

博士学位論文審査要旨

2017年7月15日

論文題目：Consumer Sophistication in Technology Adoption:
A Socio-Demographic Analysis
技術受容における消費者の成熟化：社会・人口学的分析

学位申請者：Tirelo Modise Moepswa

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要 旨：

マーケティング理論および消費者行動に関する研究において、消費者の成熟化と最新技術受容のメカニズムを分析することは、重要な意味を持っている。特に、途上国におけるマーケット開拓を進める上において、どのような技術水準の財を投入することが最適であるかを明らかにする上で、市場の成熟化と技術受容との関係性を理解することは重要となる。

モエプスワ氏の研究は、ボツワナの消費者を対象としたサーベイ調査を通じて、ボツワナにおける市場成熟化と技術受容との関係を実証的に明らかにするものである。この実証分析を行うに当たって、モエプスワ氏は消費市場における技術受容に関する既存研究を綿密にサーベイし、「技術受容モデル」(TAM モデル)を紹介している。このモデルの重要な点は、製品に対する感性レベルでの評価を通じて、製品の特性に対する志向性と認知レベルを測定し、購買選択行動への影響を分析していることにある。

モエプスワ氏の実証分析における質問票は、この TAM モデルに依拠して作成されており、多くの実証的知見を導くと共に、政策的な含意を得ることに成功している。さらに、マーケットセグメンテーションの理論を援用し、性、年齢、所得、教育レベルが、環境意識、情報志向、知財保護、健康への影響、ブランド意識、品質評価といった要素で測定できる消費者の成熟度にどのような影響を与えているかを、実証的に分析している。実証分析の結果、消費者の成熟度が消費者の属性によって異なっており、それによって消費選択行動に違いが生じていることが、詳細に示されている。このことは、途上国においても、成熟度の低い消費者が、質の低い財の消費を行う傾向を示唆しており、消費者の成熟度を高めるための啓蒙活動が重要な意味を持っていることを示している。

モエプスワ氏の研究の学術的価値は、多くの理論的文献を基礎に、これまで十分な研究蓄積の無い途上国における市場構造と消費者成熟度を実証的に明らかにし、途上国における市場育成政策に対して、数多くの貴重な知見を与えている点にある。そして、これらの実証的な知見によって、消費市場理論に対して、学術的な含意を与えていることも重要な貢献と言えよう。

本研究では、個人を対象とした調査に限定されており、家族間での影響を分析することはできていない。しかし、この点は今後の氏の研究課題であり、本論文の学術的価値を損ねるものではない。

よって、本論文は、博士（技術・革新的経営）（同志社大学）の学位を授与するにふさわしいものであると認められる。

総合試験結果の要旨

2017年7月15日

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要 旨：

2017年7月15日10時00分から11時00分まで、志高館SK118教室にて学位申請者に対する総合試験を行った。申請者は博士学位論文に関して体系的且つ論理的な報告を行った。上記審査委員からの質疑に対しても、的確な回答をもって本論文の学術的価値を示し、同時に、社会科学的研究方法に関しても、十分な学識と実践力を有していることを証明した。

学位申請者は、本論文を執筆するために数多くの英文の文献をレビューしていることから、博士学位にふさわしい英語能力を持つと判断する。

よって、総合試験の結果は合格であると認める。

博士學位論文要旨

論文題目： Consumer Sophistication in Technology Adoption: A Socio-Demographic Analysis

技術受容における消費者の成熟化：社会・人口学的分析

氏名： Tirelo Modise Moepswa

要旨：

Evidence from consumer sophistication research points to the fact that poorly skilled consumers are inclined to make poor consumption decisions. These decisions can have a lasting impact environmentally, economically and health-wise. With over 150% mobile phone penetration rate in Botswana, evidence is emerging that such levels of ubiquity are proving a challenge for some consumers. These challenges manifest in different forms including poor e-waste management, counterfeiting and economic pitfalls as a result of a generally changing market landscape. Regulators and marketers alike have moved to curb some of the mentioned challenges. Despite these interventions, the challenges continue unabated and it is clear that consumers are not aware of implications associated with their consumption decisions before, during and post-consumption. In addition, there is limited effort from both regulators and marketers to explore the consumer base to seek solutions. The bulk of existing literature is more fixated on devices and how to further increase penetration and mobile money transfer solutions. There is a limited body of literature that explores the consumer base in an attempt to derive solutions on the basis of consumption.

Participants for this study were shopping mall patrons and workers at two main malls in Gaborone, Botswana. Shopping malls were selected as they are a public space attracting people from diverse backgrounds. Initially the researcher had explored the possibility of other sites such as banks and academic institutions but they did not offer the same diversity and therefore generalizability as offered by shopping malls. The other reason for selecting shopping malls to conduct data collection was largely due to its nature as a study about consumption and thus familiarity with some of the issues raised made the entire process less challenging. A convenience sampling method was used to select participants for this research.

A survey was used as a collection tool for this study. The survey was divided into 2 main parts. The first part consisted of 13 questions/statements adapted from the IPS Consumer Sophistication Model, measured on a 5-point Likert scale. The author adapted the model and drafted measuring tools on its basis because it encapsulates consumer sophistication better than other existing literature. Another reason for this adaptation is the fact that its multidimensional nature allows for deeper insight into the level of consumer sophistication. The second part of the survey contained questions regarding demographic data including the respondent's age, gender,

education level and income.

The survey was attempted in total by 320 individuals. However, some of the respondents did not complete the whole set of questions, which generated missing values during the data coding process. After cleaning up the data, including outliers, 307 completed surveys remained. The following provides a basic overview of the study sample: 55.9% were male while 44.1% were female; 36.9% of the respondents were between the ages of 16-25, 47.8% were between the ages of 26-35, 10% were between 36-45, 3.4% were between 46-55 and 1.9% were over the age of 56; 11.5% of the respondents reported no income while 6.3% said they were unemployed; 42% were regular employees whilst 12% reported as self-employed.

The research questions in this study seek to achieve direct observation of the level of consumer sophistication among urban mobile consumers on the basis of sociodemographic variables. As a result, a systematic and scientific approach was deemed necessary for this study. From literature consultation, the researcher discovered that the positivist paradigm lends itself to the use of quantitative methodology and therefore it became a natural choice as far as paradigm is concerned. Establishing the level of consumer sophistication counts as an attempt to measure a phenomenon, which is the basic objective of quantitative methodology.

This study employed the theory of market segmentation to explain the influence of gender, age, income and education on the level of consumer sophistication as defined by environmental awareness, information orientation, IP vigilance, health awareness, product knowledge, brand consciousness and quality judgement. The emerging challenges that result due to poor decision making in consumption of mobile technologies are being countered with broad supply strategies. Profiling consumers on the basis of their level of consumer sophistication reveals trends and patterns that are root causes of poor consumption. These revelations act as a foundation to formulating both marketing and public policy strategies. Previous studies have not been exploring this link in the mobile sector, in solution seeking for the aforementioned challenges or in the context of Botswana. This study adds to a scant body of work in consumer sophistication and by extension to marketing science.

The purpose of this study was to identify the relationship between socio-demographic characteristics and level of consumer sophistication among urban mobile consumers in Botswana. This was a demand-side approach designed to identify and profile those within the consumer base likely to contribute to poor e-waste management, facilitate proliferation of illicit mobile phones, poor economic decisions in purchasing and other challenges associated with the changing market landscape. Findings such as these assist in the formulation of public policy strategies targeted at particular segments of consumers and astute marketers can strengthen their position by bringing marketable solutions in mitigating these challenges. Both descriptive and inferential statistics

were analysed in order to describe respondents and to establish the relationship between variables. The independent variables in this study are gender, age, income and education. The dependent variables are information orientation, brand consciousness, quality judgement, IP vigilance, new product knowledge, health awareness and environmental awareness. The first part of analysis employed t-tests and ANOVA to compare means and confirm whether a relationship existed between dependent and independent variables.

The second part of the analysis used K-means cluster analysis to segment consumers on the basis of their level of sophistication as well as reveal their characteristics. The results indicate the existence of a relationship between socio-demographic characteristics and consumer sophistication. Some of the more interesting findings are in relation to gender and income level. What the gender based outcomes reveal is an inability by current marketing strategies to reach the female population. Existing marketing strategies are gender blind in that they fail to recognize the difference in preferences or consumer needs based on gender. This demonstrates a clear need to formulate strategies geared towards enhancing awareness among the female consumer group. Particular attention needs to be paid to female consumers in the lower income bracket since that is where more demand and consumption is recorded.

As far as income is concerned, the results of this study confirm that higher income mobile consumers in Botswana are more environmentally aware than lower income consumers. The study has further revealed that environmentally aware consumers represent a base constituency of the growth in this particular market. Issues of sustainability are often referred to as first world problems, meaning developing countries believe they have more pressing basic needs than sustainability. Similarly, and contextually in the case of a developing economy such as Botswana, the idea of sustainability is largely sellable to those in the higher income bracket as they have lesser pressing needs than those in low income brackets struggling to obtain basic necessities. Insights such as these are necessary for the development of effective marketing and regulatory policies.

This study makes a theoretical contribution by developing a conceptual framework for the analysis of factors influential in the sophistication levels of mobile telephony consumers in Botswana. The study uses the sociodemographic aspect of the market segmentation theory to help identify levels of consumer sophistication among subgroups within the consumer base. The concept of consumer sophistication was used to develop 7 major variables aimed at providing answers to the research questions posed herein. The researcher is not aware of any study that has fused the concept of consumer sophistication with the market segmentation theory to reveal consumption practices among mobile telephony consumers.

From a public policy perspective, especially regarding the aforementioned e-waste management strategies, findings point us to the subgroups where the majority of waste is likely generated. In

an attempt to formulate strategies to manage e-waste in the face of ubiquitous technological devices such as mobile phones, it is important to understand consumer behavior and profile consumers to establish a starting point in the strategy. Education levels will first determine the intervention tool, if it is information that needs to be disseminated how do we package it – for each particular group, so that it yields results? Such findings reveal that blanket interventions targeting high school leavers all the way to consumers with post graduate education are unlikely to yield the desired outcome.

Looking ahead, some of the limitations identified include the study does not take into consideration the role of the family and its specific influence on the consumer's level of sophistication. Variables including marital status and number of people in the household were not incorporated in this study, yet have proven influential in previous socio-demographic analyses. Further to that this study was only limited to urban mobile phone consumers and future research should incorporate a more holistic sample population in order to draw differences in consumer sophistication levels on the basis of geographic location. This is necessary as the household composition of urban dwellers is vastly different from that of rural dwellers in terms of finances, education, gender, marital status of household heads and other socio-economic factors. Therefore, due to the fact that a select group of socio-demographic factors utilized in this study have proven to have an effect on the level of consumer sophistication, it would be interesting to further analyze the effect of more socio-demographic factors.

(1577 Words)