Research article

Bolstering the role of human resource information system on employees' behavioural outcomes of selected manufacturing firms in Nigeria

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ABSTRACT

The efficient use of an organisation's valuable human resources is crucial to its success. Organizations are embracing HRIS more and more to ensure the efficient utilization of their human resources (a relatively new technology in HRM). However, enterprises, especially manufacturing firms, are lagging in reaping the benefits of modern technology due to a slew of challenges. To close the stated gaps, the current study investigated the role of human resource information system on employees' behavioural outcomes in selected manufacturing firms in Nigeria. The diffusion of innovation theory was used to explain the inevitability of new technology in HRM. The target population comprised managers and supervisors of Nigeria's selected Fast Moving Consumer Goods firms (FMCGs). Specifically, the purposive sampling technique was adopted to select the participants for this study. Copies of the questionnaire was used to collect data from a diverse cross-section of the managers and supervisors. The information collected was analyzed using structural equation modeling. The findings revealed that manpower planning information, performance appraisal information and succession planning information are predictors of employees' behavioural outcomes. It was concluded that management apprehension, employee privacy concerns, internal organisational opposition, and conversion costs are the most significant barriers to effective HRIS implementation. Finally, several quantifiable approaches to improve new technology in HRM were proffered.

1. Introduction

Organizations nowadays are under pressure to reduce operational costs while also responding to client demands. It is more intense for the manufacturing sector across the globe. The usage of human resource information system (HRIS) positively impacts the company since it reduces expenses, improves communication, and shortens the time it takes to complete HR-related tasks [1,2]. Despite the undeniable benefits of modern technology, most manufacturing firms, particularly small and medium-sized businesses, cannot profit from it fully. In 2012, the Institute of Management and Administration performed a poll, in the survey, respondents identified a lack of employees, a lack of budget, difficulty with time management, the need to collaborate with other departments, and a lack of information technology assistance as challenges in administering HRIS [3], because these are general barriers to any information system, a

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list of more specific barriers may arise throughout the implementation and management of HRIS. Some of these roadblocks are related to ambiguity in identifying the key people responsible for basic HRIS design, the difficulty in formulating HR policies under multiple national laws, the risk of losing personal data stored in HRIS, and the difficulty in measuring the behavioural dispositions of manufacturing employees [4].

Many firms in Africa, especially Nigeria, have begun to depend on computerised management information system for their day-to-day operations (i.e., manpower planning, performance appraisal and succession planning) since the rise of globalisation in the late 1980s. Many organizations adopted the Human Resource Information System (HRIS) as a primary sub-function of their Management Information System in the mid-1980s [5]. Human resource management has evolved from an administrative to a strategic role throughout the last several decades, thanks to a remarkable and continual advancement in technology [6]. The use of an HRIS would reduce HR costs by automating information and allowing managers to access relevant information and data, conduct analyses and make informed decisions [7]. Despite the apparent benefits of this technology, companies, particularly those in developing and underdeveloped nations, are unable to fully profit from HRIS due to constraints and challenges that prevent proper deployment.

Consequently, corporations have adapted to a knowledge-based economy because of their large pool of highly trained employees. Increasingly, a company's success is tied to the quality of its workforce, and this may be maintained via the usage of a Human Resource Information System (HRIS). To produce higher-quality outputs, every company should adopt an attitude of automation of standardised processes. As a result of the effect of technology on businesses, automation of human resource functions via a human resource information system is possible. The effective use of an information system may help all parts of human resource management, including planning, accounting, personnel management, pay, and regulatory analysis [8]. Due to the purpose that HRIS seeks to achieve, it is, therefore, necessary for managers to possess competency in manpower planning information, performance appraisal information and succession planning information and mostly especially should be able to develop and implement strategies that will foster positive behavioural outcomes.

HR and IT leaders struggle to invest and integrate the quantity and quality of the workforce with organisational strategy [9]. The fact that industries don't employ their workforces to their full potential in general presents the biggest challenge to manpower planning. Existing research has revealed that low employee productivity is a result of both widespread illiteracy and the sluggish development of skilled categories [10]. This is presumably the cause of the rising absenteeism that has been observed over the past few years in the manufacturing sector. Hence, this study assessed the impact of manpower planning information on employees' behavioural outcomes.

Understanding some of the most common obstacles to HRIS adoption and how to overcome them will help organizations sustain an equitable performance appraisal system. Many manufacturing companies fail to foster an excellent culture that encourages each person to grow and be open to evaluation [11]. This may be the cause of the enormous difficulties with performance evaluation seen in the manufacturing industry. The behavioural tendencies of the workers in the manufacturing industry are sometimes hampered by these difficulties. In addition, many organizations assume that managers have a sufficient understanding of what is expected of them when it comes to implementing an effective performance system [12]. As a result, they pay little to no attention to the knowledge of managers and this consequently impacts the commitment, engagement, turnover intentions and succession planning of the employees [13]. Based on the aforementioned, this study investigated the role of performance appraisal information on employees' behavioural outcomes.

Succession planning information is a major strategic process that will inevitably impact employees' behaviour within the organisation. To frequently evaluate employee career trajectories and organizational talent needs, several businesses and organizations during the past ten years have instituted talent review meetings and succession planning [9]. For many manufacturing firms, this is still a relatively new risk management function. While some organizations have found these procedures to be very helpful, others have not had the success they had hoped for. It can be challenging for firms that have never used the information to identify how to analyse the accuracy and quality of succession planning, [7]. Hence, this study analyzed the effect of succession planning information on employees' behavioural outcomes.

The office environment has changed significantly as a result of contemporary HR practices and the explosion of information technology infrastructure, and systems have been strengthened by adding new information system capabilities. Many businesses now understand how important it is to integrate technology into their operations. In this study, we emphasize the role that motivation plays in assuring the efficacy of HRIS adoption. An opportunity for firms to enhance their HR department's administrative and strategic participation in running the organization is provided by the relatively new Human Resource Information System (HRIS). Information systems have recently begun to be used by businesses in a variety of roles and departments due to the growing effects of globalization and technology.

The connection between HRIS and employee behavioural outcomes is highly relevant in manufacturing organizations involved in Fast Moving Consumer Goods (FMCGs) in Nigeria. This is because these organizations possess a wide distribution channel, and the use of HRIS to connect the employees irrespective of their locations becomes paramount. There are limited studies that has been conducted in Nigeria that focuses on human resource information system and employee behavioural outcomes. To close the stated gaps, the current study examines the relationship between human resource information system and employee behavioural outcomes of selected manufacturing firms in Nigeria. The following research objectives were aimed at filling the intellectual gap:

   i. to assess the influence of manpower planning information on employees' behavioural outcomes;
  ii. to investigate the role of performance appraisal information on employees' behavioural outcomes; and
 iii. to analyse the influence of succession planning information on employees' behavioural outcomes.

2. Literature review

2.1. Human resources information system

The Human Resource Information System (HRIS) gathers and keeps track of data on human resources, converts that data into information, and then provides it to users. According to Ref. [14]; a system for collecting, storing, altering, analyzing, recalling, and transmitting information on human resources. HRIS is a piece of software used, among other things, to address issues with data monitoring and employee data [15]. HRIS is made up of a variety of information system. The competencies gained from the pervasive use of diverse HRIS permit the loyalty of workers, which is needed for organisational sustainability, indicating that HRIS is a top-tier organisational solution provided by HRIS suppliers [4]. Regardless, the functionality of information system in human resource management stems from its ability to lessen challenges because managing the workforce can be a tough challenge. The enhancement of human resource policies and processes is connected to the viability of organizations through the use of HRIS [6].

Udekwe et al., [16] claim that providing a wide variety of information as an integrated database supports different sectors in providing critical connections across multiple departments/units and facilities, increasing the pace of information transfers. In addition to the preceding benefits, it is crucial to recognise a few of the limits of HRIS. HRIS can be costly to procure and manage. According to this viewpoint, obtaining HRIS ought to be founded on the organisation's need, desire, and capabilities that require it [17]. Furthermore [18], mentioned that documentations are not precisely and quickly recorded in HRIS, which produces a high degree of mistrust among managers and employees in terms of having faith in the report provided. Studies on the use of HRIS are prevalent in numerous sectors such as health and medicine. However, the extent to which this is applicable in the fast-moving consumer goods manufacturing industry is to be seen.

2.2. Human resource information system dimensions

Extant literature have demonstrated various dimensions of human resource information system. These include manpower planning information, performance appraisal information and succession planning information [14]. These dimensions are expressly reviewed as follows:

(i) **Manpower Planning Information**

Manpower planning has been described as a continuous process in which plans are made on how to achieve the best use of human resources for the organisation's benefit. This implies that manpower planning enhances the proactivity of an organisation to meet the human resource challenges in the present moment and make plans to adapt to future challenges. [19]; assert that carefully developed manpower planning helps connect the manpower to the organisation's mission, vision, objectives, and goals. As observed in Ref. [10]; the application of manpower planning to an organisation helps in providing an answer to questions relating to the number of staff an organisation currently has, the kind of skills the organisation is currently in need of, how the organisation intends to utilize the resources optimally and how it can retain the manpower.

(ii) **Performance Appraisal Information**

Performance Appraisal information can be seen as a human resource management function that involves assessing the job or tasks carried out by an employee during a period of time [12]. In performance appraisal information, there is a continuous review of employees' activities and the use of feedback mechanisms [20]. As suggested in Ref. [11]; performance appraisal information should be used as a motivation tool, especially for those that have done well in their various tasks. It is expected that the continuous motivation of the employees will promote creativity and innovation of the employees, thereby making them more productive [20].

(iii) **Succession Planning Information**

The primary goal of succession planning in today's business is to ensure that the organization's future demands are met and that it thrives in a learning environment. Succession planning is a critical process for anticipating changes in future expectations in various roles, including managerial responsibilities, as well as the expansion of leadership and management needs, which will have an impact on organizational performance. The most important resource that an organization needs for growth and survival, according to Ref. [21]; is its human resources. Making things happen is a skill that human resources excel at. To inspire people to reach their greatest potential, effective leadership is necessary as part of succession planning. Since continuity is essential, every step should be carefully planned out in advance. To achieve this goal, succession planning should identify the elements of purpose and vision embedded in transformational leadership to control other resources in a changing environment and achieve defined objectives using techniques that are both flexible and sensitive to the environment's dynamics. This will encourage positive behavioural outcomes among employees.

2.3. Employee behavioural outcomes

With the rapid development of the manufacturing industry, employee behavioural outcome has gradually become a prevalent topic in the field of human resource management [22]. further established that the need to improve employee behavioural outcome has

become critical to organizations' survival and success. An individual's response to a particular workplace scenario is referred to as employee behaviour. To earn others' approval and respect at work and to keep a positive work environment, employees should conduct themselves properly. Upholding workplace norms and rules is essential [23]. Individuals behave in a specific way in a given setting. Nobody behaves in the same way. Some struggle with stress, and then there are some who can handle unforeseen circumstances with a smile on their face [24]. Managers and leaders have a large influence on how people perform in the workplace. Leaders are in charge of directing team members on the appropriate path. It has been observed that when employees have strict employers, they do not want to go to work in the majority of cases. Organizations are supposed to be available to their teams at all times. Guide and support them in their daily activities, as well as in learning new skills and improving their knowledge. Employees should be at ease at work if they are to remain optimistic and happy [23]. Employees in the workplace setting should follow the same laws and regulations and ensuring transparency at all levels is essential. Adherence to these principles promotes a variety of employee behavioural outcomes, including employee commitment, satisfaction, engagement, and loyalty (Ebikeseye, & Dickson, 2018).

2.4. Theoretical justification

Everett Rogers, an American sociologist and communication theorist, introduced the Diffusion of Innovation (DOI) theory in 1962. It seeks to explain how, why, and how quickly a good, service, or process spreads among a population or social system. In other words, the diffusion of innovation accounts for how quickly new concepts and technologies catch on. This theory promotes the importance of human resource information system (HRIS) implementation in the organization to achieve the competitive advantage.

HRIS is a technological advancement that might help businesses manage their human resources. The Diffusion of Innovation (DOI) hypothesis may be used to describe how HRIS has spread throughout businesses, much like any other inventions. In other words, HRIS are distributed throughout organizations at various levels based on organizational and innovative qualities. According to DOI, the acceptance of an invention occurs over the course of five stages: Knowledge, Persuasion, Decision, Implementation, and Confirmation are listed in that order (Rogers, 1983). Knowledge is the initial step, and its significance in the complicated global context of today cannot be understated (Jamshidi, 2015; Avazzadeh, 2015). Decisions are formed once bases are established for persuasion.

Besides, Rogers strongly believes in the role of human resources in ensuring that innovation is sustainable. He asserts that the process of innovation diffusion depends on human resources, and an organisation should pay adequate attention, to this end it simply means that employee behavioural outcomes are inevitable towards the successful adoption of a human resource information system. The innovation should be adopted and well-integrated by the entire organisation. Based on the theory, there are different types of adopters of innovative ideas, including innovators, early adopters, early majority, late majority, and laggards.

Previous IS studies [25–27] (Zhu et al., 2003; Oliveira and Martins, 2008; Pan and Jang, 2008; Ghobakhloo et al., 2011) have examined a variety of IS adoptions, including those of websites, e-business, e-commerce, ERP, marketing, etc. However, studies focusing on HRIS, particularly one that measures HRIS adoption, are still lacking. Numerous elements that influence the choice to adopt have been found by researchers. Additionally, the majority of these studies solely evaluate adoption at the decision stage. However, it is currently imperative to investigate the adoption process through the implementation step, which comes after the choice stage. The advantages of HRIS, however, cannot be realized by just choosing to utilize it; they must be put into practice by the company. Understanding HRIS adoption is therefore crucial.

A strategy for promoting and attaining widespread adoption of creative behavior is provided by the Diffusion of Innovations Theory. To increase employee compliance with their lifestyle health variables, workplace management must grasp how to apply the DOI principle. Basically, the assumption of this theory focuses on implementing DOI in the workplace and creating plans for its effective application to enhance workers' behavioral outcomes. The Rogers theory attempts to provide solutions to some of the weaknesses of Schumpeter's model of creative destruction. The theory provides some factors to be considered when engaging in innovation. These factors act either to push or pull the innovative firm. One breakthrough of the Roger theory is perhaps the belief that innovation depends on the human factor, an aspect many research seems to be silent on. The theory can attribute innovation to human elements and the need for their empowerment to think creatively. Above all, this theory has been used successfully in many fields, but it does not take into account an individual's resources or social support to adopt the new behaviour (or innovation).

3. Methodology

The descriptive research design was adopted for this study. Descriptive research gives the researcher the opportunity to understand the issues raised in this study [28]. The target population comprised 121 managers and supervisors of the selected manufacturing firms in Nigeria. Only managers and supervisors that have used any of the HRIS were purposively selected across the Fast-Moving Consumer Goods firms in Nigeria. The authors presumed that only managers are able to supply the necessary data, hence it is crucial to purposefully (purposively) involve them in the study. Three manufacturing firms in Lagos State, Nigeria was selected based on overall assets, ROI, ranking and performance on Nigerian Stock Exchange (NSE report 2019). Specifically, the purposive sampling technique is also known as judgmental sampling to get reliable data. The use of purposive random sampling was adopted to select the participants that are of interest and relevant to the study [29]. Furthermore, the use of judgmental sampling is used because the target population are individuals who have adequate knowledge about the use and purpose of human resource information system. To gather information from a diverse cross-section of the target population, a questionnaire was used. According to Ref. [30]; the most effective approach to acquiring data from a dispersed population was found to be a survey (questionnaire). The questionnaire was divided into two (2) sections: questions about the understudied topic (Human Resource Information System and employees' behavioural outcomes) and questions about the respondents' demographics. The degree to which respondents agreed with each question on the 4-Likert

scale—which ranges from 4-Strongly Agreed, 3-Agree, 2-Strongly Disagree, and 1-Disagree—was used to represent their responses. The use of the 4-Likert scale is to ensure that respondents do not hide under the neutral option and to get their specific responses [31]. The items in the questionnaire and their sources are represented in Table 1 below:

The various manufacturing firms selected in Lagos State, Nigeria and how the questionnaire was distributed among them is displayed in Table 2 below:

4. Analysis and discussions

This section examines the findings from the same data and the analysis of the data gathered via a questionnaire. The data is tabulated, and the stated research questions have been analyzed and addressed. Managers and supervisors in selected manufacturing enterprises served as the study's unit of analysis. They are also regarded as professionals who influence and coordinate the activities of others, this group of persons is a good fit for this study's target demographic. Each target respondent has its own set of behavioural characteristics. The participants were given an online questionnaire designed and distributed to them (i.e. managers and supervisors). Efforts were made to persuade the selected participants to fill out the google form that had been produced and emailed to assure adequacy and representation. One hundred two copies of the online questionnaire were appropriate for analysis after follow-ups. This response rate is significant enough to create a baseline and reliable enough to derive empirical conclusions. Table 3 shows the demographic characteristics (gender, age, education and occupation) of the participants.

According to the demographic data, 52.9% of respondents were female and 47.1% were male. According to the data above, 18.6% of respondents are older than 46 years old, 59.8% are between the ages of 35 and 45, and 21.6% are younger than 35. According to the table's educational breakdown, just 22.6% of respondents had a master's degree, while 63.7% of respondents held a bachelor's degree. The table for respondents' working experience showed that 10.8% had 1–4 years of experience, 70.6% had 5–9 years, and 18.6% had 10 years or above.

4.1. Measurement model and model fit summary

Anderson and Gerbing proposed a technique for evaluating the test of research hypotheses used in this study, model fits, and construct validity (1998) [32]. used a measurement and structural two-model approach. The constructs and measurement items in this study fulfil construct validity for both the measurement model and the structural model (i.e convergent validity). In the first stage of the measurement model, CFA was used to assess item reliability, item loadings, composite reliability, concept validity, and error variance in order to demonstrate convergent validity. Table 4 provides a list of the three standards used to assess convergent validity [32]. The first of the three requirements is that all scale and measurement items must be significant and surpass the minimum value standard of 0.70, as demonstrated by the CFA loadings. Second, the composite dependability of each construct is higher than 0.80. Third, the average variance extracted estimate (AVE) for each notion is higher than 0.50 [33]. The results of the CFA analysis are shown in Table 4, and they show that the factor loadings for all significant variables fall between 0.78 and 0.89.

While the researchers utilized CFA to evaluate composite reliability and the average variance extracted (AVE) of the particular components, Table 4 showed convergence in reliability. Thus, according to the results of our investigation, all the prerequisites for convergent validity as proposed and advised by Refs. [34,35] were met.

Cronbach's alpha, which effectively indicates how closely a group of items are related, was used to measure internal consistency. Scale dependability is measured using Cronbach's alpha statistic. George and Mallery (2016) state that the following is a general guideline: Excellent (High-Stakes Testing) = 0.9, Good (Moderate-Stakes Testing) = 0.7, and Low (0.5) = 0.7 (Low - Stakes testing).

4.2. Descriptive statistics on the benefits, barriers, and solutions to HRIS

Table 5 shows the benefits, barriers, and solutions to the implementation of human resource information system (HRIS) among the selected manufacturing firms in Nigeria.

According to Table 5, HRIS reduces the requirement for human resource specialists, streamlines procedures, improves tracking, and reduces data inaccuracies. Additionally, it enables businesses to exercise better control over their use of human resources, streamline

Table 1
Sources of items in the questionnaire.

Latent Construct	Number of Items	Sources
Manpower Planning Information provides information on current and future manpower resources	3	[10,19]
Performance Appraisal Information provides information on an employee's job performance and provides feedback.	3	[12]

Succession Planning Information
     essential component of human resource information system that evaluates each leader's ability and potential successor for key
     areas in the organisation.
	3	[21]

Employee Behavioural Outcomes (Employee Commitment, Employee Satisfaction and Employee Engagement) response to specific work situations.	9	[23]

Table 2
Breakdown of Questionnaire distribution.

S/N	Manufacturing Firms	Managers	Supervisors	Copies of Questionnaire
1.	Manufacturing firm 1, Lagos State	15	31	46
2.	Manufacturing firm 2, Lagos State	12	28	40
3.	Manufacturing firm 3, Lagos State	10	25	35
	Total	**37**	**84**	**121**

Source: NSE Website (2019)

Table 3
Distribution of biographical data of the respondents (n = 102).

Variables	Frequency	Percentage
Gender		
Male	48	47.1
Female	54	52.9
Age		
35 years & below	22	21.6
35–45 years	61	59.8
46 years & above	19	18.6
Educational Status		
OND/NCE	14	13.7
Bachelor's Degree	65	63.7
Master's Degree	23	22.6
Work Experience		
Below 5 years	11	10.8
5–9 years	72	70.6
10 years and above	19	18.6

Source: Researcher's Field Survey Result (2022)

Table 4
Construct reliability and average variance extracted (AVE).

Construct	Composite Reliability	Cronbach's Alpha	AVE
HRIS	0.8464	0.7849	0.6235
Manpower planning Information	0.9026	0.8155	0.7004
Performance Appraisal Information	0.8793	0.7919	0.6524
Succession Planning Information	0.8853	0.7432	0.6936
EBOs	0.9542	0.7904	0.6314
Benefits of HRIS	0.8953	0.8003	0.6784
Challenges of HRIS	0.9006	0.8116	0.7167

Note. The Factors are labeled as follows: HRIS – Human Resource Information System, EBOs – Employees' Behavioural Outcomes.

operations, accelerate HR decisions, increase competitiveness, move the HR focus from administrative to strategic HRM, and completely restructure their HR operations.

Despite the undeniable benefits of HRIS in companies, many organizations, particularly manufacturing firms, are unable to reap the full benefits. Furthermore, the table shows that the top management's hesitation, employee privacy concerns, organizational internal opposition to HRIS implementation, and the conversion cost are the four most significant impediments and challenges to effective HRIS implementation (from the traditional approach to HRIS). That is, if senior executives take the initiative and employees cease resisting change for whatever reason, HRIS can be simply deployed in most businesses. The other factors, such as a lack of technological expertise, cost of infrastructures, the difficulty of maintaining HRIS, and a paucity of IT experts, are not also issues affecting the consistent implementation of HRIS in the selected manufacturing firms.

It was evident in Table 5 that a variety of obstacles obstruct the efficient adoption of HRIS, many HR professionals need effective metrics to address these issues. Another inquiry was posed to learn more about how to overcome these obstacles. What should an organization do to guarantee that HRIS is implemented correctly? According to the table, HRIS-enabled firms should provide top management awareness, integrate technology expertise into HR personnel, safeguard employee privacy concerns, and assure individuals with IT specialist knowledge. overcome employee resistance, enable appropriate infrastructure development, and protect against external threats.

4.3. Hypotheses testing and structural model

The technique of structural equation modeling was used to evaluate the hypothesis. To accurately represent the theory that describes how the constructs interact with one another, a structural model was used. The relationships between observable and latent

Table 5

Benefits, barriers, and solutions to HRIS implementation.

| Benefits of HRIS Implementation	Frequency	Ranking Order
Speeds up processes	8	7
Reduces information errors	13	5
Improves the tracking of HR actions	23	1
Fasten HR decision making	15	3
Improves service delivery	10	6
Shift HR focus from administrative to strategic HRM	14	4
Produce a greater number and variety of HR reports	19	2
Barriers to HRIS Implementation	**Frequency**	**Ranking Order**
Top management reluctance	14	4
Lack of technological knowledge	18	3
Cost of infrastructural development	22	1
Difficult to maintain HRIS	19	2
Shortage of IT expert	8	6
Organizational internal resistance	5	8
Privacy issues for employees	7	7
Conversion cost	9	5
Dependable Solutions to the Barriers	**Frequency**	**Ranking Order**
Ensure top management Awareness	24	2
Train HR people with IT knowledge	28	1
Ensure suitable infrastructural development	20	3
Overcome resistance from Employees	13	4
Protect the privacy issues of Employees	10	5
Ensure IT expert	7	6
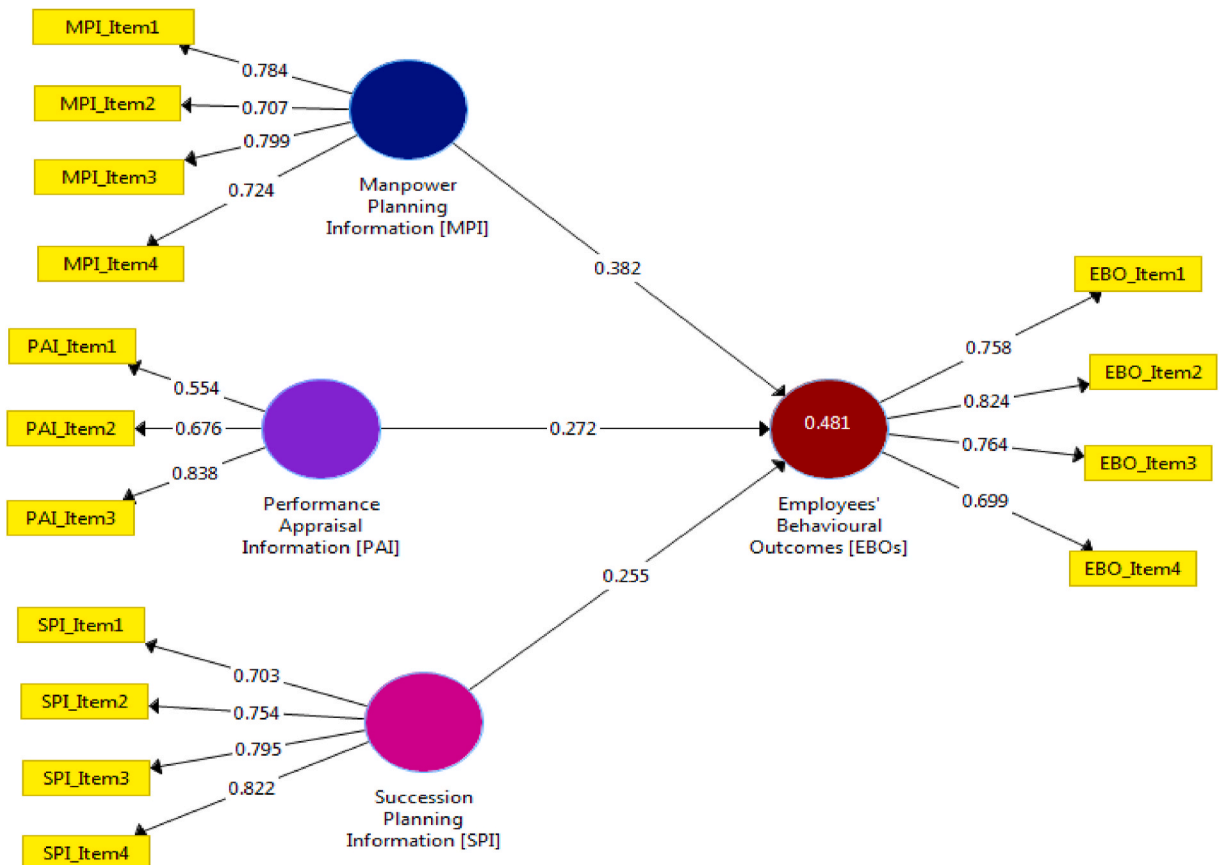
Fig. 1. Predictive structural model.

variables are quantified and examined using the statistical method known as structural equation modeling (SEM). Figs. 1–3 depict the model-fit metrics we used to evaluate the general goodness of fit of the structural equation modeling based on generally recognized thresholds established by previous studies [36].

An analysis of the data using the structural equation modeling procedure, as depicted in Fig. 1, shows the relative contributions of HRIS dimensions on employees' behavioural outcomes. Fig. 1 indicated that manpower planning information ($\beta = 0.382$, $p < .05$) is the major significant indicator of employees' behavioural outcomes, followed by performance appraisal information ($\beta = 0.272$, $p < .05$) and succession planning information ($\beta = 0.255$, $p < .001$). The parameter estimates as depicted in Fig. 2 indicate that manpower planning information and performance appraisal information are the most significant predictors of employees' behavioural outcomes, this implies that organizations have adequate data on the process of forecasting manpower requirements, as well as adequate knowledge on the expertise needed to achieve present and future objectives as regarding manpower in the organisation. Since all the P-values are less than 0.05, we then concluded that human resource information system dimensions (i.e. manpower planning information, performance appraisal information and succession planning information) have a significant influence on employees' behavioural outcomes.

The p-value and t-values for the variables are presented in Figs. 2 and 3 respectively.

5. Summary of findings

The summary of findings was presented in Table 6.

5.1. Discussions of findings

The outcomes of this study revealed human resource information system has a significant influence on employees' behavioural outcomes in selected manufacturing firms in Nigeria. This backs up the argument of [10] who found that HRIS is important for promoting positive organisational employees' behavioural outcomes of manufacturing firms [2]. further coorborated the findings. They argued that to secure positive behavioural dispositions, HR managers should also consider the technical know-how and capability of the employees.

According to the first hypothesis of the study, which stated that manpower planning information does not have a significant influence on employees' behavioural outcomes, however using the analysis of the structural equation modeling, the null hypothesis will be rejected which implies that manpower planning information has a significant influence on employees' behavioural outcomes of the
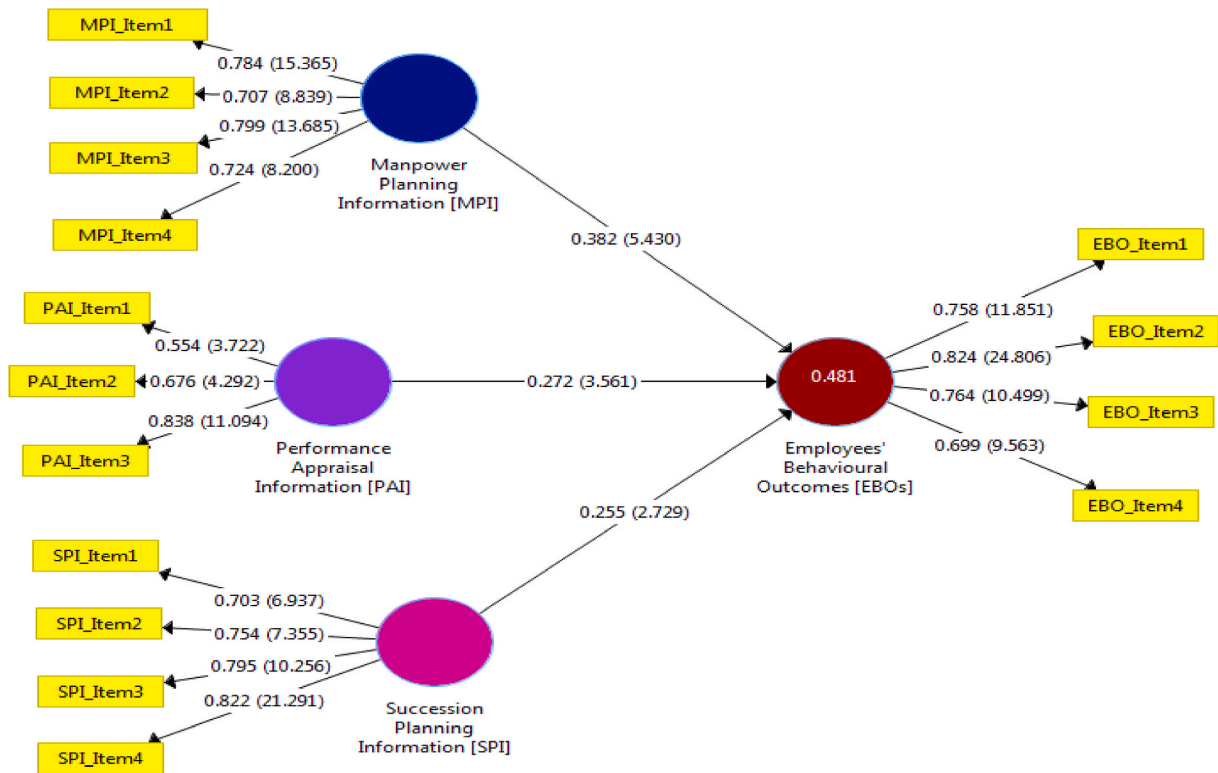

Fig. 2. Predictive Structural Model and T-values of manpower planning information, performance appraisal information, succession planning information and employees' behavioral outcomes.
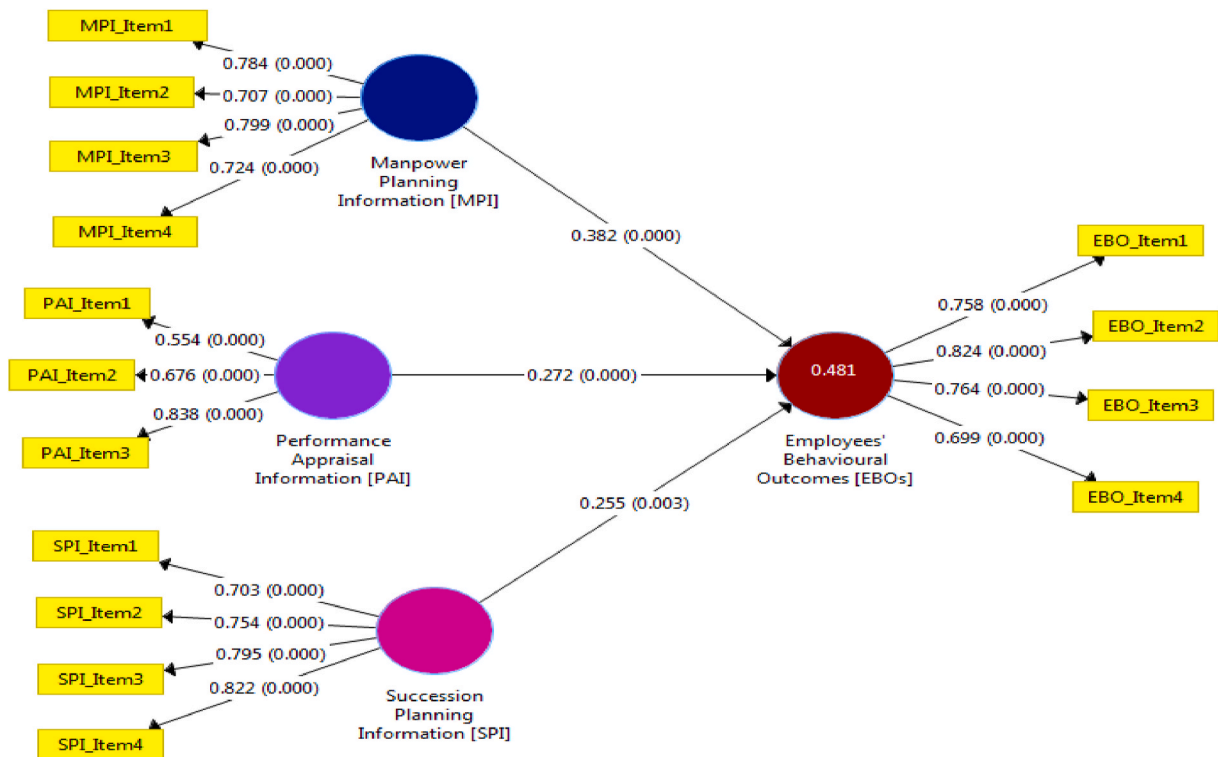
Fig. 3. Predictive Structural Model and P-values of manpower planning information, performance appraisal information, succession planning information and employees' behavioral outcomes.

Table 6
Summary of hypotheses results.

S/N	Hypotheses	Analytical Tool	Decision	Findings
1	Manpower planning information does not have a significant influence on employees' behavioural outcomes	SEM_PLS (Version 3)	H01 Rejected	Manpower planning information has a significant influence on employees' behavioural outcomes
2	Performance appraisal information does not have a significant influence on employees' behavioural outcomes.	SEM_PLS (Version 3)	H02 Rejected	Performance appraisal information has a significant influence on employees' behavioural outcomes.
3	Succession planning information does not have a significant influence on employees' behavioural outcomes.	SEM_PLS (Version 3)	H03 Rejected	Succession planning information has a significant influence on employees' behavioural outcomes.

Source: Researcher's surveys, 2022

selected manufacturing firm. Sparingly, the respondents indicated that the selected manufacturing firms have adequate data on the process of forecasting manpower requirements, and they have the knowledge on the expertise needed to achieve present and future objectives. The findings are in line with research by Refs. [5,19] who found out that there were no significant disparities between the constructs, it was discovered that HRIS is currently being used for administrative purposes rather than analytical purposes which manpower planning also falls under.

In addition, the selected manufacturing firms considered that performance appraisal information is very essential to fostering a positive behavioural tendency among employees in the workplace, whereby they provide a platform for constructive feedback and ensure that the employees have adequate information about their performance over time. They strive to ensure that all employees are fully in the know about their strengths and weakness as well as providing information to let the employees know areas in their work that they should improve upon. This finding is supported by the study of [12] who revealed a positive relationship between performance assessment and employee performance. This was also justified in the works of [20] who adduced that performance appraisal information gives room for the continuous motivation of the employees will promote creativity and innovation of the employees, thereby making them more productive and committed to work.

The findings of the third hypothesis stated that succession planning information significantly influences employees' behavioural outcomes, which means that respondents of the selected manufacturing firms established adequate information for succession trajectories and career growth. This is contrary to the findings of [37] who suggested that leaders who are inept or fatigued may have a negative influence on succession planning's efficacy. As a result, an organisation should be proactive in its succession planning and

strategize for future performance and sustainable employees' behavioural outcomes.

6. Conclusion and recommendations

With the undeniable advantages of HRIS, businesses should choose to assure successful implementation by understanding the difficult and disruptive difficulties. The findings of this study may be useful to HR executives in identifying obstacles that obstruct the efficient implementation of this technology in HRM activities. Top management support is the most important aspect of the overall success of an HRIS plan. Before addressing enhanced capabilities, an effective HRIS approach should be progressive and include the development of a stable core capability. Strategic enablement and future-facing activities such as planning and predictive analytics will be based on a solid foundation and plan. To achieve the organisational intended outcome, manufacturing firms should be prepared to work through various barriers and challenges during the HRIS deployment. Based on the findings, it was recommended that:

Firstly, a suitable amount of time should be allocated for managers and employees to learn how to use the new system, and they should be involved as much as possible in the system's implementation and modification, so as they have better understanding of the system's interface. Secondly, managing change is not the same as training; nonetheless, it can be discussed at HRIS training meetings. After training, additional assistance should be given to help employees adjust to utilizing the new system on a regular basis. Managers should make it clear how and when employees can contact them with questions about the new changes, for as by email or during designated office hours. Finally, the management of the Nigerian manufacturing firms should also motivate their staff while implementing technologically friendly HRM practices in order to drive positive behavioural tendencies.

7. Contribution to knowledge

The research has made the following contributions to knowledge:

1. The study is an enhancement to literature, being one of the relatively limited, original, and empirical accounts of the functional relationship between human resource information system, and employees' behavioural outcomes, particularly within a developing country like Nigeria.
2. The research work provides HR managers with sufficient information, a broader perspective, and the best approach to adopt to tackle the challenges related to human resource information system (HRIS) deployment and how it would improve employees' behavioural outcomes.
3. This study also provides Human resources scholars with a detailed explanation of the role of manpower planning information, performance appraisal information, succession planning information, and how they foster a positive behavioural outcome among employees.

8. Limitations/further study

1. In this study, only structural equation modeling was employed. Using the (Smart Partial Least Square 3.0) approach, the hypotheses were examined. On the other hand, future research might make use of a variety of methodologies, particularly interviews, to collect additional information that was left out of the quantitative study.
2. Only three manufacturing firms were selected from Lagos state, Nigeria, and future studies cam broaden the scope to include more manufacturing firms or even extend to other sectors in Nigeria.
3. Given that this study is concentrated on a mono method, future studies may adopt a mixed method (quantitative and qualitative) to improve the quality and robustness of the findings.

Author contributions

Alebiosu Jadesola Ololade: Wrote the paper, Conceived and designed the experiments; **Salau** Odunayo Paul: Performed the experiments, analyzed and interpreted the data; **Atolagbe** Tolulope Morenike and **Dada** Augustina Esitse: Contributed reagents, materials, analysis tools or data.

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Institutional review board statement

The principal investigator submitted the research instrument to the Covenant University Business Management Research Ethics Committee for ethical approval. Approved was given on May 25, 2020, by BMREC 05/238). A letter of introduction was given to the research team, which was presented to the Federal Civil Service Commission stating the purpose of the research. In addition, information/data obtained from target respondents were retrieved and kept with utmost confidentiality, and sensitivity and used for research purposes only. The researchers ensured that negative actions like assumptions and tricks that could translate into biases in distributing the copies of the questionnaire were not accommodated.

Informed consent statement

Conflicts of interest

The authors declare no conflict of interest.

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