

Dr hab. inż. Paula Pypłacz, prof. PCz.
Katedra Informatycznych Systemów Zarządzania
Wydział Zarządzania
Politechnika Częstochowska

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REVIEW

of the doctoral dissertation by **Shahriar Jeddy, MA** entitled
Factors Influencing Merchandise Online Shopping: The Mediating Role of Trust
written under the academic supervision of dr hab. Rafał Drewniak, prof. UMK

Legal and formal basis of the review

The basis for preparing this review was Resolution No. 44N/2025/2026 of the Council of the Scientific Discipline of Management and Quality Sciences of Nicolaus Copernicus University in Toruń of 18 March 2026, pursuant to which I was appointed reviewer of the above-mentioned doctoral dissertation.

Assessment of the choice of research area and dissertation topic

The subject matter of the doctoral dissertation entitled ***Factors Influencing Merchandise Online Shopping: The Mediating Role of Trust*** has been formulated accurately, is timely, and is significant both from the perspective of management and quality sciences and contemporary research trends. The research problem undertaken concerns factors influencing consumers' purchasing behaviour in electronic commerce, with particular emphasis on the mediating role of trust.

The following aspects deserve a positive assessment:

- a clear link between the topic and the theory of management and consumer behaviour,
- a skilful combination of the theoretical dimension (TPB, TAM and TRA), with the empirical dimension,
- the reference of the research to the real context of e-commerce management, including managerial implications.

However, the declared “novelty” of applying the full TPB model appears to be somewhat overstated, as similar attempts to integrate the model have already been undertaken in the literature, although not always in an identical configuration.

In conclusion, the topic of the dissertation is well chosen, clearly falls within the scope of a doctoral dissertation in the discipline of management and quality sciences, and meets the criterion of originality in both problem-oriented and empirical terms.

Aim of the dissertation, hypotheses and research problems

From the point of view of the originality and methodological correctness of the research undertaken in the doctoral dissertation, it is essential to assess the formulated aims of the study - both the main aim and the specific objectives - as well as the research problems, research questions and hypotheses.

As the Author indicates in the abstract (page 6) and in the introduction to the dissertation (page 7), the main aim of the study is “to detect the key factors affecting merchandise online shopping from the behavioural aspect, and thus elucidates in details their influence on the trust element, which ultimately yields to the online buying context”. The main aim was logically supplemented with specific objectives (page 11), referring to the influence of individual variables, including product awareness, payment security, website quality and shopping experience.

The aims have been formulated clearly and unambiguously. They are consistent with the subject matter of the dissertation, achievable using the methodology adopted, and, importantly, consistently pursued in the empirical part.

In the introduction on page 12, the Author correctly identifies:

- two main questions concerning the identification of factors influencing purchasing decisions and their relative strength of impact,
- ten specific questions corresponding directly to the proposed conceptual model.

The research problems are logically justified and, in the course of the discussion, consistently linked to TPB theory, as well as clearly operationalised in the subsequent parts of the dissertation.

The research hypotheses were first formulated in the introduction on page 12. They are formulated correctly, clearly and in a testable manner. The Author proposed one main hypothesis, “Perceived online trust has a positive significance on the online shopping”, and eight specific

hypotheses numbered from H2 to H7a. Their structure, comprising the main hypothesis and specific hypotheses, corresponds both to the adopted theoretical model and to the PLS-SEM method applied. Particular attention should be drawn to:

- the full consistency of the hypotheses with the research questions and aims of the dissertation,
- the correct distinction between hypotheses concerning direct and mediating relationships,
- the reliable interpretation of the results - the Author does not avoid discussing rejected hypotheses, which demonstrates scientific maturity.

This part of the dissertation should be assessed very highly.

On page 9 of the dissertation, the Author identifies the existence of a research gap, stating that: „*Thus, this study, for the first time, has aimed to utilize appropriately all the constructs of TPB model for its investigation in the area of online shopping context to remove such a gap*”. The Author correctly identifies the research gap, indicating that despite numerous studies on online commerce, the full use of all constructs of the Theory of Planned Behaviour (TPB) in the context of online shopping - with particular emphasis on the role of trust as a mediator - has not yet been comprehensively analysed. The research gap was already signalled in the introduction. It should be noted, however, that in section 2.7, entitled *Research gap and hypotheses*, one might have expected a more in-depth discussion and more precise clarification of this issue. Meanwhile, in that section the research gap is merely repeated, without further elaboration. Moreover, in the introduction it is presented more clearly and in greater detail than in the subsection specifically devoted to this matter.

The above remarks do not undermine the correctness of the adopted research concept, but rather constitute a suggestion to clarify the relationship between the research questions and the theoretical and analytical layer of the dissertation.

Structure of the dissertation and substantive assessment

The structure of the doctoral dissertation has been designed logically and is fully consistent with the classical arrangement of empirical scientific works. The total length of the dissertation is 195 pages, including 140 pages of main text, which means that the dissertation falls within the typical length of doctoral dissertations. The bibliography, comprising approximately 300 literature items - predominantly foreign-language sources, although occasional duplicates are noticeable - has been selected appropriately and adequately in relation to the nature and substantive profile of the work. It

includes both key theoretical studies and publications of a practical and empirical nature, which made it possible to embed the issues addressed in the current state of scientific knowledge and management practice. The predominance of foreign sources is fully justified, given that the Author of the dissertation is a foreigner, and at the same time corresponds to the international character of the analysed subject matter and current research trends in the field of management and quality sciences.

The arrangement of the five chapters guides the reader consistently from the theoretical foundations, through a critical analysis of the literature and a properly designed research methodology, to the presentation of results, their interpretation and the formulation of theoretical and practical conclusions. The structure of the dissertation is clear and fully subordinated to the achievement of the formulated research aim. From a structural point of view, a certain overlap of content can be observed in the theoretical chapters, particularly between the final parts of the literature review and the justification of the conceptual model. In some places, repetitions of arguments and similar descriptions of the same constructs occur, which contributes to the excessive length of certain sections of the text.

With regard to the individual parts of the dissertation, it was noted that in the introduction the Author discusses the aims, hypotheses, research problems and research gap, as already indicated in an earlier part of this review. It should be emphasised that in the introduction the Author also presents the research model and discusses several key terms on pages 10-11, which helps the reader better understand the considerations undertaken.

The first chapter is theoretical in nature and introduces the reader to the issue of consumer behaviour in the digital environment. The Author discusses key models of technology acceptance and intentional behaviour, in particular the Technology Acceptance Model, the Theory of Reasoned Action and the Theory of Planned Behaviour, which constitutes the main conceptual framework of the dissertation. This chapter is not limited solely to presenting the assumptions of individual theories, but also contains their comparison and a justification for choosing TPB as the model best suited to the specificity of the phenomenon under study. A particularly important element is the introduction of trust as a mediating mechanism, which constitutes the starting point for further theoretical and empirical considerations. It should also be noted that there is a noticeable lack of in-depth synthesis and critical comparison of the individual theoretical approaches. As a result, part of this analysis takes a compilatory form, consisting in the juxtaposition of existing perspectives without their evaluative assessment.

The second chapter is devoted to a broad review of the literature on electronic commerce and determinants of online shopping. The Author discusses the origins of e-commerce, the significance of online shopping and various antecedents of trust in the digital environment, taking into account psychological, cognitive, experiential and institutional factors. This chapter is characterised by considerable systematicity and a richness of literature sources, including current empirical studies. An important element of this part of the dissertation is the critical analysis of previous research, which leads to the clear identification of a research gap. On this basis, the Author formulates the conceptual model and research hypotheses, which constitutes a logical transition to the methodological part.

In the theoretical section, there is a noticeable repetition of content and definitions, particularly with regard to the issue of trust and behavioural models, which reduces the clarity of the argument and limits its analytical depth.

The third chapter presents the methodological foundations of the Author's own research. The Author describes in detail the adopted research approach, justifies the choice of a quantitative strategy, and presents the research design, data collection procedure and construction of the research instrument. The population and research sample are described, as are the measurement scales used. Particular attention should be paid to the reliable discussion of issues related to the validity and reliability of measurement and to the justification for applying the PLS-SEM method to data analysis. This chapter demonstrates the Author's good methodological preparation and knowledge of advanced data analysis methods in management sciences.

The fourth chapter is empirical in nature and contains the presentation and analysis of the research results. The Author begins by discussing descriptive statistics and the characteristics of the research sample, and then proceeds to the analysis of the measurement and structural models. The results of the analyses are presented clearly and logically, and their interpretation remains closely connected with the previously formulated hypotheses. The Author maintains research objectivity, discussing both confirmed and rejected hypotheses and indicating possible reasons for the results obtained. This chapter confirms the Author's ability to correctly apply statistical tools and interpret complex relationships between variables.

The fifth chapter performs a synthesising and interpretative function. In it, the Author provides an in-depth discussion of the research results, relating them to earlier theoretical and empirical findings.

The conclusions presented in the dissertation are logically derived from the results obtained and clearly linked to the aims of the study. In this part, the Author also indicates the contribution of the dissertation to the development of management theory and consumer behaviour theory, emphasising the importance of trust as a key mechanism in the online purchasing process. The chapter ends with a discussion of managerial implications, research limitations and proposals for further research directions, which demonstrates scientific maturity and a critical approach to the Author's own results.

Overall, the structure of the dissertation is coherent, logical and functional, and the substantive content of the individual chapters consistently leads to the achievement of the stated research aims, meeting the requirements for doctoral dissertations in the discipline of management and quality sciences.

Research methodology

The research methodology applied in the dissertation is consistent with the adopted aim of the study and adequate to the nature of the research problem undertaken. The Author consciously and consistently adopted a quantitative research approach based on the diagnostic survey method, which should be regarded as an appropriate solution in the context of analysing consumer behaviour and testing relationships between theoretical constructs derived from the Theory of Planned Behaviour.

The research design was developed in a clear and logical manner. The Author clearly defines the subject, aim and scope of the empirical research, as well as precisely defining the population and research sample. The selection of respondents from among students of Polish higher education institutions who had experience in online shopping was justified by the nature of the phenomenon analysed and the accessibility of the research population. Although the homogeneity of the sample limits the possibility of fully generalising the results, the Author demonstrates awareness of this limitation and addresses it reliably in the section devoted to research limitations.

The construction of the research instrument deserves a positive assessment. The survey questionnaire was developed on the basis of measurement scales well established in the literature, and the process of their adaptation and localisation to the conditions of the study was described in detail. The Author assessed the content validity of the instrument by involving experts and also analysed the reliability of the scales using Cronbach's alpha coefficient. These actions demonstrate adherence to high methodological standards and care for measurement quality.

In the analytical part, the Author applied structural equation modelling using the PLS-SEM approach. This choice was properly justified by both the complexity of the research model and the characteristics of the sample and variable distributions. The Author correctly assessed the measurement and structural models, including the analysis of factor loadings, convergent and discriminant validity, and the significance of structural paths. The mediation analysis was carried out in accordance with applicable standards and constitutes an important element in verifying the theoretical assumptions of the dissertation.

In the proposed research model, the doctoral candidate included a limited range of variables, which should be considered understandable from the point of view of the need to maintain the clarity of the model and its empirical testability. The Author focuses on selected determinants of trust and consumer purchasing behaviour in the e-commerce environment, while omitting other important factors widely discussed in the literature, such as brand or platform reputation, delivery and return conditions, privacy policy, after-sales service or omnichannel experiences. The omission of these variables may result in an incomplete explanation of the variance of the dependent variable and may also lead to a potential omitted-variable problem. The Author signals this limitation in the section devoted to the weaknesses of the research, but does not always consistently relate it to the interpretation of the empirical results obtained. Therefore, I pose the following questions to the Author:

- Did you consider the possibility of including additional variables in the research model, such as platform reputation, return policy or after-sales service, and does their omission not limit the scope of operationalisation of the key constructs? In your opinion, could this have influenced the relationships between the latent variables in the adopted model?
- How do you perceive the possibility of adapting the proposed research model to other cultural or institutional contexts, in particular outside the European market?

It should be particularly emphasised that the Author does not limit himself to a mechanical testing of hypotheses, but provides a critical and balanced interpretation of the results obtained, indicating both their theoretical significance and the limitations resulting from the methodology applied. The choice of the PLS-SEM method instead of the covariance-based CB-SEM approach was honestly justified by empirical and organisational considerations, which should be assessed as a manifestation of scientific reliability. At the same time, however, it should be noted that the research

findings are largely focused on statistical aspects, while their interpretation and reference to broader theoretical and practical conditions are relatively underdeveloped, which weakens the overall coherence of the analysis.

Attention should be drawn to the selection of the research sample, which was limited exclusively to students of Polish higher education institutions. Although the Author correctly justifies this choice by the accessibility of respondents and their experience in online shopping, the demographic homogeneity of the research population significantly limits the possibility of generalising the results obtained to the broader population of e-commerce consumers. In particular, the lack of representation of older age groups and people with different consumption patterns may affect the strength and direction of the observed relationships, especially with regard to the role of trust, shopping experience and social influence. Hence, the following question arises for the Author:

- How does the Author address the limitations resulting from the fact that the study was conducted exclusively on a student sample, and how, in his opinion, might this have affected the relationships between trust and purchasing behaviour in other demographic groups, in particular among older people or those less digitally advanced?

In conclusion, the research methodology applied meets the requirements for doctoral dissertations, is correct, consistently implemented and well documented. The Author demonstrates methodological maturity, knowledge of modern data analysis tools and the ability to select research methods appropriate to the stated aims and hypotheses. The identified limitations do not undermine the cognitive value of the results obtained, and the proposed directions for further research indicate the Author's conscious and critical approach to the analyses conducted.

Assessment of the formal aspects of the dissertation

The formal aspects of the doctoral dissertation have been prepared correctly and meet the requirements for doctoral dissertations in the discipline of management and quality sciences. The work has a clearly ordered editorial structure, including all standard elements of a doctoral dissertation, such as abstracts in two languages, a table of contents, lists of tables, figures and equations, a bibliography, and extensive appendices documenting the research process. The layout of the dissertation is clear, and the internal numbering of chapters, subsections, tables and figures has been maintained consistently.

Given that the dissertation was written in English, and English is not my native language, I do not provide a detailed assessment of its linguistic aspects.

The Author uses terminology appropriate to the research area, and the key concepts have been defined and applied consistently throughout the text. The argumentation is scientific, logical and coherent, and is based both on extensive literature and on the results of empirical research.

From an editorial point of view, the dissertation has been prepared carefully. Uniform formatting has been applied, tables, figures and formulas have been correctly labelled, and references to them are consistent and clear. The bibliography has been prepared in accordance with the adopted standards, although occasional duplicates of literature items are noticeable, which constitutes a minor editorial shortcoming that can be easily corrected. The extensive set of appendices also deserves a positive assessment, as it increases the transparency of the research process and enables verification of the instruments and analytical procedures applied.

Conclusion

In summarising my opinion on the doctoral dissertation, I refer to the criteria set for doctoral dissertations in the Act of 20 July 2018, Law on Higher Education and Science. Pursuant to Article 187, “a doctoral dissertation presents the candidate’s general theoretical knowledge in the discipline or disciplines and the ability to conduct scientific or artistic work independently”, and its subject is “an original solution to a scientific problem, an original solution in the application of the results of the candidate’s own scientific research in the economic or social sphere, or an original artistic achievement”.

1. The doctoral dissertation under review constitutes a mature **presentation of the theoretical and empirical knowledge** of Mr Shahriar Jeddy, MA, in the field of management and quality sciences. The dissertation demonstrates a high level of the Author’s preparation in the field of consumer behaviour theory and issues related to electronic commerce. The appropriately selected and current research problem falls within the key research trends concerning the development of e-commerce, the digitisation of sales processes and the management of customer relations in the online environment. Particular emphasis should be placed on the proper embedding of the discussion within the framework of the Theory of Planned Behaviour and the consistent inclusion of trust as a key mediating mechanism, which made it possible to

- identify an important research gap related to the ambiguous significance of individual determinants of purchasing decisions in a mature digital environment.
2. In the doctoral dissertation, Mr Shahriar Jeddy, MA, demonstrated **the ability to conduct scientific research independently**, covering all essential stages of the research process, from formulating the research problem and aims, through developing the conceptual model, to the empirical verification of hypotheses. The aims, research questions and hypotheses are consistent with the adopted methodological approach, and the use of quantitative methods, including PLS-SEM structural equation modelling, was properly justified and consistently implemented. The Author demonstrated good knowledge of modern data analysis tools and awareness of the limitations of the methodology applied, which is reflected in the critical interpretation of the results and the conclusions formulated.
 3. The doctoral dissertation by Mr Shahriar Jeddy, MA, constitutes **an original solution to a scientific problem**, making a valuable contribution to research on the determinants of online shopping and the role of trust in consumers' decision-making processes. The originality of the dissertation is manifested primarily in the comprehensive treatment of trust as a mediator between technological, cognitive and experiential factors and purchasing behaviour, as well as in the empirical verification of the proposed model in the conditions of the Polish e-commerce market. An important value of the dissertation is also its practical dimension, expressed in the formulation of specific managerial implications for the management practice of electronic commerce platforms. The results obtained may constitute a basis for further comparative research and for the development of models of consumer trust in a dynamically changing digital environment.

In conclusion, I state that the reviewed doctoral dissertation by Mr Shahriar Jeddy, MA, entitled *Factors Influencing Merchandise Online Shopping: The Mediating Role of Trust*, written under the academic supervision of dr hab. Rafał Drewniak, prof. UMK, meets the requirements set for doctoral dissertations specified in Article 187 of the Act of 20 July 2018, Law on Higher Education and Science, and may serve as the basis for applying for the award of the doctoral degree in the field of social sciences, in the discipline of management and quality sciences. I therefore recommend that the dissertation be admitted to public defence.

Podsumowując stwierdzam, że recenzowana rozprawa doktorska mgra Shahriar Jeddy nt. *Factors Influencing Merchandise Online Shopping: The Mediating Role of Trust* napisana pod kierunkiem naukowym promotora dr hab. Rafała Drewniaka, prof. UMK **spełnia wymagania stawiane pracom doktorskim** określone w art. 187 Ustawy Prawo o Szkolnictwie Wyższym i Nauce z dnia 20 lipca 2018r. i może być podstawą do ubiegania się o nadanie stopnia doktora w dziedzinie nauk społecznych, w dyscyplinie nauki o zarządzaniu i jakości. **Wnoszę więc o dopuszczenie jej do publicznej obrony.**