concluded that there is no reference to regulating human resources accounting work within Iraqi companies. Onyeukwu, Ihendinihu and Nwachukwu (2021) explored the link between human resource accounting and financial performance of microfinance banks in Nigeria. They discovered that the human resource cost has a significant effect on the net profit margin and the return on equity. Whereas the return on assets had an insignificant relationship with human resources. They therefore, recommended that regulatory bodies should develop a standardized uniform approach for the measurement and reporting of human resources as well as for the amortization of investments made in human resources of Microfinance banks and other corporate entities.

2.3 Theoretical framework
The theoretical framework for this study is the resource-based theory. According to Odhong et al (2014) in Onyinyechi and Ihendinihu (2017), the resource-based theory was formulated by Wernerfelt (1984). Resource based theory assumes that human resources cannot be substituted or imitated. Human resources, therefore, present an opportunity for a firm to gain a competitive advantage over other firms in the same industry over a period. Furthermore, the resource-based theory indicated that human resource provides a source of sustained competitive advantage which consists of four basic requirements of value, rare, imitable, and organization that must be present for operational efficiency and maximization of the value of an organization. Therefore, for human resources to propel a sustained competitive advantage, it should create value and be rare. Also, it must be difficult to imitate, and the organization need to fashion an enabling environment for better exposure of their potentials. This study is, therefore, grounded in the resource-based theory because all the human resource characteristics of value, the imitable, rareness, and organization considered in the theory directly or indirectly affect human resources performance. This could influence the operational efficiency of disruptive technologies.

3. Methodology
This study adopted a survey design to gather data from employees in human resources and account/finance departments of fintech companies comprising Interswitch, System Spec, Paga, Paycom and E-transact. Using purposive sampling, questionnaires were administered, and the data collected were analyzed using parametric and non-parametric tests. The questionnaire was subjected to cronbach’s alpha tests to ensure the reliability of the instrument employed in the
study. However, in the consideration of sample size, Saunders and Thornhill (2003) in Modubu and Anyaduba (2013) suggested that a minimum number of 30 for statistical analyses provided a useful rule of thumb. Nevertheless, a sample size of 80 was chosen. Out of 80 copies of the questionnaire distributed, 62 were returned. This represents a 77.5% success rate.

4. Results and Discussion
This section focuses on analysis and presentation of data collected with the research instrument.

4.1 Reliability tests

Table 1: Reliability Statistics

<table>
<thead>
<tr>
<th>Cronbach’s Alpha</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.782</td>
<td>19</td>
</tr>
</tbody>
</table>

Researchers’ survey, 2022

The table 1 depicted above shows the properties of the measurement scale as well as the items in the scale. The reliability test using Cronbach’s Alpha gives a coefficient of 0.78. This shows that the research instrument and the measuring scales show a high measure on internal consistency.

4.2 Analysis of respondents’ data

The bar chart reflected in figure 1 shows that human resources who have spent more than ten years possessed post graduate qualifications. This indicates that Fintech firms were able to engage skillful employees and as well retain them. Therefore, Fintech firms had human resources who were vast in knowledge and well qualified to handle their operations for profitability and sustainability and whose view could be relied on for further analysis.

Figure 1: Years of experience versus qualification

Source: Field survey, 2022

Figure 2: Experience versus motivation control
The figure 2 depicted above shows that few respondents who had spent less than five years disagreed that human resources accounting would facilitate motivation control in the industry. However, the majority of the respondents who had put in more than 10 years working in the industry strongly agreed that the human resource accounting would facilitate motivation control in the fintech industry.

**Figure 3: Cost – value analysis**

The figure 3 above shows a pie chart of the view of respondents on whether human resources accounting would facilitate cost-value analysis of human resources. The pie chart indicates that...
that majority of the respondents agreed that standardization of human resources accounting would facilitate the cost and value analysis of human resources needed for the management of disruptive technologies in the fintech industry.

### Table 2: Analysis of response

<table>
<thead>
<tr>
<th>Item</th>
<th>Statement</th>
<th>SA</th>
<th>A</th>
<th>U</th>
<th>D</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Human resource accounting would lead to the engagement of a genuine and reliable employee</td>
<td>16.1</td>
<td>56.5</td>
<td>8.1</td>
<td>14.5</td>
<td>4.8</td>
</tr>
<tr>
<td>2</td>
<td>Human resource accounting would lead to proper control of turnover of human resources in the firm</td>
<td>17.7</td>
<td>56.6</td>
<td>1.6</td>
<td>19.4</td>
<td>4.8</td>
</tr>
<tr>
<td>3</td>
<td>Human resource accounting would lead to efficiency in human resources management</td>
<td>4.8</td>
<td>53.2</td>
<td>12.9</td>
<td>24.2</td>
<td>4.8</td>
</tr>
<tr>
<td>4</td>
<td>Human resources accounting would support the organization in decision making in terms of direct recruitment versus promotion</td>
<td>50</td>
<td>45.2</td>
<td>0</td>
<td>0</td>
<td>4.8</td>
</tr>
<tr>
<td>5</td>
<td>Human resources accounting would aid decision making in terms of transfer versus retention of staff</td>
<td>19.4</td>
<td>59.7</td>
<td>9.7</td>
<td>6.5</td>
<td>4.8</td>
</tr>
<tr>
<td>6</td>
<td>Human resource accounting would support decision making in terms of retrenchment and retention</td>
<td>30.6</td>
<td>64.5</td>
<td>0</td>
<td>0</td>
<td>4.8</td>
</tr>
<tr>
<td>7</td>
<td>Human resources accounting would boost investors’ confidence in the financial statement of the firm</td>
<td>12.9</td>
<td>53.2</td>
<td>0</td>
<td>29</td>
<td>4.8</td>
</tr>
<tr>
<td>8</td>
<td>Human resources accounting would strengthen management focus on the human side of the organization</td>
<td>41.9</td>
<td>43.5</td>
<td>0</td>
<td>11.3</td>
<td>3.2</td>
</tr>
<tr>
<td>9</td>
<td>The implementation of human resources accounting would engender the human capital planning and budgeting process to be a key driver of firm strategy</td>
<td>30.6</td>
<td>62.9</td>
<td>0</td>
<td>0</td>
<td>6.5</td>
</tr>
<tr>
<td>10</td>
<td>Accounting for human resources is important for the maximization of value by fintech industry</td>
<td>32.3</td>
<td>56.6</td>
<td>6.5</td>
<td>4.8</td>
<td>0</td>
</tr>
<tr>
<td>11</td>
<td>Human resources accounting would engender planning for good reward scheme for employees of the fintech industry</td>
<td>40.3</td>
<td>54.8</td>
<td>0</td>
<td>0</td>
<td>4.8</td>
</tr>
<tr>
<td>12</td>
<td>Human resources accounting would promote favorable human relations in the fintech industry.</td>
<td>32.3</td>
<td>58.1</td>
<td>0</td>
<td>0</td>
<td>9.7</td>
</tr>
</tbody>
</table>

Source: field survey, 2022

The table 2 shows that 16.1% and 56.6% strongly agreed and agreed respectively that human resources accounting would lead to the engagement of a genuine and reliable employee by the fintech firm. However, 14.5% and 4.8% disagreed and strongly disagreed respectively that human resources accounting would lead to an engagement of a genuine and reliable employee. Although 8.1% was indifference. This indicated that the majority were of the view that human resources accounting would lead to an engagement of a genuine and reliable employee for the management of disruptive technologies by the fintech industry. Also, 17.7% and 56.6% strongly agreed and agreed respectively that human resources accounting would lead to proper control of turnover of human resources in the firm. This shows that over 70% were of the view that human resources accounting would lead to proper control of turnover of human resources in the firm. Furthermore, while 4.8% and 53.2% of the respondents strongly agreed and agreed that human resources accounting would lead to efficiency in human resources management, 24.2% and 4.8% disagreed and strongly disagreed. This shows that a larger percentage agreed that human resources accounting would lead to efficiency in human resources management in the fintech industry. Interesting, the item 4 on the table 2 shows a preponderance of support that human resources accounting would aid organization in decision making in terms of direct recruitment versus promotion decision for the operational efficiency of disruptive technologies. Items 6 and 7
shows the prevalence of support by respondents that human resources accounting would boost investors’ confidence in the financial statement of the firm and as well boost investors’ confidence in the financial statement of firms. However, 19.4% and 59.7% of the respondents strongly agreed and agreed that human resources accounting would aid decision making in terms of transfer versus retention of staff whereas 9.7% were indifference while 6.5% and 4.8% disagreed and strongly disagreed respectively. The majority of respondents agreed. This indicates that human resources accounting would aid decision making in terms of transfer versus retention of staff by fintech firms. Further analysis shows that 41.9% and 43.5% strongly agreed and agreed respectively that human resources accounting would strengthen management focus on the human side of the organization while 11.3% and 3.2% disagreed and strongly disagreed respectively. No respondent was undecided. This, therefore, indicates the human resources accounting would strengthen the focus of management of fintech firms on human resources of the industry. The item 9 of table 2 show that over 90% were of the opinion that the implementation of human resources accounting would engender human capital planning and budgeting. This implies that the implementation of human resources accounting would enable the management of Fintech firms to make proper human capital planning and budgeting that will prompt the firm to manage the human resources and disruptive technologies effectively. Also, 32.3% and 56.6% of the respondents strongly agreed and agreed respectively whereas 6.5% were undecided but 4.8% disagreed that accounting for human resources is important for the maximization of value by fintech industry. The largest percentage agreed that accounting for human resources is important for the maximization of value by Fintech industry. Therefore, Fintech firms upheld that accounting for human resources is important for the maximization of their value. Moreover, a glance at item 11 and 12 indicates that human resources accounting would engender planning for good reward scheme and promote favorable human relations in the fintech industry.

### 4.3 Test of hypothesis

1. **$H_0$:** Human resources accounting has no significant relationship with sustainability of financial technology firms

<table>
<thead>
<tr>
<th>Table 3: Test Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human resource accounting and fintech firms' sustainability</td>
</tr>
<tr>
<td>Chi-Square</td>
</tr>
<tr>
<td>Df</td>
</tr>
<tr>
<td>Asymp. Sig.</td>
</tr>
</tbody>
</table>

*a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 15.5.*

Source: field survey, 2022

The result of the test of hypothesis using chi-square techniques as depicted in the table 3 reveals that the calculated value is a 45.484 at 3 degree of freedom and 95% level of confidence, whereas the tabulated value is 7.815. Since the calculated value is more than the tabulated value, the null hypothesis is therefore rejected. This implies that human resources accounting has a significant relationship with the sustainability of financial technology firms.

2. **$H_0$:** There is no significant relationship between human resources accounting and management of disruptive technology

The result of the test of the hypothesis using chi-square techniques as depicted in the table 3 reveals that the calculated value is a 16.065 at 3 degree of freedom and 95% level of confidence,
whereas the tabulated value is 7.815. Since the calculated value is more than the tabulated value, the null hypothesis is hereby rejected. This shows that there is a significant relationship between human resources accounting and management of disruptive technology.

5. Summary and Conclusion
This study concludes that human resources accounting would strengthen management focus on human resources aspect of financial technology firms for effective management of disruptive technologies. This would facilitate efficient human capital planning, budgeting and a good reward scheme. It, therefore, recommends that accounting standard setters should develop a specific standard that will address the concept of human resources accounting. Moreover, the professionals are hereby urged to give more attention to human resource accounting as they manage disruptive technologies in business and finance environments.

Reference


