

# SELF-IMAGE, ACHIEVEMENT MOTIVATION AND CONSUMER VULNERABILITY EFFECT TO PRODUCT INNOVATION, DIFFUSION AND ADOPTION IN SELECTED STATES OF SOUTHERN NIGERIA

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## Abstract

The objective of this study was to determine the influence of self-concept, achievement motivation and consumer vulnerability to product innovation, diffusion and adoption in selected states in southern of Nigeria. A four-Likert-type questionnaire measuring aspects of self-concept, achievement motivation and consumer vulnerability to poor product innovation, diffusion and adoption was developed, validated and administered to a sample of 387 respondents. This sample was extracted from 12,000 population after the application of Yaro Yamane's technique. Three null hypotheses were formulated and tested at  $P < 0.05$  alpha level of significance. Descriptive statistics and regression coefficient was used to test hypotheses with SPSS version 21. The results revealed significant relationship at 99.3%, 98.7% and 98.4% respectively. These results define the degree of spread of the sample and also the level of the relationship, the positive impact and influence of self-concept, achievement motivation and consumer vulnerability to product innovation, diffusion and adoption in the southern states of Nigeria selected for study.

**Key Words:** Self-concept, Achievement Motivation, Consumer Vulnerability, Product Innovation, Diffusion and Adoption.

## 1.0 Introduction

### 1.1 Background to the Study

The era of production-oriented or sales-centered marketing management, which dominated the first half of the 20<sup>th</sup> century has gone and for good. In that era, firms focused upon mass production, production, efficiency, maximum profitability, product distinctive features, high quality, superior product functionality, etc, with little or no regard to differences in customer (consumer) needs, desires or preferences (Kotler & Keller, 2009.58).

What firms need then was just produce, innovate, invent, segment, target, position, reposition, differentiate, cannibalize, upgrade and strategically dock to remain a step ahead of others competitively stronger. Then, the concept was that good products would sell themselves as long as they were accessible and affordably priced, in line with Henri Ford's famous remarks that "customers can have any colour they want, so long as it's black". For firms, mass production, low costs, mass logistics deployments, huge and inexpensive labour pool, market expansion, proper pricing, distribution, advertisement, re-invigorated sales follow-up and getting the goods in the hearts and minds of the consumer curtail consumer vulnerability, increase the rate of product adoption and market efficiency.

Drucker (1999.28) argues that only firms with deliberate system policy of innovation are likely to succeed. Introduction of new products is strategic to firms. It is one way firms create and sustain competitive advantage in the market place (Achath & Devadasan 2005.2 and Kotler & Keller 2009.348). Successful new product introductions, examples, Apple, Blackberry, Nokia, HP, IBM, Microsoft, Dell, Techno, Samsung, Toyota products among others, enable these firms maintain market leadership over competitors and profitability in the long term in the sectors of their operations.

A competitive strategy based on innovation is not without risks, Kotler and Keller (2009.410) agrees with Golder and Tellis (1993.59) that product failures have jumped from 50% to about 95% in Europe, United States, Asia and indeed Africa. By mere observation, there is no gainsaying the obvious that some products or services offerings gain quick and the diffusion is fast and rapid, and others tend to be slow, taking very considerable amount of time. A good example

was colour television, then flat screens, or plasma television in Nigeria, the next was the cordless or wireless GSM cell phones, (Morgan, et al 2018).

Nevertheless, later on, when the public was infested with cell phone craze, diffusion of innovation and adoption influenced the Nigerian psyche, socio-economic, cultural, technological and legal factors determined by demographic and psychographic factors facilitating quicker and easier acceptance of the innovative offering as it was in vogue.

According to Golder and Tellis (1993.63) and buttressed by Peter and Olsen (2005.329), some factors negatively affect diffusion of innovations and they range from micro levels such as product characteristics to SLEPT models. Product characteristics may include relative advantage, compatibility, triability, observability, perceived complexity in purchase and usage, rate of product adoption, value, risk and psychological factors. This is because people vary in degree in terms of their receptivity to new product or service offerings.

Generically, innovation is key driver of corporate success (Cardozo *et al.* 1993.336, Manu & Sriram 1996.47, Hurley & Hult 1998.51 and Frambach & Schillewaert 2002.163). Firm success is anchored on sound marketing concepts such as market orientation (i.e. product, service, ideas, processes and research); sales orientation (i.e. product, target market, processes and profits); production orientation (i.e. product, processes, economies of scale and profit); and product orientation (i.e. product features, product processes, product quality and profit). Marketing concepts, ideas or orientation means corporate philosophy and activities are centred on a customer-first mentality. Attitude formation subsumed in lifestyle is an integrated system of person's attitudes (self-concept), values, interests (achievement motivation), opinions and behaviour (Sathish & Rajamohan 2012.152).

Self-concept, self-construction, self-identity, self-perspective or self-structure is a collection of beliefs about oneself and it embodies the answer to "who am I?" According to Carl Rogers (1902-1987), everyone strives to reach an "ideal self". To him, behaviour is the goal-directed attempt of the organism to satisfy the needs as experienced in the field as perceived. The way people think about themselves is always unique, dynamic and evolving. The mental image of

oneself influences self or person's identity, self-esteem, body image, and role in the society. It shapes and defines who we are, the decisions we make and the relationship we form constitute the fundamentals for all motivated behaviour (Franken 1994). This is concisely manifested in "ideal self", "public self" and the "real self" as we buy and consume things of daily use according to our needs, preferences and buying power.

According to Jobber (2007.130) and Kotler & Keller (2009.164), what we buy, how we buy, where and when we buy, and how much quantity we buy depends on our perception, self-concept, social and cultural background and our age and family cycles, our attitudes, beliefs, values, achievement, motivation, personality, social class, income level and other internal and external factors that influence us. In the midst of all these, marketers attempt to understand the needs of different consumers and their behaviours requiring in-depth analysis of internal and external environment to formulate effective marketing plans.

Other than these, marketers must identify different buying behaviour, the decision-making units in every scenarios, who buys, how they buy, need elicitation, choice criteria influences and buying situation. Others include personal influences such as information, processing, motivation, beliefs and attitude, personality, lifestyle and age, life cycle and social influences such as culture, social class, geo-demographics and reference groups show different levels of enrolment (Jobber 2007.131).

## **1.2 Statement of the Problem**

In the context of contemporary market dynamics, constant changing competitive business environment, decreasing product lifecycles, globalization of world economies and fast technological development, would prediction of consumer needs be enough? Under such circumstances of unpredictable transformation, therefore, should the role of creating new offers and determining new ways of satisfying and successfully managing the processes of creation, diffusion and adoption of innovation not ideally increase?

The proper interpretation of innovation, diffusion and adoption solutions may characterize the definitions of the factors that trigger the problems of

innovation design, manufacture quality and the management of the process of creation, (Jurate & Banyte 2008.49). Some studies identified uniqueness, exclusiveness, strong and clear market orientation, thorough preparatory work, clear conception of innovation, high quality of performed work, correct organizational structures, favourable inner climate and giving up old ways of doing things based on new things, new technologies and new advantages offered (Rogers 1995.243, Odumery 2013.14, Peres & Mahajan 2010.96 and Achath & Devadason 2005.8).

Granted the dynamism marketing environment is enwrapped and the need to give up old ways of doing things based on new things, new technologies and new advantages offered, this study is therefore designed to deconstruct self-concept, achievement motivation and consumer vulnerability effect on product innovation, diffusion and adoption. The paper selected some states of Southern Nigeria to avoid innovation and adoption failure, which according to Baker (1999) is the most expensive stage of the process of innovation creation.

### **1.3 Objective of the Study**

This study attempts to deconstruct the influence of self-concept, achievement motivation and consumer vulnerability on product innovation, adoption and diffusion in selected states of Southern Nigeria. Essentially, the study sets to determine the following:

- i. Self-concept and product innovation, adoption and diffusion.
- ii. Achievement motivation and product innovation, adoption and diffusion,  
and
- iii. Consumer vulnerability and product innovation, adoption and diffusion.

### **1.4 Research Questions**

In order to find the underlying cause of this study, the following three questions would guide this investigation:

- i. How does consumer self-concept influence product innovation, adoption and diffusion?

- ii. How does achievement motivation influence product innovation, adoption and diffusion?
- iii. What extent does consumer vulnerability influence product innovation, adoption and diffusion?

### **1.5 Research Hypotheses**

The following hypotheses would test the survey:

H<sub>01</sub>: There is no significant relationship between consumer self-concept and product innovation, diffusion, and adoption.

H<sub>02</sub>: Achievement motivation does not influence positively on product innovation, diffusion, and adoption.

H<sub>03</sub>: Consumer vulnerability does not influence product innovation, diffusion and adoption.

### **1.6 Significance of the Study**

This study contributes to a body of knowledge of how self-concept, achievement motivation and consumer vulnerability impact on new product creation, innovation, adoption and diffusion, especially to those states in the Southern Nigeria selected for this investigation.

It will create awareness among products manufacturers and will spur them to consider these mentioned parameters for their product packaging, creating, innovating, adopting and diffusing. Finally, to the academic world, it will advance teaching, learning and researching in marketing discipline as this provide a reference point for further studies in the area of self-concept, achievement motivation and consumer vulnerability to product innovation, adoption and diffusion especially in Southern Nigeria.

### **1.7 Limitations of the Study**

Results of this study hold true only to the extent that the entire questionnaire administered and retrieved were answered error-proof. Another

inherent challenge is the vulnerable set of consumers such as children, the aged and physically challenged groups in the society, as the question stems actually provided for them. Another limitation is the intentional faking responses by respondents and lack of interest to attend to the questionnaire. Hence, conclusions were correct to the extent of the information available to the researcher at the time the study was conducted.

### **1.8 Delimitations of the Study**

The scope of this investigation is limited to six states in the South of Nigeria. The states include Cross River, Akwa Ibom, Ebonyi, Enugu, Lagos and Oyo states respectively. The target group is the companies and the vulnerable groups, which include the elderly people, young people, the unemployed, those with longstanding illness, low-income earners, ethnic minorities and those with no formal educational qualifications.

## **2.0 Review of Related Literature**

These issues would be addressed in this study: self-concept to product innovation, diffusion, and adoption. Achievement motivation to product innovation, diffusion and adoption, and needs theory of motivation, diffusion and adoption. Finally, consumer vulnerability and product innovation, adoption and diffusion.

### **2.1 Self-Concept, Product Innovation, Diffusion and Adoption**

Self-concept is the totality of our beliefs, preferences, opinions and attitude organized in a systematic manner towards our personal existence. Everyone has unique second nature or personality traits, abilities and preferences that sometimes facilitate the understanding or explanation of what is really going on inside each of us (Gottfredson 1985.159). It was Rene Descartes, the philosopher, and mathematician who postulated that a person's existence depended on how he perceives. While Sigmund Freud theories, which explains internal mental process within humans, is anchored on "id" (pleasure oriented), "ego" (balance between id and superego) and the "superego" (conscience driven) which influences the way we think.

According to Atsu (2005.54), self-concept refers to the way an individual conceives of himself and how that individual thinks others perceive him. One concept of “self” model is the interrelationship of self-perceptions such as the perceived self, the ideal self, one’s self-esteem and a set of social identities. This play pivotal role in understanding how the self-concept relates to empowering, directing and sustaining corporate organization(s) in product creating, innovating, diffusion and adoption (Epstein 1973.2; Allport 1961 and Mogaba, Ogbidi & Mbum 2012.32).

In other related studies, an individual becomes inner-directed, using internalized traits, competencies and personal values as measuring barometers for success or failures (Adediran 1986). Carl Rogers and Abraham Maslow were the first to note the notion of self-concept. According to Rogers, everyone strives to reach an “ideal self”. He stated that psychologically, healthy people actively move away from roles created by others’ expectations. They rather look within themselves for validation. According to Aronson, Wilson and Akert (2007.113) neurotics do not match self-concept to their experiences, they distort them and are afraid to accept their experiences as valid to protect themselves or win approval from others.

According to Turner, *et al.* (1987) who developed self-categorization theory, they stated that the notion of self-concept consists of two levels of “personal identity” and “social identity”. The model of self-concept, according to Bong and Clark (1999.143) is an internal assessment in order to define schemes. Furthermore, they stated that traits such as personality, skills, abilities, occupation, hobbies and other physical characteristics such as ideas of oneself are collected to form overall self-concept. Self-concept is a term first proposed by Raimy (1943), developed by Lecky (1945) and adopted by Rogers. To them, self-concept developed out of the organism’s interaction with the environment as he strives for consistency and change because of motivation and learning.

Allport (1955) observed that self-concept to some extent is directed by internal states of the individual. He viewed perceptions of events and objects that govern our needs, experiences as goals. Lahaye (1984) asserts that every



individual comes into the world with ideal inborn humours (temperaments) characteristics, which account for why people act the way they do.

Combs and Snygg (1959) opined that whatever action an individual engages is always explained in the context of abilities, interests, values, achievements, needs and limitations. Therefore, self-concept cannot be overemphasized and that is why it is pertinent to examine achievement motivation and consumer vulnerability effect on product innovation, diffusion and adoption in selected states of Southern Nigeria.

## **2.2 Achievement Motivation, Consumers' Vulnerability and Product Innovation, Diffusion and Adoption**

Achievement motivation originated from the theories of motivation propounded by Murray (1938) about seven decades away. To Murray, motivation is an individual's determination to avoid conflict and relate to a person's desire to attain goals through concerted efforts to realize set goals, mastering tasks needed to achieve those set goals, finding solutions to obstacles of those set goals, and getting feedback.

For McClelland (1961), he expanded the frontiers of knowledge by identifying three basic motivating needs:

- The need for power ( $n/pwr$ )
- The need for affiliation ( $n/aff$ ), and
- The need for achievement ( $n/ach$ ).

He posits that every individual possesses each of these basic needs, which is acquired from culture. He further stated that achievement motivation construct deals with the direction of behaviour. McClelland (1953) noted that these needs can be measured using Thematic Apperception Test (TAT) which is a projected-style test based on interpreting stories that people tell using a set of pictures. For Maslow (1943) need hierarchy and Herzberg (1959) motivation two factor Hygienic theories, they conceded that individuals with need for achievement possess an intense desire for success and fear failure.

For Atkinson (1974), achievement motivation is closely related to intrinsic force with the individual, since achievement motivation is related to unsatisfied needs. To Jung (1978), achievement motivation is a desire to achieve, be self-

actualized, therefore, an indispensable mentor in all human behaviour. Some studies, Maslow (1943), Herzberg, Mausner & Synderman (1959), McGregor (1960), Alderfer (1969), Akindele, & Ajila (1992) agreed on the basic perspective on motivation model:

Needs → Behaviour → Satisfaction

In other words, every individual have certain needs (wants) and this causes the individual to do certain things (behaviour) which satisfies those needs (satisfaction). Put in another way, marketers have certain wants (needs) that do certain things or carry out certain activities that may leave us vulnerable to the kind of product consumers adopt (behaviour) otherwise, get consumers adopt and diffuse innovated product (rewards) which satisfy the needs (satisfaction) profit maximization.

Maslow (1943) theory of hierarchy of needs emphasized that the needs at the bottom are the most urgent and need to be satisfied before attention can be paid to the others. He listed these needs to include; self-actualization, esteem, belongingness, safety and physiological needs. To him, the lower needs take priority. They must be fulfilled, before others are activated. Alderfer's (1969) "Existence, Relatedness and Growth" (ERG) theory also categorized needs hierarchically in response to Maslow's hierarchy of needs by identifying:

- Growth needs (development and realization of potential)
- Relatedness needs (satisfactory relations with others)
- Existence needs (physical well-being)

In cognitive evaluation theory, Darcey and Tranverse (1996) agreed with Akindele and Ajila (1992) that critical thinking, problem solving and motivation are intrinsically pertinent to mental skills sharpening. This theory posits that intrinsic and extrinsic motivators correspond to factors associated to Herzberg's two factor theory, i.e. intrinsic motivators which comes from the actual performance of the task and extrinsic factors which are things that comes from environment controlled by others, (McClelland 1961, Murray 1978, Durojaiye 1978 and McGregor 1960).

Alderfer's ERG theory which was reclassified into cognitive evaluation theory became Herzberg's two factor theory and resulted to hygienic factors and motivators. Maslow and Alderfer's hierarchy needs theory, which postulates that hygienic factors constitute those things that when you take away, people, become dissatisfied and act to get them back. Those things include decent working conditions, security, pay, benefits, health insurance among others, while motivators are those things whose absence does not cause any particular dissatisfaction, such as self-actualization, esteem, safety and the intrinsic motivators, (Ryan & Edubard 2000).

In that accordance, equity theory proposes that individuals who perceive themselves as either under-reward or over-rewarded experiences distress and this distress leads to efforts to restore equity within the relationship, (Huseman, Hatfield & Miles, 1987). According to the authors of equity theory, it is not the actual reward that motivates, but the perception, and the perception is based not on the reward in isolation, but in comparison with the efforts that went into getting it and the rewards and efforts of others better illustrated in the following equation:

People's motivation results from ratio to ratio as individuals compares the ratio of reward to effort, with the comparable ratio of reward to effort that they think others are getting, (Gill and Stone, 2010). According to Messick and Cook (1983) and further stressed by Gill and Stone (2010), predicting how a person will react to a given motivator is complex, however, the following are possible reactions:

- People (consumers) do not have complete information on how others are rewarded, so they rely on perception, rumours, and inferences, among others, which can be faulty or hasty generalizations.
- Some people (consumers) are more sensitive to equity issues than others are carried away.
- Some people (consumers) are willing to ignore short-term inequalities as long as they expect things to work out in the long-term.

Professor Stephen Reiss studied 6,000 people (consumers) and proposed 16 basic desires that guide all human behaviour, including the desires

that motivate our actions and define our personalities to include acceptance, curiosity, eating, family, honour, idealism, independence, order, physical activity, power, romance savings, social contract, social status, tranquility and vengeance.

In reinforcement theory, the father of operant conditioning, B. F, Skinner describes the effects of the consequences of a given behaviour on the future occurrence of that behaviour. He identified positive reinforcement, negative reinforcement, extinction and punishment thus:

$$\frac{\text{Individual's outcomes}}{\text{Individual's own inputs}} = \frac{\text{Relational partner's outcome}}{\text{Relational partner's inputs}}$$

	<b>Apply</b>	<b>Withhold</b>
Reward	Positive reinforcement (raise above baseline)	Negative reinforcement (raise up to baseline)
Stressor	Punishment (bring down below baseline)	Extinction (stay at baseline)

This led us to the question of what is motivation. Motivation according to Maslow (1943) and McGregor (1960) is a theoretical construct used to explain behaviour. To them, motives are hypothetical constructs, used to explain why people do what they do and why they use certain strategies to achieve certain goals.

In a handbook, Baumeister and Vohs (2004), the authors asserted that Maslow's hierarchy of needs, i.e. people (consumers) are motivated by unsatisfied need but need, and McGregor's theory X and theory Y identify:

- Motivated employees (consumers) who will always look for better ways or techniques to accomplish their objectives.
- Motivated employees (consumers) who are quality oriented (will always look out for improved quality products and services to adopt and diffuse).

- Motivated workers (consumers) who are more productive (will avoid products and services that will put them at risks (vulnerability)).

According to Maehr and Mayer (1997), motivation theories can be classified into:

- Natural vs. Rational based on drives, needs, desires or instrumentality, meaningfulness and self-identity, and
- Content vs. process based on what motivates vs. process how motivation takes place.

### **2.3 Consumer Vulnerability and Product Innovation, Diffusion and Adoption**

According to the New Webster's Dictionary (2004.1104), vulnerable means weak and open to attack, hurt physically (injury) or emotionally. From the above, consumer vulnerability is a set or group of consumers that maybe exposed and may easily be influenced to adopt and diffuse products that may not satisfy their needs or purpose they were intended (Burden 1998). In a position paper anchored by European Association for the co-ordination of consumer representation and standardization in UK, Juvin, *et al.* (2011.10) split vulnerable consumers into two for two reasons:

- Some consumers may have greater difficulty than others may in obtaining required information needed to make decisions about goods and services, if any, to buy.
- The other reason, they argued, a consumer may suffer greater exposure to a loss in failing to buy something when it would be in their interests to do so.

To them, the same individual may experience both forms of vulnerability. They identified seven potentially vulnerable consumer groups as follows:

- Elderly people - Those in low income households
- Young people - Members of ethnic minorities
- The unemployed - Those with no formal educational qualification
- Those with limited, longlasting illnesses

Brenkert (1998.299) posits that consumer vulnerability is described in terms of consumer characteristics and demographics such as age, disability, gender, race, ethnicity, low-income, and limited literacy, poor households among others in which Juvin *et al.* (2011) had reiterated. Khadir (2007.438) has earlier noted that what Brenkert (1998) has identified as indicators for consumer vulnerability is not a bulletproof measure. However, there are useful indicators of potential vulnerability and that most government departments, large institutions and commercial including multinational corporations (MNCs) and transnational corporations (TNCs) use it to operationalize their vulnerability, disability and the physically challenged programmes and policies. Some studies published by Harrison and Chalmers online in (2013) revealed that the above-mentioned indicators are not the only basis of consumer vulnerability. The studies further stated that consumers might be vulnerable due to transient stages, short-term and less concrete states such as grief related vulnerability, stress, ego-depletion, fatigue, lack of access to credit advances or retail facility can expose the consumer to adopt and diffuse innovated product with proper analysis of those products the study concluded.

From the foregoing, the researcher provides a working definition of consumers in vulnerable positions as people who cannot choose or access essential products and services, innovation, adoption and diffusion which are suitable for their needs, or cannot do so without disproportionate effort, cost or time. Furthermore, vulnerability is the condition in which a consumer is at greater risk of miss selling, exploitation or put on a disadvantage in terms of accessing or using an innovated product, service or idea, adopting and diffusing it or in seeking redress. People or better put, consumers, cannot acquire power in the market place if they cannot avoid formidable costs, high prices and crazy bills from utility providers, internet service providers, telecom service providers, just to mention, but a few and for essential and daily use goods and services that put people or consumers in vulnerability positions.

### **3.0 Methodology**

This study examines the influence of self-concept, achievement motivation and consumer vulnerability on product innovation, adoption and diffusion. The inquiry

is a descriptive survey and data for manipulation came from samples randomly drawn judgmentally from the selected states, South of Nigeria.

The study identified dependent variables as self-concept, achievement motivation and consumer vulnerability, which has an effect on the independent variables of product innovation, adoption and diffusion in, selected states in Southern Nigeria. Survey design was useful because of large population, with ideal vulnerability to product innovation, adoption and diffusion.

The population was from the states selected for the study, at least four companies each state, which totalled 12,000 (i.e.  $500 \times 4 \times 6 = 12,000$ ). Yaro Yannane formula was to determine sample size thus:

$$n = \frac{N}{1 + N(e)^2},$$

Where;

n = sample size

N = finite population

e = tolerable error

i = a constant (unity)

$$\therefore n = \frac{12,000}{1 + 12,000 (0.5)^2}$$

$$= \frac{12,000}{1 + 12,000 \times 0.0025}$$
$$= 387$$

### 3.1 Area of the Study

States capital of the selected states was randomized. They include Abakaliki, Calabar, Enugu, Ikeja, Ibadan and Uyo. These towns have very rich history and cultural heritage with sumptuous delicacies and were former colonial capitals or district head quarters.

### 3.2 Sampling Technique

A simple purposive sampling model was used for convenience and the population is distributed as follows to curtail ambiguity:

1. Cross River State	30
2. Akwa Ibom State	40
3. Ebonyi State	30
4. Enugu State	55
5. Lagos State	187
6. Oyo State	<u>45</u>
	387

(Uzoagulu, 1998.66)

**Table 1:** Data Collation and Analysis

S/No	Product	AKS	CRS	Ebonyi	Enugu	Lagos	Oyo	Total
1	Grains	40	30	30	55	167	65	387
2	Fibres	62	79	71	76	50	49	387
3	Beverages	39	31	25	46	165	81	387
4	Toothpaste	58	52	47	64	105	61	387
5	Detergents	49	51	34	49	167	37	387
6	Medical	43	38	20	53	172	61	387
7	Alcohol	45	42	39	41	168	52	387
8	Housing	29	22	27	32	220	57	387
9	Automobile	35	25	19	67	170	71	387
10	Textiles	45	39	28	58	143	74	387
11	Footwear	29	42	22	41	214	39	387
	Total	474	451	362	582	1,741	647	4'257

**Table 2:** Processing and Analysis of Data According to their Hypothesis

Hypothesis	Independent variable	Dependent variables			Total
		Self-concept	Achievement motivation	Consumer vulnerability	
Hypo 1	Innovation	180	184	232	596
	Diffusion	141	147	157	445
	Adoption	98	214	246	558
Hypo 2	Innovation	110	111	166	387
	Diffusion	100	83	204	387
	Adoption	123	95	233	451
Hypo 3	Innovation	126	80	220	426



	Diffusion	265	100	277	642
	Adoption	60	100	241	461
	Total	1,203	1,174	1,974	4,353

IJSER

**Table 3:** Data coding according to dependable variables

<b>H<sub>o1</sub> Self-concept</b>		<b>Innovation</b>	<b>Diffusion</b>	<b>Adoption</b>
	419	180	141	98
	333	110	100	123
	451	126	265	60
	1,203	416	506	281
<b>H<sub>o2</sub> Achievement Motivation</b>				
	545	184	147	214
	289	111	83	95
	340	80	100	160
	1,174	375	330	469
<b>H<sub>o3</sub> Consumer Vulnerability</b>				
	635	232	157	246
	603	166	204	233
	738	220	277	241
	1,976	618	638	72
<b>H<sub>o1</sub>+H<sub>o2</sub>+H<sub>o3</sub></b>	<b>4,353</b>	<b>1,409</b>	<b>1,474</b>	<b>1,470</b>

#### 4.0 Discussion of Results

Hypothesis one tests the strength of self-concept on consumers response to product innovation, diffusion and adoption after determining measures of spread touching on range, minimum, maximum, mean scores, standard deviation, variance, skewness and kurtosis. Using SPSS version 21, this

$Y = a + b_1 x_1 + b_2 x_2 + b_3 x_3 = c$  model was computed and the results for

**H<sub>o1</sub>: ≠ 0**

There is no significant relationship between self-concept and product innovation, adoption

N = 3

Range = 82, 67 and 89

Minimum = 98, 147 and 157

Maximum = 180, 214 and 246

Mean statistics = 139.67, 181.67 and 211.67

Mean std error = 41.016, 33.561 and 47.857

Var. statistic = 1682.333, 1126.333 and 2290.333 respectively, (Table 4). This is the summary of dispersion describing group of dependent variables (Descriptive Statistics).

To enable the researcher estimate the relationship among the variables in order to predict or forecast the interrelationship of the variables, regression analysis was performed using SPSS version 21 and the results

Variables = self-concept, achievement motivation and consumer vulnerability

a = .615 intercept

b = -1.717 intercept

c = 476.454 constant

$x_1$  = product innovation

$x_2$  = product diffusion

$x_3$  = product adoption

$\gamma$  = self-concept

Standard errors = nil

Observations = 3

$R^2 = 100.000 - .617 = 99.385$

$\approx = 99.39\%$

$\rho < 0.01$

Significant level 1%

**Ho<sub>2</sub>:**

Achievement motivation does not influence positively on product innovation, diffusion and adoption.

N = 3          Range Statistics = 82, 67 and 89

Min. statistic = 98, 147, and 157

Max statistic = 180, 214, and 246

Mean statistic = 139.67, 181.67 and 211.67

Mean std Error = 23.681, 19.376 and 27.630

Stand Deviation Statistic = 41.016, 33.561 and 47.857

Variance statistic = 1682.333, 1126.333 and 2290.333

Skew Statistic = -.146, -.311 and -1.567

Standard Error = 1.225, 1.225 and 1.225

$Y = a + b_1 x_1 + b_2 x_2 + b_3 x_3 + c$

a = 1.253 intercept

b = 1.382 intercept

c = 18.549 constant

$x_1$  = product innovation

$x_2$  = product diffusion

$x_3$  = product adoption

Y = Achievement motivation

Standard Errors = Nil

$R^2 = 100.000 - 1.253 = 98.747\% \approx 99\%$

This is significant at  $p < 0.05$ . Therefore, achievement motivation impact positively on product innovation, diffusion and adoption.

Observations = 3

**H<sub>03</sub>:**

Consumer vulnerability does not influence product innovation, diffusion and adoption.

N = 3          Range statistics = 135, 66, and 120

Min. statistic = 603, 166, 157 and 233

Max. statistic = 738, 232, 277 and 246

Mean statistic = 658.67, 206.00, 212.67 and 240.00

Std Error = 40.728, 30.298, 34.911 and 3.786

Stddev. Statistics = 70.543, 35.157, 60.468 and 6.557

Variance statistic = 4976.33, 1236.000, 3656.333 and 43.000

Skewness stats = 1.340, -1.508, .632 and -670

Std Error = 1.225, 1.225, 1.225 and 1.225

Regression model:  $Y = a + b_1 x_1 + b_2 x_2 + b_3 x_3 = c$

a = 1.583 intercept

b = 1.295 intercept

c = 55.570 constant

$x_1$  = product innovation

$x_2$  = product diffusion

$x_3$  = product adoption

Y = consumer vulnerability

Standard Errors = Nil

Observation = 3

$R^2 = 100.000 - 1.548 = 98.452$

$\approx 98.4\%$ ;  $\rho < 0.05$ . There is significant at 0.05, hence, the null hypothesis is therefore, rejected and the alternative hypothesis accepted.

## 5.0 Summary and Conclusion

This work understudies the significant level of influence of self-concept, achievement motivation and consumer vulnerability on product innovation, diffusion and adoption in six selected states in Southern Nigeria. The three hypotheses; using  $Y = a + b_1 x_1 + b_2 x_2 + b_3 x_3 = c$  model revealed that the study is significant at  $\rho < 0.05$  and their null hypotheses at ( $\alpha$ ) were rejected and alternative hypotheses at ( $\beta$ ) accepted.

The findings were that self-concept has strong relationship with product innovation, diffusion and adoption. This stand subscribes to the conceptualizations of Atsu (2005.54) which further buttressed Combs and Snygg (1959) position.

The second null hypothesis was equally rejected in favour of alternative hypothesis. In recognition of the theories of Murray (1938), McClelland (1961) and Maslow's theories (1943), this study concluded that achievement motivation positively impact on product innovation, diffusion and adoption.

The third null hypothesis tests the effect of product recreation, innovation, diffusion and adoption. Analysis of the problem revealed that product innovation, diffusion and adoption put some consumers to a disadvantaged. Hence, the null hypothesis was rejected and the alternative hypothesis accepted (Voinox, Nikulin and Mikhail 1996).

On the strength of the findings, this investigation, it was concluded that product innovation, the rate or speed of diffusion and acceptance (adoption) could be determined from consumers' self-concept, achievement motivation and vulnerability. Consumers, who have strong self-concept or self-ideal, subconsciously separate harmful product innovation, reduce their diffusion and become laggards in adoption process. Other set of consumers (Adediran 1986; and Sarabi, Ahmadi & Moradi 2013) argued that a motivated consumer, with hindsight separates harmful or poor quality innovations, stem down logistic deployment (diffusion) and slow down adoption process (Franken 1994 and Jurate-Banyte 2008). Vulnerable or disadvantaged consumers such as the underaged, the elderly people, the unemployed, the jobless and the sick or physically challenged naturally identify innovation that put them off, hence, checkmate product diffusion and contribute to non-acceptance, adoption or become laggards (Burden 1998, and Harrison and Chalmer, 2013).

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