

Effects of Technological Environmental Factor in Marketing of Consumer Products

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Abstract

This study discerned on effects of technological environmental factor in marketing of consumer products. The problem statement was that those firms without modern scientific technology should not compete effectively among competitors. Specific objective was to identify effects of technological environmental factor in the marketing of consumer products among others. Research question was to what extent do firms identify effects of technological environmental factor in the marketing of consumer products? among others. Research hypothesis was there is no significant relationship between identification and marketing of consumer products among others. Review of related literature comprised of conceptual review, theoretical framework and empirical review. Survey research design was adopted. Area of the study was Onitsha metropolis. Population of the study was the company's staff, suppliers and distributors. The sample size was two hundred and fifty-seven (257). Two hundred and twenty-three (223) were duly filled copies of questionnaire and were used to extract data from respondents. Data presentation was analyzed. The study found out that the technology brings development, innovation and also aids firms to reach out to her target audience easily. The study concluded that all firms should embark on technology. The study recommends the adoption of technology in marketing of consumer products among others.

Keywords: *Effects, Technological, Environmental, Factor and Consumer products*

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Background to the Study

Technological factor is one of the external, uncontrollable or macro environment. Technological factor being external environment is consigned with international marketing. Effects of technological factor is relating to involving or caused by technology especially modern scientific technology. As opined by Obasan (2011), environment is the sum total of physical and social forces and institutions that are relevant to the organizational goal setting and goal attainment which are taken directly into consideration by members of the organization when making business decisions and plans.

Marketing is perceived as identification, anticipation and satisfaction of consumer needs and wants. This explains that before a firm engages in production, the management team should as well anticipate the requirements of the product in order to satisfy the needs and wants of the customers.

The management team should as well anticipate the requirements of the products; in order to satisfy the needs and wants of the customers. In Ohazulike's view (2007), marketing is a method or technique in which a transaction takes place in a smiling and friendly atmosphere, which induces profit to the organization by the sales person coupled with after sales service. A societal process by which individuals and groups obtain what they need and want through creating offering and freely exchanging products and services of value with others (Kotler, 2003).

Technological factors guide a firm on how to investigate competitors; every firm has its strength, weakness, opportunity and threat. A firm that is incline with modern scientific technology is always capable of incapacitating other firms that are not incline with modern scientific technology. It instigates that those firms that are not incline with modern scientific technology definitely should quit the field of sales because consumers will always patronize the firms that are capable of technological tendency.

Statement of the Problem

Every firm wants to evolve, at least to have an edge over other competitors in the field of sales. This study clearly noted that firms with modern scientific technology possess a brink over those firms without modern scientific technology. Problem of the study points out that those firms without modern scientific technology should not compete effectively among competitors.

Objectives of the Study

The main objective of this study is to examine effects of technological environmental factor in the marketing of consumer products. The specific objectives of the study were to;

1. Identify effects of technological environmental factor in the marketing of consumer products.
2. Anticipate effects of technological environmental factor in the marketing of consumer products.
3. Satisfy effects of technological environmental factor in the marketing of consumer products.

Research Questions

This study will be guided by these research questions, the research questions were;

1. To what extent do firms identify effects of technological environmental factor in the marketing of consumer products?
2. To what extent do firms anticipate effects of technological environmental factor in the marketing of consumer products?
3. To what extent do firms satisfy effects of technological environmental factor in the marketing of consumer products?

Research Hypotheses

In order to obtain a pragmatic result of this study, these hypotheses need to be formulated. The research hypotheses were;

- HO_i There is no significant relationship between identification and marketing of consumer products
- HO_{ii} There is no significant relationship between anticipation and marketing of consumer products
- HO_{iii} There is no significant relationship between satisfaction and marketing of consumer products

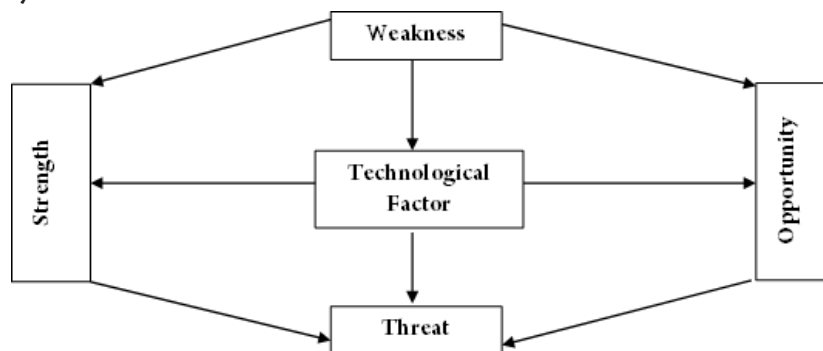
Review of Related Literature

Conceptual Review

The Proposed Model

Figure 1: Proposed Conceptual Model

SWOT Analysis



Source: Authors Conceptualization, 2022.

From the rapid development and advancement of the world's technological growth, the study realized that there is advancement in technology by any firm, the firm will definitely be out of business. This is a reality because companies compete among themselves. This technological factor is an avenue which every firm must endeavor to follow suit. This is so because the firm needs to remain in business. Technological development determines the firm's strength, weakness, opportunity and threat. A firm that is myopic in nature will be out played by other

companies. A firm that is well advanced in technology will have to proffer strength and opportunity to dominate other firms in the field of business. As it indicates strength, weakness, opportunity and threat depend on technological factor for a firm to survive.

Theoretical Framework

This study is very pertinent to social marketing theory. The social marketing theory was propounded by Brenda Dervin (1989). This theory is a collection of middle range theories dealing with the promotion of information deemed by elite source to be socially valuable. Social marketing theory differs from other contemporary macroscopic theories in that its environmental theory and its essential source dominated. It is assumed that marketing environment is often fueled by the constant change in the taste of customers, intense market competition and influx of new entrants in the market, availability of substitute products face immense challenge to communication; their marketing objectives to bring about useful, beneficial social change. The theory ensures that technological factor proffers high quality products to customers. Recently, the form, the theory stands on increasing attention to consumers' activities and the needs. Target consumers are identified according to their information needs. Social marketing theory can be regarded as a logical extension of the persuasion theories and of diffusion theory. The social marketing theory is relevant to this study because it says how environmental factors, practice can promote marketing of consumer goods as it changes social, economic and environmental factors which influence the way customers change their needs and preference.

Empirical Review

Tuanmat and Smith (2011) carried out a study on effects of change in competition technology and strategy on the preference of manufacturing companies in Malaysia. The population of the study was customers of the manufacturing companies. The sample size of the study was five hundred and nine respondents (509). Questionnaire was used to extract data from respondents. Analysis of Variances (ANOVA) was adopted. The study discovered that companies recognized that advanced manufacturing technology has impact on organizational strategic behavior. The study concluded by stating that model shows a positive relationship between advanced manufacturing technology and organizational strategy. Adeoye and Elegunde (2012) conducted a study on organizational performance in the food and beverage industry in Nigeria. Population of the study was infinite. The sample size of the study was one hundred and fifty (150) respondents. Data collected were analyzed using multiple regression analysis. The study found out that the analysis shows that the external business environment with such political economic, socio cultural and technological factors among others. The study concluded by observing that knowledge impacted on organizational staff performance measured as effectiveness, efficiency, increase in sales and achievement of corporate goals.

Mustapha and Ekpunobi (2011), had a study on extent of the effect of each environmental factors on the performance of depressed textile manufacturing firms. The sample size was five hundred and one (501) respondents. Questionnaire was used as an instrument to extract data from respondents. Chi-square was used to analyze the data extracted. The study found out that

customers prefer highly technological materials. The study concluded that respondents prefer to wear textile materials more than other materials.

Methodology

Research Design

The research design of this study is survey research design; survey research design was adopted because it shows cased all the necessary avenues to aid in achieving the expected pragmatic result. Research design refers to the designated plan for the collection of data to test the relationship hypothesis. Generally, a research design is a framework or blue print which specifies the data collection proceeding and data analysis techniques to be adopted or used in testing a given population based on concept. Research design also has to do with the development to do with the development of strategies for finding out something; a missing link which, when discovered will help in the solution of the identified problem and there are two general types of research design which are experimental and quasi experimental.

Area of the Study

The study anchored on how technological environmental factor in the marketing of consumer products will harness the improvement of consumer products technologically. Area of the study was concentrated in Onitsha metropolis in collaboration with the staff and management of Nigeria Bottling Company (NBC).

Population of the Study

Population is the entire set of individuals or objects of interest or the measurement obtained from all individual or objects of interest (Ngige, 2009). The population of this study involves the company's staff, suppliers and distributors.

Sampling Plan

Sampling plan consists of sample designs, which refer to the different ways a researcher draws samples from any given population according to Nnamdi (1991). Sampling plan comprises of sample unit, sample size, sample method and sample procedure. The sample unit involves the suppliers, distributors and staff of Nigerian Bottling Company (NBC). The sample size of the study was two hundred and fifty-seven (257) copies of questionnaire out of the two hundred and fifty-seven (257), two hundred and twenty-three (223) were properly filled and found relevant to the study. The thirty-four (34) copies of questionnaire were either not properly filled or misplaced by the respondents. Therefore, the analysis was based on the two hundred and twenty-three (223) useful copies. Method applied was administration of copies of the questionnaire. The procedure used was non probability sampling and the type applied was the convenience or accidental sampling procedure.

Data Presentation and Analysis

On the collection of the copies of questionnaire, it was admitted that two hundred and twenty-three (223) copies of questionnaire were to be in a useful form.

Table 1: Gender of Respondents

Sex	Frequency	Percentages
Female	112	49.8
Male	111	50.2
Total	223	100

Source: Field survey, 2022.

The table above indicates that 112 respondents represent 49.8% females. While 111 respondents represent 50.2% male. This indicates that there were more female than male respondents.

Table 2: Age Distribution of Respondents

Age	Frequency	Percentages
20 – 30	24	10.7
31 – 40	56	25.1
41 – 50	80	35.9
51 and above	63	28.3
Total	223	100

Source: Field survey, 2022.

The above shows that 24 respondents represent 10.7% were within the age bracket of 20 to 30 years. 25.1% of the respondents were within the age bracket of 31 to 40 years, 35.9% of the respondents were within the age bracket of 41 to 50 years. While the remaining 28.3% were within the age bracket of 51 years and above.

Table 3: Level of Education of Respondents

Education Level	Frequency	Percentages
OND/NCE	100	44.8
B.SC/HND	91	40.8
M.SC/MBA	30	13.5
Ph.D/Others	2	.9
Total	223	100

Source: Field survey, 2022.

The table above shows that educational qualification of the respondents. The table shows that 44.8% of the respondents have their OND or NCE as their educational qualification. 40.8% had either B.Sc or HND. 13.5% obtained either M.Sc or MBA, while the remaining 0.9% bagged Ph.D as their educational qualification.

Table 4: Analysis of Attitude Questions

S/N	Question	S/D	D	UN	A	S/A
	Does success of the firm depend on identification of effects of technological environmental factor in the marketing of consumer products?	40 (17.9%)	31 (13.9%)	20 (9%)	88 (39.5%)	44 (19.7%)
	Does the firm anticipate effects of technological environmental factor in the marketing of consumer products?	19 (8.5%)	24 (10.8%)	21 (9.4%)	123 (55.2%)	36 (16.1%)
	Is the firm satisfied by the effects of technological environmental factor in the marketing of consumer products?	12 (5.4%)	20 (9.0%)	26 (11.7%)	81 (36.3%)	84 (37.7%)
	Does firm that engage in technology has an edge over her competitors?	12 (5.4%)	12 (5.4%)	14 (6.3%)	119 (53.4%)	65 (29.1%)

Source: Compiled by the Authors, 2022.

Analysis of Likert Questions

1. The researcher, obliged to know the respondent's opinion on whether success of the firm depends on identification of effects of technological environmental factor in the marketing of consumer products. Out of two hundred and twenty-three (223), Forty (40) respondents strongly disagree which was (17.9%). Thirty-one (31) respondents disagree which resulted to (13.9%). While twenty (20) respondents were undecided and the percentage was (9.0%). Eighty-eight (88) respondents agree and the percentage was (39.5%). Forty-four (44) respondents strongly agree and the percentage was (19.7%).
2. The researcher, demanded to know if the firm anticipates effects of technological environmental factor in the marketing of consumer products. Out of two hundred and twenty-three (223), Nineteen (19) respondents strongly disagree which was (8.5%). Twenty-four (24) respondents disagree which was (10.8%). Twenty-one (21) respondents were undecided the percentage was (9.4). One hundred and twenty-three (123) respondents agree and the percentage was (55.2). Thirty-six (36) respondents strongly agree and the percentage was (16.1).
3. The researcher requested to know if the firm is satisfied by the effects of technological environmental factor in the marketing of consumer products. Twelve (12) respondents strongly disagree which resulted to (5.4%). Twenty (20) respondents disagree which amounted to (9%). Twenty-six (26) respondents were undecided and

- the percentage was (11.7%). Eighty-one (81) respondents agree, the percentage was (36.3). Eighty-four (84) respondents strongly agree which resulted to (37.7%).
4. The researcher, wished to know if the firm that engages in technology has an edge over her competitors. Twelve (12) respondents strongly disagree which was (5.4%). Twelve (12) respondents also disagree which resulted to (5.4%). Fourteen (14) respondents were undecided and the percentage was (6.3%). One hundred and nineteen (119) respondents agree and percentage was (53.4%). Sixty-five (65) respondents strongly agree, the percentage was (29.1%).

Findings

The study observed that effects of technological environmental factor in the marketing of consumer products; indicates that technology brings development, innovation and also aids firms to reach out to her target audience easily. A firm that is incline with modern scientific technology is always capable of incapacitating other firms that are not incline with modern scientific technology definitely should quit the field of sales because consumers will always patronize the firms that are capable of technological tendency. A firm that is technologically incline will always remain in business. This is obvious because it is reckoned that every consumer knows what is suitable, in terms of satisfaction. Every consumer would not like to experience cognitive dissonance. Effects on technology will prompt consumers to engage in repeat purchase.

Conclusion

This study investigated on effects of technological environmental factor in the marketing of consumer products. The study perceived that consumer prefer products with recent developments; that will exhibit satisfaction to the consumers after use or consumption. Once, this is achieved the consumers must continue to patronize the firm's products. Once, consumers continue to patronize the firm's products the firm will remain in business and as well diversity. Technology matters a lot in our day-to-day business. This indicates and concluded that all firms should embark on technology.

Recommendations

Based on the findings of this study, the following were recommended;

1. The study recommends the adoption of technology in marketing of consumer products.
2. Companies must rely more on technology in order to satisfy the consumers.
3. Companies should improve their technological effects in order to proffer better marketing of consumer products.
4. The firm's management staff should be properly trained to formulate adequate product quality.
5. The entire staff of the firm should be technologically oriented.

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