Review of: "Factors Influencing the Intention to Choose Transportation Applications in Bangkok, Thailand"

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Potential competing interests: No potential competing interests to declare.

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Dear Sir

ATTN: Gabriele Marinello

Open Peer Review on Qeios

Kindly find below my queries in respect of Sarawan, Bhumpenpein, Tiemsawan, Palangjuntarapisran, Mitprasan, and Jansanong's manuscript titled "Factors Influencing the Intention to Choose Transportation Applications in Bangkok, Thailand"

Comments/Queries

1. Consider updating the **in-text citations**, I am of the opinion that they are too old.
2. The **research questions** should be clearly stated in the introduction section of the paper. Also the researchers should state briefly the study's methodology/findings in the last segment of the introduction, just after the research questions before ending the introduction with the paper's organization format.
3. **Literature Review, Hypotheses Development and Conceptual Framework (Research Model):**

i. The authors must create a separate and distinct section for literature review and hypotheses development. The Literature Review section must be subdivided into theoretical literature and empirical literature. A theory underpinning the entire research [e.g., the Unified Theory of Acceptance and Usage Theory (UTAUT) model or theory geared towards customer behaviour, especially with respect to the adoption or rejection of financial technology (fintech) while offering marketing options for such scenarios] must be selected and thoroughly discussed. The empirical literature must be reviewed or discussed under each on the prognostic or explanatory or independent variables used in the study i.e., perceived use of use, perceived usefulness, perceived effectiveness, system availability.

ii. The study's hypotheses should be formulated or developed under all the explanatory/prognostic/independent

variables.

For guidance see the following:

- Essel, R. E. (2022). Assessing the Moderating Role of Trialability and Perceived Risk of E-Banking Adoption in an Emerging Economy. *Vision*, DOI: 10.1177/09722629221106260.
- Pobee, F. (2022). Non-probabilistic approach to e-banking adoption: The moderating impact of trialability. Management and Labour Studies, 47(2), 183–198. https://doi. org/10.1177/0258042X211054248.

1. **Materials and Methods [Research Methodology]:**

- ***Sampling technique/Sample size:*** What sampling technique [Probabilistic (simple random, systematic, stratified, multi-stage, cluster) vs. non-probabilistic (purposive, convenience/accidental/judgmental, snowballing, quota, volunteer or self-selection sampling)] was espoused for the study, which produced the minimum sample size of 385 as per Sirisacorn et al. (2023) and Thetlek et al. (2023), threshold criterion, which eventually resulted in the authors choosing a final sample size of 400 transportation App users. A better and further classification is needed/required in this respect because the authors did indicate that they utilized a probability sampling technique i.e., stratified sampling following Sirisacorn et al. (2023) and Thetlek et al. (2023), with a 95% confidence interval and a margin error of 5%. At the same time, the authors also did indicate that a non-probability sampling technique, i.e., convenience sampling was utilized in the study. Which is which as these statements are contradictory in themselves. In my personal view/opinion since the study's population or universe was an unknown number of transportation App users in Bangkok, Thailand, utilizing a probabilistic sampling technique like stratified sampling was not possible in this present study since the population set/number was unknown (i.e., infinite population set) from which the sampling frame and corresponding sample size will be determined. In such scenarios therefore, non-probabilistic sampling techniques such as convenience sampling are utilized, espousing quantitative methodologies such as Malhotra's (2008) sample selection procedure alongside other methodologies for deriving the sample size the population number is unknown or infinite. For instance to obtain a sample size of 385 and deploying Malhotra (2008) methodology, the following computations were supposed to be made:

$n = (SD^2 \times Z^2)/D^2$, n = sample size = 385, SD = standard deviation (approximately 0.50054694), Z = standardized error corresponding to a 95% confidence level linked to the value of 1.96 on the standard normal table and D = accuracy level (0.05).

$n = 0.50054694^2 \times 1.96^2/0.05^2$

$n = 385$.

Other methodologies that could be used include Cochran formula, Slorvin and Yamanes's (1967) formula etc.

1. How many questionnaires were dispatched to the study participants? What it 385 or 400 and how many responses/feedback were obtained from which the response rate can be computed?
2. The ***response rate*** must also be stated.

3. Some clarification/reasons on ***why*** the online survey was chosen should be given, considering the fact that there are other data collection means like on the spot face-to-face primary data collection technique.
4. How was ***research ethical issues*** like anonymity/namelessness and inform consent handled?
5. The questionnaire scale should be provided for assessment with reasons and justifications for its development, literature source for validated questionnaire adaptation.
6. For reliability/validity purposes were the questionnaire scale vetted by expert in the field?
7. How was the study's validity achieved/measured (construct or content validity = convergent validity + discriminant validity)?
8. The average time it took for answering the closed-end or structures questionnaires should be stated.
9. The exact period for conducting the survey questionnaire must be stated
10. **Common Method Variance (CMV):** The author should test for Common Method Variance (CMV) bias since all the primary data for this study were obtained using survey questionnaire via online survey. The researcher can perform Harman's (1967) one-factor test or single-factor score [in which, all items measuring latent variables/unobserved/hidden variables are loaded into one common factor. If the total variance for a single factor is less than 50%, it suggests that CMV does not affect your data, hence the results]. This can be based on the approach described by ''Podsakoff, MacKenzie, Lee, and Podsakoff (2003). ''Common Method Variance in behavioural research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879-903. Doi: 10.1037/0021-9010.88.5.879''. The researcher can also use CFA common factor, which is a more advance, sophisticated and psychometrically convincing means/method. [see. (1). Essel, R.E. (2021b). ''Assessing Materials Management Practices Effect on Firm Performance in Ghana Using Dominance Analysis: Evidence from A listed Company.'' *Journal of Operations and Strategic Planning*4 (2) 174-201 DOI: https://doi.org/10.1177/2516600X211043210. Published on 10th October 2021 by *SAGE Publications, INDIA***.** (2). Essel, R.E. (2022). Assessing the Moderating Role of Trialability and Perceived Risk in E-banking Adoption in Ghana. Vision: The Journal of Business Perspective, 1-16. DOI: 10.1177/09722629221106260 published by *SAGE Publications, INDIA*].

Results

1. ***Survey participants/respondent's heterogeneity:*** How was heterogeneity in the profile of the respondents addressed? Elaborate explanation is expected. The effect of socio-demographic information/data which was collected earlier on the respondents should be analyzed.
2. Kindly specify/write the multivariate linear equation model (s) after estimation the regression results/estimates.
3. The author (s) did not test any of the assumption underlying the usage of multivariate linear regression before undertaking the regression analysis [Normality, heteroskedasticity, autocorrelation, endogeneity and heterogeneity] necessary under multiple linear regression analysis to avoid a situation where an assumption would be violated which will result in spurious results. The assumption testing assures that the models are fit for regression.
4. The authors did not indicate how the primary data collected were treated and analyzed prior to conducting the multivariate or multiple linear regression analysis to ascertain the impact of constructs/dimensions (explanatory

variables) and their predictive potency as explanatory variables on the dependent variable i.e., the intention to adopt transportation Apps. How was primary data collected condensed? How the study did measure the data's sample adequacy and factorability by performing Bartlett's test of sphericity and the Kaiser-Meyer-Olkin (KMO) in order to meet all assumptions both statistical and conceptual, necessary and required for the exploratory factor analysis (EFA)? Did the study undertake principal component analysis - as a means of reducing the dataset, exploratory factor analysis - in order to determine the constructs and their corresponding items or confirmatory factor analysis (CFA) - a statistical technique used in the field of structural equation modeling (SEM) – partial least square (PLS) path analysis to test and validate the measurement structure of a set of observed variables utilized in the absence of multivariate regression analysis or in conjunction with multivariate regression analysis?

5. The authors are entreated to incorporate theoretical implications to the manuscript.
6. The authors have used the values of the standardized coefficients (ß) that is indicated in table 3 to determine the importance of the independent/explanatory/prognostic variables [perceived usefulness (H_1), perceived ease of use (H_2), perceived efficiency (H_3), and system availability (H_4)] i.e., to ascertain the determinants influencing the intention to use transportation apps; which is not the best way and not accepted widely. The statistical relative importance of indices, which can be determined by undertaking any of the following statistical predictor relative importance (PRI) techniques must be performed.

i. Relative Weight Analysis (RWA)
ii. Dominance Analysis (DA)
iii. Hierarchical Linear Modelling (HLM)
iv. Baysian Inference of PRI
v. Akaike Weights
vi. Independent Effects
vii. Johnson's Epsilon
viii. Product Measure among other techniques

I strongly insist/recommend that the PRI must be performed. For guidance kindly see and cite the following articles:

1. Johnson, J. W., & LeBreton, J. M. (2004). History and use of relative importance indices in organizational research. Organizational Research Methods, 7(3), 238–257. doi:10.1177/1094428104266510-
2. Tonidandel, S., & LeBreton, J. M. (2011). Relative Importance Analysis: A Useful Supplement to Regression Analysis. Journal of Business and Psychology, 26(1), 1–9. doi:10.1007/s10869–010–9204–3]
3. Essel, R.E. (2021b). ''Assessing Materials Management Practices Effect on Firm Performance in Ghana Using Dominance Analysis: Evidence from A listed Company.'' *Journal of Operations and Strategic Planning*4(2) 174-201 DOI: https://doi.org/10.1177/2516600X211043210. Published on 10th October 2021 by ***SAGE Publications, INDIA.***
4. Essel, R.E. (2022). Assessing the Moderating Role of Trialability and Perceived Risk in E-banking Adoption in Ghana. Vision: The Journal of Business Perspective, 1-16. DOI: 10.1177/09722629221106260 published by ***SAGE***

Publications, INDIA

Many Thanks

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2. Web of Sciences ResearcherID: AFR–5263-2022 [www.webofscience.com/wos/author/record/AFR-5263-2022]
3. Google Scholar Page: https://scholar.google.com/citations?user=rcravMIAAAAJ&hl=en
4. ResearchID: https://researchid.co/rid14148
5. LiveDNA: https://livedna.org/233.36190
6. Researchgate:https://www.researchgate.net/scientific-contributions/Ronald-Ebenezer-Essel-2182693434
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