

## Games Review

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# GAMIFICATION ON SALES FORCE PERFORMANCE IN NIGERIA BOTTLING COMPANY

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## ABSTRACT

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### Keywords

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This study empirically examined gamification as a new approach of getting performance from sales employees. It examined a sales man from the perspective of game player, thereby applying those factors that motivate a player to win a game such as points, the rewards, and achievement levels to get performance from salesmen. The sales performance we examined includes; customer, conversion ratio, referral rate, cancellation recovery rate and organizational profitability. The study was conducted on sales personnel of Nigeria Bottling Company Ltd South-West Region. The population of the study was 210 professional sales personnel of the company with the sample size of 138 using the Taro Yamane formula to determine the sample size. The simple random sampling technique was used to select the respondents. A structured questionnaire was used to elicit information from the respondents. The data collected were analyzed through test-re-test method. A pilot study was adopted to test the reliability of the instrument. Analysis of data was done through the use of SPSS. The study employed descriptive and Pearson Product Moment Correlation (PPMC) type of inferential statistics to test the hypotheses. The study showed that earn point by salesman has positive impact on sales force performance. Also, sales achievement levels have significant impact on organizational performance. Based on these findings, the study therefore recommends that Nigeria Bottling Company should continue to use earn point and sales achievement levels as proxy to gamification which enhances sales performance, thereby improving the performance of the organization.

**Contribution/Originality:** The study contributes to the existing literature of gamification and sales force performance using Pearson Product Moment Correlation statistics. Taro Yamane formula were employed. The study is very few in Nigeria Bottling Company which contributes to game techniques. The findings were positive and remain the work of the above authors.

## 1. INTRODUCTION

The impression on gamification and its sales performances in non-gaming settings is a fast developing exercise in business. Though in its embryonic stage, the dynamics and techniques of gamification have been found to be easily manageable from their gaming software origins into the world of commerce. Marketing management arose during the manufacturing upheaval when mass invention resulted in the creation of large organizations and technological advances related to conveyance and communication heightened as geographic markets. In seeking to

ensure that every country designs and implements the best method of achieving socio-economic transformation, marketing can be a veritable vehicle (Aigbiremolen and Aigbiremolen, 2004). Gamification is a strategic method that smears performance, pleasurable besides the user of proficiency rudiments to dissimilar services in non-gaming milieus. Meanwhile, gamification is relatively new; most of the recent approaches focus on the game foundations. To ponder on gaming elements would be wrong as a large aspect of gamification is about psychological issues (Zichermann and Cunningham, 2011). This means that to get the most out of gamification and its application in business, education, or healthcare, the behaviour of an individual and the cultural context need to be understood.

Sales performance has been central to the organizational total result from time immemorial. Whether it is service or product oriented organization, the perception given the entire system is a direct reflection of how the sales person positions, the organization to the larger society. Given the unique nature of sales responsibilities, organizations have designed various means of keeping the sales person morale high. There is no qualm; the operatives' enactment is a role of motivation. Over the years, sales performance has been enhanced using financial and non-financial incentives such as the bonus, commission, premium pay, status car and so on. The new perspective of getting performance from sales personnel is to turn sales into the game otherwise called gamification.

The contributions of this research work focused on the application of game principles or elements (points, reward, a badge, levels and trophy) to get better performance from sales personnel of food and beverage industries with specific reference to soft drink producers, and Nigeria Bottling Company Ltd in particular. The central objective of this study is to determine the effect of gamification on sales force performance in food and beverage industries. Nigeria Bottling Company was chosen because of its prominence and dominance in the industry which has been sustained over the years. The important questions that arise are; to what extent does earn points stimulate salesman's customer conversion rate? How significant do salesman achievement levels to organizational performance?

### 1.1. Hypothesis

**H<sub>1</sub>**: there is no relationship between the sales person points earn and organization performance.

**H<sub>2</sub>**: there is no correlation difference between salesman achievement levels and organization performance.

## 2. CONCEPTUAL FRAMEWORK AND REVIEW

The Figure 1 below shows how gamification and sales force performance was measured in conceptual framework. Indeed, there are ten (10) performance measurements apply to sales operation according to Bob-Schultz (2011). By tracing each salesperson's performance against these criteria one will be able to determine who the top producers are, who is improving, and who are not pulling their weights. When we use these like a car driver uses gauges, checks them regularly and makes swift adjustments when required the ability to:

- **Demonstrate Cognizant's competence:** through synthetic selling (role play) the essential skills in all facets of customer interface.
- **Demonstrate cataleptic competence:** through an enigmatic audio-visual measure.
- **The cost of traffic:** Split all the money spent on marketing programs, advertising, billboards, agency fees, and so on by the number of potential customers who actually show up to determine an average cost per traffic unit.
- **Conversion ratio:** The number of closed sales by salesperson compared to the number of potential customers with whom contact has been made. This is the true measure of how well a salesperson is performing and how their time is being spent.
- **Cancellation rate:** Learn why cancellations occurred.

- **Cancellation recovery rate:** Track how many cancellations you recover over time. The least expensive person to do business with is the one with whom you've done business with before, so go after cancellations.
- **Realtor cooperation rate:** One of the highest probabilities for a high conversion rate is when someone comes in with a Realtor.
- **The actual sales price percentage of the listed price:** Every dime that is given away due to poor presentation or negotiating skills comes directly from your bottom line. That old joke about losing money on every sale, but making it up on volume is just that a bad joke.
- **The referral rate:** What percentage of your buyers is willing to refer your company and what percentage of your sales actually comes from referrals? If you have a high willingness-to-refer rate, but a low referral rate, you aren't doing a good enough job of asking for referrals.
- **Net profit:** The bottom line of the organization. The study adopted a conversion rate, the referral rate and net profit in measuring sales performance to match up with the three elements of gamification earlier mentioned.

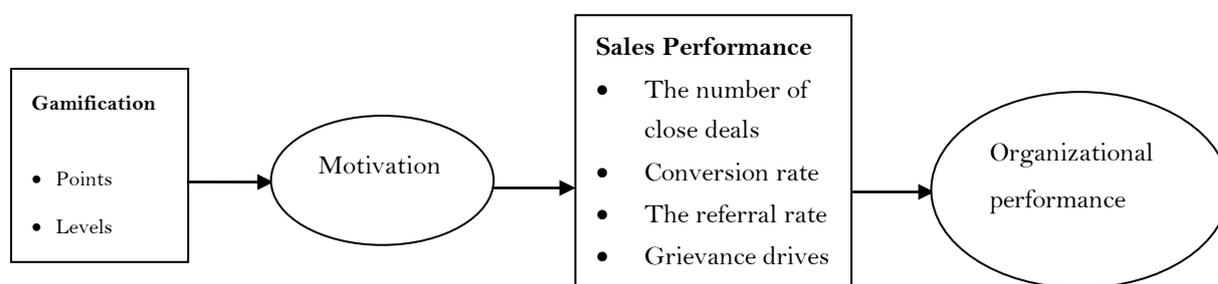


Figure-1. Sales Performance Measurement.

The American Marketing Association (AMA, 1960 in Sunday (2008); Akintola and Ijaluola (2016)) introduces gamification as “the process of applying the psychological and sociological factors that drive intense game play to consumer measurement”. A shared understanding of gamification as a concept could be the factor that triggered the increased activity within this field of research in recent years. Another factor could be that the concept of gamification and its possibilities still need a more profound understanding in order to beneficially apply it in non-game contexts (Hanus and Fox, 2015). Gamification is a bid to distinctive game components, such as points, rules, and competition, in non-game contexts. It is drawn from ordinary needs for entertaining, culture, race, mastery, accomplishment, rank, and creativity. Compensations include points, badges, discounts, promotions, or the advancement of levels, as well as progress taverns and earning an effective coinage. Gamification also includes making certain tasks feel like games in order to inspire people (Buckley and Doyle, 2016). Khaled (2015) in his submission defines gasification as “the use of game elements and game design techniques in non-game contexts.” Gamification appears to be an exploding business trend that will be a multi-billion-dollar market 2018. It seems to be “a fast-moving hard trend” and platforms that have been incorporated into business websites at a rapid pace. Hamari et al. (2015) postulated that *gamification method proved to be useful in fetching and encouraging workers to improve their performance, develop skills or solve problems, workers is willing to change their behaviours and adopt sustainable habits by challenging themselves and their colleagues.* Prepare gamification by conducting a proper situational analysis/research, training and business needs. A quick-fix gaming module for sales is an aimless effort like the client worked with, but sales gamification done right can improve not only learning, but sales performance. There are five elements of measuring gamification according to Hew et al. (2016). They are points, rewards, badges, achievement levels and trophy. This study has picked points, rewards and achievement levels for measuring gamification because they feature in the work of most scholars who have contributed to the subject. A salesman is an individual acting for a company by performing one or more of the following activities prospecting,

communicating, servicing and information gathering (Hamari and Koivisto, 2014). Sales personnel can be divided into the following three broad categories; Direct sales, account managers and technical support. Salesman performance is the level of contribution in terms of activities expected of sales personnel towards the achievement of organizational goals. The salesmen are the image of any organization and the perception they have in the mind of customers is the direct mental picture of how the organization is illustrated.

### 2.1. Theoretical Review

The theory of gamification is the theory of motivation. Motivation theory maintains that human behaviour is a function an inner drive that stimulates an individual to behave in a particular way. That is, internal and external factors that stimulate desire and energy in people to be continually interested and committed to a job, the role, or to make an effort to attain a goal. Gamification borrowed to a large extent from motivation.

Victor Vroom in Buckley and Doyle (2016) Expectancy Theory (motivation) is concerned with an inquired impact of expectancy behaviour and is based on the belief that employee efforts will lead to performance and performance will lead to reward (Buckley and Doyle, 2016). The reward may be either positive or negative. The more positive the reward the more likely the employees will be motivated. So also is gamification concerned with expectancy that the series of efforts will earn a player points, cumulative points will take a play to the next levels and achievement of various levels will lead to reward such as badges and trophies. The study is therefore resting on Victor Vroom's Expectancy Theory. Also, the belief that a player (salesman) put in efforts to earn points and earning points implies positive contribution to the organization.

**Table-2.1. Summary of Empirical Review of Literature.**

Author(Year)	Study	Methodology	Findings of Research	Gaps Identified
Kananen and Akpinar (2015)	"Gamification and Sales Process to Improve the Motivation of the sales force"	Design-based research methodology (using an interview method) to collect primary data from a population of 200 and sample size of 130).	The company was able to avoid the huge cost of re-engineering through motivation of salesmen by gamification	Design-based research has a challenge of generalizability of its findings. Also, this study was done in a developed economy, what motivates the sales force varies diagonally cultures.
De-Marcos et al. (2014)	"An Empirical Study Comparing Gamification and Social Networking on e-Learning, Computers & Education	A quasi-experimental design was used with the creation of three groups (two experimental i.e students on gamification plugin and students on social network site and one control group).The outcome was analyzed with ANOVA.	The two control groups show relatively average response to the two instruments.	Its finding is faced with generalization of the problem. Also, the influence of external factors is not considered. Again, it ignores randomization in selecting the sample.
Richard et al. (2017)	"Gamification of task performance with leaderboard"	Experimental research design was used. In particular goal setting theory was explored with participants randomly selected and assigned to four classical levels of goal-setting conditions (do-your-best, easy, difficult and impossible goals)	The study revealed that participants fall to the category of "do-your-best and easy goal-setting conditions while just minority are on the difficult and impossible goal setting conditions.	The research is carried out on only one element of gamification. Empirical confirmation of other elements is required. Also, the work uses experimental design. Survey research design can also be explored.

In the 50s, Landers and Landers (2015) postulated that the needs' hierarchy theory is a set of needs that have been completely satisfied, it is no longer motivating, the theory also have relevance to sales force motivation. It highlights perhaps obvious point that a satisfied need is not a motivator of behavior. Achievement of levels to earn rewards in gamification recognizes the hierarchical structure of needs in Maslow's theory. Also, once a level is achieved it cease to motivate, a player (salesman) is looking at next the level.

The Table 2.1 show the apriori summary of the empirical review of the literature and identify the gaps therein.

### 3. METHODOLOGY

The study employed descriptive and Pearson Product Moment Correlation (PPMC) statistics. The primary intention of using descriptive statistics is to describe the characteristics of respondents while the Pearson Product Moment Correlation (PPMC) is to establish the p-value against the level of significance; no other specific model was adopted. Hence, the study correlates the relationship between salesmen earns point and organizational performance. It also correlates the relationship between sales achievement levels and organization growth. The data was elicited from Nigeria Bottling Company Plc in the South West Region of the company. This includes Oyo, Ogun, Ondo, Osun and Ekiti States carried using the regional office Ibadan as the coordinating centre. The primary source of data elicited from permanent sales workers in the organization while the secondary were generated from the company's regional office. The study adopted self-designed questionnaire, scaling on "4-point Likert type ranges from: strongly agree, agree, disagree and strongly disagree." The questionnaires prepared were administered to the permanent sales employees of the organization using the regional office (Ibadan) as the contact point for the region. Each question was based on the formulated hypothesis in order to reveal the opinions of an employee. The questionnaires among other things are structured in two sections (A&B) with section A enlisted bio-data of the respondents and section B contained six questions on each hypothesis demand response from respondents. The population of study is 210 permanent sales personnel of Nigeria Bottling Company South West Region. The sample size of this study is 138 representing 66% of the population. This is determined using Taro Yamane formula. A pilot test was conducted to validate the instruments; the questionnaire was administered twice at two weeks interval, and test-re-test method was adopted to test for the reliability coefficient level. The coefficient level of the instrument is 0.871 which was above the coefficient target point of 0.7. The study adopted the parametric and non-parametric type of inferential statistics to analyze the demographic and test the hypotheses.

### 4. DATA ANALYSIS

A total of one hundred and thirty-eight (138) copies of questionnaires were administered to the selected respondents. This was made up of sales director, sales manager, senior sales staff, sales representative and the other level of sales personnel. However, only ninety-four (94) questionnaires were returned and used for this study. The data collected are presented in descriptive statistics and inferential statistics (Pearson product moment correlation).

#### 4.1. Descriptive Analysis

Descriptive statistics of this study shows the nature of the data. The summary of descriptive statistics of the study presented in Table 4.1. This includes items, frequency, percentage and cumulative percentage which were computed through the use of SPSS version 21.

**Table-4.1.** Demographic Response of Respondents.

Items	Frequency	Percent	Valid Percent	Cumulative Percent
Age: 18- 25 years	8	8.5	8.5	8.5
26 -35 years	61	64.9	64.9	73.4
36 and above	25	26.6	26.6	100.0
Total	94	100.0	100.0	
Education: Secondary	19	20.2	20.2	20.2
Tertiary	75	79.8	79.8	100.0
Total	94	100.0	100.0	
Experience: 1-5 years	17	18.1	18.1	18.1
6-10 years	53	56.4	56.4	74.5
11-15 years	22	23.4	23.4	97.9
16- 20 years	2	2.1	2.1	100.0
Total	94	100.0	100.0	

Source: Authors' Computation, 2018.

The Table 4.1.shows above is the demographic response of the respondents by age, educational qualifications and work experience. (8) 8.5% of the respondents are between 18-25 years of age, (61) 64.9% of the respondents were between 26-35 years of age, (25) 26.6% of the respondents are 36 years of age and above.(19) 20.2% of the respondents are secondary school graduate, (75) 79.8% of the respondents are tertiary education graduate. (17) 18.1% of the respondents have worked with the company for 1-5 years. (53) 56.4% of the respondents have worked with the company for 6 -10 years, (22) 23.4% of the respondents fell between 11-15 years, (2) 2.1% of the respondents have worked with the company for 16 years and above.

#### 4.2. Hypotheses Testing

Pearson correlation analysis was performed in order to obtain an understanding of the relationship among all the variables in the study.

**Table-4.2.** Correlation Analysis Between Point Earn Salesman and Organizational Performance.

		Points Earn by Salesman	Organizational Performance
Points Earn by Salesman	Pearson Correlation	1	.454**
	Sig. (2-tailed)		.000
	N	94	94
Organizational Performance	Pearson Correlation	.454**	1
	Sig. (2-tailed)	.000	
	N	94	94

\*\* . Correlation is significant at the 0.01 level (2-tailed).

The Table 4.2 shows the correlation matrix of the relationship between points earn by salesman and organization performance. Therefore, the result shows that there is a positive correlation between points earn by salesman and organization performance which means the variables are significant because the p-value of 0.000 is less than the level of significant of 0.05.

There is need to accept null hypothesis and reject the alternate hypothesis, thereby there is no significant relationship between points earn by salesman and the organization performance and rejected the alternate hypothesis. This was in line with the opinion of Lieberoth (2015) found that motivation has proven gamification to be very successful in motivating employees to change their behaviour and develop skills. Employees shall change their behaviour and adopt more sustainable habits by challenging themselves and their colleagues to earn more point and increase the organization performance.

**Table-4.3.** Correlation Analysis Between Achievement Levels and Organizational Performance.

		Sales achievement Levels	Organization Performance
Sales Achievement Levels	Pearson Correlation	1	.305**
	Sig. (2-tailed)		.003
	N	94	94
Organization Performance	Pearson Correlation	.305**	1
	Sig. (2-tailed)	.003	
	N	94	94

\*\* . Correlation is significant at the 0.01 level (2-tailed).

The Table 4.3 indicates the correlation result of the relationship between sales achievement levels and organizational growth. There is a positive correlation between sales achievement levels, and organizational growth which is significant because the p-value of 0.003 is less than the level of significant of 0.05.

The reason why we reject the null hypothesis which states that there is no significant relationship between salesman achievement levels and organizational growth and accept alternative hypothesis is because the p-value of 0.003 is less than the level of significant of 0.05 which means that there is a significant difference between the two variables. This is as a result of the interval in the age, educational qualifications and work experience of the respondents given that the opinion was based on their level of exposure. Another factor could be that the concept of sales achievement level and its possibilities still need a more profound understanding in order to beneficially apply it in the area understudy (Hanus and Fox, 2015).

## 5. DISCUSSION OF FINDINGS

This work critically examined gamification and sales force performance and how scoring of points by the salesman influenced the organizational performance. The points earn by a sales man will determine his willingness to perform his duties to the organization. This result, in other words, is completely consistent with Vroom's expectancy theory, which predicts that the more a person perceives that his effort will produce X, the more of X he will do as contained in the work of Hanus and Fox (2015). A sales man aspires to move up from one level to the next level, as he does that, so also is the organization growing. This is in line with Adam's Equity Theory that there is fairness in the system where individuals grow as the organization is growing.

## 6. CONCLUSION AND RECOMMENDATIONS

The study concludes that sales become more interesting when it turns to game and game elements include; points, levels, and reward that are applied to motivate sales personnel. The implication of this study is in agreement with the findings of previous studies that good quality and quantitative data on gamification is required, as the literature revealed that the availability of knowledge comes from case studies, presentations and conference proceedings. Indeed, the study have a garbed impact to the gamification poeties as it presented the exact measureable data and statistical analysis of gamification on sales force performance in Nigeria Bottling Company. The study also concludes that before the decision about implementing the gamification is made, management should analyse the job characteristics of employees in order to estimate the chances of success of gamification. Based on the few suggestions that could be offered, it was pragmatic that gamification could have a foremost impact on sales force performance in Nigeria Bottling Company. However, a study with abundant samples could be performed to test not just a single company but different organizations. The criticism of gamification is still strong and some are willing to call it just a management approach or management mania. It is important to provide further studies on gamification and sales force performance in Nigerian companies and see how performed the management of the sales force milieu is limited. The study also required further studies to widen the scope. Based on these findings, the study therefore recommends that Nigeria Bottling Company should use gamification as a strategy to enhance sales.

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