

Article

Prescriptive Learning and Sustainable Employee Engagement in Selected Pharmaceutical Firms in Nigeria

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Abstract: Prescriptive learning is gradually gaining the attention of various industries in Nigeria, particularly on the issues and concerns surrounding sustainability. The existing literature shows that Nigerian pharmaceutical firms have not provided adequately researched prescriptive learning opportunities and sustainable employee engagement. Thus, this study explores the influence of prescriptive learning and sustainable employee engagement in selected pharmaceutical firms in Nigeria. Five hundred and forty-one (541) respondents were surveyed across all the selected pharmaceutical companies in Nigeria using a stratified and purposive sampling technique. Only four hundred and thirty-four (434) copies of the questionnaire, which represents an 80.2% rate of response, were analysed with Smart PLS 3.0. The results show that competitive differentiation, reflection, research and idea testing significantly influenced employee (cognitive, behavioral and affective) engagements. The study concludes that the adoption of prescriptive learning motivates sustainable employee engagement because employees become emotionally invested in work roles and functions. This study contributes to the strategic learning and development of human resource management practices, especially in the Pharmaceutical industry.

Keywords: competitive differentiation; cognitive; prescriptive learning; behavioral; affective engagements



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1. Introduction

Organizations across the globe are increasingly faced with rapid change and a dynamic environment. Today's business environment is characterised by complexities, competition, and uncertainties that threaten many businesses' sustainability in both developed and underdeveloped economies. However, the sustainability of business activities has become a significant concern. This has necessitated many organizations to pay more attention to customers' needs and offer quality products to satisfy their expectations [1]. Aragon, Jimenez, & Valle [1] and Inegbenojie [2] noted that organizations require employees' responsiveness to the evolving business environment to continually manage the rising threats in this highly competitive business environment. Therefore, many organizations need an engaged workforce with positive attitudes towards the organization's strategic goals to drive sustainable performance [3,4]. Thus, the sustainable engagement of employees performs a significant role in shaping the next generation of leaders in the pharmaceutical industry, who can overcome the industry challenges.

The literature has established that the pharmaceutical industry's ultimate goal is to eradicate disease and achieve best practices in the interest of public health [5]. Many researchers have acknowledged that the pharmaceutical industry should boost the economy globally and drive progress medically by developing, researching, and producing new medicines that will increase patients' quality of life around the world and improve their health conditions [5,6]. Additionally, Faiva, Hashim, & Ramadhan [7] presented data

only on the mediating role of supervisory support in influencing the relationship between organizational learning and employee engagement of selected pharmaceutical firms in Nigeria. Further, Ladyshevsky, & Taplin [8] assessed the impact of normative learning on employee commitment from young employees' perspectives.

Most of these studies focused on the relationship between prescriptive learning, self-efficacy and workload on employee citizenship behavior. This suggests elements of a knowledge lacuna in the existing studies on the subject of prescriptive learning and sustainable employee engagement in selected pharmaceutical firms in Nigeria. It must be highlighted that established literature focused on the moderating influence of supervisory support in the relationship between employee participation, employee engagement, job commitment and the institutional support role with e-learning, innovation, business orientation and performance. Others mainly focused on the impact of prescriptive learning on employee performance [9,10]. However, the current article focuses on how prescriptive learning will drive the sustainable engagement of employees of pharmaceutical firms via the achievement of strategic goals. Achieving organizational goals also includes a readiness to provide a conducive learning environment in addressing Sustainable Development Goals 3 (good health and wellbeing) and 4 (quality education). The Sustainable Development Goals (SDGs) of the United Nations aim to end universal poverty, achieve good health and wellbeing and ensure that by 2030 everyone enjoys prosperity and tranquility, which has not been extensively investigated in Nigeria.

Additionally, most studies adopted correlation and regression analysis to analyse the collected data. However, this article used Structural Equation Modelling to measure variables and analyse the latent constructs and structural relationships. The factor model of the analysis showed the degree of fitness, construct validity and level of reliability. This was carried out through discriminant and convergent analyses. The present article covers the fundamental gaps in the literature by deeply considering the influence of prescriptive learning on sustainable employee engagement with the following specific objectives: (a) examine the influence of experience on sustainable employee engagement; (b) investigate the effect of competitive intelligence on sustainable employee engagement; (c) examine the influence of research on sustainable employee engagement; (d) investigate the effect of reflection on sustainable employee engagement; and (e) determine the influence of idea testing on sustainable employee engagement.

Hence, to achieve the set objectives of this study, the first section covers the background to the study, while the second focuses on the literature review in line with the identified objectives of the study. Additionally, the methodology adopted for the study is addressed in the third section, while the last section captures data analysis, discussion of the findings, conclusions, limitations and recommendations for further studies.

1.1. Prescriptive Learning

Prescriptive learning is experiential learning where information is acquired from employees' knowledge and experience, and is later transformed into a viable idea. In gaining experience, some persons perceive information through concrete, tangible and immersed reality [11]. Other persons acquire new information by conceptualization, i.e., analyzing and thinking through rather than using sensation. Similarly, to transform experience, some individuals reflect on what has happened, while others go into active experimentation. According to Kolb [12], prescriptive learning also allows organizations to gather and analyze information from reflection, past experience, competitive differentiation, idea testing and research [13].

Sustainable Employee Engagement: This is when employees become absorbed and focus on discharging their job roles and function [14,15]. On the other hand, it is posited that engaged employees understand the need to achieve sustainable development goals. They work cordially with coworkers to improve the job's output for the advantage of the organization. Kahn [16] and Ajibola, Mukulu, & Simiyu [17] viewed sustainable employee engagement from three perspectives: affective/emotional, cognitive and behavioral engagement.

Affective Engagement: This type of engagement explains employees' emotional commitment and meaningful connections [14]. Employees who display this type of engagement show a high level of enthusiasm and dedication towards their job [15], affirming that affectively engaged employees always feel good with the achievement of a good job well done.

Behavioral Engagement: This is an employee's display of sustainable behaviors in working beyond the employment contract terms and agreement. It also involves employees' ability to exert physical energy in ensuring the sustainability of the organizational objectives. Macey, & Schneider [18] argued that behaviorally engaged employees go beyond the limit in getting the job done for their organization and industry.

Cognitive Engagement: Cognitive engagement is employees' ability to think solely to generate new business ideas and initiatives to enhance the organization's sustainable performance. In addition, cognitively engaged employees display a sustainable positive, fulfilling and enduring attitude to work. This makes them creative, focused and psychologically present in the job activities [14,19].

1.2. Empirical Reviews of Literature

Bello, & Adeoye [9] and Nonaka [20] examined the connection between prescriptive learning, innovation and behavioral engagement. The findings indicate that descriptive learning positively correlated with organizational innovation, which contributed to employee behavioral engagement. Hussain, & Ishak [21] considers it relevant to examine the impact of normative learning on employee commitment from the perspective of young employees of commercial banks. The findings indicated that employees value developmental opportunities, such as mentoring and training provided by organizations. Ladyshevsky, & Taplin [8] examines the relationship between prescriptive learning, self-efficacy and workload on employees' cognitive engagement. The findings show a positive association between managerial coaching and employee cognitive engagement, mediated by prescriptive learning. Abolarinwa [22] also evaluates the dimension of studying the organization's trust, knowledge acquisition and affectivity as factors that affect the prescriptive learning of managers in insurance organizations. The study concludes by encouraging employees to promote their culture, i.e., to mutually cooperate in an organizational repositioning towards greater economic development and growth. Pilotti, Anderson, Hardy, Murphy, & Vincent [10] researched affective, behavioral and cognitive engagement issues in prescriptive learning. The study showed a positive relationship between cognitive engagement and instructors' behavioral engagement with the depth of discussion. Additionally, with an increase in class size, behavioral and cognitive measurement of students' engagement decreased. Savolainen [23] examines explicitly two dimensions of prescriptive learning (i.e., information distribution and information sharing) as well as employee citizenship behavior as communication activities. The findings showed that information distribution and knowledge sharing represent similar communication activities when viewed from ritual and transmission viewpoints. Macey, & Schneider [18] studied supervisory support as a moderating variable of work-family life and employee engagement. The study's findings reveal that supervisory support performs essential functions in balancing the demands of work and family duties, thereby improving the position of female workers.

1.3. Hypothesis Development for Prescriptive Learning and Sustainable Employee Engagement

1.3.1. Past Experience and Sustainable Employee Engagement

Experience is an all-inclusive integrative aspect of learning that combines behavior, perception, individual experience and cognition [24]. The experience in question could be current or past events in the organization. An essential element of learning from experience is the learner's ability to analyse their experience by evaluating past experiences and reconstructing them. Andresen, Boud, & Cohen [25] affirms that pharmaceutical firms can create and acquire information by learning from past experience and observing their competitors [26]. Hence, past experience is an organizational strategy used to foster an engaged workforce. Sustainable employee engagement, on the other hand, according

to [18], is based on many interplays in the workplace, one of which is learning from past experience. Scholars such as [18,27] have claimed that sustainable employee engagement is dependent on numerous factors in the workplace. Inegbenojie [2] concludes that learning from past experience helps avoid repeating mistakes, which plays a vital role in influencing employees' level of engagement. This current study, therefore, hypothesized that:

Hypothesis 1 (H1). *Past Experience positively influences Sustainable Employee Engagement.*

1.3.2. Competitive Intelligence and Sustainable Employee Engagement

Competition is increasing across all industries. Therefore, the pharmaceutical industry needs to gather competitors' intelligence to produce insights for strategic decisions and sustainable decision-making. Competitive differentiation in the industry is geared towards collecting and analyzing competitors' products, drug developments and services. The information gathered and analyzed can help an organization to identify competitive gaps.

According to [2], the relevance of competitive intelligence goes beyond achieving competitive advantage, as it helps to develop strategies for adaptation, to align with sustainable development goals and achieve sustainable employee engagement [28]. This is reflected in employees' acquisition of more information and experiences (cognitive engagement), display of positive feelings and emotions towards their jobs, supervisors and colleagues (emotional engagement) and physical actions put into jobs (behavioral engagement). Inegbenojie [2] reiterated that competitive intelligence is a tool used to achieve sustainable employee engagement in organizations. Arising from this, the study also hypothesized that:

Hypothesis 2 (H2). *Competitive Intelligence positively influences Sustainable Employee Engagement.*

1.3.3. Research and Sustainable Employee Engagement

Research in the pharmaceutical industry is a tool for acquiring information and facilitating sustainable learning. Hence, collaborations between industry and research institutes for sustainable learning and quality research cannot be overemphasized. Similarly, recent studies reveal a collaboration between the Nigerian pharmaceutical industry and higher institutions of learning [6,29]. Oseni [6] posited that the National Institute for Medical Research (NIMR) and the National Institute for Pharmaceutical Research and Development (NIPRD) are also involved in remarkable drug development. However, Obukohwo, Olele, & Buzugbe [30] suggested improving collaborations in the Nigerian pharmaceutical industry for greater research output and drug development, working towards addressing the Sustainable Development Goals that could help achieve sustainable employee engagement. Inegbenojie [2] concludes that effective collaborations and adequate research improve an employee's level of engagement. It is therefore hypothesized that:

Hypothesis 3 (H3). *Quality Research positively influences Sustainable Employee Engagement.*

1.3.4. Reflection and Sustainable Employee Engagement

This is the activity that takes place in individual minds as they process their raw experiences. According to Kolb's learning cycle, after individuals have gained experience from work, they move on to reflective observation, reflecting on the experience gained. Reflection helps employees make meaning out of, and gain a deeper understanding of the accumulated experience [12]. This is a process that lasts as long as the learner lives and has memory. Reflection takes place through the process of metacognition [12]. Metacognition is the process of thinking about one's thinking and becoming aware of one's awareness [31]. According to [31], organizations and industries that give time for metacognition encourage employees to plan, monitor and evaluate their learning. Kolb [12] emphasizes its effect on a sustainable conducive learning environment, as well as on the achievement of set goals and objectives. A significant point to note, as indicated by [32], is that a high level

of reflection gives time for metacognition and encourages employees to plan, monitor and evaluate their learning. Supervisory support without any theoretical instruction can detrimentally influence organizational learning processes by allowing employees to apply critical thinking to their learning experiences. The connection between organizational learning and employee engagement has been clearly identified in the literature [31,33].

Hypothesis 4 (H4). *Reflection positively influences Sustainable Employee Engagement.*

1.3.5. Idea Testing and Sustainable Employee Engagement

This is the phase where the pharmaceutical industry begins to test their whole thinking ways in the world. Idea testing encourages an experimentation mindset where experimentation becomes a repeatable process. The practice of experimentation allows the industry to gain insights, even when the new idea does not work out as planned [32,34]. Organizational experiments facilitate double-loop and triple-loop learning. This contrasts with single-loop learning, where an organization continues with their present policies despite having new information. On the other hand, double-loop learning encourages the pharmaceutical industry to modify its assumptions, goals and systems in line with the Sustainable Development Goals, thereby achieving new product development and sustainable employee engagement [34]. Saks [34] posited that these new ideas compel employees to display a sustainable positive, fulfilling and enduring attitude to work. This makes them creative, focused and psychologically present in the job activities. To this end, this study hypothesized as follows:

Hypothesis 5 (H5). *Idea Testing positively influences Sustainable Employee Engagement.*

2. Methodology

The broad objective of the research is to examine the influence of prescriptive learning on sustainable employee engagement (behavioral and cognitive) in selected Nigerian pharmaceutical firms. A survey method was employed to elicit information from the respondents. Meanwhile, the study used multiple (purposive and stratified) sampling methods. Purposive methods were used because the survey covered only the permanent employees of the selected pharmaceutical firms in the Lagos metropolis. The rationale behind using the stratified sampling technique was because the sampled population encompasses different strata. SPSS was adopted to code the data to analyse the information obtained. At the same time, smart PLS Structural Equation Modelling (PLS_SEM) was used to analyse the goodness-of-fit and the influence of prescriptive learning on sustainable employee engagement (behavioral and cognitive). The study also investigated its degree of fitness, its factor model for reliability level and the construct validity through convergent and discriminant analyses. The study population comprises the six (6) pharmaceutical firms regarded as the most innovative because they export pharmaceutical products to ECOWAS countries. This study's data were obtained from a survey of employees in the selected pharmaceutical firms in the Lagos metropolis in Southwest Nigeria. A sample size of 541 was derived based on the information provided by the Pharmaceutical Manufacturers Association of Nigeria [35]. At the same time, 434 copies of questionnaires were returned valid and confirmed as fit for the analysis, representing an 80.2% response rate. This research used a five-point Likert scale to design the questionnaire. The questionnaire contained each item on a scale of five points. The study measured reliability and validity after the amendment of the final measurement model. Measurement of reliability was conducted with CFA loading, construct composite reliability. For the reliability of the instrument of research, Cronbach's Alpha tests for internal consistency were used, and the results of all the constructs used for this study were about the minimum benchmark of 0.70.

The construct composite reliability and CFA loading results are within the standard yardstick of 0.70 and 0.80. The variance of error and construct variance extracted estimates

were within the thresholds of below and above 0.50, respectively. The result of CFA with its detailed indices are presented in Table 1.

Table 1. Analysis for the Influence of Prescriptive Learning on Sustainable Employee Engagement.

	Loading	VIF	t-Statistics	p Value	AVE	Composite Reliability	Cronbach's Alpha	RhO.A
Constructs	≥0.6	<3.0	>1.96	<0.05	≥0.5	≥0.8	>0.7	
Prescriptive Learning					0.567	0.867	0.810	0.831
Past Experiences	0.733	1.223	11.922	0.000				
Competitors	0.819	1.601	29.397	0.000				
Research	0.726	2.121	11.785	0.000				
Reflection	0.716	1.711	13.446	0.000				
Idea Testing	0.765	2.021	16.171	0.000				
Affective Engagement ($\beta = 0.886$; $R^2 = 0.786$; t-Statistic = 63.028)					0.521	0.812	0.795	0.810
Inspiration	0.703	1.481	12.324	0.000				
Passion	0.648	1.757	8.630	0.000				
Excitement	0.752	1.601	12.984	0.000				
Positive vibes	0.773	2.120	17.283	0.000				
Behavioral Engagement ($\beta = 0.866$; $R^2 = 0.750$; t-Statistic= 34.376)					0.592	0.878	0.828	0.850
Physical exertion	0.719	1.009	12.690	0.000				
Energy	0.711	1.843	12.513	0.000				
Beyond limits	0.709	1.585	13.246	0.000				
Hard work	0.795	2.029	22.390	0.000				
Good communication	0.897	2.009	37.276	0.000				
Cognitive Engagement ($\beta = 0.675$; $R^2 = 0.456$; t-Statistic = 17.107)					0.509	0.837	0.761	0.755
Creativity	0.758	1.571	9.727	0.000				
Capabilities	0.674	1.545	11.191	0.000				
Job improvement	0.767	1.528	10.047	0.000				
Skills usage	0.727	2.094	14.702	0.000				
Decision making	0.631	2.089	9.444	0.000				

Table 1 displays the factor loadings, composite reliability, average variance extracted (AVE) estimate and Cronbach's Alpha, which was carried out to ascertain the validity and reliability of the research instrument. However, the recommended benchmarks for the factor loading, composite reliability, AVE and Cronbach's Alpha by [36] were met. The collinearity statistics, i.e., variance inflation factor (VIF) values, were less than 5 for all the constructs, as recommended by [37]. This suggests that normality and multicollinearity assumptions were met as described in Table 1.

Construct validity was determined through convergent and discriminant validity. Ref. [37] noted that convergent validity shows the relationship between prescriptive learning measurements and sustainable employee engagement measurement. At the same time, discriminant validity does not require a measure to correlate too highly with measures from which it is meant to differ. All the factor loading of the specific measurement items are above 0.60, as recommended by [36]. This suggests that all the items converge on a significant proportion of variance in common. Additionally, the study compared AVE with the squared correlation for each of the constructs for discriminant validity. The AVE of the latent variable exceeds the squared correlations between the latent variable and the other model constructs.

Common Method Bias and Early Versus Late Respondents Bias

The research instrument developed for this study combined both independent and dependent items of measurement in a single instrument. This was used to collect data from the same respondents at one point in time. The implication of this is that it could cause a potential common method variance, as false internal consistency might be present in the data. Therefore, Harman's single factor test, a test of common method bias, was adopted to determine if the study suffered from common method bias. Carlos, Ignacio, & Rodriguez-Rojas [31] postulated that the percentage variance must be less than 50% to ensure that the study does not suffer from common method bias. The extraction sums of the squared loadings total accounted for 2.088, while the correlation between the variables produced by the common method variance was 28.880% which is far less than 50%, as shown in Table 2. Subsequently to the above, the study concluded that there is no common method bias at 28.22% variance. Table 3 further observed there is no significant difference between early and late response.

Table 2. Common Method Bias: Total Variance Explained.

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings	
	Total	% of Variance	Cumulative %	Total	% of Variance
1. Prescriptive Learning	1.502	15.024	62.524		
2. Affective Engagement	0.698	6.984	77.189		
3. Behavioral Engagement	0.581	5.807	82.997		
4. Cognitive Engagement	0.530	5.304	88.301		

Table 3. Early Versus Late Respondents Bias.

Variables		N	Mean	Std. Dev	t-Statistic	Sig.
Prescriptive Learning	Early	434	3.550	1.373	−1.135	0.112
	Late	434	3.630	1.116	−0.650	0.965
Affective Engagement	Early	434	3.580	1.055	1.115	0.672
	Late	434	3.830	0.995	1.164	0.244
Behavioral Engagement	Early	434	3.810	0.825	0.535	0.230
	Late	434	3.920	0.849	0.950	0.519
Cognitive Engagement	Early	434	3.730	0.822	0.635	0.445
	Late	434	3.770	0.993	0.424	0.321

3. Results

Test of Hypothesis

The hypothesis for this study was tested with the use of smart PLS Structural Equation Modelling (PLS_SEM). The structural path co-efficient (R2) through the PLS Algorithm Model, the PLS Bootstrapping model with β and P values and the PLS Bootstrapping Model with β and T values was used to measure the level of the independent construct on the dependent. According to [36], bootstrapping encoded in the smart PLS is 500 subsamples that help accomplish great results. The hypothesis test helps determine whether there is adequate statistical proof against or in favour of the formulated hypothesis.

This hypothesis examined the influence of prescriptive learning on sustainable employee (affective, behavioral and cognitive) engagement in selected pharmaceutical firms in Lagos State, Nigeria. The path coefficient values, the t-statistics values, the R-square values and the p-values were used to interpret the empirical findings. The path coefficient determines the degree and strength of the relationship between prescriptive learning and

sustainable employee engagement (i.e., affective, behavioral and cognitive engagement). The p -value measures the probability that an observed difference could have occurred just by random chance, as depicted in Figure 1. The r -square determines the level of variance in the dependent variable, as explained by the independent variable. The r -square determines the level of variance in the dependent variable, as explained by the independent variable. At the same time, the t -statistics depict the calculated differences represented in units of standard error.

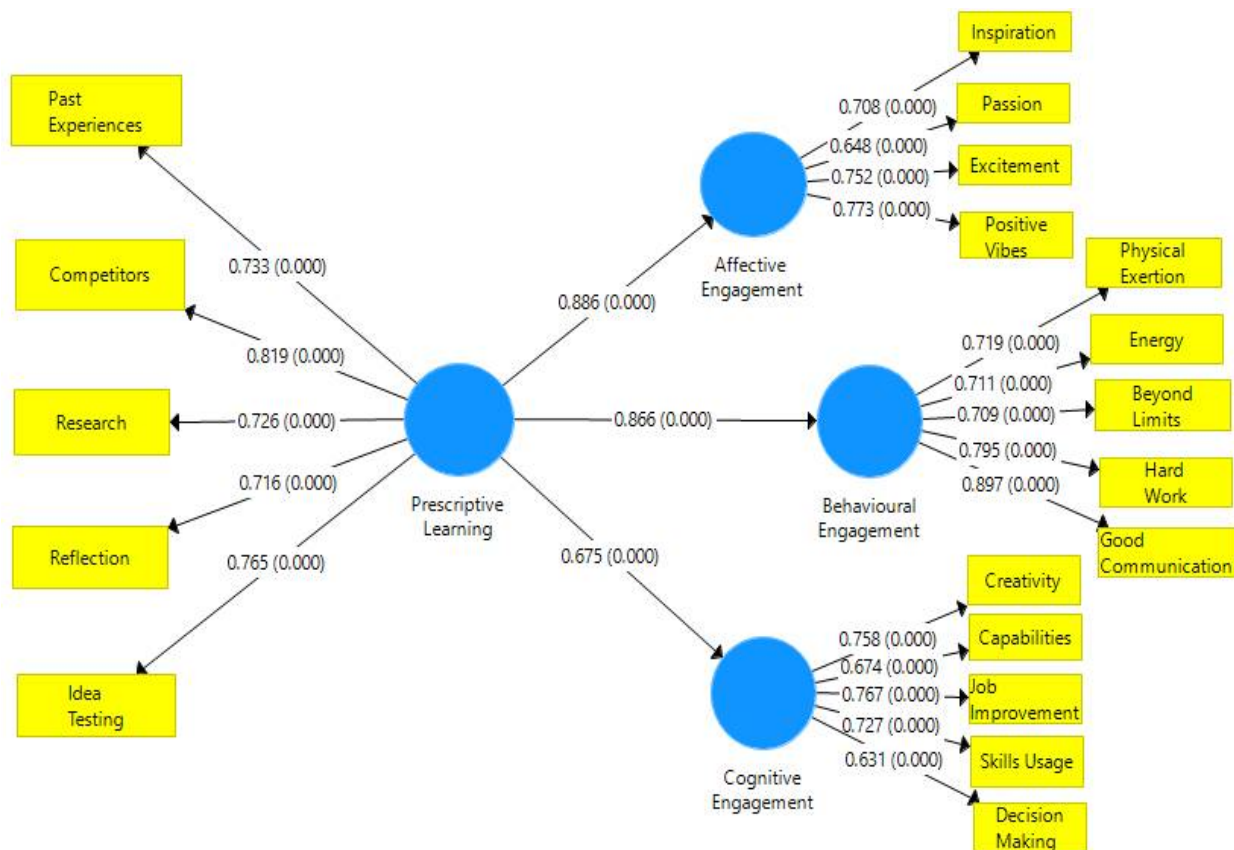


Figure 1. PLS Bootstrapping Model with β and P values of Prescriptive Learning and Sustainable Employee Engagement (Affective, Behavioral and Cognitive Engagement).

Figure 1 shows the PLS algorithm model of prescriptive learning and sustainable employee engagement in some selected pharmaceutical firms in Lagos State, Nigeria, with the loading values of each item of measurement of prescriptive learning, the path coefficient values and the R^2 values.

Figure 1 depicts the PLS Bootstrapping Model with β and P values of prescriptive learning and sustainable employee engagement (affective, behavioral and cognitive engagement). At the same time, the Figure also shows the PLS Bootstrapping Model with β and t -statistics values of prescriptive learning and sustainable employee engagement (affective, behavioral and cognitive engagement). To confirm the significance of the variables in the model, a bootstrapping analysis (i.e., the t -values and the p -values) was conducted, as demonstrated in Figure 1.

The path co-efficient analysis showing the interaction effect among the variables used in the model can be seen in Table 4.

Table 4. Path Co-Efficient for Prescriptive Learning (PL), Affective Engagement (AE), Behavioral Engagement (BE) and Cognitive Engagement (CE).

	Path Coefficient	R-Square	Std. Dev	T-statistics	p-Value
PL → AE	0.886	0.786	0.012	73.833	0.000
PL → BE	0.866	0.750	0.023	37.652	0.000
PL → CE	0.675	0.456	0.038	17.763	0.000

The PLS statistical results for prescriptive and sustainable employee engagement are also depicted in the table above. The path co-efficient tested the influence of prescriptive learning on employee (affective, behavioral and cognitive) engagement. Prescriptive learning was measured with five specific items, while sustainable employee (affective, behavioral and cognitive) engagement was also measured with fourteen items shown in the table. The findings show that prescriptive learning significantly influenced sustainable employee (affective, behavioral and cognitive) engagement. The findings revealed that prescriptive learning has a significant effect on the affective engagement of employees ($\beta = 0.886$, $R^2 = 0.786$, t -statistics = 73.833 > 1.96, p -value = 0.000 < 0.05).

The Path coefficient of 0.886 indicates a substantial relationship between prescriptive learning and the affective engagement of employees of pharmaceutical firms in Nigeria. The R^2 value of 0.786 implies that a 78.6% variance in affective engagement can be explained by prescriptive learning. The findings also revealed that prescriptive learning has a significant influence on sustainable employees' behavioral engagement at ($\beta = 0.866$, $R^2 = 0.750$, t -statistics = 37.652 > 1.96, p -value = 0.000 < 0.05). The Path coefficient of 0.866 suggests a good relationship between prescriptive learning and the behavioral engagement of employees of pharmaceutical firms in Nigeria. The R^2 value of 0.750 suggests that prescriptive learning can explain the 75.0% variance in behavioral engagement.

Additionally, the statistical analysis revealed that prescriptive learning has a significant influence on employees' cognitive engagement at ($\beta = 0.675$, $R^2 = 0.456$ t -statistics = 17.763 > 1.96, p -value = 0.000 < 0.05). The Path coefficient of 0.675 suggests a moderate relationship between prescriptive learning and the cognitive engagement of employees of pharmaceutical firms in Nigeria. The R^2 value of 0.456 suggests that a 45.6% variance in cognitive engagement can be explained by prescriptive learning. Therefore, the statistical analysis presented in Table 5 shows that affective engagement has the most predictive value, followed by behavioral and cognitive engagement, respectively. This deduces that prescriptive learning contributes more to sustainable affective engagement in employees.

Table 5. Discriminant Validity for the Influence of Prescriptive Learning on Sustainable Employee Engagement.

	Affective Engagement	Behavioral Engagement	Cognitive Engagement	Prescriptive Learning
Affective Engagement	0.782			
Behavioral Engagement	0.772	0.869		
Cognitive Engagement	0.702	0.654	0.713	
Prescriptive Learning	0.686	0.766	0.675	0.753

To measure the correlate with measures from which it is meant to differ, discriminant validity was conducted and presented in Table 5. The table shows that the research constructs' diagonal elements exceeded the most significant squared correlation between the constructs.

4. Discussion Conclusion and Implication

This study provides evidence of prescriptive learning for sustainable employee engagement in selected pharmaceutical firms in Nigeria. Sustainable employee engagement in terms of cognitive, behavioral and affective engagement in this era, as orchestrated by the impact of the Development Goals, is a function of employee reflection, which helps to make meaning out of, and provide a deeper understanding of accumulated experience. Reflection for employees takes place in their minds after experience is gained from work. This helps to develop employees' mental models and metacognition. The ability of pharmaceutical firms to support and encourage employees and to give time for metacognition enables them to plan, monitor and evaluate their learning, and enhances their sustainable cognitive, behavioral and affective engagement. In addition, these firms' ability to emphasise the effect of reflection in a conducive learning environment will go a long way in improving and enhancing sustainable employee engagement. This finding of the submission of [13,31] explained that reflection remains a sine qua non in sustainable employee engagement, particularly in this new normal world of work. Furthermore, the finding corroborates the submission of [12,14]. They posited that reflection on a sustainable engagement like this, where sustainable development goals have become a critical focal point, is a welcome development.

Additionally, past experience contributes significantly to employees' sustainable cognitive, behavioral and affective engagement in the Nigerian pharmaceutical industry. This also suggests that if the managements of pharmaceutical firms encourage employees to analyse their past experiences by evaluating and sharing those past experiences, employees often display passion, excitement and positive emotions towards their job and the organization. Similarly, pharmaceutical firms must ensure that supervisors, managers and executives are approachable for employees to share their experience or give out information that will give the organization a competitive edge. This validates the conclusion made by [6,27].

Similarly, competitive differentiation contributes significantly to sustainable employee engagement (cognitive, behavioral and affective) in the Nigerian pharmaceutical industry. This implies the gathering of organizational competitor's information. Firms in the Pharmaceutical industry do this by creating a platform for employees to go out and obtain the information required for product differentiation and business sustainability. Such firms incur financial, mobility and other costs to encourage employee displays of sustainable positive, fulfilling, and enduring work attitudes. This finding supported the submissions of [26,28] when they posited that the relevance of competitive differentiation goes beyond achieving competitive advantage as it helps develop strategies for adaptation, to align with the Sustainable Development Goals and achieve business sustainability.

Idea testing expounds on how organizations begin to test their whole ways of thinking in the world. The implementation of idea testing has implications for the engagement of employees. This is consequential because well-implemented idea testing encourages experimentation and double-loop learning, making employees display proactive behaviors, take initiatives and become innovative in completing a job task. This was supported by the studies of [32,34] when they posited that double-loop learning is used to modify assumptions, goals and systems in line with the Sustainable Development Goals, thereby achieving new product development and new ways of carrying out sustainable business.

In the same vein, research in the pharmaceutical industry is a tool for acquiring information and facilitating sustainable employee engagement. Hence, collaborations between the industry and research institutes for sustainable learning and quality research cannot be overemphasized. Nevertheless, there is a need to improve research collaborations in the Nigerian pharmaceutical industry for sustainable employee engagement. This is in line with the studies of [13,26], who suggested improving collaborations in the Nigerian pharmaceutical industry for greater research output and drug development towards addressing the Sustainable Development Goals.

This study concludes by providing valid evidence that the adoption of prescriptive learning comes from employees' knowledge and experience, which are later transformed into a viable idea. Prescriptive learning motivates employees' cognitive, behavioral, and affective engagement because employees become emotionally invested in working and job tasks. Therefore, the authors recommend that the selected firms recognize that competitors are essential for learning new methods and services. Moreover, to increase positive emotions at work, the managements of the selected firms are encouraged to frequently engage the employees in specific training programs, as well as research and development.

4.1. Contribution to Knowledge

1. An outstanding contribution of this study to organizational theory as it relates to sustainable employee engagement is that the predictive role of past experience was brought to the fore.
2. This study contributed to ongoing debates on human resource development literature by showing the link between competitive intelligence and sustainable employee engagement.
3. This study provides empirical evidence on the unique contribution of research as it relates to sustainable employee engagement.
4. This study extends extant literature on reflection as an aspect of prescriptive learning by providing empirical validation on its role in fostering sustainable employee engagement.
5. This study has also brought to the fore the unique role of idea testing as an antecedent of sustainable employee engagement.

4.2. Limitations/Further Study

The limitations of this study include:

1. The study adopted only structural equation modelling. Specifically, (Smart Partial Least Square 3.0) was adopted for the analysis of the hypotheses. However, future studies can adopt mixed methods, particularly interviews, to obtain additional information that was not captured in the quantitative analysis.
2. The study could not exhaust all the definitions of prescriptive learning, past experience, competitive intelligence, research, reflection, idea testing and other relevant concepts. Therefore, future studies should give adequate attention to the definitions of the relevant concepts.
3. It is essential to point out the limitations and research gaps for future studies. There are six geopolitical zones in Nigeria. Only six pharmaceutical firms in Lagos, Nigeria were considered for this study. This limits the generalization of the outcomes regarding other pharmaceutical firms in other geopolitical zones in Nigeria. Future research may increase the scope of the study to include other zones in Nigeria.

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