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A Study of Factors Affecting

Socio-Economic Determinants

Highlights

Analytical Study of Consumer

Tutorial on Scale Development

Discovering Thoughts, Inventing Future



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## Socio-Economic Determinants of Tobacco use in Tanzania: Estimates using Demographic Health Survey

By Ernest N. Tingum, Moses A. Ofeh & Akwi Tafah

*Abstract-* Tobacco use increases morbidity and mortality and is an established health hazard as it contributes to multiple diseases, including cardiovascular, pulmonary, musculoskeletal, immune diseases, and cancer and asthma (WHO, 2011). Information on factors affecting the tobacco use is useful for policies on tobacco reduction, especially in developing countries. This paper examines the key socio-economic characteristics associated tobacco use using a Demographic Health Survey (DHS) data (2010) in Tanzania. Both logit and multinomial logistic regression models are used to identify key determinants of tobacco consumption choices. The regression analyses of tobacco use in Tanzania identify age, urban residence, no education, primary, poorest, poor and never married as factors associated with the choice of tobacco use among males, while age, no education, primary, poorest, poor, unemployed and being an unskilled and domestic employer were significantly associated with female tobacco use. The prevalence of tobacco use in Tanzania is high as compared to the rates in other SSA countries. Although the government in collaboration with WHO continues to enact policies to address the problem, there is a need for effective implementation and enforcement of tobacco reduction policies. There is also the need for health education to modify social norms and also reduce tobacco use in Tanzania.

*Keywords:* socio-economic, determinants, tobacco, multinomial, logit, tanzania.

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# Socio-Economic Determinants of Tobacco use in Tanzania: Estimates using Demographic Health Survey

Ernest N. Tingum<sup>α</sup>, Moses A. Ofeh<sup>σ</sup> & Akwi Tafah<sup>ρ</sup>

**Abstract-** Tobacco use increases morbidity and mortality and is an established health hazard as it contributes to multiple diseases, including cardiovascular, pulmonary, musculoskeletal, immune diseases, and cancer and asthma (WHO, 2011). Information on factors affecting the tobacco use is useful for policies on tobacco reduction, especially in developing countries. This paper examines the key socio-economic characteristics associated tobacco use using a Demographic Health Survey (DHS) data (2010) in Tanzania. Both logit and multinomial logistic regression models are used to identify key determinants of tobacco consumption choices. The regression analyses of tobacco use in Tanzania identify age, urban residence, no education, primary, poorest, poor and never married as factors associated with the choice of tobacco use among males, while age, no education, primary, poorest, poor, unemployed and being an unskilled and domestic employer were significantly associated with female tobacco use. The prevalence of tobacco use in Tanzania is high as compared to the rates in other SSA countries. Although the government in collaboration with WHO continues to enact policies to address the problem, there is a need for effective implementation and enforcement of tobacco reduction policies. There is also the need for health education to modify social norms and also reduce tobacco use in Tanzania.

**Keywords:** socio-economic, determinants, tobacco, multinomial, logit, tanzania.

## 1. INTRODUCTION

Tobacco use increases morbidity and mortality and is an established health hazard as it contributes to multiple diseases, including cardiovascular, pulmonary, musculoskeletal, immune diseases, and cancer and asthma (WHO, 2011). Such tobacco-related morbidity occurs disproportionately in developing countries, where smoking has reached epidemic rates particularly in the past decades with an increased in tobacco consumption rates especially in Africa. The increase in smoking rates can be attributed to the fact that most of the raw tobacco is processed in developed countries and exported back to Africa for consumption.

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In 2008, tobacco use killed over five million people worldwide as compared to 4.9 million in 2000 (Jha, 2012). In 2015, it was estimated that the global yearly death toll as a result of tobacco use is 6 million (including exposure to secondhand smoke). This is more than tuberculosis, HIV/AIDS and malaria combined. If unchecked, the number of deaths will increase to around ten million in 2030, with more than 80% of these deaths happening in developing countries (ASH, 2015). At the same time, worldwide tobacco usage accounted for 4.1% of global burden of ill health in 2000; much of this burden was due to an increase in the last full decade of tobacco-related illnesses in developing countries (Ezzati et al 2002).

As use of cigarette and other tobacco products declines in high-income countries, increasing attention has turned to the growth of cigarette use in middle- and low-income countries (Jha & Chaloupka, 2000; Opdal, 2008). From 1970 to 2000, per capita cigarette consumption fell by 14% in developed countries and rose by 46% in developing countries (Guindon and Boisclair, 2003). The increase occurred primarily among men but, given marketing efforts of tobacco companies, use by women appears primed to move upward (Ernster, Kaufman, Nichter, Samet, & Yoon, 2000; Mackay, 1998). Largely because of the growth in low- and middle-income nations, the number of smokers worldwide has now risen to 1.3 billion and may well reach 1.5 billion by 2025 (Mackay, Eriksen, and Shafey, 2006).

Tanzania is one of the major producers of tobacco in the world and the second largest producer in Africa after Malawi<sup>1</sup>. For the year 2011-2012 the area planted was 118250 hectares with a yield of 126620 tones, amounting to 1.07 tons per hectare. With regards

<sup>1</sup> Tanzania is one among the poorest countries of the world. Per capita income is estimated at about US\$ 450 per year. Covering an area of 945,000 square kilometers, it has a population of about 42 million growing at about 3 percent a year. The economy is heavily dependent on agriculture (primarily, tobacco, coffee, cotton, tea, cloves, cashew nuts, sisal, maize, rice, wheat, and cassava), which accounts for about 50 percent of GDP, provides 85 percent of exports, and is by far the largest employer.

to cigarette use, the overall smoking prevalence rate is 12.4% for males, 8.8% for females and 10.6 overall (WHO, 2012). However, the overall tobacco use increases to 20.5% when the reference population is limited to adults (15 to 60 years). Most smokers in Tanzania appear to lack the understanding of the harmful health effects of tobacco use, the corresponding high health care expenditure as well as reduced earnings that emanate from smoke related diseases (Kidane *et al.*, 2014).

The harm that tobacco use does to health is irrefutable. The evidence in tens of thousands of careful scientific articles from around the world testifies that tobacco use (chewing or smoking) and inhaling "secondhand" or side stream smoke from cigarettes raises the risk of many serious diseases. Moreover, tobacco use is one of the major preventable causes of disease and premature death. The efficacy and cost effectiveness of a well-tested set of policies and interventions have been clearly established over several decades, in many countries around the world, at various income levels and in many different cultures. The adverse effects of tobacco use on the health of an individual are well known. Therefore, it is essential to identify factors leading to tobacco use to plan strategies to limit its use.

While cigarette smoking is a major health issue, other forms of tobacco use (pipe smoking, snuff and tobacco chewing) are growing concern especially as Tanzania is the second highest producer of tobacco in Africa after Malawi. Like cigarette smoking, these forms of tobacco use have increased considerably among the elderly rural population in Tanzania especially in Tobacco growing regions. Other forms of tobacco use seem to have similar negative health affects to cigarette smoking on consumers although this has not been well explored. Regardless of the type of tobacco product, tobacco use has adverse health effects. The age at which people start tobacco use is crucial, as once smoking is commenced the addictive effect of nicotine is likely to promote continuous consumption (Morrell *et al.*, 2011).

The bottom line is clear: reducing tobacco use is good for health, and makes sound economic sense. Therefore, Tanzania would derive net economic gains, not losses if their demand for tobacco products fell, because economic losses would be offset by economic gains at household and national levels. Despite Tanzania being one of the highest producers and subsequent consumers of tobacco in Africa, hardly any study to the best of our knowledge has empirically estimated the socio-economic determinants of tobacco use using DHS data. Obtaining an understanding of factors influencing tobacco use will facilitate the development of effective interventions to prevent smoking initiation, as well as to assist established smokers to quit smoking. This study examines factors

associated with tobacco use in Tanzania. This research will help us understand the meanings of smoking for the Tanzanian population as well as the social determinants that influence the uptake of smoking and tobacco use, as well as cessation.

Therefore, this study investigates tobacco use in Tanzania because of high rates of prevalence of consumption. Additionally, Tanzania requires more consideration because it is the second largest producer of tobacco in Africa and more especially and tobacco-induced non-communicable diseases (NCDs) such as cardiovascular diseases, cancer and chronic obstructive pulmonary disease have emerged as major causes of mortality (Kidane *et al.*, 2015). More so, even after the ratification of the WHO Framework Convention on Tobacco Control (FCTC), the relatively weak tobacco control policies and programs in Tanzania provide a potential market for the tobacco industry to exploit. Therefore, this study investigates adult tobacco use in Tanzania because of the high rates of prevalence compared with other Sub-Saharan African countries.

This paper analyzes individual tobacco use and consumption by using Demographic Health Survey (DHS) data (2010) of Tanzania. The objective is to identify and examine the socioeconomic and demographic factors that influence individuals' tobacco use.

## II. PREVALENCE OF TOBACCO USE IN MAIN CITIES OF TANZANIA

Tobacco use prevalence is rising in the main cities of Tanzania. It is estimated that more than a third (37%) of all adults (age 15+) use some form of tobacco and almost half of adult men (49%) and a quarter of adult women (25%) currently use tobacco products. Among youth (age 13-15) in Dar es Salaam, 6% currently smoke cigarettes (male 10%; female 2%). It was also estimated that more than 10% of youths in Dar es Salaam and other main cities like Arusha and Kilimanjaro currently use tobacco products other than cigarettes (male 13%; female 7%). Tobacco chewing and pipe smoking are popular among the poor in rural areas especially the tobacco cultivating regions of Tabora and Mara regions (Tanzania Step Survey, 2012).

Unlike in developed countries where cigarette smoking is common, both smoking- and chewing-tobacco are prevalent among tobacco users in many developing countries especially in Tanzania which is the 2<sup>nd</sup> highest producer of tobacco products after Malawi and Zimbabwe in Africa (Kidane *et al.*, 2015). Smoking cigarettes is a common habit among the general male population in Tanzania especially in urban areas while pipe smoking and chewing tobacco are common habits among the elderly people mostly in rural areas. World Health Organization analyzed the cost of tobacco consumption at the national level is found to be

associated with the increased health-care costs, loss of productivity due to illnesses and early deaths and environmental pollution (WHO, 2011)

Using Tanzanian Step Survey-2012 fact sheet, prevalence of tobacco use in Tanzania can be illustrated as show in Table 1.

*Table 1:* Prevalence of Tobacco use in Tanzania

Results for adults aged 25 - 64 years	Both sexes	Males	Females
<i>Percentage who smoke tobacco</i>	14.10% (12.4% - 15.8%)	26.00% (23.1% -28.9%)	2.90% (1.7% - 4.0%)
<i>Percentage who smoke tobacco daily</i>	11.80% (10.2% - 13.4%)	22.20% (19.7% - 24.7%)	2.00% (0.7% -3.2%)
<i>Percentage of current tobacco users (smoke and smokeless tobacco)</i>	15.90% (14.0% - 17.9%)	28% (25.1% - 30.9%)	4.50% (3.3% - 5.6%)
<i>For those who smoke tobacco daily</i>			
<i>Average age started smoking (years)</i>	21.9 (21.0 - 22.8)	21.8 (21.1 - 22.5)	22.4 (17.8 - 27.0)
<i>Percentage daily smokers smoking manufactured cigarettes</i>	79.80% (72.6% - 87.0%)	81.20% (74.9% - 87.5%)	64.80% (32.6% - 96.9%)

Source: Tanzania Step Survey – 2012 Fact sheet

*Table 2:* Prevalence of Tobacco use from three regions in Tanzania

Type	Arusha			Dar es Salaam			Kilimanjaro		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
<i>- Ever smoked cigarettes</i>	7.5%	4.9%	6.2%	12.7%	6.0%	9.2%	16.3%	11.8%	14.1%
<i>- Current users of Cigarettes</i>	2.2%	1.1%	1.7%	4.6%	0.7%	2.6%	3.3%	3.8%	3.6%
<i>- Ever users of any tobacco products</i>	12.4%	8.8%	10.6%	9.7%	5.3%	7.6%	12.5%	9.3%	10.9%
<i>- Current users of other tobacco products</i>	10.8%	8.2%	9.5%	6.2%	4.7%	5.7%	10.4%	6.9%	8.7%

Source: Global Youth Tobacco Survey (Tanzania, 2008)

From the surveys, the following observations are with regards to the three main cities

Arusha - 10.6% of students currently use any form of tobacco; 1.7% currently smoke cigarettes; 9.5% currently use some other form of tobacco.

Dar es Salaam - 9.2% of students currently use any form of tobacco; 2.6% currently smoke cigarettes; 5.7% currently use some other form of tobacco.

Kilimanjaro - 10.9% of students currently use any form of tobacco; 3.6% currently smoke cigarettes; 8.7% currently use some other form of tobacco.

### III. METHODOLOGY

#### a) Data

The study uses data from the DHS which provides reliable and nationally representative data on fertility, family planning, health, and nutrition of populations in developing nations. The survey has been conducted in 79 countries across the world since the mid-1980s. In Tanzania, a couple of the DHS have been

conducted with the most recent being in 2010. The surveys use stratified two-stage cluster designs that oversample low-populated provinces, identify clusters within regions, and choose households randomly within clusters. The surveys thus select nationally representative samples that appropriately include rural as well as urban residents.

For sampled households, one member answers questions about the household in general and provides a list of household residents. Interviews of household representatives were completed for 97–99% of selected households, but response rates were a bit lower for household members. The age ranges of the samples are limited to 15–49 years because the DHS are designed to study fertility, which may bias estimates of tobacco use among all adults. The low end of the age range begins at age 15 years, by which time a small but meaningful percentage of youth has already started smoking whereas, the high end of the range misses older smokers (Mackay *et al.*, 2006).

Table xx: Descriptive Statistics

Variables	Categories/description	Cigarettes	Others
<i>gender</i>	female	83.50	80.23
	male	16.49	19.77
<i>marital status</i>	Married	46.27	9.63
	Widowed / Divorced	7.970	50.15
	Never Married	45.76	40.22
<i>Residence</i>	Urban	53.98	23.54
	Rural	46.02	76.46
<i>sector</i>	Unemployed	19.98	39.20
	Agriculture, manufacturing	44.70	37.90
	Domestic workers and construction	25.10	17.52
	Public sector, health care, education	10.14	5.380
<i>wealth</i>	poorest	17.47	33.37
	poor	31.22	29.35
	middle	24.84	20.69
	Rich	18.43	12.39
	Richest	8.040	4.370
<i>insurance</i>	percentage coverage	20.01	16.85
<i>education</i>	No education or less than primary	38.36	40.3
	Primary education	27.37	31.73
	Secondary and higher	34.27	27.97
<i>age (mean)</i>	mean age of respondents in years	34.0	37.2

In terms of gender, we see about typical distribution of 88.33% females among the cigarette smokers and 80.23% among other tobacco users respectively, while men tend to be under-represented in the sample. Cigarette smokers are better educated than other users. The data shows that mostly the poorest and poor respondent have a high proportion of tobacco use. Meanwhile, cigarette smokers are relatively more covered by insurance, other tobacco users are less covered. This may be due to the fact that most respondents using other forms of tobacco are mostly residing in the rural areas (76.46%). In terms of marital status, mostly the married and never married are cigarette smokers while other forms of tobacco use is mostly among the divorced/widowed and never married. The mean age of respondents (34 years and 37.2 years for cigarette smokers and other users respectively) show that tobacco users are mature and should be able to make rational decisions about their tobacco use or consumption.

#### b) Model Specification

In this section, two models will be specified.

The first model examines the determinants of tobacco use taking into consideration the place of residence. The probability of using tobacco is a function of social and economic variables, and a multinomial logit framework is utilized in exploring the effects of these variables on smoking prevalence. The dependent variable, smoking prevalence, has three classes: 0 = non-smokers, 1 = cigarette smokers and 2 = pipe smokers, snuff and chewing tobacco i.e., the estimates give the probability of cigarette smokers and pipe smokers, snuff and chewing tobacco relative to the reference state of non smokers. The standard errors are corrected for repeated observations on the same persons. This approach will present odds ratios for belonging to the two tobacco smoking categories (cigarettes and pipe/other) relative to the baseline category of non-smokers.

A Multinomial Logit Model (MNL) which simultaneously estimates binary logits for all possible comparisons among the outcome categories is well

suited to examine such multiple outcomes (Long, 1996). Each nominal outcome is specified as a nonlinear function of the independent variables. The MNLM is formally stated as follows:

Let  $y$  be a dependent variable with  $J$  nominal outcomes. The  $J$  categories are numbered  $1, \dots, J$  but

$$\ln \Omega_{m/X}(X) = \ln \frac{\Pr(y = m/X)}{\Pr(y = b/X)} = X \beta_{m/b} \text{ for } m = 1, \dots, J \quad (1)$$

Where  $b$  is the base or reference category, also referred to as the comparison group. These  $J$

are not ordered in any way. Let  $\Pr(y_i = m/X_i)$  be the probability of observing outcome  $m$  for individual  $i$  given  $X$ , the set explanatory variables. As a probability model, the MNLM is written as:

equations can be solved to compute the predicted probabilities:

$$\Pr(y = m/X) = \frac{\exp(X \beta_{m/b})}{\sum_{j=1}^J \exp(X \beta_{j/b})} \quad (2)$$

The tobacco smoking questions consider only current behavior, and the surveys contain no information on age of adoption, former smoking, or age of cessation. For the analysis of multinomial logit, the dependent variable ( $y$ ) has 3 outcome categories ( $J$ ) namely: no tobacco use (base category- $b$ ), smoking cigarettes (excluding those who use both cigarettes and

other tobacco), and using other forms of tobacco (pipe smoking, snuff and chewing tobacco).

In addition to the multinomial logit model, we also use a logit model to investigate determinant of the decision to smoke among current smokers (number of cigarettes in the last 24 hours). It means that we use the standard logit model to estimate the probability of smoking among current smokers in Tanzania.

$$p(y = 2/x) = \frac{e^{x\beta}}{1 + e^{x\beta}} \quad (3)$$

where  $x$  are the economic and demographic variables as explained below:

c) *Factors influencing tobacco use*

The surveys ask respondents four questions, each with yes or no responses available, on whether they smoke cigarettes, pipes, other tobacco, or nothing. Respondents using a mix of non-smoking tobacco use with cigarette smoking are identified and dropped from the analysis.

The analyses examine the association of tobacco use with the following economic and demographic variables. Age in single years ranges from 15–49 years for women and 15–54 years for men. All other variables are treated as dummy variables. Urban residence equals one for those living in cities and zero otherwise. Education has four categories: (1) no school (reference category), (2) completed primary school, (3) completed secondary school, and (4) post-secondary schooling. Employment status include: (1) employed and zero other. Occupation includes: (1) not working (reference category), (2) agricultural self-employed workers and employees, (3) household, domestic, service, and skilled or unskilled manual workers, and (4) professionals, technicians, managers, and clerical and sales workers. Analysis will be based on male and females since DHS data is normally divided into male and female datasets.

Although the choice of these variables are informed by the literature (John *et al.*, 2012; Palipudi *et al.*, 2012; Hosseinpoor *et al.*, 2011), it was simultaneously constrained by the information available in the Tanzanian DHS dataset. All the variables, except age, are categorical. Although price is an important variable in the estimation of determinants of tobacco and cigarette use (Jha and Chaloupka, 2000), was not included in the regression because the price paid for tobacco was not collected by the survey and the cross-sectional nature of data limited variation in tobacco prices across time. Religion and ethnicity are not included in the Tanzanian DHS according to the constitution of the United Republic of Tanzania. Therefore, these two variables are not being included in our analysis.

#### IV. ESTIMATION RESULTS (MORE INTERPRETATION)

Table 3 presents the multinomial logit regression and logit regression for both male and female individuals. Since the coefficients of these regressions do not have clear economic meaning, the marginal effects of the explanatory variables are computed. The marginal effect is equal to the partial derivative of response probabilities with respect to the explanatory variables, calculated at the mean value of the explanatory variables.

The results show that the probability of smoking first increases and then decreases when the age increases for both males and females. These findings are consistent with Laxminarayan and Deolalikar (2004) and Cuong (2012).

People with no education and primary education are more likely to smoke than people with secondary and post secondary education. Similar to other results, people with the high of education are more likely to reduce smoking prevalence rate. Individuals belonging to the poorest and poor income groups are more likely to smoke than people in the rich group, in respective of the gender. This result stipulates that increase in income can lead to a reduction in smoking. These findings are similar to those of several studies such as Townsend *et al.*, (1994), Evans *et al.*, (1996), Laxminarayan and Deolalikar (2004) and Cuong (2012).

People who have never married are mostly likely to increase smoking prevalence for males. The effect is most likely to reduce for females even though it is not significant. Married people are less likely to smoke. This shows that the effect of marriage is positive and statistically significant on reducing the smoking intensity rates among Tanzanians.

The results show that being a domestic unskilled female worker increases the probability of smoking as compared to male domestic unskilled workers which is not statistically significant.

Household size does not have a significant effect on the smoking status for all the models. However, the negative sign on the coefficients shows that individuals living in a household with a larger proportion of members are less likely to smoke.

Table 3: Multinomial Logit and Logit regression for Tobacco use in Tanzania (2010)

Variable	Male			Female		
	Multinomial logit Cigarette	Multinomial logit Others	Logit Smoking	Multinomial logit Cigarette	Multinomial logit Others	Logit Smoking
<i>Age</i>	0.349*** (0.539)	0.5101*** (0.193)	0.339** (0.052)	0.0138** (0.008)	0.473** (0.139)	0.161*** (0.056)
<i>Agesq</i>	-0.004*** (0.001)	-0.0067** (0.003)	-0.004 (0.001)	-0.0001 (0.000)	-0.003 (0.002)	-0.001 (0.001)
<i>Urban</i>	0.4719** (0.179)	-0.7986 (0.557)	0.427 (0.176)	-0.005 (0.006)	-0.502 (0.054)	-0.276 (0.184)
<i>Rural</i>	Omitted					
<i>Noeduc</i>	0.4927** (0.237)	14.929*** (0.527)	0.564** (0.230)	0.262* (0.016)	2.36*** (0.002)	-1.873*** (0.724)
<i>Primary</i>	0.5078*** (0.168)	14.381*** (0.373)	0.549*** (0.166)	0.0678 (0.019)	0.024** (0.004)	-2.42*** (0.722)
<i>Sec_high</i>	Omitted					
<i>Hhsiz</i>	-0.043* (0.017)	-0.031 (0.040)	-0.039* (0.017)	-0.058 (0.006)	0.028 (0.019)	0.015 (0.013)
<i>Poorest</i>	0.9692*** (0.259)	1.302* (0.782)	1.077*** (0.251)	0.8807** (0.105)	1.1555*** (0.074)	1.908*** (0.288)
<i>Poor</i>	0.7465** (0.248)	0.7649 (0.805)	0.793*** (0.241)	0.655** (0.104)	0.532** (0.099)	1.714** (0.293)
<i>Middle</i>	0.4203* (0.244)	0.2426 (0.810)	0.431* (0.239)	0.984 (0.111)	0.609 (0.162)	1.104*** (0.291)
<i>Rich</i>	0.198 (0.213)	0.044 (0.723)	0.185 (0.208)	-0.583 (0.118)	0.269 (0.077)	0.192 (0.297)
<i>Richest</i>	Omitted					
<i>Insurance</i>	0.144 (0.256)	-14.073*** (0.280)	0.103 (0.257)	-0.233 (0.145)	-0.0207 (0.127)	-0.268 (0.286)
<i>Never_married</i>	0.864*** (0.255)	0.836* (0.868)	0.855*** (0.251)	0.056 (0.015)	-0.036 (0.021)	-0.581 (0.593)
<i>Married</i>	-1.274*** (0.199)	-1.129* (0.578)	-1.255*** (0.198)	-0.064** (0.017)	-0.019*** (0.022)	0.051 (0.110)
<i>Divorced/widow</i>	Omitted					
<i>Unemployed</i>	-0.516	0.328	-0.692	0.523**	0.325*	0.445*

	(0.935)	(0.886)	(0.865)	(0.142)	(0.021)	(0.453)
<i>Agriculture</i>	-0.018	-0.399	-0.005	0.556*	0.155	0.387
	(0.182)	(0.684)	(0.178)	(0.099)	(0.074)	(0.395)
<i>Domestic/unskilled</i>	0.225	-1.26	0.185	0.609***	0.984***	0.798*
	(0.202)	(0.120)	(0.201)	(0.162)	(0.111)	(0.400)
<i>Skilled/service</i>	Omitted					
<i>Constance</i>	-8.378***	-26.794***	-7.935***	-6.713**	9.003**	-7.308***
	(1.343)	(3.099)	(1.259)	(0.799)	(2.501)	(1.181)
<i>Pseudo-Rsquared</i>	<b>0.1537</b>		<b>0.1602</b>	<b>0.1472</b>		<b>0.159</b>
<i>Observation</i>	<b>2524</b>		<b>2527</b>	<b>12779</b>		<b>12779</b>

Note: \*\*\*, \*\*, \* represents significance level at 1%, 5% and 10% respectively.

Table 4: Probability table for logit regression model

Male			Female		
Probability	Frequency	Percent	Probability	Frequency	Percent
0.05	535	21.17	0.05	10924.77	85.49
0.1	277	10.96	0.1	1536.03	12.02
0.15	277	10.96	0.15	283.69	2.22
0.2	286	11.32	0.2	20.45	0.16
0.25	280	11.08	0.25	8.95	0.07
0.3	281	11.12	0.3	3.83	0.03
0.35	185	7.32	-	-	-
0.4	150	5.94	-	-	-
0.45	115	4.55	-	-	-
0.5	56	2.22	-	-	-
0.6	34	1.35	-	-	-
0.7	27	1.07	-	-	-
0.8	22	0.87	-	-	-
0.9	2	0.08	-	-	-
<b>Total</b>	<b>2527</b>	<b>100</b>	<b>Total</b>	<b>12779</b>	<b>100</b>
<b>Mean</b>	<b>0.1982</b>			<b>0.0244</b>	

Source: Author's Calculation

Table 4 shows that the probability decreases substantially with the increase intensity of tobacco use in Tanzania. As for males, 535 out of 2527 have 0.05 probability of using Tobacco while for females, 10924 out of 12779 have a 0.05 probability of using tobacco in Tanzania. The mean values show that if a male individual is chosen at random, there will be a 19.82 percent that he a tobacco user, whereas for females the percentage is relatively low at 2.44.

## V. CONCLUSION

Tanzania is a developing country with a high prevalence of tobacco use with respect to other SSA countries. In the recent years young people as well as adults have been highly involved in tobacco consumption. This might be attributed to the fact that Tanzania is one of the highest producer and exporter of tobacco in Africa (second after Malawi). Even though Tanzania ratified the WHO Framework Convention on Tobacco Control (FCTC) like many SSA countries, the

government does not have strong legal framework to reduce tobacco use. Smoking is still allowed in public areas. People can smoke almost everywhere. This increases the harms of the second-hand smoke on health.

Understanding the factors affecting smoking is helpful for policies on tobacco reduction in Tanzania. This paper examines how socio-economic characteristics can affect individual tobacco use using 2010 DHS data. Using the multinomial model and logit model, the paper finds age, no education, primary education; poorest and poor individuals are the most crucial determinants of tobacco use for both male and female individuals where as unemployment and working in the domestic or unskilled labour are also crucial determinants of tobacco use for female individuals. Household size, age squared and being married are negatively correlated with tobacco use. Therefore, being married reduces the probability of smoking significantly. The finding on household size is interesting but further

in-depth studies would be needed to find out how household composition can affect tobacco use decisions of household members.

## VI. LIMITATIONS

The age truncation used in the DHS data (15-49 years) limited the ability to provide an overall picture of adult tobacco use in Tanzania. Even though the choice of the explanatory variables for the study was informed by the existing literature, it was simultaneously constrained by information available in the DHS dataset and analyses were based on the structure of the data. One of the variables of importance (religion) was not included in the analysis to better inform policies because it is a sensitive issue and consequently not included in the survey. This study was cross-sectional in nature, which limited the ability to make any causal inferences. Nevertheless, the study provided a comprehensive investigation into tobacco use in Tanzania that could assist the government, public health community and policy makers to target their efforts to reduce the high level of tobacco use and consequently reducing the effects of second-hand smoking.

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# Shedding the Light on Guerrilla Marketing and Purchase Intention

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**Keywords:** *guerilla marketing, purchase intention, demographic variables, creativity.*

**GJMBR-G Classification:** *JEL Code: M31*



*Strictly as per the compliance and regulations of:*



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Naglaa Mohamed Diaa

**Abstract-** Marketers are seeking the attention of customers through eye-catching advertising messages as customers are becoming more interested of new unconventional advertising approaches. Guerrilla marketing is one unique way to achieve this need. Guerilla marketing is a flourishing marketing approach that uses unconventional methods for promoting goods and services. The study aims at examining the effect of guerrilla marketing on purchase intention as well as the effect of selected demographic variables in relation to purchase intention. Quantitative approach was used and a sample of 400 respondents was surveyed in Egypt. Simple linear regression, ANOVA and T-test were used to test the hypotheses. Results showed that advertisement creativity, emotional arousal, clarity, humor, and surprise have a positive effect on consumer purchase intention. Females were found to have a higher effect than males to purchase intention. Additionally, the research showed that there is no significant effect of age on consumer purchase intention.

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## I. INTRODUCTION

Creativity is becoming the name of the marketing game. Organizations seek to introduce their products and services in a creative at a low-cost approach. Guerrilla marketing is a recent technique that booms with creative fads to attract consumers' attention. The advancement in technology and the popularized use of social media led many companies to advertise their products and services via the internet. However, the proliferation of advertising leads to advertising clutter which reduces consumer's attention, attitude toward the brand and lessens its memorability (Dinh & Mai, 2016). Therefore, the use of guerrilla marketing is an effective way in comparison to traditional marketing to achieve advertising effectiveness and influence consumer behavior (Shakeel & Khan, 2011).

Guerrilla Marketing has a broad range and variety of advertising tactics that identify closely the target customers. It strikes them by surprise, creating a lasting impression in a way that can affect consumer buying behavior (Farouk, 2012). Thus, allowing improved opportunities to gain customer attention (Shakeel & Khan, 2011).

Revolutionary marketers have changed the conventional environment of the advertising scene in

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Egypt in recent years. The broadly-defined background of the Egyptian market as well as the interest of the Egyptian consumer in exciting, humor, and creative advertisements can lead to a full spectrum of user-generated ideas applied into action.

This research aims to investigate the effect of guerrilla marketing on purchase intention through an in-depth- analysis for both constructs.

## II. LITERATURE REVIEW

Guerrilla marketing concept was developed by Jay Conrad Levinson, the father of guerrilla marketing (Kelpek, 2014; Tam & Khuong, 2015). The term 'guerrilla' appeared in the eighteenth century or earlier, and it has a Spanish root with the meaning of 'small war'. The term was then used in England to describe the term 'fighter' in the beginning of the nineteenth century. In most languages, guerrilla means a type of warfare and denotes a disagreement as it is associated with the battleground (Levinson, 1984).

The first-time guerrilla marketing formally used was in 1984, in Jay Conrad Levinson's book. The development of Guerrilla marketing was first defined by him in his book "Guerrilla Marketing" as the act of executing an unusual or unexpected marketing activity in a common, everyday place in order to generate a buzz for products or services. Levinson describes Guerrilla marketing as an instant result of limited resources that focuses on creativity (Levinson, 1984).

Guerrilla marketing is an unconventional marketing approach that is based on a small budget that leads to astonishing and unusual results. Levinson (1984) describes guerilla marketing as being fancy, uncommon, authentic, flexible, humorous, innovative and creative tactics. He believes that all eye-catching and innovative advertisements belong to guerilla marketing (Isaac, 2014); it has gained a lot of importance among marketing tactics and strategies. "Guerrilla" means Battle; meaning an attack strategy based on the surprise effect tactics (Behal & Sareen, 2014).

Making a tremendous social Buzz, surprise factor and executing tactics that create undeniable impressions are of the few factors that distinguish Guerrilla marketing from traditional marketing approaches. These types of communications create a more valuable impression with minimal sources than other traditional forms of traditional advertising and

marketing communications. This is related to the main aim of guerrilla marketing is to strike the consumer at a deeper more personal level. (Horky, 2009)

Guerrilla marketing uses common, everyday places for the execution of unusual or unexpected marketing communication in order to generate a buzz for normal products and services. Putting the name of the brand using a small budget in front of as many customers as possible is the main point of guerrilla marketing (Manker, 2012)

Although there are several definitions of GM, its basic concept remains in the unconventional methods and unusual locations that enables to reach customers unpredictably in an innovative and unusual relevant ways so the impact will be enduring and unforgettable (Tam & Khuong, 2015).

Similarly, Dahlen, Granlund, & Grenros (2009) describe Guerrilla marketing as funny humorous and unexpected advertising campaigns that can be easily memorized. Guerrilla marketing is one of the flourishing marketing methods which are used by advertisers to make use of the non-traditional means of promoting products (Nawarz, et al., 2014). It aims to get maximum results from minimum resources (Farouk, 2012; Behal & Sareen, 2014). Therefore, it follows a path of the weapons that hit the target, look at every possibility in order to have the best mix of marketing activities which can increase the efficiency of utilizing the marketing budget (Nawarz, et al., 2014).

In (Nawarz, et al., 2014) study, the results showed that Guerrilla advertising had a significant impact on consumer buying behavior (Nawarz, et al., 2014). According to Prevot (2009), guerrilla marketing can have positive effects on brand equity through the positive experience associated in the consumers' mind and consumers can be impressed by the creativity of GM which in turn increase the value of the brand. He argues that it can have a negative effect as GM relies on the element of surprise which can endanger its effects if the ad. is inconvenient for potential customers. Moreover, he contends that the effect of GM will depend on the medium used by the campaign not only how the consumers perceive it (Prevot, 2009).

Shakeel & Khan (2011) confirmed the effect of the GM on consumer perception with respect to celebrity marketing.

Guerrilla marketing brings strong competitive advantage to small and medium enterprises (SME) (Navratilova & Milichovsky, 2015). It was used previously by SME because of their limited budget (Isaac, 2014) as its main goal is to increase customer awareness and interest about products through a low-cost budget. It can undermine competitors with small surprising attacks by using creativity and imagination (Ay, Aytakin, & Nardali, 2010). Nowadays, large companies use Guerrilla marketing because of financial crises. They try to reduce their marketing budget (Isaac, 2014) in the

same way as a complementary tool to achieve a competitive advantage. One of the many reasons why guerrilla marketing communication has been so warmly welcomed by businesses is that it is not complex and it is very straightforward. Keeping it simple is often a desired goal of a guerrilla marketing campaign and similar tactics can often generate a powerful competitive advantage, in other words, less is more (Levinson, 1984).

An ad must be unique and appeal to the customers and attract their attention to purchase the products. Guerrilla marketing uses unconventional and unusual techniques of promoting products and services. It has a broad range and variety of advertising tactics that identifies closely the target customers as it drives to strike them by surprise in unconventional and unexpected places. Most ideas are simple and inexpensive with a lasting impression in a creative and positive approach that is expected to affect consumer buying behavior (Farouk, 2012).

Nowadays, Guerrilla marketing is viewed as a complement to the traditional marketing mix. It tries to lessen the usual marketing monotony and acquire consumers at the time where traditional marketing abandons them. (Nufer, 2013)

#### a) *Principles of Guerrilla Marketing*

Some of the principles upon which Guerrilla is defined are that Guerrilla is geared especially for small business to help them gain publicity from minimal sources. Guerrilla relies on psychology rather than experience, judgment, and guesswork. Money is not the main tool for the successful use of Guerrilla; rather it is time, energy and imagination that are the main determinants of success. In guerrilla marketing, profit is the statistic to measure a business, not sales. Guerrilla focuses on gaining more transactions with existing customers and larger transactions rather than on gaining new customers. Guerrilla is not as competitive as it seems, it also suggests cooperating with other businesses to gain benefits for all. It uses current technology to empower a business (Levinson, 1984).

Researchers are able to identify the most important principles of guerrilla marketing which includes the unexpected factor, unexpected situations and surprise element are two principles upon which the strategy is based, and it catches the attention of the customer by putting unusual objects in unusual places or using unusual objects in unusual time. Another principle is creativity and innovation, Guerrilla marketing strategy is based on imagination, creative idea, and innovative design rather than a big marketing budget. Drastic is defined as having a strong or far-reaching effect, guerrilla marketing works in a drastic way in order to reach the maximum number of target customers. The humorous effect breaks the barrier between the customer and the brand; it can also significantly

increase the number of receivers. Simplicity is the key in guerrilla marketing, guerrilla is also considered a one-shot game, meaning that the campaign is performed in a limited period of time and is temporary and should not be used again in the same market. The guerrilla strategy is based on low cost compared with traditional strategies and has an immediate impact on consumers (Farouk, 2012).

#### b) *Dimensions of Guerilla Marketing*

Based on the study of Tam & Khuong, 2015, the researcher examines the effects of guerilla marketing dimensions: Creativity, surprise, humor, clarity, and emotional arousal on the consumer purchase intention.

##### i. *Creativity*

Creativity is regarded as an effective tool in advertising to get through the media clutter, attract consumers' attention, create an impression and lead to more effectiveness of an advertising campaign (Till & Baack, 2015). There are different perspectives on advertising creativity at one hand, people viewed that ad is creative if it sells the product, others viewed the ad. is creative if it wins awards, rather than achieve sales. The ad creativity is usually defined in terms of two determinants: divergence and relevance. According to Smith and Yang (2004), divergence refers to the extent to which an ad contains elements that are novel, different, or unusual (Smith, Chen, & Yang, 2008). Whereas relevance refers to the extent to which ad elements are meaningful, useful, or valuable to the consumer (Smith, Chen, & Yang, 2008). Smith (2007) indicated that relevance can be achieved in two ways: Ad-to-consumer relevance: "where the ad contains execution elements that are meaningful to consumers" and Brand-to-consumer relevance: "refers to situations where the advertised brand (or product category) is relevant to potential buyers" (Smith, Chen, & Yang, 2008). It is important that companies differentiate themselves from competitors to attract the right consumers at an unexpected time and unconventional location in an original but relevant way to achieve a long-lasting and unforgettable effect.

##### ii. *Surprise*

Surprise stimulates sensation and results in more information processing when there is inappropriateness between the ad. and the expectation of the ad. (Dinh & Mai, 2016) From this aspect, surprise is considered a crucial element in guerrilla advertising; it catches the attention of the customer by putting unusual objects in unusual places or using unusual objects at unusual time (Farouk, 2012). The unexpectedness of the advertisement reaches consumers through the sensational feeling that makes them "WOW" (Dinh & Mai, 2016). Furthermore, when the ad. message perceived in a different way than what is expected, it will lead to more favorable attitudes toward the brand and

as result increase consumer purchase intention (Nagar, 2015).

##### iii. *Humor*

Humor plays a vital role in advertisements. It helps marketers to attract audience 'attention towards both the ad. and the brand. Humor advertisements result in more positive attitude and increase customer attention before they take any interest in the products (Eistend, Plagemann, & Sollwedel, 2014). Consequently, it increases consumer perception, liking and generates better results in comparison to non-humor ads (Venkatesh & Senthilkumar, 2015; Mehmood & Masood, 2016). According to Mehmood & Masood (2016) humor advertising has a significant impact on consumer purchase Intention. Although Humor in advertising enhances the intention to purchase, it can decrease the credibility of the source company if it is not executed attractively or in an acceptable way (Christensen & Skoggård, 2017). The humorous effect breaks the barrier between the customer and the brand; and can also significantly increase the number of receivers (Farouk, 2012).

##### iv. *Clarity*

Clarity of message is a key to any successful communication. Otherwise the consumer will be confused and will not understand the intended meaning of the advertising message. In guerilla marketing, whereas it relies on unusual and unconventional ways of carrying advertisements. The more complex the message is, the more cognitive efforts the audience needs to understand it (Tam & Khuong, 2015). Therefore, clarity of the message has to be considered otherwise companies will wasting budget and losing sales.

##### v. *Emotional Arousal*

According to Aaker and Bruzzone (1981) Emotional responses are significant to consumers' perceptions of and reactions to advertisements (as cited in Williams, 2000, p. 4). (Previous studies (Stayman and Aaker 1988, Edell and Burke 1987, Burke and Edell 1989) showed that emotional responses can also directly impact brand attitudes and purchase intention (as cited in Williams, 2000, p. 4). Emotions perform a key role in decision-making and marketers exert efforts in order to target consumers' emotions so as to consumers give ultimately an emotional response to the product. (Shahid, Bilal, & Majid, 2016).

Previous research has shown that positive moods have a positive relationship with good evaluation of unexpected stimuli while negative moods have an inverse relationship (Dinh & Mai, 2016). The emotional content in creative advertisements leads to increased arousal (Erik, 2012) which in turn may affect consumer purchase intention. Consequently, and according to the above discussion, the emotional content in an

advertisement may affect consumer purchase intentions.

### c) *Purchase Intention*

The consumer buying decision is a complex process. While advertising practitioners undertake a lot of different ways to reach consumers, it is ultimately the consumers' decision to purchase a particular product. Whereas purchase intention of consumers can be affected in numerous ways (Fischer, 2002). Purchase intention is the willingness to buy a particular product or service. Shah, et al. (2012) described purchase intention as a kind of decision-making that studies the reason to buy a certain brand by consumer (Mirabi, Akbariyeh, & Tahmasebifard, 2015). Spears and Singh (2004) defined purchase intention as "an individual's conscious plan to make an effort to purchase a brand in the future" (p. 56). On the other hand, Morinez et al. (2007) defined purchase intention as "a situation where the consumer tends to buy a certain product in certain condition" (as cited in Parengkuan, 2017, p. 11).

According to Mirabi, Akbariyeh, & Tahmasebifard (2015), purchase intention is usually related to the perceptions, attitudes and behavior of consumers. Kotler & Armstrong (2016) have proposed six stages before deciding to purchase the product, which are awareness, knowledge, interest, preference, persuasion, and purchase. Mirabi, Akbariyeh, & Tahmasebifard (2015) examined the effect of advertising on the purchase intention and results showed that it has significant impact on purchase intention and is considered to be a powerful device to affect consumer behavior. Mirabi, Akbariyeh, & Tahmasebifard (2015) emphasize that when consumers pay attention to advertising, form a feeling towards the ads that lead to brand promotion. As such, those who have favorable feeling toward brand develop favorable attitudes toward it.

Gogoi (2013) contends that purchase intention may be altered under the influence of price or perceived quality and value. Moreover, consumers are affected by internal or external motivation during the buying process.

Additionally, the consumer purchase intention is based on beliefs and attitudes and can be highly influenced by the advertisement of the company (Belic & Jonsson, 2012). As a result, when consumers perceive the advertisement with certain attitude; the more creative the ad, the higher the purchase intention which in turn will predict his buying behavior.

## III. METHODOLOGY

### a) *Research Objective*

The study aims at analyzing the effect of guerrilla marketing on purchase intention as well as the

effect of demographic factors (Gender and age) in influencing purchase intention.

### b) *Research Hypotheses*

Previous research didn't fully investigate the effect of guerrilla marketing and purchase intention especially in the middle East region. Through the review of previous literature (Tam & Khuong, 2015; Belic & Jonsson, 2012) reported a positive relationship between guerrilla marketing and purchase intention. The researcher agrees with these findings as guerrilla marketing helps in arousing the motivational desires of the customers thus inspiring their intention towards the product or service. Accordingly, the research hypothesis is posed as:

*H1: It is expected that guerrilla marketing will have a positive effect on purchase intention.*

In previous studies, that are explained thereafter; the relationship between the demographic factors and purchase intention was investigated. According to Mahdi & Sukati (2012) Gender, age and race significantly influence purchase intention. It was found that whenever the age group increases, the effect of consumer purchase intention will decrease. Omar, Narzi, Osman, & Ahmad (2016) investigated the effect of demographic factors towards purchase intention of organic foods. Five demographic variables gender, age, level of income, level of education and presence of children in the household were examined. The results showed that gender, age, level of education have significant impact on consumer intention. Irianto (2015) reported a difference of attitude and intention to buy organic food between male and female. As a result, the second and third hypotheses are developed as:

*H2: It is expected that gender will have a positive effect on purchase intention*

*H3: It is expected that age will have a positive effect on purchase intention*

### c) *Survey Instrument*

Questionnaire was used as the instrument that was adapted from Tam & Khuong (2015). The questionnaire was divided into two parts. The first part of the questionnaire was consisted of 33 items where the guerrilla marketing was measured using 5 sub dimensions (creativity, surprise, clarity, emotional arousal and humor) as the independent variable in addition to the purchase intention as the dependent variable. The 33 items were measured by a five-point Likert scale ranging from "strongly disagree=1" to "strongly agree=5". The second part of the questionnaire was consisted of the demographic data of the respondents.

### d) *Validity and Reliability*

The questionnaire was pre-tested on 50 participants to check the validity and reliability of the scales. Results showed that the Cronbach Alpha of the

sub-dimensions of the Guerilla marketing ranged between (0.717-0.965) whereas for the Purchase intention construct Cronbach Alpha (0.852). According to these results, the scales are suitable to be used for the study.

e) *The Chosen Advertisement*

A pilot questionnaire that listed the names of four different ads. namely Coca cola, Mountain View, Careem and Garhi Steel (From the viewpoint of the research) was conducted. A number of 100 respondents received the questionnaires over the emails through a specialized marketing research organization. It was taken into consideration that the respondents belonged to different age groups, gender and occupation. The email included a link to the four ads. Respondents were asked to rank the ads. based on the guerilla marketing dimensions (creativity, clarity, humor, emotional arousal and surprise) whereby the guerilla marketing

dimensions were fully explained in simple language and examples to them. Results shows that 65 respondents rated the Coca Cola ad. as an ad. that meets the guerrilla marketing criteria.

f) *The Study Sample*

Convenience sampling was selected and 450 questionnaires were distributed among the participants. The participants of this study were the members of the three biggest sports clubs in Cairo and Giza governorates, Egypt. Participants were asked to join the club media room to watch the Coca cola ad. and to respond to the questionnaire following the ad. displayed to them. The duration of the study took around two months. A number of 400 questionnaires were complete and valid for the purpose of statistical analysis with a response rate of 88.9%. It is worth mentioning that thank you certificate were handed to those who accepted to participate in the study.

IV. STATISTICAL ANALYSIS AND RESULTS

a) *Demographic Characteristics of the Sample*

Table 1: Demographic characteristics of the respondents (N=400)

Demographic Variables	Details	Frequency	%
Gender	Male	258	64.5
	Female	142	35.5
Age Groups	18-	57	14.3
	25-	218	54.5
	35-	94	23.5
	50+	31	7.8
Education Level	Undergraduate	214	53.3
	University Graduate	144	36
	MBA Holder	28	7
	DBA Holder	14	3.5

Table 1 shows the demographic profile of the respondents, almost 64.5% of the respondents are male and 35.5 % of the respondents are female. The frequency of the male respondents is more than female respondents. Majority of the respondents belong to the age group 25-35 (54%) most of them are undergraduate students (53.3%).

b) *Testing Hypotheses*

Simple linear regression was used to test the first hypothesis and the following scatter diagram (figure 1) shows the relationship between Guerrilla marketing and purchase intention.

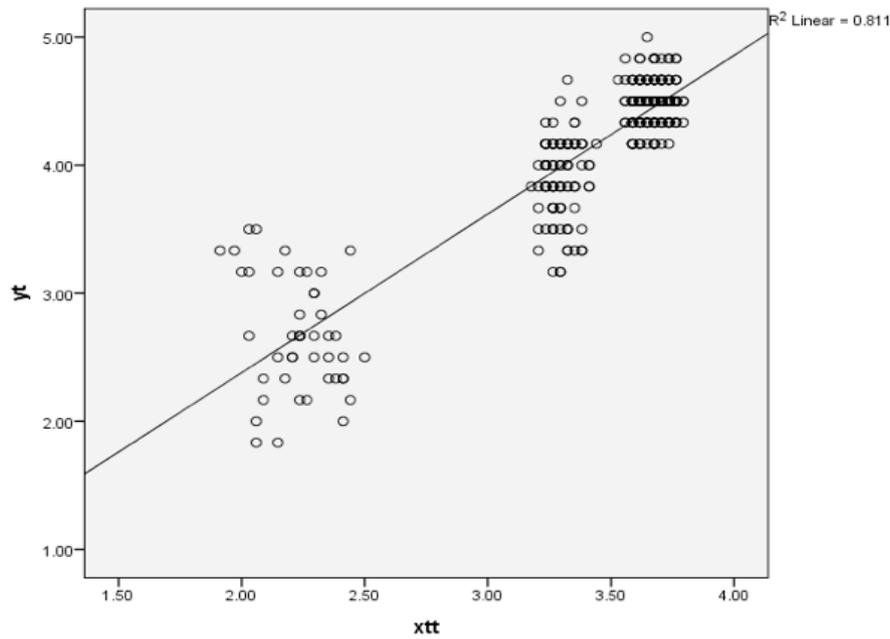


Figure 1: Relationship between Guerrilla marketing and purchase intention

Results from the above diagram indicate a positive linear relationship (R2= 81.1%) Further analysis are shown in Table (2).

Table 2: Model

Estimated Parameters	Y = -0.098 + 1.239 Xtt
Parameter Test (T-test)	(0.944) (41.266)**
Model Test	F-ratio = 1702.895**, d.f= (1,398)
	Sig = 0.000, p<0.01, R <sup>2</sup> = 81.1%, S.E. = 0.277

\*\* F-test at 0.01 level of significance

Table 2 shows positive relationship between Guerrilla marketing and purchase intention, the above simple regression goodness of fit shows the value of R<sup>2</sup> as 0.811 which means that 81.1% of total variance in consumer purchase intention has been explained by the model.

i. Detailed Analysis

The researcher conducted an in-depth analysis for the five dimensions of guerilla marketing and purchase intention.

a. Creativity and Purchase Intention

Table 3: Creativity and purchase intention

Creativity	Estimated Parameters	Y = 0.073 + 0.980 X1t
	Parameter Test (T-test)	(0.726) (40.729)**
	Model Test	F-ratio = 1658.823**, d.f= (1,398)
Sig = 0.000, p<0.01, R <sup>2</sup> = 80.6%, S.E. = 0.279		

Table 3 shows a positive relationship between creativity and purchase intention. Simple regression goodness of fit shows the value of R<sup>2</sup> as 0.806 which

means that 80.6% of total variance in consumer purchase intention has been explained by the model.

b. Clarity and Purchase Intention

Table 4: Clarity and purchase intention

Clarity	Estimated Parameters	Y = 0.576 + 0.862056 X2t
	Parameter Test (T-test)	(5.266)** (33.010)**
	Model Test	F-ratio = 1089.647, d.f= (1,398)
Sig = 0.000, p<0.01, R <sup>2</sup> = 73.2%, S.E. = 0.329		

As shown in table 4 there is positive relationship between clarity and purchase intention, the simple regression goodness of fit shows the value of R<sup>2</sup> as

0.732 which means that 73.2% of total variance in consumer purchase intention has been explained by the model.

c. *Humor and Purchase Intention*

Table 5: Humor and purchase intention

Humor	Estimated Parameters	Y = 0.866 + 0.780 X3t
	Parameter Test (T-test)	(5.341)** (20.406)**
	Model Test	F-ratio = 416.417**, d.f= (1,398) Sig = 0.000, p<0.01, R <sup>2</sup> = 51.1%, S.E. = 0.444

It is shown that there is positive relationship between humor and purchase intention, the value of R<sup>2</sup> = 0.511 which means that 51.1% of total variance in

consumer purchase intention has been explained by the model. (Table 5)

d. *Emotional Arousal and Purchase Intention*

Table 6: Emotional arousal and purchase intention

Emotional Arousal	Estimated Parameters	Y = 0.748 + 0.829 X4t
	Parameter Test (T-test)	(7.301)** (33.551)**
	Model Test	F-ratio = 1125.693, d.f= (1,398) Sig = 0.000, p<0.01, R <sup>2</sup> = 73.9%, S.E. = 0.325

Table 6 shows that emotional arousal highly contributes to purchase intention, the above simple regression goodness of fit shows the value of R<sup>2</sup> as

0.739 which means that 73.9% of total variance in consumer purchase intention has been explained by the model.

e. *Surprise and Purchase Intention*

Table 7: Surprise and purchase intention

Surprise	Estimated Parameters	Y = 1.442 + 0.641 X5t
	Parameter Test (T-test)	(8.809)** (16.701)**
	Model Test	F-ratio = 278.940**, d.f= (1,398) Sig = 0.000, p<0.01, R <sup>2</sup> = 41.2%, S.E. = 0.487

*Gender and Purchase Intention*

The second hypothesis examines the effect of gender on purchase intention. The researcher used the T-test for two independent groups to test this hypothesis. As shown in Table 8, there is a significant difference between males and females toward purchase intention. Females possessed a higher level in relation to purchase intention. This hypothesis was supported.

Table 8: Gender and purchase intention

Gender	Descriptive Statistics			
	Mean	S.E	C.I for mean with 95%	
			L.L	U.L
Males	4.076	0.042	3.992	4.159
Females	4.269	0.043	4.184	4.354
T-Value = 3.190, d.f=361, Sig=0.002, , p<0.01				

*Age and Purchase Intention*

The third hypothesis examines the effect of age on purchase intention. The researcher used one way ANOVA to test this hypothesis. As shown in Table 9, there is no significant difference between respondents in

terms of age toward purchase intention. This hypothesis was not supported.

Table 9: Age and purchase intention

Age Groups	Age Groups			
	18-	25-	35-	Above 50
18-	4.231 <sub>1</sub> (0.074) <sub>2</sub>			
25-		4.160 <sub>1</sub> (0.040) <sub>2</sub>		
35-			4.142 <sub>1</sub> (0.067) <sub>2</sub>	
Above 50				3.882 <sub>1</sub> (0.157) <sub>2</sub>
F-ratio= 2.188, d.f=(3,396) Sig=0.089, N.S, p >0.05				

1: denotes mean value

2: denotes standard error

V. DISCUSSION

The study contributes to the existing literature of Guerrilla marketing and purchase intention as it explores a new domain (Egypt) thus, fulfilling a market gap.

The results indicate a positive effect of the Guerilla marketing to the consumer purchase intention. This result was consistent with (Tam & Khuong, 2015). These findings follow a process – outcome perspective in which creative advertisement attract the consumer attention, leading to emotional arousal which in turn lead to cognitive processing and consumers seek information about the product and finally attitudinal change (a willingness to purchase the product), this sequence of effects follows the hierarchy of effects model. A detailed analysis of all sub-dimensions of guerrilla marketing indicates that creativity contributed most to the purchase intention which reveals that consumers value creativity and it is a key factor in affecting the consumer purchase intention followed by emotional arousal, clarity, humor and the least but also significant variable is surprise.

Contrary to previous studies (Tam & Khuong, 2015) surprise and humor significantly affected purchase intention which confirms the importance of surprise as a dimension of guerilla advertising, it has the least effect in comparison to other variables. Due to the age of technology, people are adapted to changes making people expectation driven not surprised driven.

In the second hypothesis, the focus was on the effect of gender on purchase intention. The results indicated that the hypothesis is supported. Females were found to have a higher effect on purchase intention rather than males reflecting the reality that females are in general and especially in the Egyptian domain are the real customers and consumers. In general, females are more interested in shopping especially grocery items and are engaged in impulsive buying than males. Once they identified their needs, women seek detailed information about the product in comparison to men. Furthermore, women have multiple criteria to evaluate alternatives to make the purchase decision. They spend more time in shopping and to reach a decision to make their purchase. Moreover, women are more loyal than men (Goya, n.d.). Additionally, Man's motives towards shopping are different than women. Yet, they tend to follow a utilitarian approach based on logic, whereas shopping motives for women tend to be hedonic motives based on intrinsic and emotional responses (Aswegen, 2015) This finding was consistent with the literature (Iqbal, Ghafoor, & Shahbaz, 2013; Irianto, 2015) However, the effect of age on purchase intention was not significant, demonstrating that age differences are not affecting purchase intention. The finding is different from previous studies (Mahdi & Sukati, 2012; Omar, Narzi, Osman, & Ahmad, 2016) One reason to explain this finding is that the type of the product advertised on the ad was a convenience good / low involvement product which requires less thought and less planning to purchase and it appeals to large target market at the same time its price is not too high. Respondents held indifferent views towards the ad. Instead, respondents

intend to buy the product because of the guerrilla marketing campaign that attracts consumers through the creativity and the novelty of product that surprise them, as a result, they intend to purchase it.

## VI. CONCLUSION

The study aims to analyze the effect of guerrillar marketing on purchase intention as well as the effect of demographic factors (gender and age) on purchase intention. The results showed that advertisement creativity, emotional arousal, clarity, humor and surprise have a positive effect on consumer purchase intention. females were found to be highly affected than males. The research showed that there is no significant effect of age on consumer purchase intention.

## VII. MANAGERIAL IMPLICATIONS

The key to an effective marketing strategy is to think out-of-the-box and make use of the opportunities offered by the new media. Guerrilla marketing is more than just a trend, but rather a strong instrument that is used by companies of all sizes. Marketers can strongly differentiate their marketing efforts as opposed to their competitors using different Guerrilla tactics as it proved to have an impact on consumer purchase intention.

Brand managers and advertising practitioners should consider the creativity in their advertisements as consumers value creativity not only because it belongs to advertising effectiveness but also, it had a high impact on purchase intention. Also, the inclusion of surprise proved to have an effect on purchase intention, the marketers should take into account the surprise effect of the distinguishing product and the promotional campaign that leads up to consumer purchase intention.

Moreover, Guerrilla marketing has a strong rebating impact on the advertising budget, drastically cutting costs and being more creative in performing the promotional practices.

Lastly, a combination between Guerrilla marketing and traditional marketing practices is advocated and encouraged to further maximize the profitable opportunities presented by influencing consumer purchase intention.

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## A Tutorial on Scale Development: The Experiential Value Scale

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*Introduction-* Businesses are increasingly concerned about deriving actionable insights from data they obtained either from primary or secondary sources. One aspect that has been neglected in this discussion is the importance of using the right measure for the intended subject (or what academics refer to as constructs). Many in the industry either rely on marketing research companies or internally generated questionnaires to collect consumer's evaluation about their consumption experience. More often than not, questions used in consumer surveys are single-item measures which are not only prone to error and bias, they are also not sufficient for more stringent statistical analyses. Following the well-established scale development methods developed in the field of business research (c.f., Churchill 1979; Gerbing and Anderson 1988), the objective of this paper is to provide a step-by-step guideline to demonstrate how accurate and effective measures are developed. Moreover, it also provides a sound and comprehensive measure for experiential value (i.e., consumer value derived from a consumer experience).

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# A Tutorial on Scale Development: The Experiential Value Scale

Elisa K. Chan

## I. INTRODUCTION

Businesses are increasingly concerned about deriving actionable insights from data they obtained either from primary or secondary sources. One aspect that has been neglected in this discussion is the importance of using the right measure for the intended subject (or what academics refer to as constructs). Many in the industry either rely on marketing research companies or internally generated questionnaires to collect consumer's evaluation about their consumption experience. More often than not, questions used in consumer surveys are single-item measures which are not only prone to error and bias, they are also not sufficient for more stringent statistical analyses. Following the well-established scale development methods developed in the field of business research (c.f., Churchill 1979; Gerbing and Anderson 1988), the objective of this paper is to provide a step-by-step guideline to demonstrate how accurate and effective measures are developed. Moreover, it also provides a sound and comprehensive measure for experiential value (i.e., consumer value derived from a consumer experience).

Creating and managing consumer experience has become one of the central objectives for companies (Verhoef et al 2009). Practitioner-oriented publications have advocated that some companies or brands (i.e. Starbucks) achieved business successes because of the distinctive consumption experience they delivered to consumers (Michelli 2007). An IBM report claimed that customer experience is essential to building loyalty to its brands, channels and services (Badgett, Boyce, and Kleinberger 2007). But most companies solely rely on customer satisfaction survey or qualitative reviews and testimonies to assess consumer experience. The current study argue that consumer experience essentially consists of internal responses that consumer have during their interaction with the company at all touchpoints. As a result, in order to gain a better understanding about a consumer experience, it is important to ask questions which can reflect internal emotion and cognition of an individual. In this paper, these internal emotion and cognition are collectively defined as experiential value.

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In the remainder of this paper, I will first present a literature review and conceptual development of the experiential value construct. Following that, in the methodology section, an elaborative, step-by-step discussion is provided to illustrate how accurate and proper scale measures should be developed to yield better knowledge and insight for businesses.

## II. LITERATURE REVIEW

### a) *Experiential Value*

Based on review of past literature, experiential value in consumption in this study is defined as the *psychological benefits (i.e. thoughts and feelings) resulted from a consumer's interaction with the environment related to consumption which are only assessable by the individual*. Consumption here is referred broadly to different stages in the whole consumption process: from anticipatory consumption to product or service acquisition, as well as from post-purchase possession to the actual usage of the product or service (Richins 1997). Experiential value is derived directly from the interplay of the consumer, product, service, and environment. This conceptualization is in line with that for art consumption which is "characterized as emotional and mental pulling" (Belk, Ger, and Askegaard 2003). Interestingly, researchers of contemporary painting have extensively admitted that the consumption of such 'requires the intellectual and affective participation of consumers' (Chen 2009; Moureau 2000). The current study extends this contention about contemporary art to include any experience in consumption. Specifically, the value which consumers gain from an experience in consumption would possess an emotional and an intellectual aspect. In addition, the current study also includes interaction among consumer, product, service, and environment as potential sources for experiential value rather than solely from an object (i.e. a piece of artwork) as suggested by researchers of art consumption (Chen 2009; Sherry and Joy 2003).

### b) *Emotional Value*

Emotional value referred to the utility acquired as a result of a product's [or a service's ability] to arouse feelings or affective states (Seth, Newman and Gross 1991). Specifically, this value reflects the emotional outcome of a person's interaction with the immediate surroundings, which is an emotive internal

experience. Emotion has a prominent role in consumer behavior research and is an important component in consumer responses (Cohen and Areni 1991). Different consumption context may derive a diversified, distinctive set of emotion which is likely to differ in intensity. Two consumptions that are perceived to possess emotional values could have aroused different specific emotions, but still bear on the same underlying emotional states. For example, a theme park or an art museum visitor can both experience pleasure as a result of different activities and interactions. For example, a study examined the emotional components of eight specific consumption experiences, one in each of the followings: esthetics, athletics, entertainment, dining, hobbies, fashion, religion, and security (Halvena and Holbrook 1986). The authors measured emotional experience of the different consumption contexts aforementioned with two emotion typologies: the pleasure- arousal-dominance (PAD) paradigm developed by Mehrabian and Russell (1974) and the eight basic emotion indices established by Plutchik (1980). The former is found to be a more useful framework for capturing consumption related emotional experience. Despite its adequacy and generaliability in manifesting consumption related emotional experience, the PAD scale is not without shortcoming. The scale was intended for measuring "emotional responses to environmental stimuli such as architectural space [; therefore] its validity in assessing emotional responses to the interpersonal aspects of...consumption cannot be assumed" (Richins 1997).

#### c) *Intellectual Value*

Intellectual value referred to the utility acquired as a result of a product's, a service's or experience's ability to arouse exercise of the intellect. The word *intellectual* is defined as something that is given to activities or pursuits that require exercise of the intellect (i.e. ability to learn and reason; capacity for knowledge and understanding) and something that is associated with or requiring the use of the mind rather than emotions (The American Heritage Dictionary). Moreover, cognitive activities such as cognition, memory, convergent thinking, divergent thinking and evaluation are referred to as intellectual operations (Guilford 1959). The intellectual value reflects the cognitive outcome of a person's interaction with the immediate surroundings, which is a cognitive internal experience. This value has not been conceptualized by past literature. But examples of intellectual value are ample in the qualitative account of experience-rich consumption: museum goers getting information of a piece of art or the history of art (Chen 2009; Joy and Sherry 2003), river-rafting participants gaining a sense of personal growth through learning new jargons of the boatmen (Arnould and Price 1993), and shoppers gaining general knowledge about fashion (Haytko and Baker 2004), just to name a few. Nevertheless, intellectual value has not

been formally introduced as an experiential outcome that consumer would gain from consumption. The one exception is that Arnould and Price (1993) implicitly reported in their findings that personal growth, which is measured by items such as learning new things and mastering new skills, is an important determinant for an extraordinary experience (i.e. river-rafting). The construct of personal growth, however, is specific to river-rafting and may be to other extreme sports. The intellectual value suggested in the current study is intended to be generalizable to a variety of consumption.

#### d) *Existing Experiential Value Scale*

Mathwick, Malhotra and Rigdon (2001) came up with the EVS to describe the perceived value associated with virtual shopping experience (i.e. catalog and internet shopping). They typified experiential value into four types along two of the three dimensions proposed by Holbrook (1999). They are source of value (intrinsic versus extrinsic) and degree of individual participation (active versus reactive). Subsequently, four distinct types of experiential values are identified: playfulness (intrinsic and active), aesthetics (intrinsic and reactive), consumer return on investment (extrinsic and active), and service excellence (extrinsic and reactive).

Note that both consumer return on investment and service excellence seem to be along the line with functional value obtained from the experience. As a result, the experiential aspect this study accounted for is tied to the context of the consumption (i.e. virtual shopping) as opposed to the kind of value (i.e. experiential versus functional) obtained from the consumption experience. For instance, the aesthetics value has two dimensions, namely visual appeal and entertainment. The items measuring visual appeal (i.e. "The way XYZ displays its products is attractive," "XYZ's Internet site is aesthetically appealing," and "I like the way XYZ's Internet site looks") and entertainment value (i.e. "I think XYZ's Internet site is very entertaining," "The enthusiasm of XYZ's Internet site is catching, it picks me up," and "XYZ doesn't just sell products-it entertains me") seemed to be assessing the playfulness and aesthetics value of the website, but not the internal response that the individual had while browsing or shopping through the it. Arguably, visual appeal of the website is an assessment of the external factors. These external factors would in turn lead to an internal response of an individual that consist of emotive and cognitive components.

Likewise, the playfulness construct is proposed to be having an escapism and intrinsic enjoyment dimension. Items measuring escapism (i.e. "Shopping from XYZ's Internet site "gets me away from it all," "Shopping from XYZ makes me feel like I am in another world," and "I get so involved when I shop from XYZ that I forget everything else") reflected a kind of consumption experience that would bring about complete immersion.

What it does not tell us is how does this sense of escape arise? For instance, was it the information provided by the website that got the person “away from it all”? Or was it the graphic design that led to the immersion? Finally, while intrinsic enjoyment (i.e. “*I enjoy shopping from XYZ’s Internet site for its own sake, not just for the items I may have purchased*” and “*I shop from XYZ’s Internet site for the pure enjoyment of it*”) can manifest the value of the activity, it could also be reflecting the individual’s motivation or purpose of the activity. As a result, what this construct is measuring is somewhat ambiguous.

### III. METHODOLOGY

In this section, the process used to develop the content of each dimension and to validate the scale psychometrically is elaborated in detail. The procedure employed is based on accepted methods of scale development in psychology and consumer research (Churchill 1979; Gerbing and Anderson 1988). The aim is to establish a useful and practical scale that is parsimonious and generalizable across consumption domains.

#### a) Step 1: Item Generation and Selection

To generate items which will capture the experiential value in consumption, two steps as suggested by Churchill (1979) were followed: 1) a literature review and 2) a focused group.

##### i. Literature Review

A literature review on past studies which examined and or identified emotional or cognitive consequences consumers regarded to as preferential was carried out. In the initial emotional value set, there were 1 item from Chen (i.e. access value, 2009), 24 items from Havlena and Holbrook (i.e. consumption emotions, 1986), 3 items from Mathwick, Malhotra and Rigdon (i.e. entertainment value, 2001), 3 items from Shoham, Rose and Kahle (i.e. thrill, 1998), and 5 items from Sweeney and Soutar (i.e. emotional value, 2001). In the initial set of intellectual value, there were 6 items from Arnould and Price (i.e. personal growth and renewal, 1993), 4 items from Chen (i.e. 3 for access value and 1 for possession value, 2009), 12 items from Novak, Hoffman and Yung (i.e. 4 for challenge and 8 for exploratory behavior, 2000), 6 items from Shoham, Rose and Kahle (i.e. 3 each for curiosity-arousal and adventure, 1998), and 8 items from Unger and Kernan (i.e. 4 each for mastery and arousal, 1983). Altogether, 72 items were obtained.

First, all items were re-written in a first-person, past tense form because both emotional value and intellectual value are self-experienced value obtained from consumption. Second, redundant items from both the emotional and intellectual value sets were removed. Finally, those items that can not be generalized to

different consumption contexts or were not describing benefits from consumption were also taken out from the list. For examples, the item “*This product would make me want to use it*” which measures emotional value in Sweeney and Soutar (2001) is a product-related value. The experience-related value proposed in the current study, however, does not necessarily involve a product. Similarly, the item “*Surfing the Web to see what’s new is a waste of time*” is intended to measure exploratory behavior in Novak, Hoffman and Yung (2000) but it pertains to the attitude toward the behavior of “surfing” for something new rather than describing some value obtained. After this screening, 32 emotional value items and 25 intellectual value items were included in the set for further analysis.

##### ii. Focus Group

A focus group was also engaged to tap the experiential value consumers are getting out of their consumption activities. A group of 8 undergraduate students (50% female) from one university in Hong Kong were recruited to attend a one hour discussion session. Participants were first divided into four groups (i.e. 2 in each group) and each group was given a picture of either a local, non-chained restaurant or an upscale hotel restaurant. They were then asked to imagine themselves going to the respective restaurant and express in turn what value they would obtain from dining there. The purpose of using the two types of restaurant is to ensure that items generated to characterize experiential value would capture consumption contexts with different price range, patronage frequency, familiarity, and company reputation. Then, participants were asked to respond to the question: “What values do you get from shopping in different contexts (i.e. in street markets or shopping malls)?” Again, each participant was first given time to share their opinions followed by an open discussion.

From the focus group, 8 additional items were generated - 2 for emotional value and 6 for intellectual value – and were added to the aforementioned set of items for the next phase of analysis.

#### b) Step 2: Item Reduction and Dimensionality of the Scale

Altogether, 65 scale items were gathered from the literature review and focus group (see Table 1). Four judges (including two faculty members and two doctoral students) evaluated the items for representativeness of the scale dimensions. Each judge was provided with a definition of both emotional value and intellectual value. *Emotional value* was defined as “the utility acquired as a result of a product’s, a service’s or an experience’s ability to arouse *feelings* or *affective states*. It reflects the emotional outcome of a person’s interaction with the immediate surroundings, which is an emotive internal experience.” *Intellectual value* was defined as “the utility acquired as a result of a product’s, a service’s or

experience's ability to arouse the *exercise of the intellect*. This value reflects the cognitive outcome of a person's interaction with the immediate surroundings, which is a cognitive internal experience." Judges were asked to categorize each item into one of three groups, namely emotional value, intellectual value, or neither. First, 21 emotional value items and 10 intellectual value items were classified as their intended category by all four judges. These were kept for further analysis. Second, those items (6 for emotional value and 7 for intellectual value) that were agreed on by at least three judges were also retained because this met the acceptable agreement index of 75% (Hinkins 1985). Thus, a total of 44 items, 27 representing emotional value and 17 representing intellectual value, were included and submitted to further psychometric analyses (see Table 2).

i. *Scale Purification with Exploratory Factor Analysis*

Initial quantitative analyses were conducted to purify the measures and provide an initial examination of the scale's psychometric properties. Respondents were undergraduate students in three universities in Hong Kong. They were given one of two versions of the survey in which they were either asked to write a brief description about their most recent theme park visit or their most recent shopping mall visit. Then, they responded to the 44 experiential value items. The objective of the description was to refresh the respondents' memory about their theme park or shopping experience before assessing the scale items. A total of 384 surveys were collected.

Respondents who missed out any one of the 44 experiential value items were eliminated from the sample. This resulted in a final sample size of 378 of which 184 recalled a theme park experience and 194 a shopping mall (51% female).

A factor analysis using Varimax rotation was conducted. The factor analysis revealed a seven-factor solution with eigenvalues greater than 1 (eigenvalues were 14.96, 6.07, 3.55, 1.49, 1.15, 1.02, and 1.01; variance explained = 66.5%, see Table 3a), but only the first three factors were significant based on a scree plot (variance explained = 47.5%). Incidentally, 30 items (68.2%) had a loading greater than .4 on at least one of the three factors. The three-factor analysis on the 30 items revealed two factors that were easy to interpret: Factor 1 (emotional value) and Factor 2 (intellectual value). Factors 3, however, included a mix of emotional and capability-related items (see Table 3b).

To assess whether the three-factor solution is stable across groups and contexts, factor analyses were conducted by splitting the sample up according to the following criteria: by gender (male vs. female) and by context (theme park vs. shopping). According to the scree plot tests, a three-factor solution was resulted across groups. A close inspection revealed, however,

that only the first two factors were consistent. Specifically, Factor 1 contained items that tapped emotional value and Factor 2 consisted of those that reflected intellectual value. Factor 3 varied from arousal-related statements such as "*I was excited*" and "*I had an adrenalin rush*" among male to capability-related statements such as "*My capabilities were stretched*" and "*I was tested of my skills*" among female. Likewise, whereas the theme park visitors sample yielded a Factor 3 that included arousal-related statements such as "*I had an adrenalin rush*" and "*I was frenzied*", the shoppers sample had negative emotional statements such as "*I was unhappy*" and "*I was melancholic*" for that factor.

The forgoing analyses provided empirical evidence to support the followings: although experiential values are largely context-specific, the two fundamental experiential values would reflect the cognitive and emotive aspects of the interactive outcomes of people and their surroundings; thus, these very components should be evident and persistent across individual differences (i.e. gender) and contexts (i.e. type of entertainment). A direct interpretation of the aforementioned analyses is that the emotional (Factor 1) and intellectual (Factor 2) values, which are consistent across groups, are the fundamental experiential values people obtained from their interaction with the environment in spite of the type of activities or individual differences. On the contrary, a particular activity or individual may encompass distinctive aspects of experiential values, such as capability-related or negative affective-related values, which contribute to the overall assessment of the experience.

Since the objective of the current study is to identify the components of experiential values that can be generalized across domains, a two-factor structure is adopted for further analysis. Moreover, to further reduce the number of items, a stricter loading criterion of greater than .7 (as opposed to greater than .4) was used to filter items representative of each factor (see Table 3c). Sixteen items fulfilled this criterion for the two factors together. Precisely, nine items characterizing the emotional value (Factor 1) were retained. Likewise, seven items depicting the intellectual value (Factor 2) were kept.

ii. *Initial Confirmatory Factor Analysis*

Next, an initial confirmatory factor analysis (see Table 4a and 4b) using the 16 items in two dimensions produced a chi-square of 403.43 ( $df = 103$ ,  $p < .001$ ), a goodness-of-fit statistic (GFI) of .88, a root-mean-square-error of approximation (RMSEA) of .09. Further, the normed fit index (NFI = .96) and comparative fit index (CFI = .97) indicate a significant fit compared to the null model ( $\chi^2 = 11397.80$ ,  $df = 120$ ). A two-factor solution also represented a significant improvement in fit compared to a one-factor solution ( $\chi^2 = 1557.94$ ,  $df =$

104) (see Table 4c for model fit comparison). In addition, the  $t$ -value for each loading estimate is significant ( $p < .001$ ) and the ratio between the chi-square statistic and the number of degrees of freedom was 3.92 (lower values are more desirable; Thomson, MacInnis, and Park 2005). All of the statistics and fit indices reported above indicated that the two-factor model has an adequate fit.

### iii. Scale Reliability and Validity

Discrimination in a two-factor solution is also evident. In particular, the average of the variance extracted in each factor (0.68 for emotional value and 0.60 for intellectual value) clearly exceeds the squared of the estimated correlation between the two factors ( $(0.46)^2 = 0.21$ ). Moreover, items remaining in each factor were submitted to a reliability test. Cronbach's alphas of both factors were acceptable,  $r = .95$  for emotional value and  $r = .91$  for intellectual value, compared to the Nunnally's (1978) criterion of  $r = .70$  for satisfactory scale reliability. Finally, the composite scores for emotional and intellectual value were computed. These scores were then correlated with consumer behavioral constructs including satisfaction, word-of-mouth, and re-visit intention (see Table 5a and 5b). Both the emotional and the intellectual value were positively correlated to each of the three behavioral measures, ranging from 0.31 to 0.65 significant at  $p < .05$ , which support the existence of criterion-related validity to the experiential value scale.

### c) Step 3: Convergent and Discriminant Validity Analysis

A new set of data was collected for confirmatory and construct validity analysis. Moreover, to provide evidence of consistency across populations, respondents of this study were selected from a nonstudent population - employees at a large university in Hong Kong. A total of 250 questionnaires were distributed and 187 were returned. The questionnaire in this study was conducted within the context of consumer's shopping mall experience. Similar to the previous study, respondents were asked to recall and write briefly about their most recent shopping mall experience at the onset to refresh their memories. They then responded to the 16 experiential value items (9 on emotional value and 7 on intellectual value). To test for construct validity, items from the experiential value scale (EVS hereafter) developed by Mathwick, Malhotra and Rigdon (2001) were also included. Since the original EVS was established for the internet and catalog shopping environment, only items that could be generalized to the shopping mall experience context were used. One item each from the visual appeal ("I think the way XYZ's Internet site looks") and entertainment value ("The enthusiasm of XYZ's Internet site is catching, it picks me up") dimension were removed. Specifically, participants responded to

measures on the aesthetic dimension (2 items each on both visual appeal and entertainment value); the playfulness dimension (3 items on escapism and 2 items on intrinsic enjoyment); and the customer return on investment dimension (3 items on efficiency value) (see Table 6a). Respondents also responded to two measures of satisfaction ("I was satisfied with the company" and "I was satisfied with the experience"). After eliminating those with missing information, the effective sample size was 178.

## IV. RESULTS

*Discriminant validity.* The discriminant validity of emotional value and intellectual value scales proposed by the current study and the EVS established by Mathwick, Malhotra and Rigdon (2001) were examined by two methods.

First, an exploratory factor analysis was conducted for emotional and intellectual value on this new set of data. It revealed that two factors have eigenvalues greater than 1. Together, they explained 69.6% of the variance. After Varimax rotation, a clean factor structure emerged (see Table 6b). Specifically, the respective items loaded on the factor they were intended for.

Next, the variance extracted and correlation estimates were examined. According to Fornell and Larcker (1981), discriminant validity is evident when the proportion of variance extracted in each construct exceeds the square of the correlation coefficients representing its correlation with other factors. Table 6c presents all the correlation estimates. The scale with the highest correlation with both emotional value and intellectual was entertainment value ( $\phi = 0.69$ ,  $\phi^2 = 0.48$  and  $\phi = 0.61$ ,  $\phi^2 = 0.37$  respectively, see Table 6c). The average variance extracted (AVE) estimates for emotional value was 0.68, that for intellectual value was 0.64 and that for entertainment value was 0.50. In other words, the proportion of variance extracted in each construct is larger than the correlation coefficients squared, which is indicative of discriminant validity. Incidentally, the Cronbach's alphas for emotional and intellectual value are 0.94 and 0.92, respectively.

*Convergent validity.* Mathwick, Malhotra and Rigdon (2001) included both intrinsic and extrinsic value identified by Holbrook (1992) in EVS. The experiential value proposed in the current study, namely emotional and intellectual value, are both construed as a form of intrinsic value. As a result, both emotional and intellectual value should be correlated more strongly to the intrinsic value dimensions in the EVS (i.e. visual value, entertainment value, escape value and intrinsic value). On the contrary, both emotional and intellectual value should be correlated modestly to the extrinsic value dimension in the EVS (i.e. efficiency value).

Again, the variance extracted and correlation estimates were examined. The correlation estimates of emotional value and each dimension in the EVS are as follows: visual value ( $\phi = 0.57$ ), entertainment value ( $\phi = 0.69$ ), escape value ( $\phi = 0.49$ ), intrinsic value ( $\phi = 0.54$ ), and efficiency value ( $\phi = 0.36$ ). In a like manner, the correlation estimates of intellectual value and each dimension in the EVS are as follows: visual value ( $\phi = 0.53$ ), entertainment value ( $\phi = 0.61$ ), escape value ( $\phi = 0.50$ ), intrinsic value ( $\phi = 0.50$ ), and efficiency value ( $\phi = 0.29$ ). These results (see Table 6c) revealed that both emotional and intellectual value have higher correlations with each of the four dimensions of intrinsic value (i.e. visual value, entertainment value, escape value and intrinsic value) in the EVS than those with extrinsic value (i.e. efficiency value). Thus, convergent validity of the experiential scale of the two dimensions – emotional and intellectual value – is established.

*Comparison of the Two Experiential Value Scales.* Recall that the experiential value scale developed in the current study is intended for assessing intrinsic value that are characterized by its internal and subjective nature. As a result, it is only appropriate to include dimensions in the EVS by Mathwick, Malhotra and Rigdon (2001) that tapped the same type of value. At the outset, efficiency value was removed because of its extrinsic, functional nature. A close inspection of the four dimensions of intrinsic value (i.e. visual value, entertainment value, escape value and intrinsic value) further revealed that visual value may not be relevant for the purpose of the current analysis. Visual value included two items: “*The decor/display of this shopping mall was attractive*” and “*This shopping mall was aesthetically appealing*.” Arguably, these two items are measuring the facilities or the environment where the experience happened rather than the experience felt by the individual as characterized by the other dimensions (see Table 6a for the complete list of items of both experiential value scales). In view of this, visual value was not included in the comparison analysis.

To compare the effectiveness and performance of the two experiential value scales, the following steps were taken: 1) the relevant dimensions in the EVS developed by Mathwick, Malhotra and Rigdon (2001) were regressed on customer satisfaction; 2) emotional and intellectual value developed by the current study were regressed on customer satisfaction; 3) a hierarchical regression analysis on customer satisfaction was conducted where the relevant dimensions in the EVS (Mathwick, Malhotra and Rigdon 2001) were entered first, followed by the emotional and intellectual value developed by the current study.

Results (Table 6d) showed the regression analysis of the three models described above. Model 1 was the regressions analysis of the relevant dimensions

in the EVS developed by Mathwick, Malhotra and Rigdon (2001) on customer satisfaction with an  $R^2$  of .38. Model 2 was the regression analysis of the emotional and intellectual value developed by the current study on customer satisfaction with an  $R^2$  of .46. This suggested that the experiential value scale established by the current study, which consisted of the emotional and intellectual value dimensions, explained customer satisfaction almost 10% better than the EVS by Mathwick, Malhotra and Rigdon (2001).

Besides that, Model 3 showed the result for the hierarchical regression analysis on customer satisfaction where the relevant dimensions in the EVS (Mathwick, Malhotra and Rigdon 2001) were entered first, followed by the emotional and intellectual value developed by the current study. The change in  $R^2$  when emotional value and intellectual value were added to the model was .16. This indicated that the experiential value proposed by the current study explained an additional 16% of variance on customer satisfaction. Note that there exists no a priori reason to the hierarchy of effects as stated in Model 3. That is, there are no theoretical or empirical grounds to suggest that dimensions proposed by Mathwick, Malhotra and Rigdon (2001) would precede the emotional and intellectual value hypothesized by the current study in their effects on customer satisfaction. Model 3 was simply included to demonstrate the effectiveness of the experiential value scale proposed here and its ability to explain consumer behaviors over and beyond that of the existing EVS by Mathwick, Malhotra and Rigdon (2001).

## V. GENERAL DISCUSSION

The goal of this paper is twofold: 1) to provide a step-by-step process on how to develop multi-items measures that can improve the quality of data collected and the accuracy of results from more complexed analyses and 2) to develop a comprehensive scale that can capture the internal emotional and cognitive responses derived from consumer experience. To summarize, to ensure precision of a measure, the construct (i.e., subject) must be well defined. As it is illustrated in the literature review section of this paper, the best way to define any construct is to review relevant existing academic and even practitioner publications. Moreover, consumer interviews and focus groups can also be used to verify and complement any important aspects missing from past studies. In addition, with the advancement in technology, consumer are changing more frequently than ever. Any measures concerning consumers may also need to be revised more often and using interviews and focus groups would be a good way to identify improvement for existing scales.

The methodological discussion requires some knowledge about factor analysis and structural equation modeling. But the basic idea is that an accurate

measurement scale needs to be valid. Internal validity is established by asking different questions that will tap the same (i.e., construct). External validity is achieved by making sure that each set of questions tap distinct subjects. In other words, there should be very little overlap between two different subjects. Finally, to examine the usefulness of measurement scales, the scales must be able to predict outcomes which are important. For example, in business research, customer satisfaction, loyalty, and even market performance are all important outcome measures. If the measurement scale for a subject does not predict these important outcomes, it is also not going to provide anything useful for the company.

Finally, the experiential value scale developed in this paper fills a research gap. Extant literature on consumer experience and consumer value has acknowledged that people do not only derive emotional responses but also cognitive ones when they interact with their surroundings. Yet past research which addresses the cognitive aspect of experience have not provided any psychometrically sound measures to empirically examine its effects on key consumer outcomes. The experiential value scale presented in this paper captures both the emotional and cognitive dimensions of value derived from experience and showed that they are related to key consumer outcomes, namely, satisfaction, word-of-mouth, and revisit intention.

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Table 1: List of Initial Scale Items Generated and Their Origins

Adopted from	Construct (No. of Items)	Item
Emotional Value (34)		
Chen (2009)	<i>Access Value</i> (1):	I was inspired to relax
Havlena & Holbrook (1986)	<i>Pleasure</i> (8):	I was unhappy I was happy I was melancholic I was contented I was annoyed I was pleased I was unsatisfied I was satisfied
	<i>Arousal</i> (8):	I was sluggish I was frenzied I was calm I was excited I was relaxed I was stimulated I was unaroused I was aroused
	<i>Dominance</i> (8):	I was controlled I was controlling I was guided I was autonomous I was influenced I was influential I was submissive I was dominant
Mathwick, Malhotra & Rigdon (2001)	<i>Entertainment Value</i> (1)	I was entertained
Shoham, Rose & Kahle (1998)	<i>Thrill</i> (2):	I was thrilled I was not thrilled (R)
	<i>Arousal</i> (1):	I felt adventurous
Sweeney & Soutar (2001)	<i>Emotional Value</i> (3):	I felt relaxed I felt good I felt pleasure
Focus Group	(2)	I felt delighted I felt joy



Table 1: (continued) List of Initial Scale Items and Their Origins

Adopted from	Construct (No. of Items)	Item
Intellectual Value (31)		
Arnould & Price (1993)	<i>Personal Growth and Renewal</i> (6):	I had a sense of adventure I was personally challenged I had an adrenalin rush I learned new things I mastered new skills I tested my limits
Chen (2009)	<i>Access Value</i> (3):	I was inspired to imagine My ideas were changed My mind was opened
	<i>Possession Values</i> (1)	I preserved something important
Novak, Hoffman, & Yung (2000)	<i>Challenge</i> (4):	I was challenged I was challenged to perform to the best of my ability I was tested of my skills My capabilities were stretched to my limits
	<i>Exploratory Behavior</i> (1):	I enjoyed the unfamiliarity
Shoham, Rose & Kahle (1998)	<i>Curiosity-Arousal</i> (3):	I knew more I found out how I felt after I participated I was interested
Unger & Kernan (1983)	<i>Mastery</i> (4):	I felt like I was conquering the world I had a sense of risk I felt like a real champion I felt that I have been thoroughly tested
	<i>Arousal</i> (3):	My sense of curiosity was satisfied I had novel experiences I felt like I was exploring new worlds
Focus Group	(6)	I observed something new I obtained some important information I obtained some interesting information I saw something new I tried something new I widened my knowledge



Table 2: Items Retained for Exploratory Factor Analysis

Construct (No. of items)	
Emotional Value (27)	Intellectual Value (17)
I felt adventurous	I felt like I was exploring new worlds
I felt delighted	I had novel experiences
I felt good	I knew more
I felt joy	I learned new things
I felt pleasure	I mastered new skills
I felt relaxed	I observed something new
I had a sense of adventure	I obtained important information
I had an adrenalin rush	I obtained interesting information
I was annoyed	I preserved something important
I was aroused	I saw something new
I was calm	I was inspired to imagine
I was contented	I was tested of my skills
I was entertained	I widened my knowledge
I was excited	My capabilities were stretched to my limits
I was frenzied	My ideas were changed
I was happy	My mind was opened
I was inspired to relax	My sense of curiosity was satisfied
I was melancholic	
I was not aroused	
I was not thrilled	
I was pleased	
I was relaxed	
I was satisfied	
I was stimulated	
I was thrilled	
I was unhappy	
I was unsatisfied	

Table 3a: Initial Exploratory Factor Analysis I (Varimax Rotation) Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	14.96	33.99	33.99	14.96	33.99	33.99	8.62	19.59	19.59
2	6.07	13.79	47.79	6.07	13.79	47.79	7.37	16.74	36.33
3	3.55	8.06	55.84	3.55	8.06	55.84	4.92	11.18	47.51
4	1.49	3.38	59.22	1.49	3.38	59.22	3.30	7.49	55.00
5	1.16	2.63	61.85	1.16	2.63	61.85	2.41	5.48	60.48
6	1.02	2.32	64.17	1.02	2.32	64.17	1.41	3.21	63.69
7	1.01	2.30	66.47	1.01	2.30	66.47	1.22	2.78	66.47

Extraction Method: Principal Component Analysis.



Table 3b: Initial Exploratory Factor Analysis II (Varimax Rotation)

	Component						
	1	2	3	4	5	6	7
I felt joy	0.85						
I was happy	0.81						
I felt relaxed	0.80						
I was pleased	0.79						
I felt good	0.78						
I felt pleasure	0.77						
I felt delighted	0.75						
I was contented	0.72						
I was satisfied	0.72						
I was inspired to relax	0.68						
I was entertained	0.64						
I was aroused	0.56			0.55			
I obtained interesting information		0.81					
I learned new things		0.80					
I widened my knowledge		0.79					
I knew more		0.78					
I saw something new		0.74					
I observed something new		0.74					
I obtained important information		0.72					
My sense of curiosity was satisfied		0.69					
My mind was opened		0.68					
I had novel experiences		0.68					
I felt like I was exploring new worlds		0.57					
I mastered new skills		0.55					
My ideas were changed		0.47				0.45	
I felt adventurous			0.79				
I had a sense of adventure			0.74				
My capabilities were stretched to my limits			0.73				
I was tested of my skills			0.69				
I was thrilled			0.54	0.52			
I was stimulated			0.46				
I was inspired to imagine			0.42				
I was not thrilled				0.67			
I was excited	0.47			0.64			
I had an adrenalin rush				0.62			
I was not aroused	-0.44			0.58			
I was frenzied			0.43	0.50			
I was melancholic					0.73		
I was unhappy					0.71		
I was annoyed	-0.42				0.59		
I was unsatisfied	-0.45				0.51		
I preserved something important						0.56	
I was calm							0.80



*Table 3c:* Initial Exploratory Factor Analysis III (Varimax Rotation)

i. Rotated Component Matrix

	Component						
	1	2	3	4	5	6	7
I felt joy	0.85						
I was happy	0.81						
I felt relaxed	0.80						
I was pleased	0.79						
I felt good	0.78						
I felt pleasure	0.77						
I felt delighted	0.75						
I was contented	0.72						
I was satisfied	0.72						
I obtained interesting information		0.81					
I learned new things		0.80					
I widened my knowledge		0.79					
I knew more		0.78					
I saw something new		0.74					
I observed something new		0.74					
I obtained important information		0.72					
I felt adventurous			0.79				
I had a sense of adventure			0.74				
My capabilities were stretched to my limits			0.73				
I was melancholic					0.73		
I was unhappy					0.71		
I was calm							0.80

Loadings > .70; Rotation converged in 8 iterations.

ii. Component Transformation Matrix

Component	1	2	3	4	5	6	7
1	0.65	0.55	0.37	0.34	-0.12	0.10	-0.02
2	-0.57	0.44	0.49	-0.06	0.44	0.18	0.09
3	0.00	0.66	-0.56	-0.48	-0.11	-0.03	0.10
4	0.41	-0.21	-0.13	-0.20	0.59	0.39	0.47
5	0.09	-0.12	0.51	-0.55	-0.39	-0.23	0.46
6	0.14	0.07	-0.01	0.05	0.48	-0.86	0.04
7	0.23	-0.08	0.21	-0.55	0.20	0.08	-0.74



Table 4a: Confirmatory Factor Analysis: Two-Factor Model

Construct	Items	Standardized factor loadings (t-value)	Reliability	Item $R^2$ (POVEI)	Correlation Estimate $\phi$ ( $\phi^2$ )
Emotional Value			0.95		0.46* (0.21)
	I felt relaxed	0.69*		0.48	
	I was contented	0.81*		0.65	
	I was happy	0.86*		0.74	
	I felt joy	0.91*		0.82	
	I felt good	0.80*		0.64	
	I was pleased	0.86*		0.73	
	I felt pleasure	0.85*		0.72	
	I was satisfied	0.81*		0.66	
Intellectual Value	I felt delighted	0.83*		0.68	
				(0.68)	
			0.91		Same as above
	I observed something new	0.70*		0.49	
	I widened my knowledge	0.80*		0.63	
	I obtained important information	0.71*		0.50	
	I learned new things	0.83*		0.69	
Intellectual Value	I saw something new	0.71*		0.57	
	I knew more	0.84*		0.71	
	I obtained interesting information	0.80*		0.64	
				(0.60)	

\* $p < .001$  Note: All coefficient values are standardized.

Table 4b: Model Fit Indices for a 2-factor Model

Index	Value	Index	Value
$\chi^2$	403.43 (df = 103)	NFI	0.96
$\chi^2/df$	3.92	CFI	0.97
RMSEA	0.09	IFI	0.97
		SRMR	0.05

Table 4c: Confirmatory Factor Analysis Model Fit Comparisons

<sup>a</sup> null versus one-factor model; <sup>b</sup> one-factor model versus two-factor model

Model	Chi-Square	d.f.	$\Delta\chi^2, \Delta df, p$ -value
Null	11397.8	120	----
One-factor	1557.94	104	9839.86 <sup>a</sup> , 16, $p < .001$
Two-factor	403.43	103	1154.51 <sup>b</sup> , 1, $p < .001$

*Table 5a:* Correlations of Factor Scores with Behavioral Measures

	Satisfaction	WOM	Re-visit Intention
Emotional Value	0.65**	0.48**	0.42**
Intellectual Value	0.40**	0.31**	0.36**

\*\* $p < .01$

*Table 5b:* Items Used for the Behavioral Measures

	Items	Cronbach's Alpha
<b>Satisfaction</b>	<ol style="list-style-type: none"> <li>1. I am satisfied with the company</li> <li>2. I am satisfied with the experience</li> <li>3. I would say that it was an excellent shopping experience</li> </ol>	0.84
<b>WOM</b> (Brown et al 2005)	<ol style="list-style-type: none"> <li>1. I would recommend this shopping mall to other people</li> <li>2. I would talk favorably about this shopping mall to others</li> <li>3. I would tell family and friends to go to this shopping mall</li> </ol>	0.91
<b>Re-visit Intention</b> (Kim & Moon 2009)	<ol style="list-style-type: none"> <li>1. I would re-visit this shopping mall in the near future</li> <li>2. I have a strong intention to bring family and friends to visit this shopping mall again</li> <li>3. This shopping mall would be my first choice over other shopping malls</li> </ol>	0.70



*Table 6a:*

## List of Items for Experiential Value and EVS

Emotional Value 1: I was happy

Emotional Value 2: I felt good

Emotional Value 3: I felt joy

Emotional Value 4: I was pleased

Emotional Value 5: I felt delighted

Emotional Value 6: I was satisfied

Emotional Value 7: I felt relaxed

Emotional Value 8: I was contented

Emotional Value 9: I felt pleasure

Intellectual Value 1: I observed something new

Intellectual Value 2: I obtained some interesting information

Intellectual Value 3: I knew more

Intellectual Value 4: I widened my knowledge

Intellectual Value 5: I obtained some important information

Intellectual Value 6: I learned new things

Intellectual Value 7: I saw something new

Entertainment Value 1: This shopping mall was not just for shops to sell products - it entertained me

Entertainment Value 2: I think this shopping experience was very entertaining

Visual Value 1: The decor/display of this shopping mall was attractive

Visual Value 2: This shopping mall was aesthetically appealing

Intrinsic Value 1: I shopped at this shopping mall for the pure enjoyment of it

Intrinsic Value 2: I enjoyed shopping at this shopping mall for its own sake, not just for the items I may have purchased

Escape Value 1: I got so involved at this shopping mall that I forgot everything else

Escape Value 2: Shopping at this shopping mall made me feel like I was in another world

Escape Value 3: Shopping at this shopping mall "got me away from it all"

Efficiency Value 1: Shopping at this shopping mall was an efficient way to manage my time

Efficiency Value 2: Shopping at this shopping mall fitted my schedule

Efficiency Value 3: Shopping at this shopping mall made my life easier



Table 6b:

Exploratory Factor Analysis (Varimax Rotation)

	Component	
	1	2
I was happy	<b>0.89</b>	0.19
I felt good	<b>0.88</b>	0.20
I felt joy	<b>0.86</b>	0.19
I was pleased	<b>0.81</b>	0.25
I felt delighted	<b>0.84</b>	0.18
I was satisfied	<b>0.74</b>	0.26
I felt relaxed	<b>0.74</b>	0.25
I was contented	<b>0.71</b>	0.38
I felt pleasure	<b>0.70</b>	0.22
I observed something new	0.21	<b>0.85</b>
I obtained some interesting information	0.23	<b>0.81</b>
I knew more	0.30	<b>0.81</b>
I widened my knowledge	0.20	<b>0.81</b>
I obtained some important information	0.13	<b>0.80</b>
I learned new things	0.25	<b>0.77</b>
I saw something new	0.30	<b>0.71</b>

Notes: Bold values indicate the factor on which each item predominantly loads.

Table 6c: Discriminant Validity of Experiential Values and the EVS

Construct	Correlation Estimates $\phi$							POVEI
	1	2	3	4	5	6	7	
1. Emotional Value	1.00							0.68
2. Intellectual Value	0.56** (0.31)	1.00						0.64
3. Visual Value	0.57** (0.32)	0.53** (0.28)	1.00					0.72
4. Entertainment Value	0.69** (0.48)	0.61** (0.37)	0.77** (0.59)	1.00				0.50
5. Escape Value	0.49** (0.24)	0.50** (0.25)	0.53** (0.28)	0.55** (0.30)	1.00			0.59
6. Intrinsic Value	0.54** (0.29)	0.50** (0.25)	0.61** (0.37)	0.76** (0.58)	0.81** (0.66)	1.00		0.43
7. Efficiency Value	0.36** (0.13)	0.29* (0.08)	0.24* (0.06)	0.31* (0.10)	0.41** (0.17)	0.20 <sup>ns</sup> (0.04)	1.00	0.50

\* $p < .05$ ; \*\* $p < .001$

Table 6d: Comparison of the Two Experiential Value Scales

	$R^2$	$\Delta R^2$
<b>Model 1</b>		
EVS (Mathwick, Malhotra & Rigdon 2001)	.38**	
<b>Model 2</b>		
Experiential Value (current study)	.46**	
<b>Model 3: Hierarchical Regression Analysis</b>		
Step 1 – EVS (Mathwick, Malhotra & Rigdon 2001)	.38**	
Step 2 – Experiential Value (current study)	.55**	.16**

\*\* $p < .001$





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# The Defy of Entrepreneurship to Vocational and Technical Education in Nigeria

By Joseph U.B., Amuchie A.A., Abraham B. & Kemdirim, M.N.

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**Abstract-** Entrepreneurship has been recognize as an instrument for Nigerian youth to acquire basic managerial skills and to use that skilled acquired to be sustainable self-employment and to the Nation Development. This paper examines the challenges of entrepreneurship to vocational and technical Education. However, its vision the need to emphasize entrepreneurship at the phases of education as this will go extra miles in improving the socio-economic as well as socio-political problems such as unemployment, poverty among others that are threat to the nation security. Entrepreneurship is introduce to less socio-economic problems and will aid to job creation, poverty alleviation, reduction in unemployment, developing youth enterprise and technological development to Nigerian education. Those who have less education but have more practical experience and training, enter into the industry early, leaving the educated once with little or no experience patterning skill acquisition behind. However, in such cases less education restricts the growth and development of the enterprise. It is however recommended that entrepreneurship should be taught well in all phases of education especially vocational and technical education as a tool to transformation agenda to the nation and the world at large.

**Keywords:** *entrepreneurship, vocation, technical education, job creation, youth.*

**GJMBR-G Classification:** *JEL Code: L26*



*Strictly as per the compliance and regulations of:*



# The Defy of Entrepreneurship to Vocational and Technical Education in Nigeria

Joseph U.B. <sup>α</sup>, Amuchie A.A. <sup>σ</sup>, Abraham B. <sup>ρ</sup> & Kemdirim, M.N. <sup>ω</sup>

**Abstract-** Entrepreneurship has been recognize as an instrument for Nigerian youth to acquire basic managerial skills and to use that skilled acquired to be sustainable self-employment and to the Nation Development. This paper examines the challenges of entrepreneurship to vocational and technical Education. However, its vision the need to emphasize entrepreneurship at the phases of education as this will go extra miles in improving the socio-economic as well as socio-political problems such as unemployment, poverty among others that are threat to the nation security. Entrepreneurship is introduce to less socio-economic problems and will aid to job creation, poverty alleviation, reduction in unemployment, developing youth enterprise and technological development to Nigerian education. Those who have less education but have more practical experience and training, enter into the industry early, leaving the educated once with little or no experience patterning skill acquisition behind. However, in such cases less education restricts the growth and development of the enterprise. It is however recommended that entrepreneurship should be taught well in all phases of education especially vocational and technical education as a tool to transformation agenda to the nation and the world at large.

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## I. INTRODUCTION

The prosperity and progress of a nation depends on the quality of its people. If they are enterprising, ambitious and courageous enough to bear the risk, the community/society will develop quickly. Such people are identified as entrepreneurs and their character reflects entrepreneurship. Entrepreneurship is no monopoly of any religion or community, Business Times (1995) entrepreneurial potential can be found and developed anywhere irrespective of age, qualification, experience or socio-economic background, only efforts are required in the right direction. Entrepreneurship may not be regarded as a sufficient condition for growth activity but is surely a necessary condition. (Destipancle, 1984) hence it must be given top priority in the national programmes of a country. It is widely acknowledged in entrepreneurship literature that entrepreneurship is about people who realize new opportunities. Entrepreneurs are persistent, passionate adaptable and able to take risks. As a result entrepreneurship can occur in a range of environments. However, at the

centre of entrepreneurship lies the creation of new business ventures by individuals or teams.

Entrepreneurship is the lifeblood of the Nigerian economy. It is the cradle of job and wealth creation in the most innovative ways. It is therefore imperative that we recognised contribution that the entrepreneur makes to our economy and development.

A small business unit, is, thus an enterprise, its owner, an entrepreneur and his activities are the entrepreneurship. Entrepreneurship is a human activity development. It indicates to the spirit of enterprise such as spirit transforms the man from a nomad to a cattle rearer, to a settled agriculturist, to a trader and an industrialist Murthy (1989).

This call for the federal government of Nigeria to develop and empower the Nigerian youths through vocational and technical education to enable them contribute to the development of the nation today and take over the leadership of the country tomorrow as they are the future leaders, especially in considering the persistent and consistent uprising of the issue of unemployment. It is in this regard this paper sought to find out how Nigerian government has fared in engaging youth unemployment with youth development and empowerment packages. And the paper make series of findings among which is that unemployment in Nigeria which is real and alarming; that youth development and empowerment can curb youth unemployment through the introduction of entrepreneurship in vocational and technology education

According to Aminu (2009), Nigeria is a country blessed with abundant resources in human and material resources that has not be properly manage but there was fear from many scholars about the future economy with respect to unemployment. Unemployment became worsen by the rate of crime committed by the unemployed youth and retrenchment becomes the order of the day in both private and public sector of the economy, the unemployment situation if aggravated by the political instability and high cost of running enterprise among the youth without adequate infrastructure which government are expected to provide job for teeming Nigerian population had made many top government functionary to ay "Government alone" cannot provide job for Nigerians and that should learn self reliant by becoming job creators rather than job seeker. However, government has started to assist entrepreneurs who opt for self employment by giving

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them all the necessary incentives for the development and promotion of small and medium term enterprise.

## II. CONCEPTUALIZATION REVIEW

The concept of entrepreneurship as an organized knowledge came into being about hundred years ago. Though the economists from Adam Smith to Marshall were talking about it but without assigning the name of entrepreneurship. They used the terms as employer, the master, the merchant and the undertaker for carrying out different entrepreneurial activities now comprising of entrepreneurship. It was Cantillon who first brought out the term entrepreneur (Murthy, 1989) and entrepreneurship was recognized in economic literature.

Considerable attention has focused on the definition of the term "entrepreneur". Schumpeter (1959) considered the entrepreneur as an innovator. He writes that entrepreneurship is the "carrying out of new combination we call enterprise"; the individuals whose function is to carry them out we call entrepreneurs. The new combination focuses on five aspects (Schumpeter, 1934): The introduction of new goals, new methods of production, opening up of new markets, new sources of supply of raw material and new industrial organizations. Say (1964) uses the term entrepreneur to refer to someone who creates and then, perhaps, operates a new business firm, whether or not there is anything innovative in those acts. Baumol (1993) sees the "Schumpeter" type as an innovating entrepreneur and the "Say" type as the firm-organizing entrepreneur people who get ideas for creating a new business, bring that business into existence and then carry on the work of the enterprise, are entrepreneurs (Jena 1989). Precisely, an entrepreneur is one who undertakes to organize, manage, and assume the risks of a business. Even a small business unit is an entrepreneur and his activities are the entrepreneurship.

Entrepreneurship is a human activity which plays a major role in economic development its history is as old as human history it indicates to the spirit of enterprise. Such a spirit transform the man "from a nomad to a cattle rearer, to a settled agriculturalists, to a trader and an industrialist" (Muhy 1989).

An entrepreneur is a person while entrepreneurship is the process of its actual working. Entrepreneurship is also consistently equated with the establishment and management of small business enterprise. In United States, the entrepreneur is often defined as one who starts his own, new and small business (Drucket, 1985).

According to Adeyemi (2013) Says the role played by entrepreneurship in the development of western countries has made the people of developing countries very much conscious of its importance in the programme of rapid economic development. People

have begun to realize that for achieving the goal of development it is necessary to increase both the quantitative and qualitative entrepreneurship in the country. The qualitative entrepreneurship implies the stress on innovating and the quantitative implies the stress on imitating entrepreneurship. Both of them contribute stimulus for development. It is also known that even though a country has resources - labour, technology, capital and raw material etc, but these remain under-explored in the absence of the active and enthusiastic entrepreneurs, who have the ability to organize the various factors of productions.

## III. VOCATIONAL AND TECHNICAL EDUCATION

The Naona1 Policy on Education (2004) defines vocational education as the type of education which led to the acquisition of applied skill and basic scientific knowledge. The policy further sited that vocational education aims at imparting the necessary skills that leads to production of technical man power which enhance enterprises and self-reliant. Olaitan (2007) also agrees with the view that vocational education implied as technical education, since skill development is the intent of its instructional programme, when he referred to it as "every area of specialization can be regarded as vocational if the ultimate objective is to provide the student with requisite skills to enable them function in work situation" this explanation serve well to those who try to divorce vocational education from being part of the total technical education programme.

Osuala (2007) viewed the term vocational technical education as "vocational technical training which is given in school or classes under public supervision and control" it refers to the systematic learning experiences which are designed to fit individual for gainful employment in recoganzed occupations as semi-skilled workers or sub-professionals. It includes guidance and counseling in connection with the training other instruction directly related to an occupation.

## IV. AIMS OF VOCATIONAL TECHNICAL EDUCATION

Osuala (2007) and National Policy on Education (2004) are of the view to see the aim of vocational and technical education as the following:

- To meet the manpower of the society
- To serve as a motivational force to enhance all type of learning
- To enable the learner to wisely select a career
- To prepare the learner for employment and advancement in his or her choice of career
- To increase the option available to each student

From the aim of vocational technical education define from Osuala (2007) and National Policy on

Education (2004), all these definition exclude programme designed to fit individuals for, employment in occupation, which are considered professional, requires Nigeria Certificate in Education (N.CE) or National Diploma (O.N.D) are designed primarily as general education. Hence, the presenter view vocational education is required, for which there is societal need, and which cannot appropriately be done in the schools. Vocational technical education also is well concerned with the whole of occupation from those requiring relatively short-period of specialization in preparation, such as clerk, typist, to occupation requiring two or more years of specialized education such as paramedics including the whole spectrum of the labour force from semi-skilled workers to technicians professional and sub- professional whose occupation require less than NCE or Diploma by acknowledgement that every individual is unique and that uniqueness contribute to self-actualization of other individuals, we are in this effect of creating for our self and environment that fosters generational sustainability and heading towards National Empowerment (Nwosu, 2010).

According to Osuala (2007), says vocational graduates can easily get paid employment In their private of public sector as the demand for their skills continue to rise, It is therefore a lot easier for vocational education graduate to get office paid job than others because there is no area of work that does not in one way or the other that does not rely on vocational education to survive.

According to Falusi (2010), Vocational Education also provides increase productive power to supplement remedial or rudimentary apprenticeship in any given Nation. Manpower development is the training of skilled labour force for the public services, business industrial development and self employment. To this end, it is a strategy to meet the increased demand.

Better trained workmen who will be in the position to improve the quality and quantity of goods and services available for National empowerment.

Balutu in Ighalo (2011) listed major occupational areas that must be taken by graduate for National empowerment through the following programmes:

1. Practical skill acquisition in Agricultural Science which includes: animal husbandry-poultry, piggery, goat, fishery, snail farming, etc.
2. Practical skill acquisition in Business which includes: sales of goods and services, running business centers, video services etc.
3. Practical skill acquisition in Home Economics which include: weaving, catering services, day-care centers, making of meat pie etc.
4. Practical skill acquisition in computer Education which includes: word processing and desktop publishing, spread sheet, computer graphics, establishing cyber cafes etc.

5. Practical skill acquisition in Fine & Applied Arts which includes: graphics, ceramics, textile designs, sculpture and painting, etc.
6. Practical skill acquisition in technical Education which includes: air conditioning, maintenance, automobile skills services, construction skills etc.

## V. PROBLEMS MITIGATING OF ENTREPRENEURSHIP TO VOCATIONAL AND TECHNICAL EDUCATION

The challenges or problems mitigating the training of technical education or vocational education are:

1. Funding: tertiary institution in Nigeria are owned and funded by the Federal Government, state government and private individuals. Over the years, government subventions to universities have never been adequate but at the same time governments, maintain he policy that these institution should not charge fees it deemed adequate to complement the financial effort of the government. In Nigeria, the allocation to education as a share of the GDP is quite minimal. Till date, government funding of vocational and technical education programmes have not been impressive (Daso, 2012).
2. Facilities: Oriya (2005) indicated that only 40% of institutions of Higher Education in Nigeria have laboratory or workshop space for technical education programmes. Most technical education departments in Nigerian tertiary institutions do not have laboratories or workshops space let alone usable equipment and facilities and where they exist, they are not inadequate to contain the numbers of student in the class, even some of the facilities are obsolete or out-dated.
3. Brain Drain: According to Daso (2012), In the context of this paper, brain drain refers to the movement of lecturers of technical education which are needed for the socio-economic and technological advancement of Nigeria from one university to other universities or to other professionals (including politics) calling for better conditions of service Akintunde (1989) identified five different components of brain drain:
  - i. Experts in academics who moved to the industry where they get better pay for their services.
  - ii. Lecturers and students who leave the country to acquire more knowledge and skill but later refused to return.
  - iii. Lecturers who move from one country for other conditions of service.
  - iv. Skill professionals who abandon the practice of technical education in favour of other more lucrative economic activities and political appointments which are not related to their training.

- v. Skilled professionals, although in their field of training who do not devote their full attention to their job because of their effort to supplement their earnings through other unrelated economic activities.

Bassi (2004) reported that:

- i. About 45% of all Nigerian professionals including technical educators have left the Nigerian shores over the decades since colonization.
  - ii. Between 1997 and 2007 alone, Nigeria lost over 10,000 middle level and high-level managers to the western economies.
  - iii. About 500 lecturers from Nigerian universities continue to emigrate each year, particularly to Europe, America and other African countries where the condition of service is relatively better. These Nigerians in Diaspora contribute 35 times more wealth to Europe, America and other African economy.
4. Staff training: The training of academic staff is ordinarily a continuous exercise to ensure consistent improvement in the quality of their outputs. The training is two-fold: training to acquire minimum qualification (Ph.D) to teach and continued professional training. Both types of training can be acquired either locally or overseas.
  5. Staff situation: Many universities across the country are inadequately staffed both qualitatively and quantitatively. In most departments especially in technical education programme, the proportion of staff without Ph.D out numbers those with Ph.D. Daso in Uwaifo (2005) asserted that it is difficult to get people trained to the level of Ph.D because academic is not as attractive and commensurate to the effort, commitment and finances put in to acquire it whereas a first degree graduate can function well in the industry and politics etc and earn good money.
  6. The apathy of political office holders/law makers: Education generally, including technical education programmes has been grossly neglected in Nigeria. Technical educators have the greatest challenge of convincing the law makers on why they should give priority to the programme in allocating resources. Many options of getting positive results have been advocated at different for a, namely, lobbying, participation of technical educators in governance, wooing etc. Yet the government is playing a lopsided attitude to the proper development of the programme in Nigeria. Thus, Nigeria will ever remain a technologically backward and dependent nation if this attitude and trend is not reversed.

## VI. CONCLUSION

Jimngang (2004) posited that there is need for a total overhauling of the educational system and that in

many fields, course work available only lead to rising unemployment, poverty and misery. He concluded that the situation could only be curbed if syllabuses were innovated, re-engineered or re-designed to include disciplines that build up the fighter-spirit needed for today's intellectual battles of life. For progress to be made in Nigeria the challenges confronting technical education must be recognized and fought vigorously. Adequate resources should be allocated to the programmes in order to achieve positive outcomes. A comprehensive reform towards technical and vocational education and a deliberate attempt to uplift the programme is the only panacea to a technological underdevelopment in this country.

## VII. RECOMMENDATIONS

1. That the general school curriculum should be remodeled to inculcate technical skill acquisition which will help even secondary school graduates to have employable skills
2. Government should embark upon massive youth development programmes in all the states in the country with entrepreneurial skills acquisition and entrepreneurship development.
3. Funds should be raised to remodel or buy new equipment for skill acquisition.
4. There is a dearth of teaching materials especially case materials that are suitable for teaching entrepreneurship in Nigerian Universities. It is suggested that entrepreneurship teachers in the various institutions should embark on producing real cases, projects of entrepreneurs, and exercises that are suitable for experiential learning among students
5. The salary and service benefits paid to technical education teachers in Nigeria should be encouraged. This leads them not to migrate to other countries.

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# GLOBAL JOURNALS INC. (US) GUIDELINES HANDBOOK 2017

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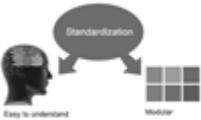




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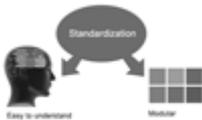


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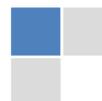
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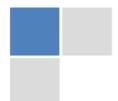
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- To the point depiction of the research
- Consequences, including definite statistics - if the consequences are quantitative in nature, account quantitative data; results of any numerical analysis should be reported
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## Approach:

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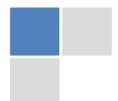
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## Approach:

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- Resources and methods are not a set of information.
- Skip all descriptive information and surroundings - save it for the argument.
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## Content

- Sum up your conclusion in text and demonstrate them, if suitable, with figures and tables.
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- Explain results of control experiments and comprise remarks that are not accessible in a prescribed figure or table, if appropriate.
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### Approach

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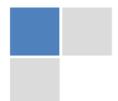
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- Try to present substitute explanations if sensible alternatives be present.
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- Recommendations for detailed papers will offer supplementary suggestions.

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<i>Methods and Procedures</i>	Clear and to the point with well arranged paragraph, precision and accuracy of facts and figures, well organized subheads	Difficult to comprehend with embarrassed text, too much explanation but completed	Incorrect and unorganized structure with hazy meaning
<i>Result</i>	Well organized, Clear and specific, Correct units with precision, correct data, well structuring of paragraph, no grammar and spelling mistake	Complete and embarrassed text, difficult to comprehend	Irregular format with wrong facts and figures
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<i>References</i>	Complete and correct format, well organized	Beside the point, Incomplete	Wrong format and structuring



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