

Successful Mobile Application Development for Cruise Tourism

Bachelorarbeit

zur Erlangung des akademischen Grades „Bachelor of Science (B. Sc.)“ im
Studiengang Wirtschaftswissenschaft der Wirtschaftswissenschaftlichen Fakultät der
Leibniz Universität Hannover

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Hannover, den 12.09.2019

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1. Introduction

“From a renewed interest in cruises to the Mediterranean to a significant increase in adventure cruising, travelers are embracing cruise travel more than ever before.”

CLIA President and CEO Kelly Craighead (CLIA 2019)

Throughout 2019 30 million cruise tourism passengers expect to attend a cruise, 6 percent more than in 2018 and as much as approx. 53 percent more than in the year 2009 (CLIA 2019; Brida et al. 2011). With a growth rate of over 200 percent in just 10 years, the demand for cruise tourism is rising significantly. Further, over 50 Cruise Lines compete in the cruise industry (CLIA 2019). Additionally, cruise ticket prices and their profitability is declining. Therefore cruise operators strategic focal point is often set on onboard revenue (Papathanassis 2019). Mobile applications, however, are suggestive to organizations success as they have a huge impact on binding cruise passengers (Tan et al. 2017). Approximately every third person worldwide owns a smartphone, hence as much as 3.3 billion users stress the growth of mobile devices which support the market of software applications (Newzoo 2018). However with 2,46 million apps to choose from in the Google Play Store, 1,96 million in Apple's App store and 800 thousand in Microsoft's Windows Store the market is competitive at a high degree. Especially since application switch as well as application deletion can be done very easily (Appfigures 2019; Charland/ LeRoux 2011). Moreover, only 20 percent of all branded applications are downloaded more than 1000 times and only 1 percent are downloaded more than 1 million times (Deloitte 2012).

With rising supply in native mobile applications as well as in the number of cruise passengers, the differentiation from competitors is marked. Furthermore past research on cruise tourism focuses on passengers motivation and experience to attend a cruise (Di Vaio/ Lepore/ Varriale 2018; Goodall 2013; Papadopoulou/ Xesfingi 2018; Sanz-Blas/ Buzova/ Schlesinger 2019), cruise sector and ship size growth (Di Vaio et al. 2018; Papanthanassis 2019) and the intention to return to a destination or port of call (Gámez et al. 2019, Papadopoulou/ Xesfingi 2018). Therefore despite the plethora of studies, the majority of research focuses on examining passenger's behavior in the narrowed field cruise tourism.

Successful mobile application development was researched by first examining development challenges e.g. fulfillment of customer requirements, process models as well as methodologies and second creating a taxonomy for process models and

methodologies in software (Werth et al. 2019). In order for mobile applications to remain competitive, the software has to be well designed from the consumer's perspective (Rahim et al. 2016). Höpken et al. (2010) analyzed the context-based adaptation of mobile applications in the tourism sector and combined the research area of mobile applications and tourism.

To the best of my knowledge however successful mobile application development in the cruise industry identifies as a research gap. Especially involvement of available apps in cruise tourism appears as non-existent in current literature. The aim of this thesis is to provide a comprehensive analysis of this topic. In order to study successful mobile application development for cruise tourism, the grounded theory methodology following Wolfswinkel et al. (2011) is applied. GTM is a thorough theoretically relevant analysis which presents not only the findings but focuses on decisions made during this process. Further GTM advice to begin with a research problem, question or even just with the collection of qualitative literature and precise it during successive stages of the literature review. Such a methodology has many benefits, for instance, its transparency as well as the minimization of bias made through previous knowledge regarding the researched topic (Wolfswinkel et al. 2011). In order to address the identified research gap the general research question is:

RQ: How do through literature examined success factors for mobile application development in cruise tourism distinguish from native mobile applications in the market?

To examine the RQ this bachelor thesis is organized as follows. In the next section mobile applications, as well as cruise tourism are conceptualized. Followed by a market analysis including six available native mobile applications in cruise tourism. Next, the Grounded Theory methodology is described and applied in the third section. Success factors are examined through a plurality of 'cases' contained in the selected literature. Hence the second section results in by literature validated success factors for mobile application development in cruise tourism. The following section comprises a revision, as well as a critical discussion of through literature, examined success factors. The market analysis is adopted to validate, expand or disapprove researched success factors. Therefore distinction of GTM results is tied to section three. After that, limitations of this bachelor thesis as well as proposals for future research needs are outlined. Finally the conclusion in section six completes this thesis.

those data is accepted or conduct different surveys. With regards to passenger behavior one could examine how much fewer bookings are completed if the environmental impact is visualized next to the booking button.

As stated in our discussion, mobile applications features in cruise tourism reflect different categories of applications as for instance Social Networking, Content Dissemination, Personal Productivity and Leisure-Based. Therefore also our success factors are multidisciplinary. Further success factors are not steady since user requirements can change rapidly (Bhatia/ Varma 2015). We approach agile software development with a constant focus on utility, innovation and sustainable satisfaction. Further our subcategories represent the success factors developers should implement. Therefore especially AC, MS, NC, DC, RCI and MSC should focus their research on not implemented success factors in the native mobile application as outlined in Table 9. Furthermore, company-internal conferences or passenger surveys are necessary in order to pursue the outlined discussion. My in the discussion outlined perception that for instance through smart home devices low time availability is reduced has not to coincide with the point of view of the executive board.

This papers research is limited to public literature, comparing our results to the brand guidelines of cruise lines is significant. Therefore another future need is a company-internal research of our through literature validated success factors in order to achieve more application downloads and less application deletion.

6. Conclusion

Due to the widespread diffusion of mobile applications user requirements rise steadily. Successful application development regarding the level of application downloads is seldom. Due to cruise lines declining ticket prices binding passengers to their cruise line with applications rise in importance, since mobile applications are suggestive for success of organizations.

So far, little systematic help has been offered regarding the development of apps in cruise tourism, even since it is widely known that app. With the help of grounded theory, inter alia a systematic literature review, this thesis presents three major success factors, six specified proceed success factors and further two success disrupting factors. The analysis shed light on the importance of considering the multidisciplinary categories involved in cruise tourism. Especially focusing on user-friendliness as well as on the maximization of utility with regards to the user interface is significant. Further implementing innovative application features, like virtual reality

or a social media platform increases application binding. Further as consumer requirements are constantly changing focal point should be on sustainable satisfaction. Further innovative features should be only implemented if they influence sustainable satisfaction of passengers. The advanced analysis results inter alia in avoiding especially low time availability and crowdedness on board as well as off-board.

Appeared similarities and differences between the through grounded theory methodology examined success factors and on the market available cruise tourism applications strengthen further our factors for success. Six in the market analysis examined application distinguish from out grounded theory results mainly through the organizational aspect of an app. This organizational aspect is represented by implementing functions as the online Check-in or listing board tickets. The market analysis expanded our success factors through transforming ship amenities into smart cabins that enable personalization as well as enable an increase of familiarity.

Cruise lines, as well as application developers, can consider further to implement smart minibars, which are controllable through mobile applications or include crowdedness notifications on the app interface that are achieved through connection with a motion detector. Integrating live sessions that are directed by crew members and implementing virtual assistants as Siri can further rise ease of use.

We encourage future researchers to focus on the analysis of application reviews published in the App- and Play store in order to examine success factors through by passengers published reviews and discuss them with our through literature retrieved success factors. Practitioners could expand these success factors by own knowledge or self-made examples of development.

All in all, we enriched presented literature by combining the subareas mobile applications as well as cruise tourism. Further grounded theory methodology devoted as appropriate to find relevant success factors in practice and in structuring them into meaningful dimensions. From a practitioners point of view, therefore, literature expansion is not only made by presenting six success and two major disrupting factors but also through additionally enhancing our success factors by presenting innovative conceptions and suggestions based on the market analysis of native mobile cruise tourism applications.