

Online Peer-to-peer Lending: Delone and McLean Information Systems
Success Model in a Cross-cultural Context

Masterarbeit

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List of Abbreviations

AGFI	Adjusted Goodness of Fit
AVE	Average variance extracted
CBSEM	Covariance-based structural equation modeling
CFI	Comparative Fit Index
CMIN/df	Chi-square Mean/Degree of Freedom
FICO	Fair, Isaac and Company
FinTech	Financial Technology
GFI	Goodness of Fit
IC	Individualism/Collectivism
IQ	Information Quality
IR	Indulgence/Restraint
IS	Information System
IU	Intention to Use
LT	Long/Short Term
MF	Masculinity/Femininity
NB	Net Benefits
P2B	Peer-to-business
P2P	Peer-to-peer
PD	Power Distance
PLS	Partial least squares
RMSEA	Root Mean Square Error of Approximation
SD	Standard deviation
SEC	Securities and Exchange Commission
SEM	Structural equation modeling
SERVQ	Service Quality
SQ	System Quality
SRW	Standardized regression weight
U	Use
UC	Uncertainty Avoidance
US	User Satisfaction

1 Introduction

*"Do not measure success by today's harvest.
Measure success by the seeds you plant today."*

Robert Louis Stevenson

The penetration of the Internet as well as the development of information technologies have increased dramatically in the recent past. This change brings new forms of business models with innovative products and services that have settled into a new sector, the Digital Economy (Nambisan et al. 2017). Characterized is this e.g. by a direct connection of stakeholders without useless middlemen, shared services instead of buying expensive assets or higher personalized products adjusted to customer's needs. These disruptive changes in the information technology sector and market are leading as a consequence to new challenges for established organizations (Lee & Shin 2018, UNCTAD 2019).

Examples of newly founded companies are the taxi company Uber or the German online direct bank N26. Another area affected by the transformation is the financial sector. This includes in particular the lending process with novel and technically advanced online platforms (Lee & Shin 2018). Accordingly, this study aims to analyze online Peer-to-peer (P2P) lending platforms that embody the abovementioned aspects of disruptive change. The online P2P lending sector has grown steadily in the last years. Current figures indicate that this trend will continue in the future. By 2023, the transaction volume will increase with a rate of approx. 7% per year (Statista 2019b). Reasons for the development are that desired capital needs of borrowers, who usually do not receive a loan from a conventional bank due to a lack of collateral, are being covered. Furthermore, online P2P lending symbolizes a subcategory of alternative investments. Especially in this time of persistently low interest rates, individuals are looking for new ways to invest in order to generate excess returns (Xiao et al. 2018).

From perspective of research, the development of such online platforms has also attracted attention and was thus investigated. Several studies have already attempted to examine this topic under different aspects (Xu et al. 2011, Chen & Han 2012, Lin et al. 2017). By reviewing the literature, it is evident that the measurement of success of online P2P lending platforms was not adequately analyzed. Therefore, this study plans to gain a comprehensive understanding of it with the help of existing quantitative research methods and models for success measurement, e.g. Information Systems success model of Delone & McLean (2003). With the gained insights recommendations for managerial actions will be developed. In particular, the analysis will reveal which factors are crucial and thus needs to be treated in a much more focused manner by organizations. But also for research

the study provides an important guideline and basis for further research approaches. In retrospect to the ideas of Stevensons and transferring to this study, it turns out that it is an important step to identify what drives success and how it is shaped by external effects. Moreover, considering that providers of online platforms have only limited resources available, it seems crucial that they have to be allocated in the right way to the factors in order to maximize and control the success. This not only includes the success of the organization, but also the success of individuals, which is generated by the online platform as an information system. Accordingly, this study is based on answering the following research question:

What factors affect the success of online P2P lending platforms?

How is the success of online P2P lending platforms different in a cross-cultural context?

The structure of this study looks as follows: the second chapter begins with providing a fundamental theoretical knowledge about online P2P lending in general. Then, the Delone and McLean Information Systems success model will be presented and subsequently proven theories about cultural aspects. Within these sections also insights about current literature as well as actual trends and developments will be given. The next chapter introduces to the research methodology by illustrating the research model and the proposed hypotheses. The fourth chapter deals with the quantitative analysis of online P2P lending platforms. This is separated into the measurement model, on the one hand, and the structural model, on the other hand. This is followed by an examination of the previously collected empirical findings, which are discussed and interpreted from different perspectives. As already mentioned, recommendations and implications for theory and practice will be formulated. The fifth chapter reviews this work critically and demonstrates limitations, but also shows opportunities for further research approaches. Finally, the last chapter highlights the major findings and summarizes these.

7 Conclusion

The present study has brought new and important insights into the measurement of success of online P2P lending platforms. In addition, the developed research model, consisting of the theories of Delone and McLean as well as Hofstede, was able to determine crucial factors that affects the success of individuals and organizations. Moreover, an online survey carried out in several countries supported the implementation of this study. In this context, the online platforms were considered as information systems that accompany and simplify the process of granting loans in comparison to traditional banking. Furthermore, the focus of this work was also on the investigation of cultural differences, accordingly different cultural dimensions were created.

It was shown that Information Quality and System Quality are important factors for User Satisfaction and subsequent success assessment in all cultural dimensions. In addition, a significant relationship between User Satisfaction and Intention to Use as well as between Use and User Satisfaction was also found in all dimensions. In particular, the worldwide dimension demonstrated that Use and User Satisfaction have a positively significant effect on the construct Net Benefits. Moreover, it was interesting to observe that in the European dimension only the relationship of User Satisfaction was positively significant towards Net Benefits and in the German dimension no relationship at all had significant influences on Net Benefits. However, this collected knowledge also gave scope for further interpretation and discussion of the results. The results were also compared to existing literature in order to classify the empirical findings.

Also notable results regarding cultural differences were observed, since moderators were applied for the relationship towards the construct Net Benefits. For this, similar patterns were found in all cultural dimensions for the moderators Power Distance and Indulgence/Restraint towards the relationship between Use and Net Benefits, and also for the moderator Masculinity/Femininity concerning the relationship between User Satisfaction and Net Benefits. At the same time, differences in the dimensions also became apparent, such as significant effects of Uncertainty Avoidance within the Worldwide and European Dimension or Individualism/Collectivism within the German dimension.

The newly-gained results were then reviewed so that the research question from the beginning of the study could be answered. This was followed by the application of implications for research and practice. Examples of opportunities in which companies could strengthen the crucial factors were given, e.g. creation of dashboards or comfortable visualization of information. Furthermore, the next section also mentioned points of criticism and gave an outlook for the future. Possible further studies were also proposed.

To sum up, online P2P lending platform success depends on the abovementioned factors. The relationship of these factors are moderated by cultural specific characteristics in the different dimensions. It is vital for online platform providers to keep these crucial factors in mind in order to hold their place. Additionally, research serves as an valuable support to provide theories and models for measuring success and identifying these factors.