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Review of

The doctoral dissertation of

Anna Brack

Titled: Dynamics of Eating Habits of Sweets: German, Polish and Russian Consumers on the Confectionery Market

I. Formal basis for submitting the review

Chairperson of the Scientific Council for the Discipline Economics and Finances, of Gdańsk University, Prof. Przemysław Borkowski, in a letter of 30 June 2022, ref. E001.6110.68.2022, requested a review of the PhD dissertation authored by Anna Brack, titled Dynamics of Eating Habits of Sweets: German, Polish and Russian Consumers on the Confectionery Market. The reviewer received the letter and the PhD dissertation on day: 17.07.2022, and prepared an assessment of the following aspects:

- originality of the proposed solution of the research problem,
- general knowledge of the theory,
- ability to perform scientific work independently by the PhD dissertation's author.

II .The subject of the doctoral research

In the reviewer's opinion, the choice of the PhD research subject, Dynamics of Eating Habits of Sweets: German, Polish and Russian Consumers on the Confectionery Market, as the subject of a study in the domain of Social Sciences and in the discipline Economics and Finances, deserves appreciation, particularly that it takes into account the range of behaviours of consumers on this specific market, where consumer decisions are impulsive and the market itself is very important due to its economic and social roles. From this perspective, the achievements of behavioural economics offer an area for interesting exploration. The question of consumer behaviour in the approach studying the dynamics of changes in consumer customs or the intensity of habits on consumer choices, and taking into account the social and cultural

determinants of consumer decisions is relatively well understood in the scientific aspect and economic practice. However, the reviewer believes that it is reasonable to conduct further research in this area, especially in an international scope. The subject of the PhD thesis should be evaluated positively, in terms of both conducting scientific studies and its originality. Considering its form, however, the reviewer has certain doubts concerning the title of the dissertation. The title should inform the reader about the problem that the author intends to solve. In my opinion, the title as it stands now lacks the indication of the problem in either the first or the second part of the title. In my opinion, there is no ground for using the term 'dynamics of habits' if we consider the dynamics of eating habits – this suggestion agrees with the interpretation of the concept of dynamics of habits, where an analysis will involve changes in habits or rate of such changes or perhaps the rate of development of acquired skills of performing repeatedly activities connected with nourishment – in the discussed case – on the market of confectionary products. One may expect an analysis of changeability in the routine shopping pattern, as a set of conscious, collective and repeatable behaviours which make people choose, consume and use specific products or diets in response to social and cultural influences. This is how I understand the dynamics of habits, but the author of this dissertation did not include these aspects in her study. Eating habits affect the preferences, behaviours and decision-making processes of consumers, and the specific nature of behaviours can be determined by geographical location or the age of consumers, while the rate of development of such behaviours and the strength of dependences can be a subject of research. And this is where I would sought a research problem to be solved, and a more precise wording of the research subject. The second part of the title does not help the reader to comprehend the problem pursued in the research, namely what components of these behaviours will be taken into consideration. When reviewing and editing the manuscript, I would recommend that the author should correct the title.

III. Research objective and hypotheses

In her doctoral dissertation, the author makes an effort to study selected elements in the behaviour of the respondents on the confectionary market. She studies chosen aspects of the determinants of purchasing decisions, and preferences of the respondents as representatives of consumers, including the division into generations, as well as the impact of such conditions on purchasing decisions regarding confectionary products on the Polish, German and Russian markets.

The author explains in the introduction: „*The main objective of this work is to gain deeper insight into the dynamics of behaviours of consumers on the international confectionary market, seen from two perspectives: theoretical, filling in the gaps in the up-to-date studies in this field, and managerial, showing practical aspects of the research*” (p. 16). If we were to assume that the objective expressed as above is the one declared by the author, then it should be made more consistent throughout the dissertation because it appears to be worded differently in its other parts. Referring to the cited aim, the author does not explain how she understands „the dynamics of behaviours”, not habits, as was indicated in the title of the thesis, and declares she intends to investigate the question of behaviours of consumers on the international confectionary market. I have certain doubt here. In my opinion, she tries to make a diagnosis of preferences of consumers and identifies determinants of purchasing decisions on the confectionary market, including the geographical criterion, age and representing a certain generation segment among the respondents from the three analysed countries.

I also have some doubts about the phrasing „gain deeper insight” – an aim worded this way is difficult to achieve because a question arises to what extent it is possible to verify the effect of gaining deeper insight into the dynamics of consumer behaviours. I have doubts about the aim as expressed above also in the further part concerning „dynamics of behaviours”. Rather than dynamics, the author studied the static attitude uncovered through the respondents’ declarations, and definitely sought determinants of consumers’ behaviours on the confectionary market, including such factors as place of residence and generation segments. And here observations of behaviours of the respondents in the different generation segments or according to the place of residence among consumers on the confectionary market are an interesting object for considerations, both theoretically and empirically. I would like to mention that the main objective given in the abstract of the dissertation (p. 3) is to fill the gap in the research concerning behaviours of consumers on the food market, and more precisely – on the market of confectionary products. Again, the aim specified as above is not precise and does not explain the problem that the author was dealing with in the dissertation. And in the introduction to the section Structure of the Dissertation (p. 18), the author indicates that the research aim is to show, using confectionary products, how eating habits affect purchasing decisions.

When formulating the goals of the research, the author deviated from the canon of defining goals in research, where the main goal and detailed goals should be presented, divided into cognitive, methodological and practical ones. Precise presentation of aims pursued in a

dissertation is the evidence of a PhD student's proper preparation for conducting research. **I expect that this part of the dissertation will be improved, and that the author will explain the particular aspects undertaken in the dissertation, and that the main aim, correctly formulated, will be indicated, clearly showing the direction of the research, detailed aims in line with the main research objective. All this will prove the awareness and research competence of the PhD student, logically and adequately suited to the adopted research scope.** The aims should clearly define the structure of both the theoretical and empirical parts of the PhD thesis, and they should be the objectives that the PhD student, by presenting, analysing and interpreting the results obtained during the study, consistently strived to achieve.

Research hypotheses, next to research aims, are the most important point of reference in making an assessment of the scientific value of a research dissertation. The author formulated four research hypotheses, preceded with research questions, which she juxtaposes with the hypothesis.

Question 1: What motivates consumers to buy confectionary products, in relation to the concept of sustainable development? Associated with H1.

In my opinion, this was not an object of the research because the author does not analyse the rationale for buying products manufactured in line with the concept of sustainable development, but evaluates the role of information on this subject in the decision-making process. I would suggest to change it to "„Do attributes of confectionary products referring to the concept of sustainable development motivate consumers to make a purchase?"

Question 2: What are preferences of consumers including the criterion of the country? Associated with H2.

„The country criterion" is not very clear here, because it may indicate the country of origin of the products, and this was not analysed. In my opinion, it would be advisable to refer to differences in consumer preferences depending on nationality of country of residence of consumers. I would suggest to change the question to: „Does the nationality of place of residence of consumers differentiate their preferences for sweets?"

Question 3: How have taste preferences changes in consumer segments over time? Associated with H3.

I do not find in the description of the research results any analyses that might enable one to answer this question.

Question 4: How do consumers perceive a wide range of confectionary products, which may

cause cognitive dissonance? Associated with H4.

The study did not take into account the wideness of the confectionary assortment, but included the diversity of packaging, which was indicated in hypothesis 4. Question number 4 is not formulated precisely.

The author puts forth 4 hypotheses in her research:

H1. Sustainable production of confectionary effects a rise in the increase of consumption.

H2. Production characteristic for a given country does not cause an increase in the demand for confectionary products.

H3. Orientation towards age clusters (generations) does not cause an increase in the demand for confectionary products.

H4: Consumers feel overwhelmed by the diversity of packaging.

Referring to the hypotheses worded as above, as for H1 the author does not measure the increase of consumption based on the data she collected, but instead makes a diagnosis of the effect of particular attributes which she defines as elements linked to the concept of sustainable production on declared behaviours of the respondents in the future. As regards H2 and considering Question 2, one should make a reference to differences in the preferences of consumers to confectionary products in the analysed countries. With respect to Question 3 and H3, differences in the preferences expressed by representatives of the different generations should be demonstrated, as well as the specific sensitivity of the age-divided consumers to promotional activities.

Due to the lack of precision in the questions and hypotheses formulated in this study, it is difficult to evaluate the accuracy of the research problems and hypotheses, but it is certainly possible to identify the connection with the problem being solved, i.e. making a diagnosis of conditions underlying preferences on the confectionary market (selected categories of products) in the distinguished generation segments of consumers, including the effect of the three countries chosen for the analysis. The research questions make it easier for the reader to identify the problems submitted to the research and I appreciate that they were stated, but I still have the doubts I expressed earlier in the review. **I recommend correcting the questions and hypotheses so that they are formulated more precisely.**

The author formulates the hypotheses at a high level of generalisation, which prevents one from indicating the conditions under which these hypotheses could be verified or falsified. It is difficult to discuss results of analyses which lack answers about the scale of a given phenomenon on each country, or differences between the distinguished age clusters. When

undertaking further research, I would suggest that the author should prepare this stage of a research process more accurately and carefully.

In order to verify the hypotheses set in this PhD dissertation, the author employs methods of analysis and critical review of the literature, comparative analysis and basic statistical methods, such as analysis of variance (ANOVA) and the Tukey's *post hoc* test. The research methods used by the author, according to the reviewer, are appropriate for the discipline Economics and Finances, and for the subject of the PhD thesis, and serve as a sound basis for further studies in the scope of selection of a sample and comparative analyses, and for gaining knowledge about the conditions for drawing conclusions provided an adequate number of segments is maintained. Here, however, the author made analyses without taking into account the criteria of distribution and size of a sample in each generation segment and in each analysed country (table on p. 55, e.g. number of segments of respondents: Germany Generation Y – 139, Generation Z – 8, which constraints possibilities of making conclusions). **I expect that the distribution of the number of respondents in individual generation segments in every country be clarified.** Snowball sampling, also in scientific studies, is not an optimal choice, although it is acceptable. It can be explained by the circumstances (the pandemics) in which the study was conducted, as well as the international scope of the research.

The author suggests that the research results justified the claim that a sustainable method of production is not particularly expected by consumers on the confectionary market. The consumers expect socially responsible companies, and an important decision-making aspect is to see sustainable business methods used by manufacturers. Consumers appreciate the attribute of taste in the confectionary products, and this is the main determinant in consumption of sweets,

Chocolate is an attractive offer, accepted by consumers in the three analysed countries. Preferences regarding chocolates and jelly beans depend on age, which can be an important aspect to consider in the marketing activities carried out by companies, focused on individual segments of customers, distinguished inclusive of the age criterion.

The diversity of sweets offered on the market, number of categories of products as well as the breadth and depth of the assortment, dynamics in changing the offer and the graphic design of packaging – they can all make consumers confused when shopping. The author diagnoses cognitive dissonance in decisions made on the confectionary market; many respondents declare lack of interest in large number of varieties of products.

IV. Formal and substantive evaluation of the doctoral dissertation

The dissertation focuses on the discipline Economics and Finances, and it is possible to spot certain application aspects, which are addressed to managers, as well as aspects related to the discipline Management and Quality Sciences. The doctoral dissertation consists of the introduction, six chapters, bibliography, list of diagrams, list of tables and an annex (pp. 169, of which 132 pages are the text alone, excluding the bibliography and attachments).

The introduction contains most of the elements needed, the context of the research and the research gap, the main aim, research hypothesis, an outline of the following chapters, which greatly helps the reader follow the considerations undertaken in the subsequent parts of the manuscript, which are the core of this work. Other valuable components of this dissertation are the indications of the cognitive and applied goals. What is lacking are definitions of the key notions contained in the title, specification of the products included in the study, and the presentation of the subject scope in the research carried out by the author. In the justification of the choice of a research subject, it is significant to indicate the importance of the problem, through a cognitive and critical analysis of the subject literature and determination of the knowledge gap in the research field chosen by the author. It is worth appreciating the cognitive value of the thoughts presented in this part of the dissertation, their systematic presentation, and highly valuable discussion on pages 12-15.

The first chapter, under the title Review of the Literature, presents diverse content, which cannot be deemed to be consistent as an introduction to the research problem raised in the manuscript – this is the weakest part of the dissertation. The shortcoming of this part is the missing title of the first chapter that would suggest the theoretical and cognitive problem solved by the author, and the titles of the sub-chapters do not dispel these doubts. For example, the title of sub-chapter 1.1. states *The micro- and macro-level approach*, and it is not clear what exactly and to what extent the author plans to undertake in this part of the manuscript, and its content does not clarify it either. Some fragments of this sub-chapter lack justification, and the form of the scientific discussion proposed by the author raises reservations and doubts. I would suggest that the author should re-consider this part and indicate the role of the theory of consumer behaviour in creating the function of consumption, and should definitely refer to the theory of irrational decisions. Sub-chapter 1.2, which presents selected theories of consumer behaviour, does not seem to be complete and satisfying with respect to the research carried out by the author. There is a lack of the logical course of arguments and the evidence that the author is aware of the

theories and models of consumer behaviour, especially the ones which can be adopted to the market of food or confectionary products. The form and the content of this part presented by the author do not prove that she knows to a satisfactory degree the basic theories of consumer behaviour, which she will explore in her research. In sub-chapter 1.3, it is difficult to agree with the content presented by author, and especially questionable is the content of table 1, which the author presents on p. 27 as developed by herself. Obviously, she identified changes taking place in this business sector, based on the review of the literature, and juxtaposed them with the trends / habits of consumers. In this context, **I would like to inquire about the author's opinion – to what extent changes in the business sector induce changes in the habits of consumers, or is it the trends in changing behaviours of consumers that force more flexibility of manufacturers and changes in the range of products they offer?** The chapter is very limited in the cognitive scope and poor in scientific discussion. Sub-chapter 1.4, under an interesting title, does not bring satisfying content. The author omitted the consumer's decision-making process or its major determinants, particularly the ones affecting impulse decisions. The doctoral student investigates habits and impulse decisions which appear when buying sweets, are important in this context. In this part of the manuscript, it is of key importance to precisely discuss the research achievements in the field of attributes determining choices of confectionary products to buy. The problem of cognitive dissonance, rightly identified by the author and described in table 2, is also very important on this market. However, the form of the tables raises some doubts, for example the chronological layout could be made more readable. It is worth praising the cognitive value of the author's thoughts and considerations, which deal with the very important, from consumers' point of view, issue of cognitive dissonance.

In sub-chapter 1.5, the author describes characteristics of the consumer segments according to age, and takes into account generations as mega-segments. And here again, I have the sense of missing some information, considering the extent of the scientific discussion in this area. The substantive range of the considerations is justified and in general the content of this sub-chapter does not raise any reservations. However, I believe that the value of the dissertation would be higher if the author showed more decisiveness in conducting the scientific discussion and could emphasise more prominently the summary of the considerations undertaken in all sub-chapters.

To make the scientific discussion more complete, I would like to ask the author to clarify the following issues:

1. Which elements of the theory of consumer behaviour will be of key importance in the research carried out by the author?
2. Which are key trends in consumer behaviours observed on the confectionary market, taken into consideration in the research process?
3. Please, justify adopting the age criterion in the analyses carried out, including the mega-segments. To which extent is this an adequate approach to studying consumer behaviours on the confectionery markets in the three countries the author decided to include in her research?

The second chapter, *Dynamics of selected confectionery markets* is prepared in a style that resembles a report. Doubts regarding the consistency of considerations can be raised in terms of the different scope and categories of the data that served as the basis for analyses. It is a pity that the author did not make a precise analysis of the dynamics of the phenomena occurring on the confectionary markets in each country, as that would make an interesting analytical pathway. Doubtless, the author's valuable achievement is to indicate the specific functioning of the confectionary market in each of the analysed countries, also in the economic context. This attests to the fact that the research problem undertaken by the author from the point of view of its applicability was a justified decision.

In the third chapter, the author undertakes to characterise the research process by describing the research tool and pilot studies. However, subsequent stages in the research process and description of the achievements of the research goals in the particular stages are not provided. There is no description of the research method, nor any justification for its choice. For an analysis of preferences of the respondents from the three countries and representing the different generation segments, pilot studies are particularly important. The author conducted such studies, which is commendable, but she did not specify the conditions underlying the completed pilot studies. In Chapter 3, the author make the assumption that „ ... *Germany and Poland share the experience of being EU member states, and it seems justified to assume that the geographical closeness of Russia can contribute to a situation where consumers from these three markets influence each other, thus synergy effects can be taken advantage of in order to make confectionary products that will appeal to common preferences.*” **I would very much expect the author to refer to this statement and to provide literature sources that would substantiate the above assumption.**

This part of the manuscript lacks the justification for making an analysis of the results including the division into generation segments; other missing information is any presentation of the

structure of samples in each of the analysed countries, any comment whether it is right to analyse the results while lacking an adequate distribution of a sample. **I would like to ask the author to give the information about the structure of age segments in every country submitted by the author to her analyses.**

The author does not characterise the research material, for example categories of products, which she took into account in her study. **Could the author explain concisely what the structure on the offer on the confectionary market is in every country submitted to the study?**

The empirical part of the research is the most interesting aspect of the PhD dissertation. It is worth highlighting the range of the study and the effort that the Author made to complete an international investigation. This is a tedious process but can ensure numerous interesting insights.

In Chapter 4, the author presented the results of her empirical studies; the title of the chapter is not expressed in a problem-focused manner and does not imply the subject of the considerations which the author raises. This is a highly valuable chapter and, if presented appropriately, would constitute an impressive advantage of this work. A properly accomplished analysis and discussion of the results in several sub-chapters, which would take into account the socio-economic conditions underlying behaviours of consumers on each of the three markets, and then referring the responses of the survey respondents to the attributes of products, including their packaging, and presenting the results as regards cognitive dissonance, would enable the reader to follow logically the discussion of the results presented by the author. Nevertheless, this chapter deserves to be assessed as valuable. I appreciate its great cognitive contribution although the results, due to the selection of the sample and size of the segments, need to be seen as indicative of certain interesting research problems, which – after some substantive corrections – are worth future studies.

Two other very important parts of the manuscript are Chapter 5 *Discussion and research implications*, and Chapter 6 *Conclusions, limitations and further research*. I evaluate both parts very highly.

Chapter 5 lacks a concise implication of attaining cognitive theoretical goals. Please, indicate them, and also provide concise information on application goals or recommendations, which the author would like to propose for future research. An important and valuable contribution of the dissertation are the limitations of the research observed by the author, as well as suggestions

for directions in future studies. These provide evidence in favour of the author's research awareness.

The formal and editorial side

Throughout the whole manuscript, it is possible to detect a certain rush in its preparation. The reviewer has some reservations regarding the style of writing in the doctoral dissertation. The author employs a colloquial style rather than a scientific one in some fragments of the thesis. In terms of the formal and editorial aspects, the PhD dissertation has been prepared with little attention given to the editorial questions.

In the bibliography, the author showed the use of 268 references in her dissertation. The bibliography is divided into a list of the literature references (206 entries) and a list of research reports (25), a list of legal regulations (16) and other sources (19). The number of publications, especially their structure and the way they were selected (articles from the journals of key importance in the analysed discipline of science) positively attests to the author's ability to conduct literature query and her sound knowledge of the literature dealing with the subject she investigated.

It is the role and duty of a reviewer to primarily indicate certain irregularities, flaws or debatable issues. It is the unpleasant obligation of a reviewer to draw the author's attention to such imperfections so as to eliminate errors in future scientific work, and to reinforce the author's awareness that such work requires constant tracking of changes and improvement of professional qualifications. The comments made in this review arise from the reviewer's duty and inquisitiveness. They do not depreciate the cognitive and qualitative values of the reviewed PhD thesis.

The reviewer evaluated the doctoral dissertation according to the conditions listed below, assessed on a four point scale illustrating their fulfilment (to a high degree, to a moderate degree, to a low degree, does not fulfil the condition).

The introduction:

- Substantiation of the importance and validity of the research problem undertaken – to a high degree
- Formulation of the research aim/hypotheses – to a moderate degree

The theoretical part:

- Selection of the references – to a moderate degree
- Correctness of the references – to a moderate degree

- The review of the literature – to a low degree
- Connecting the reviewed literature to the research aim/hypotheses – to a moderate degree

The research part:

- Proper formulation of the research aim – to a moderate degree
- Connecting the research problem to the aims/hypotheses – to a moderate degree
- Description of the research methodology – to a moderate degree
- Adjusting the chosen methodology to the research problem – to a high degree
- Use of the research method – to a moderate degree
- Analysis of the collected material – to a moderate degree

The recapitulation:

- Presentation of conclusions – to a moderate degree
- Presentation of practical implications – to a moderate degree

Formal assessment:

- The layout of the manuscript – to a low degree
- Linguistic correctness – to a moderate degree

Conclusion:

The research problem raised by the author in her PhD dissertation is significant in the discipline Economics and Finances. The author displayed the originality of presenting a solution to a scientific problem, sufficient theoretical knowledge in the studied field, and – despite some remarks – the ability to do research as an independent scholar. The doubts and remarks detailed in this review are to be seen as guidelines for the author to improve her set of research skills in the future studies.

In conclusion, the reviewer states that the doctoral thesis submitted to review constitutes an original solution to a research problem, attests to the author's theoretical knowledge and ability to conduct independent scientific work, and therefore fulfils the conditions specified in Article 13 paragraph 1 of the Act on Academic Degrees and Title and Degrees and Title in the arts, of 14 March 2003 (Dz.U.of 2017, item 1789, with subsequent amendments). In view of the above, I recommend that this doctoral dissertation be admitted to public defence.

Maniela Grybowska-Bnerińska