

**INVESTIGATION OF THE IMPACT OF PERSUASIVE DESIGN
STRATEGIES AND PERSONALITY TRAITS ON ONLINE BUYING
BEHAVIOUR**

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BEHAVIOUR**

BY

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**A DISSERTATION SUBMITTED TO THE SCHOOL OF
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SCIENCES, COLLEGE OF SCIENCE AND TECHNOLOGY,
COVENANT UNIVERSITY, OTA, OGUN STATE, NIGERIA**

JUNE, 2023

ACCEPTANCE

This is to attest that this dissertation is accepted in partial fulfilment of the requirements for the award of the degree of MASTER of Science in Management Information Systems in the Department of Computer and Information Sciences, College of Science and Technology, Covenant University, Ota, Nigeria.

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DECLARATION

I, **OMONEDO, EMMANUEL CHIBUEZE (20PCH02194)**, declare that this research was carried out by me under the supervision of Dr Aderonke A. Oni of the Department of Computer and Information Sciences, College of Science and Technology, Covenant University, Ota, Nigeria. I attest that the dissertation has not been presented either wholly or partially for the award of any degree elsewhere. All sources of data and scholarly information used in this dissertation are duly acknowledged.

OMONEDO, EMMANUEL CHIBUEZE

Signature and Date

CERTIFICATION

We certify that this dissertation titled **“INVESTIGATION OF THE IMPACT OF PERSUASIVE DESIGN STRATEGIES AND PERSONALITY TRAITS ON ONLINE BUYING BEHAVIOUR”** is an original research work carried out by **OMONEDO, EMMANUEL CHIBUEZE (20PCH02194)** in the Department of Computer and Information Sciences, College of Science and Technology, Covenant University, Ota, Nigeria under the supervision of Dr Aderonke A. Oni. We have examined and found this work acceptable as part of the requirements for the award of Master of Science in Management Information Systems.

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DEDICATION

I dedicate this work to the Almighty God, for His infinite wisdom, grace, and love over my life. Also, this work is dedicated to my loving mum who worked exceptionally hard to set me up for success.

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LIST OF ABBREVIATIONS

ABBREVIATIONS	MEANING
RD	Reduction
SFM	Self-Monitoring
SM	Simulation
REM	Reminder
SU	Suggestion
LK	Liking
PR	Praise
TRW	Trustworthiness
SC	Surface Credibility
EXP	Expertise
VF	Verifiability
SCL	Social Learning
SF	Social Facilitation
PU	Perceived Usefulness
PE	Perceived Ease of Use
COM	Competition
EXT	Extraversion
NE	Neuroticism
AG	Agreeableness
CON	Conscientiousness
OP	Openness to Experience
CBB	Complex Buying Behaviour
VSBB	Variety-Seeking Buying Behaviour
IMB	Impulse Buying
INT	Intention to Use
CU	Continuous Usage

TAM	Technology Acceptance Model
FFM	Five Factor Model
SEM	Structural Equation Modeling
SRMR	Standardized Root Mean Square Residual
PSD	Persuasive System Design
PLS-SEM	Partial Least Square Structural Equation Modeling

ABSTRACT

One of the main issues e-commerce websites encounter presently is persuading customers into becoming satisfied and returning customers. This has been a major issue faced by the most successful e-commerce platforms. This study explores the effect of persuasive strategies and user personality traits as it leads to effective online buying behaviours. To achieve this objective, three e-commerce websites were investigated to examine the persuasive strategies that are enacted on the platforms. A model of e-commerce adoption was also developed by integrating constructs from persuasive design strategies, personality traits, online buying behaviour and technology acceptance model. To test the model, survey was used to collect samples of data from 305 online shoppers in order to determine the relevant persuasive strategies and personality traits that leads to effective buying behaviours and e-commerce acceptance. The partial least square structural equation modelling was used to analyse the data in order to determine the various relationships that exists between the various constructs and how these constructs influence each other. The results of the structural model show that the persuasive strategies of the primary task support which consists of reduction and simulation and the reminder technique of the dialogue support will influence e-commerce shoppers in various ways in relation to how the strategies are implemented and how customers respond to these strategies. The perceived usefulness and perceived ease of use of the TAM constructs were significant in determining how customers perceive and use the e-commerce platforms in relation to the various persuasive strategies which leads to complex buying, variety seeking buying and impulse buying behaviours. These buying behaviours are influenced by customers extraversion, conscientiousness and openness to experience personality traits which are effective personality traits that determine buying behaviours. These results show that e-commerce designers should tailor their website design to meet these relevant features in order to drive sales and promote profit on their platforms.

Keywords: *Persuasive Design Strategies; Personality Traits; Technology Acceptance Model; Online Buying Behaviour; Structural Equation Modeling*