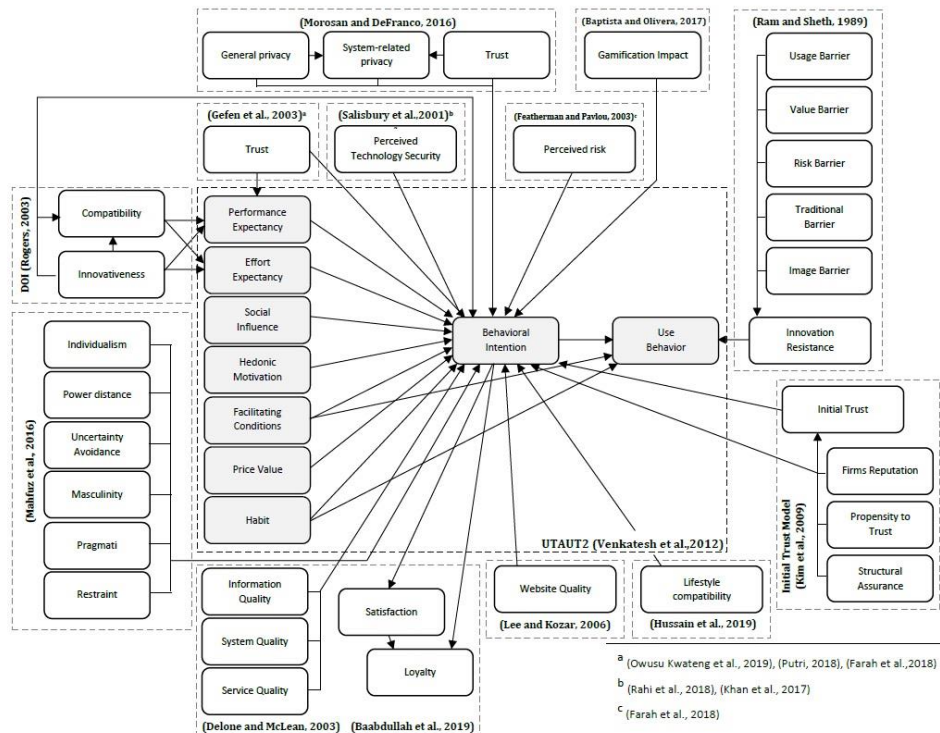# IWI Discussion Paper Series # 90 (June 4, 2019)[1]

A Meta-Analysis of the UTAUT2 in the Field of Mobile Financial Services

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1. Introduction

Today, mobile devices have an important part in our daily life and are omnipresent. They enable together with applications simplifying and speeding up processes (Baptista & Oliveira 2017). Especially in the banking sector traditional processes have been changed through novel technologies and services, e.g. mobile banking. Likewise, customer behavior and needs have also changed significantly. Furthermore, fulfillment of customer needs is one of the main goals for companies (Baptista & Oliveira 2017, Rahi et al. 2018). It is of particular interest to recognize the crucial factors to satisfy customers and the successful adoption of those services. A growing body of literature has examined the adoption and acceptance behavior of people towards information systems. However, there is no meta-analysis that particularly uses the Unified Theory of Acceptance and Use of Technology 2 model of Venkatesh et al. (2012) as a central point and also focuses on mobile financial services. With support of this meta-analysis, these research interests will be fulfilled and a basis for further approaches generated. Thus, the work orientates on the following research question:

What is the aggregated effect of UTAUT2 constructs from literature regarding mobile financial service adoption?

In the first place, this means to conduct a meta-analysis of the relationships of the UTAUT2 constructs in order to investigate the aggregated effect. With the knowledge gained, a better understanding of the adoption towards mobile financial services will be achieved. With this, conclusions can be drawn about possible factors and their influences, which can also be used for further studies in this area. The structure of this work is as follows: The second section provides a fundamental theoretical knowledge. This includes at first a general understanding of mobile financial services. Then technology acceptance models will be presented, especially the UTAUT2 model from Venkatesh et al. (2012). Afterwards a brief look into the literature will be given. The third section starts with the explanation of research method and selection of literature for the subsequent meta-analysis. The meta-analysis in the fourth section is divided into examining construct reliabilities, correlation and path coefficient. With the discussion in section five the results will be reviewed. Furthermore, limitations of the analysis will be discussed and possible thoughts on further studies presented. Section six summarizes the results and draws conclusions.

2. Theoretical Framework

2.1. Mobile Financial Services and Related Literature

The opportunity to offer a wide range of services to bank customers has increased enormously through novel technology in the sector of mobile devices. Additionally, the mutual relationship between financial institution and customers has changed dramatically in the last decades by new forms of communication, e.g. mobile applications (Junglas et al. 2008, Luo et al. 2010). The first section of this paper will explain financial services controlled by mobile devices and subsequently classify different forms of it.

results that are not sufficiently precise. For instance, with a higher number of relevant articles the confidence intervals of the aggregated effects would have been more narrow. Moreover, with more studies the sample size would have increased. But on the other hand, it has to be considered, that not every study measures the same effect and could therefore not be included. For this work, certain criteria have been defined and taken into account during the collection of literature. Another limitation were the results of the test for heterogeneity, since they suggested to use a fixed effect model instead of the used random effect model. The decision on the right model for this analysis was based on the assumption that all studies measured the same effect size, but varied due to different characteristics in the sample. Therefore, the meta-analysis was continued with the random effect model. The last limitation considers a more general critic of meta-analyses. Through a publication bias not all studies will be summarized since they are not published due to non- significant results. Also this meta-analysis deals with this problem, because individual studies did not provide path coefficients if they were non-significant. Nonetheless, the limitations enable opportunities to improve and extend this study. First, instead of only considering UTAUT2 studies, the predefined rules could be loosened up in order to review more studies. This means that other acceptance models like TAM or UTAUT could be taken into account and additional relationships could be investigated. But also other constructs like trust, perceived risk or quality-related constructs could be relevant for analyzing the behavioral intention towards mobile financial services. The benefit of extending this research is that more studies are now being considered and thus more accurate results may be achieved. Moreover, since no moderator effects were considered in this study, this states another opportunity to extend this research. In particular, to analyze differences of ages, education, or sex and the resulting effect towards the behavioral intention could be of interest.

6. Conclusion

This work provided a comprehensive review of quantitative results from literature regarding mobile financial service adoption. With the help of a meta-analysis the empirical findings of 21 studies were aggregated in order to analyze the summarized effects. Additionally, a theoretical model was created to give a fundamental base for further studies in this field. This model indicated that performance expectancy and habit have a positive impact on the behavioral intention to use mobile financial services. Moreover, together with facilitating conditions the adoption and acceptance usage behavior towards mobile financial services will also be increased. But also interesting insights about the distribution of empirical findings were made through the visualization of the histograms. Initial findings for the further analysis have already been obtained here. Besides the empirical findings, limitations were discussed and suggestions for further research approaches were made. To sum up, this study reviewed and summarized literature about acceptance and adoption behavior towards mobile financial services. The analysis also provided important insights about the customer behavior and developed a general understanding of mobile financial services.