MARKET ENTRY OF AN INNOVATIVE TECHNOLOGY – THE EXAMPLE OF A NEW APP ON THE BRAZILIAN TOURISM MARKET

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LIST OF SYMBOLS, ABBREVIATIONS AND ACRONYMS

App – Mobile application

AVE - Average variance extracted

B2C - Business-to-Customer

DOI – Diffusion of innovation

DSI – Domain-Specific Innovativeness

FGV-EBAPE - Fundação Getúlio Vargas – Escola Brasileira de Administração Pública e de Empresas

GDP – Gross Domestic Product

PLS - Partial Least Squares

PSAP – Product-specific adoption potential

SEM - Structural equation modeling

WOM – Word of mouth

ABSTRACT

The Brazilian start-up Local Wander plans to enter the tourism sector with a mobile application aiming to enable a new form of travel research. A web-based survey has been sent out to the start-up's target audience (n: 236) in order to gain further relevant information for the designing of Local Wander's market entry strategy. By applying the diffusion of innovation theory, this thesis could detect five different adopter categories, originally described by Rogers (1962), among Local Wander's target audience based on their adoption intention. The Early Market was observed to be significantly bigger than the theory predicted. Research revealed four characteristics to be of significant impact on the adoption intention: Relative Perceived Product Advantage, Perceived Product Complexity, Compatibility with digital travel research sources, and the adopter's Innovativeness towards mobile applications. Specific characteristics in order to identify Local Wander's early users, the so called Innovators, were detected giving indications for further necessary company market research. Findings showed that the diffusion of innovation framework is a helpful tool for start-ups' prospective decision making and market entry strategy planning.

RESUMO

A Start-up Brasileira Local Wander planeja entrar no setor de turismo através de um aplicativo para telefone celular, com o objetivo de oferecer um novo serviço de pesquisa para viajantes. Uma pesquisa, via internet, foi enviada a 236 pessoas identificadas como público-alvo para a Start-up a fim de obter mais informações relevantes para a criação da estratégia de entrada no mercado. Ao aplicar a teoria da difusão da inovação, esta dissertação pôde identificar cinco diferentes categorias de adotantes, como descrito originalmente por Rogers (1962), entre o público-alvo da Local Wander com base na sua intenção de adoção. O Mercado Inicial foi observado significativamente maior do que a teoria previu. A pesquisa, acima citada, revelou quatro características de forte impacto sobre a intenção de adoção do produto: Vantagem relativa do produto percebida pelo público-alvo, complexidade percebida, compatibilidade com recursos digitais de pesquisa de viagem e o quão inovador são os adotantes em relação aos aplicativos para celular. Características específicas para identificar os primeiros usuários do Local Wander, chamados de inovadores, foram detectados dando indicações para futuras pesquisas que sejam necessárias para a empresa. Os resultados encontrados mostram que a teoria da difusão da inovação é uma ferramenta extremamente útil para a tomada de decisão em Start-ups e para o desenvolvimento de estratégia para entrada no mercado.

1. INTRODUCTION

1.1. Context and relevance of the research problem

With Carnival and the Olympic Games ahead, the city of Rio de Janeiro will receive a lot of the world's media attention as well as a large number of travelers coming into town within the next months (Kiernan, 2014). This is an once-in-a-lifetime opportunity for the Rio de Janeiro based start-up Local Wander that is about to enter the tourism market with their mobile application (app). Targeted at travelers seeking an authentic travel experience, their product aims to connect travelers with locals of the travel destination, enabling new forms of travel research and travel experiences (Zarur, 2015).

Nonetheless, the launch of a product is highly challenging and bearing risks for the organization. In the past, companies have failed to achieve a successful market entry despite their promising products. For example, Electronic Arts failed notwithstanding their extensive product investments and above average marketing budget for The Sims Online to meet the market expectations. In the end, this unsuccessful market entry did not only lead to a loss of money but damaged the company's reputation, as well (Ha, 2008; Moon, 2003). For start-ups such step is connected with even higher risks, since these organizations' overall success and existence depends on the successful market entry, due to their limited resources (Horn, Lovallo, & Viguerie, 2005).

In the particular case of Local Wander, the start-up has one decisive opportunity window to test the app that may determine the start-up's future existence and success. Profound preparation, market research, and planning are crucial in order to design a promising strategy and increase the chances of a successful market entry. Especially as the start-up is facing with the Brazilian economy one of the most challenging business environments. Lacking infrastructure, a difficult economic environment and not least the legal complexity lead to a poor ranking compared to other countries around the globe (World Bank Group, 2015). A well prepared market entry strategy is therefore indispensable.

1.2. Research objectives

By applying the diffusion of innovation (DOI) theory to the context of the Brazilian start-up Local Wander, it will be analyzed whether the DOI framework is a helpful tool for start-ups making prospective market decisions. The different adopter categories developed by Rogers (1962) based on different adoption intention of Local Wander's product will be identified

within the start-up's target audience. Specific product and adopter related characteristics, likely to influence the adoption intention, will be analyzed for their relevance. Furthermore, specific information will be detected that reveals more detailed insights about how to address the specific adopter categories in order to use the start-up's limited resources in an efficient way. This way, the thesis aims to help Local Wander to master the upcoming challenges and to achieve a successful market entry. A similar approach has been taken in earlier research by other scholars of the field of DOI, such as Verleye & De Marez (2005) and De Marez,Vyncke, Berte & Schuurman (2007).

1.3.   Structure of the thesis

First, an introduction into the theory of DOI will be given in which all relevant models will be presented and important denotations will be defined. In the following chapter, an overview about the tourism sector and its specific characteristics will be given, before the start-up Local Wander and its innovation will be introduced. Afterwards the presented DOI theory will be applied, hypotheses stated, and the methodology for the undertaken research further elaborated. Subsequently, the results gained through the research will be presented, implications for the theory and practice will be discussed, and recommendations for the market entry of Local Wander will be derived. The thesis ends with an elaboration of the research limitations and an outlook for research that should be conducted in the future.

2. LITERATURE REVIEW

The DOI theory aims to find answers to the questions how and why certain innovations spread successfully throughout a society while others do not. It tries to detect reasons and dynamics of different successfully diffused innovations as well as common characteristics among these adopters (Rogers, 1995).

Even though earlier academic research can be found, especially from the agricultural sector such as Ryan & Gross (1943) or Griliches (1953), one of the most influential works in the field of diffusion theory has been the theory of Rogers (1962). Built upon earlier findings, Rogers (1962) designed an innovation diffusion model, detected certain characteristics that determine an innovation's rate of diffusion, and categorized different groups of adopters. This theory represents still nowadays together with Bass (1969) the foundation for the DOI theory and serves as theoretical foundation of this thesis (Martínez & Polo, 1996; Meade & Islam, 2006).

While until today the DOI theory has grown substantially into many different fields of analysis and has been applied for a variety of purposes (Rogers, 1995, p. XV), this thesis focuses on a particular area of DOI theory. Since this work aims to design the market entry strategy and possible target user segmentation of an innovation in the Brazilian tourism market, special emphasis will be on the "diffusion of a single innovation in a single market" (Meade & Islam, 2006, p.522) from a marketing perspective. The theory underlying definitions and characteristics of an innovation itself, the diffusion process, the social system the innovation is diffusing in, and the adopter categories will be presented.

2.1. Characteristics of an innovation

While many scholars refer innovation in the theory to new technologies, others put it on par with the wider category of new products and services in general (Bass, 1969; Peres, Muller, & Mahajan, 2010). Rogers (1995) considers any "new idea, practice, or object" (p.11) that is introduced to a social system as innovation. Nevertheless, throughout the DOI theory, it is not of importance whether this product, service, or technology actually is new in order to be called innovation, but only that it is perceived as such by the members of the social system (Rogers, 1995, p.11).

It is usually distinguished between two forms an innovation can take: either the discontinuous, also known as disruptive, innovation or the continuous, also called sustaining, innovation. For the first mentioned, users need to change their traditional habits significantly in order to take

advantage of the innovation. Their current way of doing things has to be adapted, a quite complex process where many different factors play into account. Unlike this, for the continuous innovation, such change in behavior is not needed, as the innovation just resembles a gradual improvement of an already existing idea. When talking about innovations, scholars in DOI theory refer to the disruptive innovation (Moore, 2014, p.17f.). Continuous innovations will therefore be subsequently disregarded.

According to Rogers (1995), five factors influence the nature of an innovation and with it the speed spreading across a social system: the innovation's Relative Perceived Product Advantage, Compatibility, Complexity, Trialability, and Observability. These five factors are shown in figure 1.
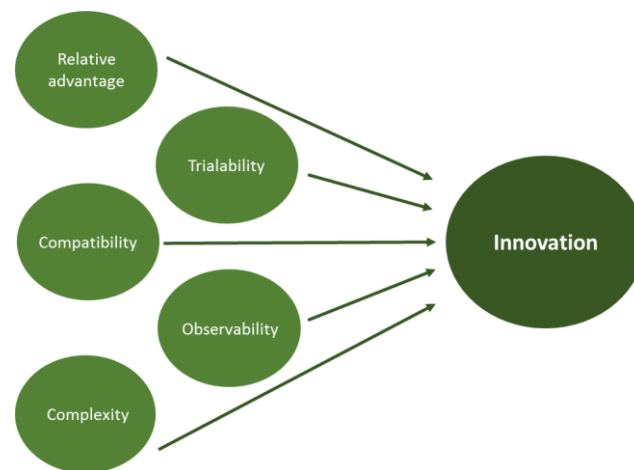
Figure 1 – Characteristics that shape an innovation; source: figure by author, according to Rogers (1995)

Under *Relative Perceived Product Advantage* the extent to which an innovation is recognized as superior towards its alternatives on the market can be understood. In most cases this reflects economic measures, such as the profitability for the user or the low costs to adopt. Nevertheless, other factors also influence the successful adoption, like a social prestige increase, amount of possible time being saved, or the period until the user is rewarded (Rogers, 1995; p.212ff.; Berger, 2013, p. 82ff.).

Compatibility stands for the perception in how far an innovation is aligned with the potential adopter's current existing values, habits, and desires. Cultural aspects as well as other previously adopted ideas have an impact on the perceived Compatibility. The more an innovation coincides with those characteristics of the potential adopter, the higher the probability the individual adopts it (Rogers, 1995; p.15, p.224ff.; Gladwell, 2009, p.131ff.).

The extent to which a potential adopter finds an innovation complicated to use, determines its level of *Perceived Product Complexity*. The higher this level is, the more time and effort is needed to convince potential adopters to embrace the new product or idea (Rogers, 1995, p.242f.).

Additionally, the degree to which an innovation can be tried out easily by potential adopters, the *Trialability*, influences positively the innovation's rate of diffusion as it gives the individual an idea on the usability and expected benefits (Rogers, 1995, p.243f.).

Lastly, the more the adoption of an innovation is observable for other members of the social system, the higher is the likelihood such innovation continues spreading. Innovations with less visibility on the contrary are predicted to slower diffuse. In the theory this factor is named *Observability* (Rogers, 1995; p. 244; Berger, 2013, p.71ff.).

2.2. Diffusion and social system of an innovation

According to Rogers (1995) diffusion is defined as the "process by which an innovation is communicated through certain channels over time among the members of a social system" (p.5). What dynamics such diffusion process undertakes and who composes the social system will be elaborated below.

2.2.1. Diffusion of an innovation

An innovation does not diffuse equally and is thus not adopted simultaneously by all members of the social system. Instead, scholars in the field of DOI could detect a certain pattern with that an innovation diffuses (Meade & Islam, 2006).

Regarding the innovation's cumulative adoption over time, the DOI follows in the model of Rogers (1995, p. 11 ff.) an S-shaped curved, observable in figure 2. While in the beginning only a few number of customers adopt, the diffusion curve soon inclines rapidly until it reaches a turning point. From that moment on most members of the social system have already adopted, leaving only few non-adopters remaining (Rogers, 1995; Meade & Islam, 2006). Also Bass (1969) describes the pattern from innovation introduction towards successful diffusion through-out a social system with an S-curve in his model of diffusion (Meade & Islam, 2006). Other fields of the DOI, such as the spatial diffusion could detect such pattern in their studies, as well (Allaway, Berkowitz, & D'Souza, 2003). Nevertheless, some scholars in the DOI theory disa-gree with the S-shaped diffusion as they identified a log curve best to describe past innovation diffusions (Libertore & Bream, 1997). As this reflects only a minority in the DOI research, the log curve will be therefore disregarded in this thesis.
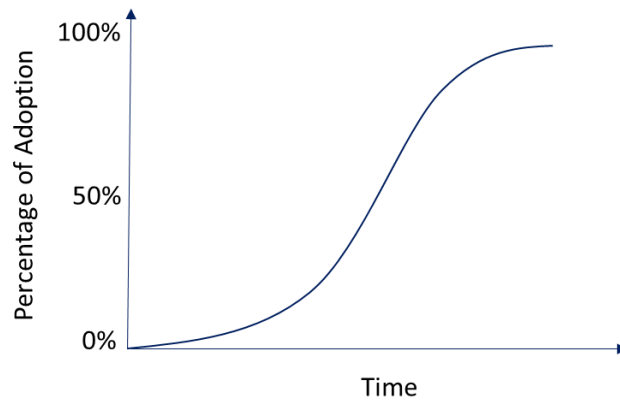
Figure 2 - S-curve in diffusion of innovation process; source: figure by author, according to Rogers (1995)

2.2.2. Social system of an innovation

As social system in the DOI theory can be seen any "set of interrelated units" (Rogers, 1995, p.23) who are bound together by a joint objective. Having this same objective holds the members together and differentiates them towards other social entities (Rogers, 1995).

Depending on the purpose of the analysis and underlying scope of the academic research in the field of DOI, the members of the social system may take different shapes: from individuals, over organizations towards entire subsystems (Rogers, 1995, p.23). Therefore social systems vary as well in their shape as in size: families in the rural area of Mozambique (Smith & Findeis, 2013), the neighborhood around a local grocery store (Allaway, Berkowitz, & D'Souza, 2003), or an entire country's market for digital television (De Marez et al., 2007).

The diffusion of an innovation takes place within such social system. Depending on the interconnectedness among the system's members, their characteristics, social beliefs and common values, as well as the overall structure of the social system, the innovation diffuses at a different rate (Rogers, 1995, p. 24ff.). Defining the social system for the analysis in an academic research therefore is crucial as it has direct impact on the analysis' outcome of an innovation's diffusion.

2.2.3. Innovation adoption process

Until the moment an innovation gets successfully adopted by a member of the social system, a certain process takes place. In the DOI theory this is described as five-step innovation-decision process, consisting of knowledge, persuasion, decision, implementation, and confirmation stage, shown in figure 3 (Rogers, 1995, p. 162).

Figure 3 - The innovation decision process; source: figure by author according to Rogers (1995)

In the *knowledge stage*, a potential adopter gets aware of an innovation's existence and acquires some first understanding of it. DOI theory gives hereby mass media special attention, as it is generally seen as the channel to raise first awareness for an innovation in the social system (Rogers, 1995, p. 161ff.; Bass, 1969). In the next step, the *persuasion stage*, the adopter's attitude towards the innovation is being shaped. At this point of time the opinion of peers and subjective feedback about the innovation within the personal network is of particular importance for a potential adopter to find his or her attitude towards the innovation. This process is driven to a large extent by word of mouth (WOM) (Rogers, 1995, p. 161ff.; Bass, 1969). In the following, the *decision stage*, the potential adopter takes action to decide whether the innovation should be adopted or preferably rejected. This decision making can occur in two forms: actively or unconsciously. After the adopter has made the decision to adopt the innovation, he or she starts using it in the *implementation phase*. After a while of using the innovation, the adopter will revise the experience trying out the innovation and re-analyze the adoption decision of the innovation in the *confirmation stage* (Rogers, 1995, p. 161ff).

Rather than just a decision to adopt or reject an innovation, it is a complex process the potential adopter is going through in order to adopt an innovation. Depending on the specific adopter, this innovation-decision process can take a varying amount of time. Therefore, it is usual that in a DOI process certain individuals are quicker to adopt an innovation, while others need more time to come to a decision (Rogers, 1995, p. 161).

2.3. Adopter categories of an innovation

When looking closer at the process of diffusion, it has been shown that different kinds of behaviors and attitudes can be detected in specific sub-groups of adopters within a social system. These behaviors can be organized around certain groups, or adopter categories, indicating high similarities in specific behaviors within their own category and significant variation in relation to other adopter categories (Meade & Islam, 2006; Rogers, 1995, p.261). While certain scholars in the field of DOI only distinguish between early and late adopters (Bass, 1969; Moore, 1991; Peres, Muller & Mahajan, 2010), Rogers (1962) designed a model of five different adopter categories with a multitude of specific characteristic determining the individual's adoption decision and thus the belonging towards a particular adopter category.

2.3.1. Five adopter categories by Rogers

Based on a broader variance of characteristics among groups, Rogers (1995) detected five different categories that determine their adoption pattern. The shape of the adoption curve follows a normal distribution where the sizes of each adopter category are pre-determined by their standard deviations and therefore stay the same for any innovation. The five categories include Innovators (2.5%), Early Adopters (13.5%), Early Majority (34%), Late Majority (34%) and Laggards (16%) (Rogers, 1995, p.262). While Innovators and Early Adopters account for the Early Market, the remaining three groups represent the Main Market (Moore, 2014). The figure 4 visualizes these different adopter categories.
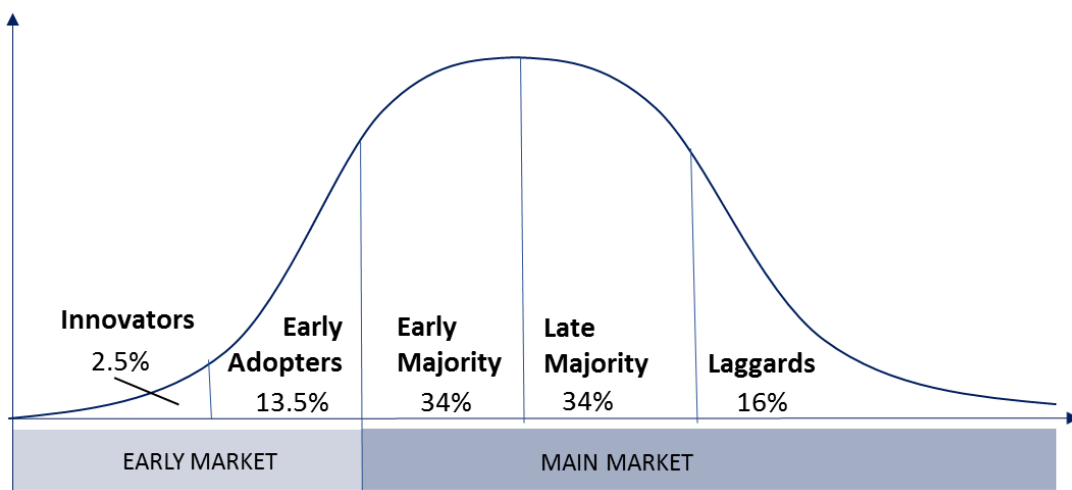
Figure 4 - Adopter categories by Rogers (1962); source: figure by author, according to Rogers (1995)

In the following paragraphs those different categories will be presented in closer detail.

Innovators

Innovators are the very first among their social system to adopt an innovation. Even though the idea finds itself still in an early stage with high uncertainty whether it will succeed in the market on the long-run, Innovators support it out of their passion and knowledge in their field of expertise. Generally, this group of individuals may not be connected socially with other actors of the own system as much as other adopter groups, but therefore with people of similar interest and expertise outside. Through these external actors, Innovators get aware of an innovation and introduce it into their own social system. By that, they initiate the process of diffusion within the social system. Due to the early stage the innovation finds itself in, Innovators are willing to excuse the innovation's poorer performance in the beginning and possess a solid financial background to cover potential setbacks (Rogers, 1995, p.263f.; Kauffman & Techatassanasoontorn, 2009). Applied to technologies, Innovators can also be seen as "technology enthusiasts" (p. 33)

who dedicate their expertise and resources in order to help the technology improve (Moore, 2014, p.33ff.).

Early Adopters

Early Adopters are the second group to adopt an innovation and build together with the Innovators the Early Market of an innovation. Unlike the previously presented, Early Adopters are very well integrated and possess a wide network of peers within its social system. Most of the times, they act as reference point, introducing steadily new products and ideas underlining their opinion leadership within their circles. Because of that, they are very open minded about innovations and actively look out for new to present to their peers (Rogers, 1995, p. 264). Due to their social embeddedness, they bring higher visibility to the innovation and help it spread further. Opposed to the first adopter group, they are not keen to help the product actively to further improve out of pure goodwill but rather hope for a break-through on the market. Therefore, Moore (2014) refers to this group also as the "visionaries" (p.36) (Moore, 2014, p.36ff.).

Early Majority

As third group in the innovation adoption process, Early Majority constitutes a crucial link to the Main Market. This group of adopters, acquires an innovation still before the average individual of the social system does. Yet, despite their well integration in the social system and their wide circles of peers, members of the Early Majority rarely possess opinion leadership (Rogers, 1995, p.264f.). Instead, they take others in their circles as reference for their decision to adopt an innovation. Furthermore, members of the Early Majority, or also called "pragmatists" (p.43) by some, expect already a well-working and developed product that has proven its reliability on the market (Moore, 2014, p. 43ff.).

Late Majority

Members of the Late Majority are more skeptical towards innovations than earlier described categories of adopters. Reasons for them to adopt an innovation lie in economic terms or rising social pressure, rather than their curiosity for new products or ideas. In order to be adopted, an innovation has to be highly proven and valued by the rest of the social system as this group is to a high degree risk-averse (Rogers, 1995, p. 265). Moore (2014) refers to this group also as "conservatives" (p.47). They tend to value traditions higher than advancement and for this reason fear disruptive innovations (Moore, 2014, p.47ff.).

Laggards

The last ones to adopt an innovation within a social system are the Laggards. They are focused on their traditions as well as the past and therefore avoid innovations. It has to be certain for them that an innovation will not fail on the market. Moreover, they possess little opinion leadership and tend to be socially isolated within the social system (Rogers, 1995, p.265f.). At the decision-making moment, Laggards want to be certain about the exact product value in order to adopt (Moore, 2014, p. 51ff.).

2.3.2. Critics on adopter segmentation by Rogers

Some scholars have criticized Rogers' (1962) approach for its static nature. Categorizing adopters by a normal distribution and segmenting the adopter groups by pre-determined percentages may indeed help to compare among innovations of different fields, but does not resemble the actual diffusion in reality (Mahajan, Muller, & Srivastava, 1990). Other models have instead proven to be more flexible such as Bass (1969) with his mathematical formula to determine early and late adopters, or Peterson (1973) with no underlying assumptions, thus no fixed proportions, about adopter distributions. Mahajan, Muller, & Srivastava (1990) even combined Rogers' (1962) adopter categories with Bass' (1969) model in order to make it more flexible.

Despite its critics, Rogers' (1962) model and adopter categorization remains a powerful tool for adopter segmentation and DOI modelling. It has been successfully applied in recent studies with similar purposes as this thesis (Cheng & Kao, 2004; Verleye & De Marez, 2005; De Marez et al., 2007; Kavak & Demirsoy, 2009; Smith & Findeis, 2013).

2.4. Characteristics influencing adoption decision

Besides the specific innovation related characteristics that have an impact on the process of DOI, also adopter related characteristics influence the rate of adoption of an innovation (Rogers, 1995, p. 262 ff.). These characteristics Rogers (1995, p. 268 ff.) broadly summarizes into the three categories, shown in figure 5: socioeconomic characteristics, personality variables, and communication behavior.
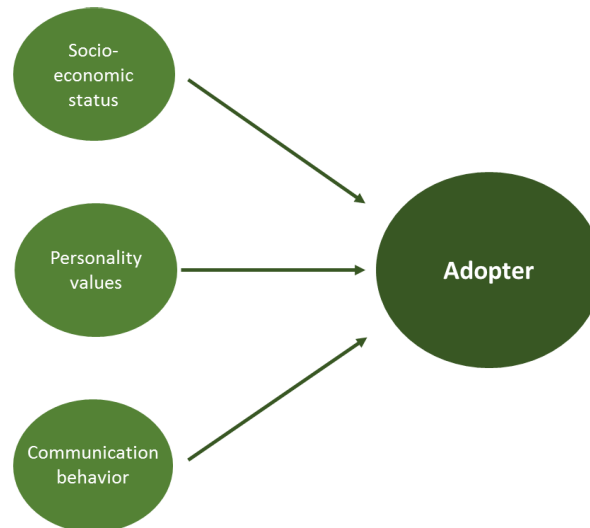
Figure 5 - Adopter characteristics influencing adoption; source: figure by author, according to Rogers (1995)

Among *socioeconomic characteristics* account the higher degree of education and social status having a positive impact on the adoption decision, while age is predicted to have no relevant impact, according to theory (Rogers, 1995, p. 269 ff.). *Personality values* include characteristics influencing the rate of adoption positively, such as the higher ability to deal with uncertainty, the lower degree of being dogmatic, or the higher rationality of an adopter (Rogers, 1995, p.272 f.). *Communication behavior* determines the degree an adopter interrelates with different sources of information through which the individual gets aware of an innovation. This category accounts, among others, a higher degree of social interconnectedness and participation, higher level of opinion leadership, or the higher exposure of mass media (Rogers, 1995, p. 273f.).

De Marez et al. (2007) anylzed the former conducted research in the field of DOI and summarized the characteristics having found to be of significant impact on the adoption decision. More recent studies have brought further information and insights on adopter characteristics of relevance in the diffusion process (Kavak & Demirsoy, 2009; Peres, Muller, & Mahajan, 2010; Smith & Findeis, 2013). Based on the description of the different adopter categories above and further findings from scholars analyzing DOI processes, the most relevant for this thesis will be highlighted: adopters' Innovativeness, Opinion Leadership, Social Particip-ation, Prestige Seeking, Income, and Educational Level.

Innovativeness determines to which degree an adopter is open and interested to try out a new arising idea, service or product (Goldsmith & Hofacker, 1991). This adopter characteristic is expected to correlate positively with the innovation adoption (Rogers, 1995, p. 252; De Marez et al., 2007).

Opinion Leadership determines the level to which an individual is capable to influence the decision making process of others (Rogers, 1995, p. 37). The higher the degree of Opinion Leadership, the higher the likelihood of earlier adoption (De Marez et al., 2007).

Social Participation defines the extent to which an individual is embedded in a large network of peers and the degree that person interacts within these circles. This embeddedness determines whether an individual will be confronted at already an early stage with the innovation. While Innovators have a wider circle of peers outside the social systems, Early Adopters are highly involved within the own community. On the contrary, Laggards are mostly isolated (Rogers, 1995, p. 263ff..; Smith & Findeis, 2013; Moore, 2014, p. 33ff.).

Earlier adopters highly identify themselves with the innovation and use it to express their own personality to some extent: Innovators to live their passion, Early Adopters to underline their innovativeness and personality among their peers. This characteristic, influencing positively the adoption decision, can be sumarized as *Prestige Seeking* (Rogers, 1995, p. 263ff.; Karahanna & Straub, 1999; De Marez et al., 2007).

As mentioned earlier, a high level of *Income* allows to cover the risk of an early stage innovation to fail on the market and therefore has a positive correlation with the innovation adoption. Similarly, a high *Education Level* has a positive impact on the adopters' adoption decision (Rogers, 1995, p. 262f.; Kauffman & Techatassanasoontorn, 2009; Mahajan, Muller, & Srivastava, 1990).

3. AN INNOVATION ENTERING THE BRAZILIAN TOURISM MARKET

The field of analysis of this thesis is the Brazilian, Rio based start-up Local Wander that is currently preparing their market entrance on the Brazilian tourism market with their new app for smartphones. Their product will enable travelers to get in touch with locals of the travel destination through an in-app chat, promising new forms of information research and more authentic as well as pleasant travel experiences for the user of the app. In this chapter, an overview about the tourism sector and its special characteristics will be given in closer detail before the start-up Local Wander and its new product are presented.

3.1. Tourism sector

First, general information on the tourism sector and the specific case of Rio de Janeiro will be presented to give a better understanding about the market the Brazilian start-up Local Wander is planning to enter. Afterwards, closer insights on the field of travel research will be provided as this is the particular field, in which Local Wander aims to offer an innovative solution with its product.

3.1.1. General information on tourism sector

Before having a closer look at Rio de Janeiro's tourism sector, as this will be the market where Local Wander's product will be launched initially, a broader introduction into the tourism sector as a whole will be given.

General tourism sector

Global travel and tourism is estimated to have created an economic value of 7.6 trillion USD in 2014, contributing in total 10% to the Gross Domestic Product (GDP) generated worldwide. In total 277 million of all jobs are related to the travel and tourism sector. The international arrivals have been increasing lately, up to 1.14 billion, and recent forecasts indicate that the international travel and tourism market is expected to further grow in the near future (World Travel and Tourism Council, 2015; OECD, 2014).

Brazil was the most visited destination on the South American continent by international tourists in 2013 (World Tourism Organization , 2015). The travel and tourism industry generated in 2014 182.1 billion Brazilian Real in Brazil directly, making up for 3.5% of Brazil's overall GDP. It is forecasted to continue growing annually at an average rate of 3.2% within the time frame of 2015 until 2025 (World Travel and Tourism Council, 2015).

Generally, it is distinguished in the tourism and travel sector between two types of travel purposes: business travel and leisure travel (Amadeus, 2013). Based on Local Wander's product

target group, this thesis' focus will lay in the last mentioned group of travelers, leaving business travelers aside. When using the term travel or traveling, this thesis therefore refers to the leisure traveling experience that can include either an extensive holiday trip overseas or just a 3-day trip to a nearby city.

Rio de Janeiro tourism sector

In 2013, around 5.8 million international travelers arrived in Brazil (World Travel and Tourism Council, 2015). While the city of São Paulo dominates the business travel destinations, Rio de Janeiro is the top destination for all leisure travelers coming to Brazil (Ministério do Turismo Brasil, 2014a). Annually a large number of tourists is attracted to the city by the carnival festivities taking place in the beginning of the year and the New Year's celebrations at Copacabana beach in the end of each year. Rio de Janeiro will be host of another mega event of global reach as well as worldwide importance in 2016: the Olympic Games (Rio Perfeitura Turismo, 2015). Besides these events, the city offers a wide variety of activities suited to all kinds of different travel purposes for which travel research is necessary in order to become aware of (Ministério do Turismo Brasil, 2014b; Rio Perfeitura Turismo, 2015).

Based on data provided by Ministério do Turismo Brasil (2014b), the majority, around 35%, of all international tourists travelling to Rio de Janeiro do so on their own. Others, but fewer, travel with friends, their partner, or as with the entire family. Around 60% of international tourists in Rio de Janeiro are male, half of all travelers aged between 25 and 40 years, and the majority with higher education levels. Most preferred accommodation option with over the half of all international tourists are hotels, followed by the alternatives to stay at a friend's or relative's place as well as hostels. As the most common source for travel research, 44%, serves the internet. Also do the personal recommendations by friends and family account for a bigger fraction of travel information sources. Most of the international incoming tourists organize their trips on their own, rather than relying on the service of travel agencies or tour operators (Ministério do Turismo Brasil, 2012).

3.1.2. Areas of the travel and tourism market

Travel and tourism is a very wide term, including numerous sub industries contributing to the overall economic value of the travel and tourism market. Such industries are the accommodation services, transportation services, food and beverage services, retail trade, as well as cultural, sports, and recreational services (World Travel and Tourism Council, 2015).

Within the accommodation and transportation services, the traveler has a wide variety of different service levels, value propositions and price ranges to choose from. These can range from the very basic functional options towards very luxurious, high-end solution. A new trend arising in this field is the sharing economy offering a more personal and authentic travel experience (Passport, 2011; Mammadov, 2012; Chipkin, 2014; Oxford Economics, 2014; D'Arcy & Omar, 2015).

Food and beverage services, retail trade, as well as cultural, sports, and recreational services determine the portfolio and the attractiveness of a destination's entertainment and leisure time activity options. Within each category, the form of offer can vary: from providing necessary services to satisfy the traveler's basic needs up to top edge options of cultural, shopping, restaurant, or entertainment experience. Addressing different needs and preferences of the traveler, these industries take over the main role to shape the traveler's experience at the travel destination (World Travel and Tourism Council, 2015).

Digitalization within the travel and tourism sector is furthermore progressing. E-commerce within the industry, including digital booking platforms for accommodations as well as traveling, have been increasing throughout the past years and are expected to continue to do so even further. Smartphone usage is globally growing and as well is the demand for flexible solutions, especially for mobile platforms, such as tablets and smartphones. New service options are arising as travel apps gain in popularity and are becoming the new personal assistant available to the traveler at any moment of time. Thanks to the advancing technology, moreover, the personalization of travel offers to the individual's needs steadily improves in the travel and tourism sector, as well (Sileo, 2011; Oxford Economics, 2014).

3.1.3. Researching and planning a travel

In order to achieve a pleasant travel experience, addressing these particular needs, motivations, and objectives, the traveler has to become familiar with the location and the activities at the destination. Therefore the travel needs to be planned beforehand to some extent. This process is described with the term travel research in this thesis. Depending on whether a person has already been to the chosen destination before and to what degree he or she likes to arrive prepared, this travel research process may vary in its intensity and dedication (Google, 2014; Tripadvisor, 2014).

Different ways and sources exist to gather information, shape opinions, and seek inspirations for activities during the travel (World Travel Market, 2013; Google, 2014). These travel research sources are in this thesis broadly summarized into four different categories: Print, online/mobile, human, and personal network.

As *print travel sources*, the traditional sources are described, such as printed travel guides combining different information on the destinations history, sightseeing spots, attractions, restaurants, and other relevant information to plan the travel accordingly. While these printed guides convey general information, city magazines update and inform about current events, concerts, and other activities taking place at a particular time at the destination (Tsang, Chan, & Ho, 2011; Tripadvisor, 2014).

The category *online/ mobile travel sources* combines various websites, online platforms, or apps with the aim to give a traveler information about the destination. This can be travel blogs where individuals share their experience in a certain travel destination with others. Similar, but open to a wider audience to interact, are online travel forums where all members can share their knowledge about a destination with others. One of the currently most popular sources of such kind is Tripadvisor. Also official websites of the destination serve as an information source. Social media, such as Facebook, Instagram, or Twitter, help travelers to obtain travel input and inspiration. Furthermore, apps for the travelers' smartphone are also on the rise as a research source (Google, 2014; Tripadvisor, 2014; Crowel, Gribben, & Loo, 2014).

Human travel research sources summarizes in this thesis all personal interaction based sources between individuals. These can either be recommendations by hotel or hostel staff, but also the traditional touristic guide or the tourist information kiosk at the destination (Google, 2014; Tripadvisor, 2014).

And lastly, the most trusted source for travel research is the travelers' *personal network* with friends and relatives. Here those having been at a certain location can share their experiences and knowledge with the traveler (Google, 2014; Tripadvisor, 2014).

Even though the pool of different travel research related sources is large, each of the mentioned comes with certain limitations and downsides. Either they require the investment of resources, such as time or money, may not be representative or trustworthy, are not up-to-date, or not available in the moment when research is conducted. The product developed by Local Wander, which will be presented shortly, aims to address some of these named issues (Zarur, 2015).

3.2.   Local Wander and its innovation

Even though the overall Brazilian economy is currently going through a severe recession (The Economist, 2015) and also politically the country is facing some major challenges (Alston, 2015), the Brazilian tourism sector is still offering opportunities to grow (World Travel and Tourism Council, 2015). A situation that the Brazilian start-up Local Wander aims to take advantage of with their app aiming to enable new forms of travel research and experiences for travelers. In addition to the current product, an app-based service for Brazilian hotels, Local Wander is preparing at the moment the market entry with a new product for the Brazilian tourism sector based on similar technology and the existing digital mobile expertise. In the following paragraphs the start-up and its product to be launched will be described further.

3.2.1. The start-up Local Wander

The Rio de Janeiro based start-up Local Wander began its operations within Brazil in the middle of 2014. It was founded by the Brazilians Carolina Zarur, a former design student, and co-founder Luiz Soares whose expertise lies in the area of software developing. The founder and owner Carolina Zarur takes over the role as CEO of the start-up and is in charge of the business development as well as the start-up's operations while Luiz Soares' responsibilities are the app development and support (Zarur, 2015).

As member of the public-private acceleration program "StartUp Rio", initiated by the state government of Rio de Janeiro and its partners, the start-up receives since its start financial and non-financial support (StartUp Rio, 2015). Recently, Local Wander could obtain access to another governmental acceleration program and with it some further additional funding in order to promote the growth of the start-up (Zarur, 2015).

3.2.2. Local Wander's new product

Local Wander aims to connect travelers with locals by using mobile technology in order to make new forms of travel research and experience possible. Through an in-app chat the traveler is able to get in touch with two locals of the travel destination who he or she can ask for insider tips and recommendations. By that, the traveler has the chance to get informed about authentic places, currently happening events at the travel destination, or recommendable restaurants beyond the typical touristic places (Local Wander, 2015). The app's long-term aim is to establish a community of travelers in which the users can seek advice in the moment of traveling and afterwards take over the role of a local in their own town. The start-up's objective is to create a new way of information access and knowledge sharing within the travel industry (Zarur, 2015).

Target user

The new app is directed at a young audience aged between 20 and mid-30s, in the possession of a smartphone, passionate about traveling and seeking an authentic travel experience that can be shared later on with their friends. The target audience is not restricted to any particular nationality, as the app's long-term aim is to become present at any travel destination where members of its community are active (Zarur, 2015).

Nevertheless, travel behavior, motivations, and preferences at the travel destinations are likely to differ widely within that broad group. This makes it indispensable to look for further segmentation of different traveler profiles in order to design a suitable market entry strategy (Zarur, 2015).

Value proposition & competitors

Current forms of existing travel research, as described earlier, bring different value propositions and ways to use it with it. Nevertheless, all of them lack in some aspects of their performance. Printed travel guides gather a large extent of reliable, well researched information but are therefore time intensive to read, not customized and as a consequence not always suited to the needs of the traveler. Moreover, they are generally lacking up-to-date information about ongoing events, such as parties or concerts. Online sources on the other hand are more updated and may contain such information. Also, some of these online sources exist that are more designed to the particular need of a traveler. But in order to find the suited information on the web, the right travel blog or posts in the travel forum answering the traveler's question may take time, as well. Additionally, the reliability of such sources is not always given as the composer of the information may not be trustworthy, exaggerating, or sharing poorly researched information. Tripadvisor seems to be the most promising solution in terms of universal platform to find authentic places, restaurants, and other recommendations. Filter options help furthermore to customize the information to the traveler's interest to some extent. But also in this case information might be outdated, unreliable or time intensive to find. To sum up, those print and online research options require a substantial time investment, might be outdated, and lack the possibility of interaction in case of doubts or questions (Zarur, 2015).

The only currently existing options that offer such interactivity and up to date information, are the human travel research sources, such as the touristic guides or staff of hotel or hostel. They are generally informed about the events taking place at the destination and are available to respond to remaining questions or doubts. Unfortunately, most of the times these sources are giving recommendations for touristic places rather than authentic places were locals use to go

to. In general, the only source of information overcoming all these mentioned difficulties, are the recommendations from a person of the traveler's own personal network. This person can give the best suited information fitting the needs of the traveler and is available for further questions. Nevertheless, the availability or existence of such friend at any travel destination is not always guaranteed (Zarur, 2015).

The Local Wander app aims to address this issue by offering a local friend for anywhere. By using the app, the traveler has access to the local knowledge of two habitants of the destination and can ask specific questions for recommendation that will be up to date, reliable, and fitted to the need of the traveler. The in-app chat enables to interact on time with these two local friends in case the traveler is still left with some doubts. Through Local Wander a new form of travel research is enabled with which travelers can access insights on the travel destinations they normally would not have. A new authentic travel experience will be achievable thusly (Zarur, 2015).

Since Local Wander aims to offer a research option better suited for the travelers' needs, it indirectly competes in a broader understanding with the current, established providers of travel content, such as printed travel guides or travel forums such as Tripadvisor. Some start-ups exist that have a similar idea as Local Wander and might be considered as direct competitors, even though the actual solution proposals differ. Examples are the Canadian seekeasy, the American UrbanBuddy, or the Swiss-Singaporean tripple – all start-ups that offer some kind of travel knowledge sharing in form of apps or travel communities among locals and travelers. Nevertheless, these direct competitors are yet too small, geographically limited, and differ too substantially in their business models in order to be considered as a serious threat at the moment (Zarur, 2015).

Product design
Building up on the existing product design from the current service offered to hotels, the new service will be offered to the travelers through the app store of a smartphone's mobile operating system. The possession of such a smartphone, a mobile device that is able to download apps as well as to connect to the internet, is therefore necessary in order to make use of Local Wander's new product (Zarur, 2015).

In order to use the service, a user has to register and create an own account. This registration is necessary, as users subsequently insert further information about their traveling in order to

guarantee advice suited to their needs. In addition to that, this information is used to create a personal user profile within the Local Wander community (Local Wander, 2015).

Once the user profile is successfully created, a traveler gets connected with two locals of the indicated travel destination. A chat window opens in which the two locals and the traveler are able to communicate and exchange information. By that an interactive, on-time and personalized channel of travel research is created, where travelers and locals only maintain a digital relationship but do not necessarily need to meet up in reality. The chat window only lasts for the time of the indicated travel. Different measures will be established in order to detect satisfaction levels of travelers, the quality of help offered by the locals, and a proper conduct of the travelers (Local Wander, 2015; Zarur, 2015).

Following the travel experience, the travelers can stay connected to the Local Wander in order to offer their knowledge and help to other travelers coming into their town. The aim of Local Wander is to establish a travel community where authentic travel advice can be shared and accessed among its members (Zarur, 2015). Figure 6 summarizes the three described steps.

Figure 6 - Product design of Local Wander's new app; source: company website

Pricing and revenue generation

The new app will be offered as an open app, free of charge at the moment of download. Instead of charging the user for the product, revenue will be rather generated through in-app advertisement. Due to the clear localization of the user, as well as the app's very specific user group, highly precise targeting potential for advertisement customers arises. Local restaurants, bars, concerts, and other events aiming at tourists are among the potential advertisement customers. Once a critical mass, a sufficient large enough user base is reached, special in-app purchase

services through Local Wander and its partners are possible to establish an additional stream of revenue (Zarur, 2015).

While free of charge downloads lower the barrier to download and try out the app for potential users, and thus will help the spread of the product, it implies a slow revenue generation. It is only until the moment the critical mass of users is reached that the app becomes interesting as advertisement platform for potential clients. A fast growth of the user base is therefore key (Zarur, 2015).

Locals community

While receiving local recommendations for free is a strong value proposition that is offered to potential users, the benefits of offering help to strangers as a local friend in the Local Wander community might not seem that straight forward at first sight. Certain incentives have to be established in order to keep users engaged in the community not only in the time of traveling but also for the time of being a local.

Company research has revealed that there is a strong intrinsic motivation for why persons would become a potential local and share their insights on the city with others. Their own passion for traveling, appreciating such a service while traveling themselves, and knowing to help tourists coming into town to have a pleasant experience were often mentioned reasons. Nevertheless, these intrinsic motivations build a required foundation for people to become locals. Other incentives on top of that have to be offered. Due to the free of charge approach, monetary incentives are not feasible. Instead a mixture between perks and non-material incentives are planned. According to the start-up, a necessary amount of such features could be already derived and will be available in the moment of market entry (Zarur, 2015).

Entry market in the very beginning

The market entry of the product will be divided into different stages. Similar to other products whose product concepts are based on a community aspect and therefore need a critical mass in order to unfold its full product value potential, Local Wander plans to launch its product in a geographical restricted area at first. Such a pilot phase allows the company on the one hand to test the usability and improve accordingly, if necessary, before scaling up and expose its product to a larger audience. On the other hand the start-up can invest all its resources to assure that users will be provided the value proposition Local Wander claims to offer. That way, the likelihood of unsatisfied users can be decreased and negative WOM prevented (Zarur, 2015).

In the case of Local Wander, the pilot phase will take place in the city of Rio de Janeiro. The city bears an immense potential due to its major role as international touristic destination and upcoming events of global reach taking place, such as Carnival and the Olympic Games, bringing in tourists from around the world. Rio de Janeiro is therefore a predestined location for the pilot phase before spreading out globally. Currently, the start-up prepares to provide a sufficient large number of locals that serve as a base to address incoming travelers' needs in the time of pilot testing. That way it can be guaranteed that travelers downloading Local Wander's app will be provided with locals to communicate with. Such locals will be recruited in different locations throughout Rio de Janeiro where the start-up's previous research has indicated large potential of acquisition. During this stage, Local Wander plans to offer and restrict its app to the three most spoken languages in the region: Portuguese, Spanish, and English (Zarur, 2015).

Once the pilot phase is successfully mastered and a sufficient number of satisfied users is reached, the start-up will plan to spread its operations towards a selection of other promising locations. The long-term goal will be the successful establishing of a global Local Wander community being present in all major locations around the world. Local Wander aims to become a reliable platform in the tourism sector in the future that helps increasing transparency and sharing the knowledge of locals with travelers. By that, the destination's existing service industries can be better exploited and the travel experience as a whole increased (Zarur, 2015). The appliance of the DOI theory to the context of Local Wander is key in this process, as it promises to segment the target public further, detect key adopter segments and gain more insights on the drivers of the adoption decision process. It serves as a foundation for designing the start-up's market entry strategy and indicates which segments to target first.

4. RESEARCH METHODOLOGY

In order to apply the DOI theory to the context of Local Wander, certain assumptions have to be made. These assumptions will be further explained in section 4.1. before the hypotheses, derived from the earlier introduced theory, will be presented in section 4.2..

4.1. Assumptions

For the context of Local Wander certain assumptions have to be made in order to be able to apply the DOI innovation theory to the start-up and its market entrance. To these account the scope of the analysis and defining the type of innovation, which will be further elaborated in this section.

4.1.1. Scope of analysis

Primarily, the DOI theory has focused on innovative technologies that spread throughout entire social systems (Rogers, 1962; Moore, 2014). Other scholars have later on proven that the term can be broadened from technology towards any form of new and innovative product or service (Bass, 1969; Peres, Muller, & Mahajan, 2010). Nevertheless, these products or services analyzed by scholars from the field of DOI research presented earlier, have been from the Business-to-Customer (B2C) or Business-to-Business categories. Local Wander's product characteristics do not seem to conform to these product categories, as it is based on a community where the increasing amount of users relates positively with the perceived product advantage as well as product value. To apply their findings on Local Wander might therefore be misleading.

Nevertheless, for the scope of this thesis' analysis only the early stage of the market entry, thus, the pilot phase of Local Wander's app, is regarded. As described before, at this moment the start-up will already have a sufficient base of local friends to provide to travelers using the app with advice and recommendations in the city of Rio de Janeiro. In this particular stage of market entry, the product can be therefore seen as a B2C service to the user. The thesis focuses for this reason on the market development of the product's user base, while the acquisition of locals is taken for granted. Given this assumption, the previously presented insights from the DOI theory are also valid for Local Wander's product characteristics.

4.1.2. Type of innovation

Even though it has been shown that Local Wander's app can be regarded as product category generally being applicable to the DOI theory, it still has to be analyzed if the product is a disruptive innovation in order to continue with the analysis. Local Wander's app offers a new way

of travel research, as it is interactive, on-time, and customized to the traveler's needs. Thus, the product addresses some of the major concerns travelers expressed with current travel research sources. At the same time, Local Wander aims to address the continuing trend of "authentic travel experience seeking going beyond the visiting of typical tourist attractions but rather grasping the feeling for the city and local lifestyle" (Zarur, 2015).

In order to take advantage of the described product's benefits and features, the app requires the users to change current travel research habits. Different existing practices of travel research are united: The user's technology savviness for digital travel sources is combined with social inter-action of human travel research based sources. To apply Local Wander's app, the user has to be literate with a mobile device and is required to communicate with two locals in an in-app chat. A form, that is currently not existent in this form. Given the earlier introduced definition of innovations in this thesis, Local Wander's new app can be therefore seen as a disruptive innovation within its very own niche of travel research.

4.2. Deriving hypotheses

Building upon these assumptions, it can be therefore expected that the application of the DOI theory is applicable. As Local Wander can be seen as a disruptive innovation in its field and research can be found that used Rogers' (1962) theory for similar cases of target group segmentation prior to market entries (Verleye & De Marez, 2005; De Marez et al., 2007), it can be assumed that Local Wander's target user base can be distinguished into the five different adopter categories, Innovators, Early Adopters, Early Majority, Late Majority, and Laggards, developed by Rogers (1962).

H1: The segmentation of the app's target public fit into the five categories proposed by the diffusion of innovation theory.

Similar to what Rogers (1962) described in his model of adopter categories, and numerous other scholars confirmed with their academic research (Smith & Findeis, 2013; Verleye & De Marez, 2005; De Marez et al., 2007), it can be expected that the detected sizes adopter categories and the shape of the diffusion curve will take a similar path: a bell shaped curve with a big group of Early and Late Majority, while having three smaller groups of Innovators, Early Adopters, and Laggards.

H2: The sizes of adopter categories, as well as the predicted innovation diffusion curve will take a similar shape as described by Rogers (1962).

Past research analyzing the DOI have proven certain characteristics to have a significant impact on the adopter categories differing adoption decisions. As shown in the theory overview, numerous of such characteristics could have been detected throughout conducted researches in the field of DOI, depending on the object of analyses, its product category and context (De Marez et al., 2007).

According to Rogers (1995), in which he analyzed and reviewed a large number of conducted research, the Relative Perceived Product Advantage, Perceived Product Complexity, Compatibility, Trialability, and Observability, have all an influence on the rate of diffusion. Due to its continuous on-demand availability in the app store, as long as a person has an internet connection and a smartphone, Trialability will be given at the moment a potential adopter wishes to test the app. The opposite accounts for the Obsevability: apps, saved on the user's smartphone, have generally low Observability throughout the entire process of diffusion. As in this research only a limited amount of characteristics can be tested, these two previously mentioned will be estimated to have no major influence on the adoption rate of potential Local Wander app adopters and are therefore left out of the further analysis. Based on that, the following hypothesis can be derived:

H3: The different rate of adoption among Local Wander's target group will be influenced by the app's Relative Perceived Product Advantage, Perceived Product Complexity, and Compatibility.

Furthermore, as presented in the theory part, also adopter-specific characteristics have been found to have an impact on the adoption process. Besides the described characteristics by Rogers (1995), a wide variety of further characteristics could be detected by scholars (De Marez et al., 2007; Kavak & Demirsoy, 2009; Peres, Muller, & Mahajan, 2010; Smith & Findeis, 2013).

These findings have been analyzed and compared with previously conducted company market research by Local Wander as well as commonly described characteristics of the tourism sector. Based on that, a list of adopter characteristics that are likely to be of importance for the adoption decision process of Local Wander's new app could be derived: the adopters' Innovativeness, Opinion Leadership, Social Participation, Prestige Seeking, Income, and Educational Level.

Moreover, previously conducted focus groups during the market research by Local Wander revealed that possible differences in behavior among genders might have an impact on the product interest (Zarur, 2015). Also Kavak & Demirsoy (2009), found *Gender* as an important

factor in the diffusion process. Therefore these mentioned characteristics are expected to be crucial in the case of Local Wander in addition to the ones previously mentioned in the third hypothesis. The hypothesis 4 summarizes these elaborations.

H4: In addition to the previously mentioned innovation-specific characteristics, adopter related characteristics will impact the different adoption rate among Local Wander's potential app users. To these account the adopters' Innovativeness, Opinion Leadership, Social Participation, Prestige Seeking and Educational Level, Gender as well as Income.

To sum up, the following figure 7 shows the characteristics having an impact on the adoption rate stated in Hypothesis 3 and Hypothesis 4.
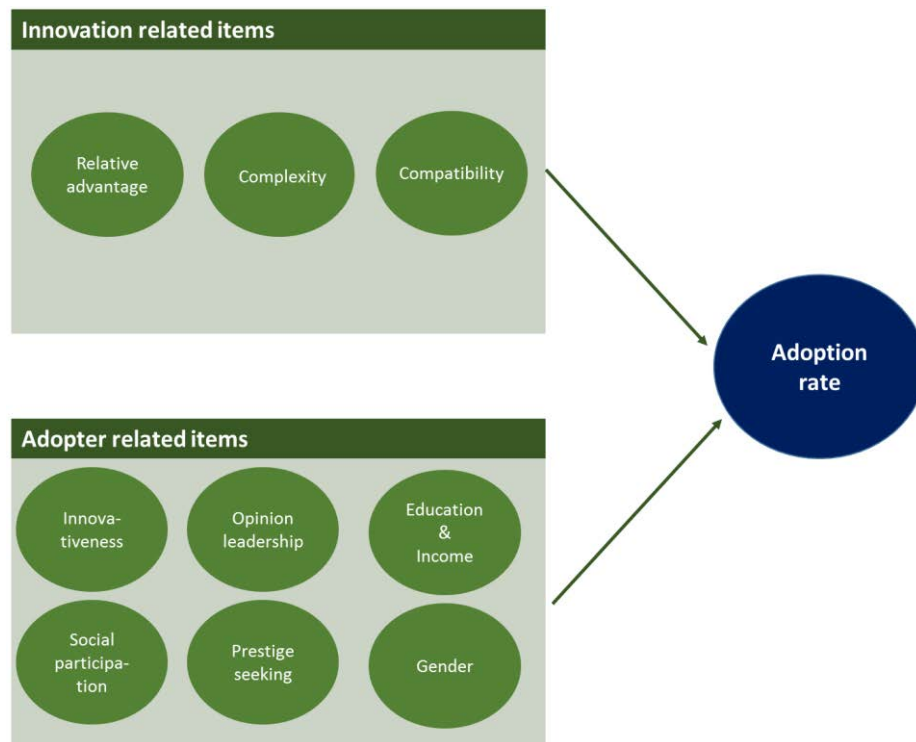
Figure 7 - Characteristics influencing the rate of adoption according to H3 & H4; source: figure by author

These different hypotheses will be tested through research that has been specifically designed and conducted for this thesis. The used methodology in order to test these hypotheses will be explained now.

5. METHODOLOGY

In order to model the diffusion of Local Wander's innovation and analyze the derived hypotheses, a survey approach has been chosen that was used before in many other studies of the DOI theory investigating the same objective (e.g. Smith & Findeis, 2013; Martínez & Polo, 1996; Cheng & Kao, 2004). A survey with 355 respondents has been conducted aiming to detect the respondents' attitude towards Local Wander's new app. Based on those findings a segmentation into the different adopter categories with different underlying adoption intentions could be made. The research method and the underlying approach will be explained in closer detail in this chapter

5.1. Research design

In order to determine the different adopter categories for Local Wander's new app and to detect possible adopter characteristics that have an influence on this adoption decision making process, a two-step approach was used methodologically as in any other DOI research of this kind. First, the different adoption categories, the product's Innovators, Early Adopters, Early Majority, Late Majority, and Laggards, were detected. Usually this segmenting into the different adopter categories has been done in the majority of research papers with a model developed by Bass (1969) based on the moment of adoption that has already happened (Peres, Muller, & Mahajan, 2010). As this *econometric approach* requires a certain necessary amount of data on which the forecasts rely when segmenting the adopters into the respective categories, it is suited to analyze past innovation diffusions rather than to prepare market segmenations prior to the market introduction with little up to no data available (Verleye & De Marez, 2005)

Since in the case of Local Wander, the object of analysis is a product that has to be yet introduced to the market, future purchase intention rather than past adoption had to be identified. Therefore another approach *based on consumer statements* is more suited. In this case the segmentation into different adopter categories is achieved based on adoption intention identified through interrogation. A widely used form in DOI research has been the Goldsmith & Hofacker (1991) six item Domain-Specific Innovativeness (DSI) scale. Based on six questions aiming to detect an adopter's Innovativeness towards a specific product category, it can be predicted in which particular adopter category that person will later be found. Since this scale only aims at overall product categories, rather than the specific innovative product, suggestions to adapt the scale have arisen (De Marez et al., 2007). Verleye & De Marez (2005) developed a three item scale in order to detect a product-specific adoption potential (PSAP).

By this, not only a broad product category but rather the innovation-specific attitude of a potential adopter will be identified. This PSAP scale has been successfully applied and proven suitable in a number of DOI researches (Verleye & De Marez, 2005; De Marez et al., 2007; Stragier, Derboven , Laporte, Hauttekeete, & De Marez, 2013). As Verleye & De Marez (2005) proved their PSAP scale to obtain more accurate adoption estimations than the used approach by Goldsmith & Hofacker (1991), the PSAP scale was also used in this thesis for the identification of different levels of adoption intentions and thus the adopter category segmentation. This undertaken approach will be explained in further detail in section 5.3..

In a second step, specific characteristics were analyzed that explain the different rate of adoption among the population. In the case of this thesis, the characteristics to be tested were the already introduced ones: Relative Perceived Product Advantage, Perceived Product Complexity, and Compatibility, as well as the adopters' Social Participation, Innovativeness, Opinion Leadership, and Prestige Seeking. Specific demographic characteristics, such as Gender, Educational Level as well as Income, were also tested for their impact on the adoption decision making.

5.2. Form of data collection

Looking at past research from other scholars of the field of DOI, the most common form in order to collect data and generate insights into the given DOI process has been a survey (e.g. Rogers, 1995; Smith & Findeis, 2013; Martínez & Polo, 1996; Cheng & Kao, 2004). Only in specific cases, such as in the spatial diffusion of the enrollment of a new customer loyalty program (Allaway, Berkowitz, & D'Souza, 2003), data about the innovation adoption and further adopter information was already given and did not have to be collected separately. But the existence of such secondary data in accordance with the specific adopter characteristics is rarely given as most of the examples in DOI research show. Instead, a survey as a tool for data collecting allows individuals to reveal specific innovation adoption related information.

It enables to collect a large amount of data in simple and quick way, customized to the purposes of the research objectives (Wright, 2015). Given the research question of this paper and the usage of surveys in past DOI research, this form of data collection is therefore suited for the presented case of Local Wander.

5.3. Elaboration of the survey

As preparation for the survey design, a multitude of different previously conducted researches from the field of DOI research have been analyzed and were taken as the basic foundation for

the survey specifically created for this thesis. The survey design can be divided into five different parts: general travel habits, specific travel research behavior, behavior specific questions, Local Wander's product-specific questions, ending with demographic related questions.

The travel related content of the survey was developed in consultation of Local Wander's entrepreneur Carolina Zarur who had previously conducted several types of field research. In addition to that, travel reports were taken as foundation (Google, 2014; Tripadvisor, 2014; Crowel, Gribben , & Loo, 2014) and all questions aligned in the typical format of already existing travel related surveys (Arizona Office of Tourism, 1999; European Cities Tourism, 2004; Republic of Slovenia MGRT, 2015). This part of the survey has been revised by the tourism and travel expert at Fundação Getúlio Vargas – Escola Brasileira de Administração Pública e de Empresas (FGV-EBAPE) André Coelho and final adaptions have been made based on his feedback.

Behavioral questions in order to test the different characteristic items were taken from similar studies of the field of DOI research that have been previously done. This way, it could be guaranteed that the questions used in this survey were already tested and proved to identify the construct they were aimed to detect (De Marez et al., 2007; Karahanna & Straub, 1999; Goldsmith & Hofacker, 1991; Kavak & Demirsoy, 2009; Smith & Findeis, 2013). In certain cases, the questions had to be carefully adapted to the specific product category of Local Wander, travel, and travel research. All travel and behavioral related questions were measured on the 5-point Likert scale, ranging from one (lowest) to five (highest) (Appendix I). The following figure 8 gives an overview over the specific indicator questions that have been asked per each construct.

In order to give the survey respondents an idea of the product and test their usage intention, a short product introduction has been given. Company internal promotion material as well as information from the website was used to inform the respondents about the usage design and how conversations with locals would possibly look like (Appendix II).

INNOVATION RELATED CHARACTERISTICS:

Perceived Relative Advantage
1. Using local wander would help me to have a better travel experience *(Karahanna & Straub, 1999)* 2. Local Wander will certainly make travelling easier for me *(Karahanna & Straub, 1999)* 3. As the product was presented in the photos, it has an attractive design and style *(De Marez et al., 2007)*

Perceived Complexity
1. The Local Wander app seems very user-friendly to me *(De Marez et al., 2007)* 2. I fear that using Local Wander is rather complicated *(De Marez et al., 2007)* 3. Being connected to the internet when travelling would not be a problem *(De Marez et al., 2007)*

Perceived Compatibility (Digital research)
Indicated usage frequency of online & mobile travel research sources: ▪ Social media ▪ Travel blogs ▪ Travel forum ▪ Travel apps ▪ Video-sharing websites ▪ Travel destination's website *Google (2014); TripAdvisor (2014); Crowel, Gribben, & Loo (2014)*

Perceived Compatibility (Human research)
Indicated usage frequency of human interaction based travel research sources: ▪ Hotel / Hostel staff ▪ Local guide ▪ Local tourist kiosk *Google (2014); TripAdvisor (2014); Crowel, Gribben, & Loo (2014)*

ADOPTER RELATED CHARACTERISTICS:

Innovativeness (apps)
1. Generally I am among the first in my circle to try out new apps *(Goldsmith & Hofacker, 1991)* 2. Compared to my friends, I only use a few apps *(Goldsmith & Hofacker, 1991)* 3. I won't download an app I haven't heard anything about previously *(Goldsmith & Hofacker, 1991)*

Opinion Leadership
1. My friends come often to me for travel advice *(Kavak & Demirsoy, 2009)* 2. I seek often the advice of my friends regarding their opinion when planning a travel *(Kavak & Demirsoy, 2009)* 3. I would do a trip to a destination even if my friends talked bad about it *(De Marez et al., 2007)*

Prestige Seeking
1. Sharing unique travel experiences helps me to maintain a certain image others have of me *(De Marez et al., 2007)* 2. Showing that I know authentic places at the travel destination would have a positive impact on what people think of me *(De Marez et al., 2007)* 3. By knowing locals at the travel destination, I could definitely impress my friends *(De Marez et al., 2007)*

Social Participation
1. It is very important to me to share my travel experiences (e.g. in conversations, on social networks) *(De Marez et al., 2007)* 2. I share my travel experiences only with a very small circle of friends *(Smith & Findeis, 2012)* 3. I like to interact with others to get travel tips *(De Marez et al., 2007)*

Figure 8 - Indicator questions to detect relevance of constructs; source: figure by author

As previously mentioned, for the segmentation into the different adopter categories the PSAP scale that has been used previously in De Marez et al. (2007) and Verleye & De Marez (2005) was applied for Local Wander. A procedure based on three different questions aiming to detect different levels of an adopter's possible adoption intention. First, a general download and usage

intention was asked. Afterwards, the respondent was involved more heavily in reassessing the product and its presented features. In the case for Local Wander, this was achieved by asking a number of product-specific questions aiming at the Relative Perceived Product Advantage and possible usage of the product. In the following, as a second and third step, the respondent was asked the download intention for an optimal and a suboptimal product offer. The following figure 9 shows the designed three-step PSAP scale for the case of Local Wander. Once the survey was developed, it was revised by the market research expert at FGV-EBAPE Rafael Guilherme Burstein Goldszmidt in order to avoid any unintentional biases.

Adoption intention questions – PSAP scale:

1. General adoption intention

As you have it in mind right now, up to what degree would you be interested in downloading the app if it was available?

2. Adoption intention – ideal product

Given the app will be **designed exactly to your needs** and purposes, up to what degree would you be interested now in downloading the app (e.g. preferred language, preferred travel destinations, prefect locals fit, etc.)?

3. Adoption intention – imperfect product

Knowing that the app ha**s some minor bugs in the beginning** up to what degree would you be now interested in downloading the app?

Answer options

1. Download it immediately

2. Big chance I download it

3. Let's wait and see, maybe later

4. I don't think I will download it

5. I most certainly will not download it

Figure 9 - PASP scale by De Marez et al. (2007) used for Local Wander; source: figure by author

In order to reach out to a wider number of persons, the survey has been furthermore translated from English into Portuguese and Spanish language. This way, it could be assured that also persons of the potential future adopter group, yet, not feeling as confident in the English language could participate in the survey, as well. By that, it was made sure that respondents understood the questions and instructions of the survey and were indicating the right answers. In order to keep the possible occurring bias due to translations into different languages to its lowest, it has been only restricted to these three languages in which Local Wander's app will be offered at the moment of market entry.

5.4. Data collection method

The sample was drawn by the means of a web-based survey that was sent out to persons without prior product knowledge through convenience and snowball sampling. By that a number of 355

total responses could be obtained. This data, nevertheless, had to be filtered in order to make sure that only those persons were taken into account that fall among Local Wander's target group: persons possessing a smartphone or intending to purchase one within the next 12 months, travelling at least once a year for 3 days or more for leisure purposes, as well as aged between 18 and end-30s.

As Rio de Janeiro, as presented earlier, is an international travel destination, it was recommendable to not only limit the survey to Brazilian respondents. Instead, the data collection should also include an international group of respondents. In order to assure that out of this international population only the responses were regarded that would generally fit into the category of a traveler coming to Rio de Janeiro, a filter question was implemented into the survey. By that, only those respondents were considered that have been already at least once to the city or could imagine to traveling there. After this process of data filtering, an overall number of 236 respondents remained for further analysis.

6. RESULTS

The web-based survey and the subsequent data analysis revealed information on the previously stated hypotheses and research objectives. After giving a descriptive analysis overview, the data analysis results will be presented.

6.1. Descriptive analysis

The sample was almost equally distributed between male (52%) and female (48%). The biggest group of respondents among the pool of 27 different nationalities from five continents was German (39%), followed by Brazilians (17%), Portuguese (8%), Mexican (8%), and Uruguayan (5%). Comparing Latin American (33%) with European (61%) respondents, the latter were still the predominant group. With the majority of the respondents between 18 and 34 years (97%), the sample size lays within Local Wander's target public. Regarding monthly income, the sample population was distributed among the different categories of less than 500 USD (25%), 500-999 USD (30%), 1000-1999 USD (24%), 2000-2999 USD (11%), and more than 3000 USD (10%). The dominant group of respondents was students (61%), followed by regular employees (31%). Most of the respondents hold a university degree (66%). Respondents were to a large extent single (57%) or in a relationship without being married (41%). The majority did not have children yet (96%). More than half of the respondents traveled between two to four times a year (55%). Less than the half had already been to the city of Rio de Janeiro (40%). The figures 10 and 11 give an overview about the travel frequency, occupation, and nationalities of respondents (further information in Appendix III).

Figure 10 - Travel frequency and occupation of respondents; source: figure by author
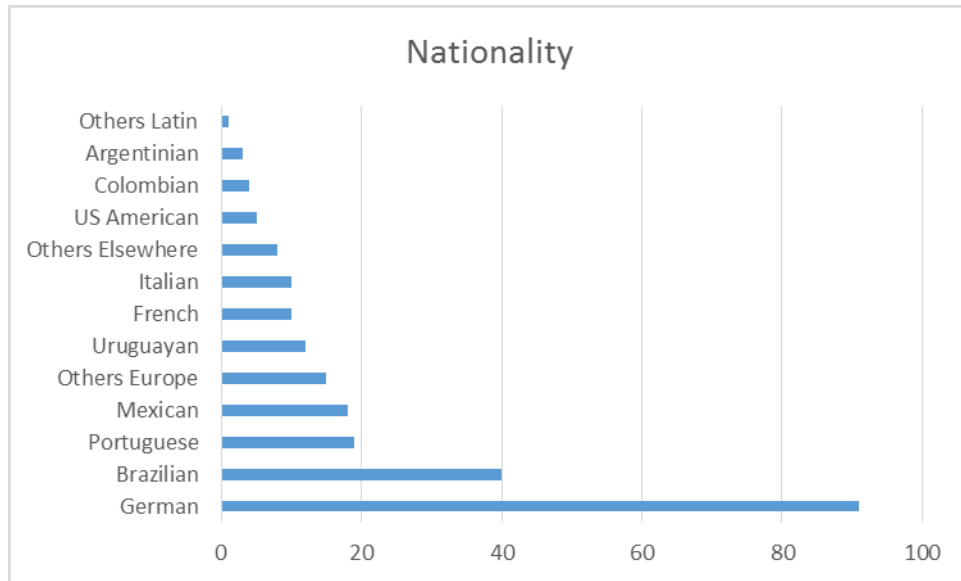
Figure 11 - Nationality of respondents; source: figure by author

6.2. Data analysis results

Following the different hypotheses presented earlier, the data analysis result presentation is distinguished into three different sections: first, the appliance of the DOI theory of different adopter categories (Hypotheses 1 & 2), second, the analysis of different effects having an impact on the adoption intention (Hypotheses 3 & 4), and last, the analysis of specific adopter category characteristics that help to design a specific market entry strategy.

6.2.1. Detecting adopter categories

After analyzing the answer patterns, each respondent could be assigned according to the PASP approach designed by Verleye & De Marez (2005) to one of the five adopter categories known from the DOI theory (Appendix IV). The results show that a minor group of respondents could be assigned to the adopter groups of Innovators and Laggards while a comparatively major group of respondents account to Early Adopters, Early Majority, and Late Majority. It could be therefore proven, that it is possible in the case of Local Wander to assign members of the target public into the five different adopter categories of Innovators, Early Adopters, Early Majority, Late Majority, and Laggards based on their adoption intention. Hypothesis 1, stating that a segmentation of the app's target public fits into the five adopter categories proposed by the DOI theory, was confirmed. Figure 12 shows further details on the detected adopter categories.
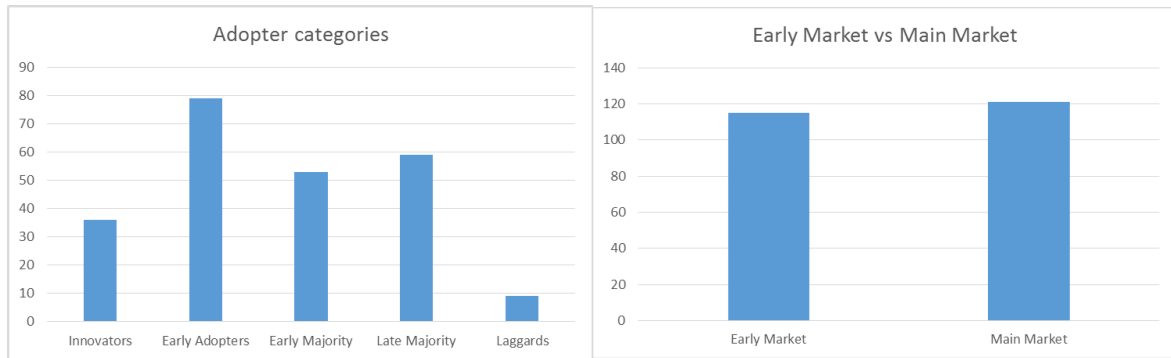
Figure 12 - Local Wander's detected adopter categories; source: figure by author

Looking at the curve and of the adopter distribution among the five different adopter catego-ries, a general shape of the Gauss curve is observable with some minor limitations. In the case of Local Wander, based on the results from the conducted research, the curve appears to be left shifted. A higher percentage than predicted by the DOI theory was assigned to the Innova-tors and Early Adopters category. As the category of Innovators usually consists only of 2.5% and Early Adopters of 13.5% with the majority belonging to Early and Late Majority, it dif-fers in the case of Local Wander. Here, those two Early Market groups score 15% and 33% respectively, making up almost 50% of the overall market. While according to the theory the Main Market, consisting of Early and Late Majority, as well as Laggards, accounts with more than 80% the large majority of the market, it does not do so in the case of the given product. The adoption intention curve of Local Wander's product does not follow the exact similar curve as predicted by Rogers (1962). Hypothesis 2 has therefore to be rejected.

6.2.2. Effects on adoption intention

To analyze the effects of the presented adopter-specific related constructs on the adoption in-tention and thus to test our hypotheses 3 and 4, the technique of Partial Least Squares (PLS) was used. PLS is a structural equation modeling (SEM) method that is suited for highly complex predictive models (Chin, 1998). Compared to the other approach often times used in SEM, the Covariance Based – SEM, PLS-SEM has several advantages when modeling with many indi-cators and estimating relationships (Hair, Ringle, & Sarstedt, 2011) as given in this case. When conducting PLS-SEM, first the measurement model has to be analyzed before the structural model can be looked at (Hair, Hult, Ringle, & Sarstedt, 2014). In order to conduct the analysis of the data, the software SmartPLS (Version 2.0.M3) was used.

Measurement model

To prove the measurement model, several items have to be assessed according to Hair et al. (2014): each question's individual indicator reliability, each construct's internal consistency, the convergent validity, and the discriminant validity of each construct.

Already testing the individual indicator reliability revealed that three indicator questions had to be taken out of further consideration right away as their outer loadings scored lower than the minimum acceptable score of 0.4. From further 10 indicator questions lying below the optimal 0.708, but yet in an acceptable range between 0.4 and 0.708, four additional questions had been taken out from further analysis. By that, a theoretically and statistically stable model could be guaranteed, as at least two indicator questions remained per construct (Appendix V, Appendix VI).

Follow-up testing showed that even though the average variance extracted (AVE) of each construct was with values in between 0.52 and 0.84 above the necessary minimum value of 0.5, and thus provided a satisfactory degree of convergent validity, the construct Opinion Leadership had to be excluded from further analysis. The construct's composite reliability score was with 0.0187 far lower than the recommended 0.708. Therefore, it did not fulfill the necessary requirements of sufficient internal consistency. All other constructs, though, offered with scores ranging from 0.67 to 0.90 satisfactory values. The table 1 gives an overview about these results.

Table 1 - Overview constructs SmartPLS analysis; source: table by author

	AVE	Composite Reliability	R Square	Cronbachs Alpha	Communality	Redundancy
Adoption Intention	0,8412	0,9408	0,4447	0,9056	0,8412	0,0508
Compitability Digital	0,5809	0,8053		0,6481	0,5809	
Compitability Human	0,6382	0,7791		0,4335	0,6382	
Product Complexity	0,6265	0,7703		0,4038	0,6265	
Education	1	1		1	1	
Gender	1	1		1	1	
Income	1	1		1	1	
Innovativeness	0,5262	0,7663		0,547	0,5262	
Opinion Leadership	0,6244	0,0187	0	-0,6796	0,6244	0
Prestige Seeking	0,5332	0,7651		0,6597	0,5332	
Relative Advantage	0,8162	0,8988		0,776	0,8162	
Social Participation	0,535	0,6769		0,1626	0,535	

By looking at the cross loadings of each indicator and approving the Fornell-Larcker criterion, discriminant validity, could be confirmed for the presented model (Hair et al., 2014). The approach by Fornell & Larcker (1981) requires that the AVE for two constructs is higher than the squared correlation between the constructs in order to assure discriminant validity.

As all data was self-reported and obtained from the same respondent, common method variance may be an issue (Podsakoff, Scott & Podsakoff, 2012). A Harman's single factor test was estimated to assess the extent of this potential problem. Eight factor with eigenvalues higher than one were extracted and the variance explained by the first factor was 19%, below the usual threshold of 50%. These results show a limited extent of the effect of common method variance over the observed results.

Structural model

As it could be proven in the conducted tests that a sufficient, satisfactory level of reliability, as well as validity is given, the structural relations between the constructs shown in figure 13 could be then explored.

First, the significance of the path coefficients had to be examined. Therefore a bootstrapping method was used with 235 cases and 5000 samples. The results reveal that not all of the constructs included in the model had a significant impact on the adoption intention. All of the demographic items, Gender (t-value = 0.801), Income (t-value = 0.964), and Educational Level (t-value = 0.898), showed to be insignificant. Also the behavioral adopter related constructs Social Participation (t-value = 1.63) and Prestige Seeking (t-value = 0.085) turned out to be insignificant, as well as the construct Compatibility with human based travel research sources (t-value = 0,056).

Nevertheless, the other four constructs were confirmed to be of significance: Compatibility with digital travel research sources (t-value = 2.126, 5% - sign. level), Innovativeness (t-value = 3.366, 1% - sign. level), Perceived Product Complexity (t= 4.53, 1% - sign. level), and Perceived Product Advantage (t= 6.096, 1% - sign. level) had all a significant impact on an adopter's intention to download Local Wander's app. Table 2 and 3 summarize these significant and insignificant results, as well detailed statistics and data.

Regarding the actual effect each of those significant constructs had on the adoption intention, the total effects had been evaluated. Figure 14 gives an overview about the detected effects on the adoption intention. The Relative Perceived Product Advantage had the strongest impact on the adoption intention (0,39), followed by the Perceived Product Complexity (0.2482). In the given case, Perceived Product Complexity scores had been reversed in order to show positive effects representing therefore actually the perceived product simplicity. Nevertheless, as Perceived Product Complexity is an official denotation within the DOI theory, it shall be used in the original form in this research work. Even though with minor effect, but yet significant, were
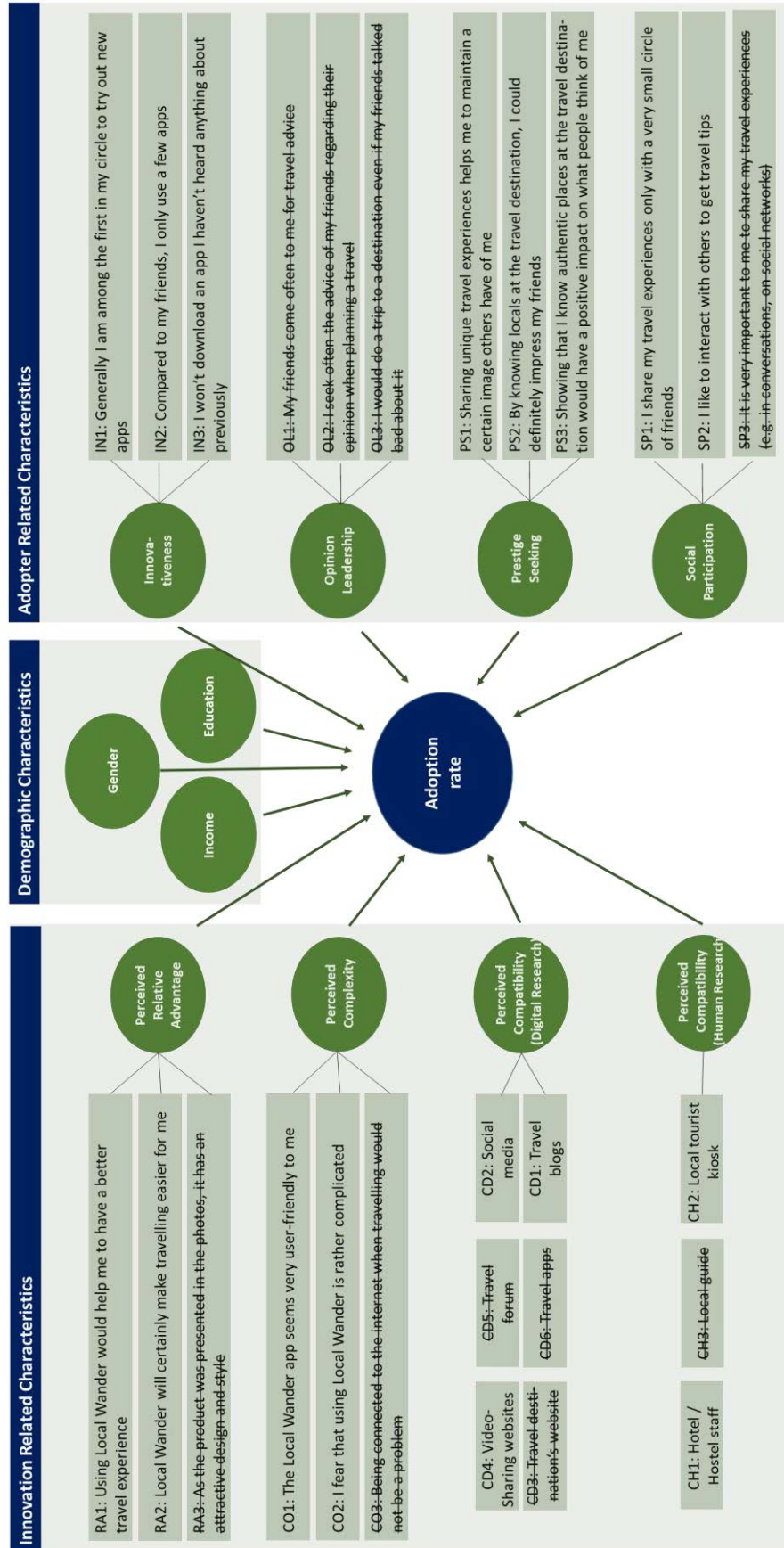
Figure 13 - Model after excluding unsatisfactory items; source: figure by author

Table 2 - Results bootstrapping method SmartPLS; source: table by author

Construct / Indicator	t-value	Significance	p-value
Compitability Digital	2,126	**	0,03462282
CD1	15,4663	***	0,00000000
CD2	14,3042	***	0,00000000
CD4	8,2619	***	0,00000000
Compitability Human	0,056	NS	0,95539286
CH1	1,8564	*	0,06473968
CH2	1,9719	**	0,04987975
Innovativeness	3,366	***	0,00090060
IN1	12,2559	***	0,00000000
IN2	6,4062	***	0,00000000
IN3	4,8333	***	0,00000253
Product Complexity	4,53	***	0,00000969
CO1	13,1273	***	0,00000000
CO2	11,6114	***	0,00000000
Relative Advantage	6,096	***	0,00000000
RA1	78,1957	***	0,00000000
RA2	47,5607	***	0,00000000
Social Participation	1,63	NS	0,10453891
SP1	2,1004	**	0,03683795
SP2	8,5185	***	0,00000000
Adoption Intention			1,00000000
AI1	68,7229	***	0,00000000
AI2	76,5762	***	0,00000000
AI3	60,0697	***	0,00000000
Prestige seeking	0,085	NS	0,93233904
PS1	2,4032	**	0,01708561
PS2	3,9364	***	0,00011112
PS3	2,3946	**	0,01748082
Gender	0,801	NS	0,42399980
Income	0,964	NS	0,33610917
Education	0,898	NS	0,37017174

***=1% (>2.57)
**=5%(>1.96)
*=10%(>1.645)
NS=Not Significant

Table 3 - Significant and insignificant results on adoption intention; source: table by author

Result: Effects	
Significant	**Insignificant**
Compitability Digital	Compitability Human
Innovativeness	Social Participation
Product Complexity	Prestige Seeking
Relative Advantage	Gender
	Income
	Education
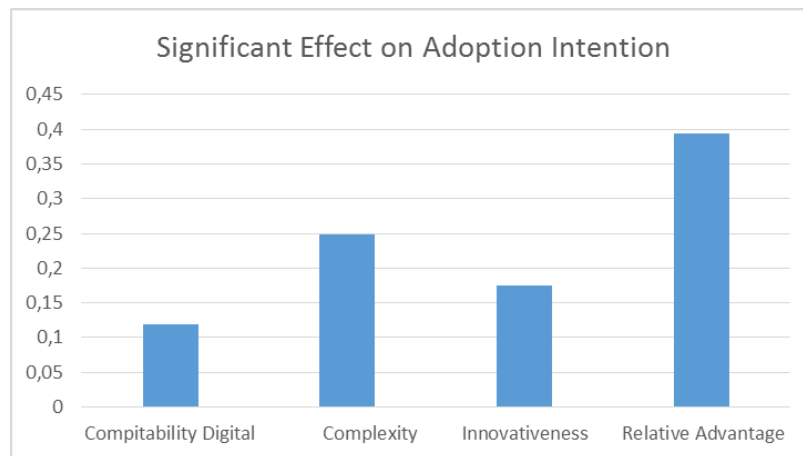
Figure 14 - Effect on the adoption intention; source: figure by author

the Compatibility with digital travel research sources (0.1186) and the general adopter's Innovativeness regarding apps (0.1751).

Therefore the hypotheses 3 and 4 could be partially confirmed and rejected depending on the respective construct. The Compatibility with digital travel sources, Relative Perceived Product Advantage, Perceived Product Complexity and Innovativeness degree regarding apps had a significant impact on the adoption intention of Local Wander's new app. For these characteristics the hypotheses can be partially confirmed. Nevertheless, for the analyzed demographics Gender, Income, and Educational Level, as well as the behavioral constructs Social Participation and Prestige Seeking such significant impact could not be confirmed. Similarly, also for the Compatibility with human based travel research sources such a significant effect had to be rejected, as well. Therefore, for these listed constructs hypotheses 3 and 4 had to be partially neglected.

While path coefficients represent the impact between dependent variable, adoption intention, and independent variables, R^2 measures the amount of variance explained by the independent variables (Hair et al., 2014). The R^2 in the case of the presented model was moderate with a value of 0.4475. In order to analyze the predictive relevance of the model, a blindfolding technique had been run with an omission distance of 7. More detailed results about all run statistics can be found in the appendix (Appendix VII, VIII).

6.2.3. Specific information for market entry recommendations

In order to find in-depth information on specific common characteristics among members of the adopter categories and thus gain relevant information to design the market entry strategy,

the data on travel and travel research behavior, as well as relevant demographics was analyzed. For the purpose of obtaining first insights, instead of using multinomial logistic regression, a simple comparison of arithmetic means was used that was later on verified through t-tests or chi-square depending on the characteristic that was regarded.

Comparing the demographical characteristics between the group of Innovators and the rest, certain numbers stuck out. While throughout the different adopter categories females seemed to be evenly represented, their number appeared to be above average within the group of Innovators (67%). Also was a high fraction of persons with Latin American heritage (67%) observable among the Innovators despite their minor representation within the overall sample population. The chi-square tests confirmed both these differences within the group of Innovators statistically (α=0.05). Even though marital status seemed to make a difference, with singles making up the majority within the group of Innovators and Early Adopters (72% and 59% respectively), these findings could not be confirmed to be statistically stable (Appendix IX).

Regarding differences among travel research frequency, behavior, motivations, and concerns, certain characteristics seemed promising. Data showed a declining average per adopter category for the travel research frequency. Such differences yet could not confirmed when running the t-test (Appendix X, Appendix XI).

Analyzing the usage of different travel research sources, travel blogs, social media, travel forums, city magazines, websites of the travel destination as well as the advice of friends appeared to be of greater usage among the Innovators and Early Adopters as figure 15 reveals. But only for two of these mentioned sources a statistical difference could be proven by conducting t-tests. While a higher usage of travel blogs by Innovators could be partially confirmed, the higher frequency of websites from the travel destinations as promising travel research source among Innovators compared to all other adopter groups was affirmed (Appendix X, Appendix XII).
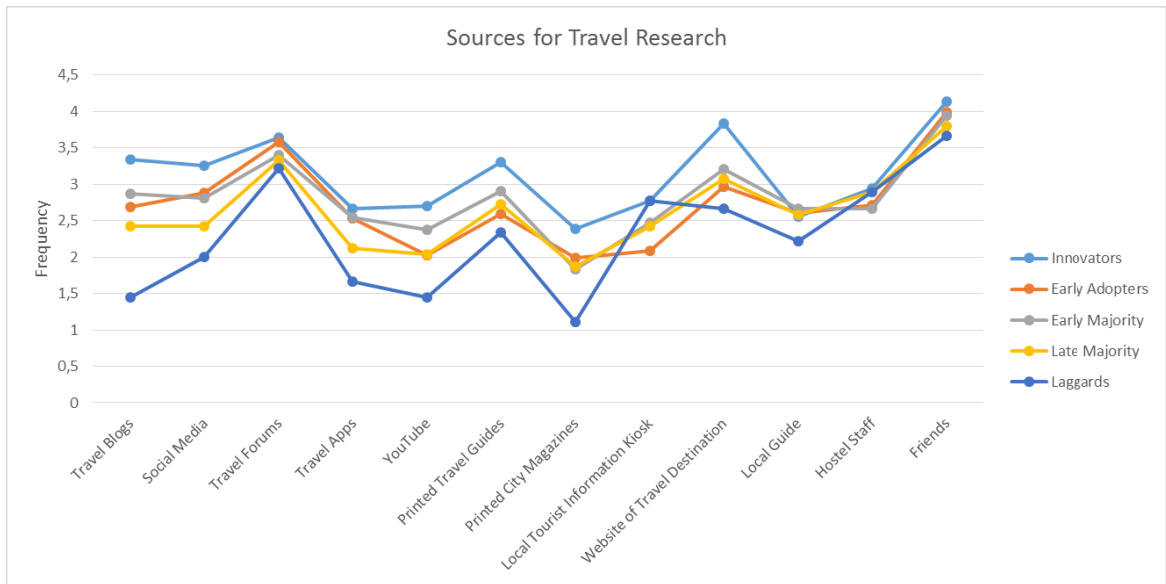
Figure 15 - Travel research sources per adopter category; source: figure by author

No statistically stable difference could be detected when looking at the different current travel research concerns. Similar results were obtained when comparing closer the motivation to use Local Wander's advice by locals between genders within the group of Innovators. Even though males seemed to prefer nightlife recommendations above average while females appeared to prefer advice on authentic places, cultural events and general travel advice, none of these findings could be approved by the t-testing (Appendix XIII, Appendix XIV, Appendix XV, Appendix XVI).

7. DISCUSSION AND CONCLUSIONS

First, the main findings of the research will be summarized. Afterwards, implications for the theory as well as the practice will be elaborated before specific recommendations for the start-up will be derived. Last, the research limitations will be presented and an outlook on future research given.

7.1. Main findings

Through the conducted research, this thesis was able to gain insights into the start-up's target audience. It showed that the DOI theory, with some limitations, is applicable to the context of Local Wander and served as a helpful tool in order to reveal additional information on the target audience relevant for the start-up's prospective market decision making.

The start-up's target public could be divided into the five different adopter categories developed by Rogers (1962) based on their adoption intention for Local Wander's app. Hypothesis 1 was therefore confirmed. Nevertheless, the results revealed a far higher percentage of Innovators and Early Adopters in the case of Local Wander than predicted by the theory leading to the rejection of hypothesis 2.

Four particular drivers with a significant impact on the adoption intention could be detected among Local Wander's potential users: the innovation related characteristics Relative Perceived Product Advantage, Perceived Product Complexity, and Compatibility with digital travel research sources, and the adopter's Innovativeness towards apps. This information enables the start-up to adapt its product design and marketing strategy according to the needs of its target public. As the other stated characteristics in hypothesis 3 and 4 could not be proven to have a significant impact on the adoption intention, these hypotheses could only be confirmed partially for these four mentioned constructs.

Furthermore, specific information about the innovator characteristics could be revealed. Among the group of Innovators females as well as individuals with a Latin American origin were significantly higher represented. Additionally, a significantly higher frequency in using the destination's official tourist website when doing travel research could be detected among this group. These insights might help to detect Innovators among the overall target public and design the early stage market entry strategy in a resource efficient way.

7.2.   Implications for theory & practice

These discovered findings bring up certain implications for the theory of DOI on the one hand and for the practice on the other hand. In this section these implications will be further discussed.

7.2.1. <u>Implications for the theory</u>

Even though the hypothesis 2 had to be neglected, as the distribution of adopters among the categories did not resemble the ones predicted by Rogers (1995), similarities among the observed and predicted distribution through the theory could be detected. Despite the minor deviation from the perfect S-curve predicted by theory, as the amount of adopters belonging to the Late Majority instead of the Early Majority is slightly higher, it can be assumed to follow the general innovation adoption pattern of an S-shape. Also Verleye & De Marez (2005) observed such minor irregularities in their study and yet could confirm the adopter categories as normally distributed and the overall diffusion curve to follow an S-shape. Given the small sample size, such outcome can occur. Therefore, even though the percentages vary from the ones predicted by Rogers' (1995) framework, also Local Wander's adoption curve follows the overall DOI model. Rejecting the hypothesis just based on static, pre-defined percentages strengthens the earlier mentioned critics on Rogers' (1995) model by Mahajan, Muller, & Srivastava (1990). It reinforces the need for more flexible models and approaches within the DOI theory.

Furthermore, the findings of the research revealed that, a far higher amount of Innovators and Early Adopters among the target audience of the analyzed start-up exist than the DOI theory would predict. One reason for this may be found in the given product and its characteristics itself. As it is offered free of charge, is easy and quick to download, and also appears to address an issue of high interest among the regarded target public, it might be perceived in general as more attractive than usual products. Therefore the target public may be on a general basis more inclined to download and use the product, explaining the shift towards the left described earlier. Many apps on the market fulfill similar characteristics as Local Wander. These findings raise therefore the doubt whether the distribution between adopter categories may differ in general for free of charge apps compared to other product categories. Until now, DOI theory does not distinguish the diffusion pattern between different product categories (Rogers, 1995).

In addition to that, while a large number of findings confirmed to be in line with the DOI theory, certain characteristics that have been proven in DOI research to be of relevance for the innovation adoption, were rejected in the analyzed context. Such characteristics included Social Participation, Prestige Seeking, Income, Educational Level, and Compatibility with human travel

research sources. These findings suggest that relevant DOI drivers may vary not only for Local Wander, but in the case of start-ups launching new apps in general.

7.2.2. <u>Implications for the practice</u>

The analyzed case of Local Wander showed that it is possible to use the DOI model in order to segment the general target audience into further sub-groups based on the adoption intention. By applying the DOI model and being able to assign the members of the overall target public into the specific adopter categories, further insights are possible to be gained. The existence of Innovators among their target audience is already a crucial information for start-ups to obtain: among their potential users exists a small group of enthusiastic people who highly appreciate the idea of the product and its promised value proposition. As described in the theory by Rogers (1962) and other scholars, this minor group among the target public values the product idea sufficiently high to accept even minor dysfunctionalities in the beginning. This type of user is highly valuable for a start-up's market entry for two reasons. First, at the beginning of a new app bugs and issues of functionality will most certainly arise that have to be eliminated or improved. While the majority of users would take such incidents as reason to abandon the product in the process of innovation decision making, sometimes even leading to negative WOM and by that endangering the overall market success in an early stage, this group of Innovators does not fear minor bugs in the beginning as proven by the conducted research. Second, if done right, the start-up can involve and give them an active role in the process of improving the product. Their feedback will enable to develop the app further, test certain features, and get even additional suggestions on how to upgrade the product. This will help to convince the group of Early Adopters to also try out the start-up's app. As described in the theory, this group is crucial in order to spread the word and increase the app's awareness. Also, they will take upon an important role in the adoption decision making process for later adopter groups, as their personal advice and opinion on the product will help to shape their attitude towards a start-up's product and to convince them to adopt. By taking Innovators as the base to develop a suited product that will appeal also other adopter groups, a start-up can gradually expand their user audience towards Early Adopters, Early Majority, Late Majority, and Laggards. At the same time, such gradual approach will prevent other adopter categories having higher expectations towards the product, the start-up would not be able to comply with yet at this stage, from adopting and, thus, preventing bad WOM (Rogers, 1995; Berger, 2013; Gladwell, 2009; Moore, 2014; Eyal, 2014). By the example of Local Wander, research was able to show that using the DOI framework can already help a start-up to further segment its target audience. This approach can be used in order

to assign priorities and design a gradual marketing strategy that promises a more efficient use of resources. Especially for start-ups, which are generally facing limited resources, such approach seems promising.

The SEM-PLS results revealed the four constructs, Perceived Relative Product Advantage, Perceived Product Complexity, the adopter's Innovativeness, and the product's Compatibility with digital travel research sources, to be of significant influence on the adoption intention. Thus, these four characteristics could be proven to have an impact on the diffusion of Local Wander's new product. While it might appear straight forward for Perceived Relative Product Advantage and Product Complexity to have a significant influence on the potential user's adoption decision making process, they bring still important insights.

The positive influence of the Relative Perceived Product Advantage on the app's download and usage intention underlines the necessity for a start-up to highlight the advantages the usage of the specific app implicates. By highlighting the benefits, showing the functionalities where the app is superior compared to other alternatives and emphasizing on current predominant concerns the product is aiming to solve, the Relative Perceived Product Advantage towards competing options on the market will be increased. Through such an increase, a start-up will be able to improve the likelihood of individuals downloading and using the app among its target audience. Therefore, when designing the marketing plan and communication messages, these findings point out ways on how to lower the hesitancy of potential users to download the app and grow the stat-up's user base.

Similar to the above mentioned follows the interpretation of the Perceived Product Complexity's impact. First, these findings reveal important information regarding the product design of an app. In order to increase the likelihood of members within the target audience using the app, a special focus of the start-up should lay in making the design of the app as simple and appealing as possible. An app layout with a user-friendly interface should be implemented and confusing design as well as complex process steps be avoided. Second, this achieved simplicity in design and product usage should be highlighted when promoting the app. Start-ups should dedicate some time and resources to establish forms to get the target audience in touch, test, and convinced of the product's simplicity. Through that, they can make sure to increase the intention of downloading and using the app among potential adopters.

The detected significant effect of an adopter's Innovativeness on the adoption intention shows that a person's general attitude towards apps has an impact on the intention to use Local Wander's new app. Therefore, persons who are generally among the first ones in their circle of peers to try out new apps will also be more likely to be among the earlier users of Local Wander, the research confirmed. At the same time, even though a person is very interested in traveling and doing travel research, the fact that he or she is generally not among those using the latest apps, will decrease the likelihood that this person will try out Local Wander. This information is very valuable for any company launching a new app, as it shows that the organization should focus in the beginning especially at the persons within their target group that are generally trying out the latest apps as their probability to download the specific start-up's new app is higher, as well.

Besides the general usage of apps, an individual's usage of digital travel research sources, in the thesis named Compatibility with digital travel research sources, has furthermore an impact on the adoption intention. The more persons use travel blogs, social media or video content sharing platforms, such as YouTube, in order to do their travel research, the more inclined they are to download and use Local Wander's app. The SEM-PLS analysis could therefore confirm, that a person's digital travel research pattern to some degree explains the intention of using the new app. As predicted by the DOI theory, it could be proven that Compatibility has a relevant impact on the adoption intention.

In opposite to that, the preferred usage of human based travel research sources, such as the help of local guides, hostel staff, or tourist kiosks, could not be confirmed to have an effect on the intention to download and use Local Wander's app. According to these findings, it is not relevant for the adoption decision making process whether a person likes to interact with other human beings in order to get travel related content. This shows that not necessarily all aspects of Compatibility are valued by the potential user equally high. A start-up should therefore analyze different aspects of Compatibility for its product and test which ones drive the adoption intention more than others in order to place special emphasis on these.

In terms of the relevance of Income and Educational Level on the adoption intention, findings differ in the context of Local Wander to what the DOI theory by Rogers (1995) predicted. For the adoption decision making process to download and use the app, neither Income nor the Educational Level could be proven to have an impact. That implies that in the case of apps, Innovators do not necessarily may have to dispose above average financial resources. Also the results show that the Educational Level of the potential user is not of significant importance to determine whether a person is more likely to try out the app. Moreover, an impact of Gender

on the adoption intention was not confirmed either, findings showed. General conclusions regarding the willingness to try out the app based on Gender is therefore not possible.

Even though taking a crucial role in the DOI model by Rogers (1995) and detected in many other research conducted by scholars in the field of DOI, Social Participation could not be confirmed to have a significant impact on the adoption intention in the case of Local Wander. Based on that result, whether a person has a wide reach and large circle of peers does not have a relevance regarding his or her intention to try out the app. Likewise for the construct Prestige Seeking a significant effect could not be detected. Whether a person aims to appear desirable in front of his or her peers, is irrelevant regarding the intention to download and use an app.

Due to the lack of reliability of the construct Opinion Leadership, a characteristic that takes an important role when analyzing the DOI process in the theory, its effect on download and usage intention could not be tested in the given case and no particular conclusion could be drawn. Important information for start-ups is therefore missing that might reveal further explanation on the intention to try out the new app.

Knowing what drives the download and usage intentions for a start-up's app helps to know which features to highlight in its communication messages and how to design its product in order to increase the likelihood among potential users from the target public to try out the new app. Nevertheless, to be able to use this method successfully, it is important for start-ups to connect it with further market research to gain additional insights on the specific characteristics of each adopter category. These insights are necessary in order to be able to identify the respective adopter categories among the target audience and target them appropriately.

The conducted research showed that such revealment of adopter group specific characteristics information was feasible. Among the particular group of Innovators two demographic characteristics were observed to be unevenly distributed: Gender and heritage. Even though the general impact of Gender on the adoption intention was rejected, an extraordinary higher amount of females was observable within the specific group of Innovators compared to other adopter categories. Furthermore, as earlier presented results revealed, Innovators used significantly more frequent the destination's website as source for travel information. Such insight is of high value for Local Wander as it points out a key communication channel for the start-up to reach the Innovators. Even though such observation on its own may not bear sufficient certainty to build specific marketing strategies upon, it serves as indication for further company specific market research to detect specific differences among the target audience and adopter groups.

The findings about certain characteristics of the members within the Innovators group will help to detect these enthusiastic potential early users of a particular start-up's app. By focusing on these identified characteristics among a start-up's target public and designing the campaigns primarily to their needs, a start-up increases its probability to successfully attract the Innovators.

The research showed that using the DOI framework as additional tool as support for the decision making and strategy planning helps to gain valuable insights and information. Specific influential drivers of the target audience's adoption intention can be identified and indications for further company market research be gained. Overall, information can be accessed that is very helpful in order to design the particular targeting and marketing strategy for a start-up about to enter the market.

7.3.   Recommendations to the company

Local Wander can use the information obtained through the research in order to narrow down its original target audience and focus the initial marketing campaign on the detected Innovators. As described in the implication for practice section above, Local Wander should thusly engage the minor group of enthusiastic early users in order to erase bugs and improve the product before expanding their customer base towards the other adopter categories.

Assuming the large observed size of the Early Market does not result in a bias caused by the research approach, it can be perceived as positive information for Local Wander. Besides confirming that the chosen target group appears to be well suited for the start-up's product, as so many persons could sincerely consider already at this point to download and use the app, it promises a high demand on the market.

Using the insights gained from the PLS-SEM, Local Wander should emphasize in its communication strategy on how the start-up helps the potential users to make the travel a better and unique experience while pointing out current travel concerns the app aims to solve. By that, Local Wander increases the Relative Perceived Product Advantage among its potential users and thus their likelihood of adoption. Furthermore the simple design of Local Wander's app should be highlighted together with the few necessary steps in order to get personal advice by locals in order to decrease the Perceived Product Complexity. Additionally, Local Wander should focus on these persons among their target group who are using more frequently online travel research sources. Therefore, it should dedicate its marketing primarily on the digital channels as these users are expected to be more intended to try out Local Wander's app as research revealed. The start-up should attempt to make travel bloggers to share their experiences with

the product among their readers, engage members in social networks to promote Local Wander's app, establish co-operations with travel websites, and develop other ways to be especially present in the digital travel research channel. At the same time, the information of human based travel research not having a significant impact on the adoption intention, helps Local Wander, as previous market research conducted by the start-up seemed to bring up such hypothesis.

Analyzing Local Wander's Innovators specific characteristics, findings revealed a far higher fraction was female, as well as of Latin American origin within that category. Moreover, they tended to use more frequently the destination's website as travel research source. If such characteristics can be confirmed by future market research, Local Wander's marketing campaign and communication strategy should be designed specifically based on these findings. Special focus should then be dedicated towards women and persons with Latin American heritage. By targeting these types among their target public and designing the campaigns primarily to their needs, Local Wander increases its probability to successfully attract the Innovators, thus the small group of very enthusiastic potential app users. Since these potential enthusiastic early users trust more often the official websites from the travel destination, Local Wander should dedicate efforts in order to brand its product on this platform. By that it could raise the awareness for the product among these Innovators and take upon the role that is in DOI theory often times assigned to mass media, as they are the first point of contact of potential adopters with the product. For the market entry of Local Wander this means to brand its new app on the tourism website of the city of Rio de Janeiro. Rather than spending money for advertisement space on the website, it should aim to establish a partnership with the city's tourism office. As the app aims to enhance a better travel experience for travelers coming to Rio de Janeiro and is offered for free, the start-up has promising arguments for such co-operation as it increases the touristic appeal of the city. Local Wander should use its membership in the governmental incubator program StartUp Rio, which is funded by the state government of Rio de Janeiro, in order to reach out and convince the city's tourism office for such partnership.

7.4.   Limitations of the research

Nevertheless, the research is facing some limitations that will be addressed in this section. The findings should be regarded to some extent with caution.

The observed higher amount of Early Market, the earlier described shift towards the left, may not lay in the higher appeal of the product but rather in the fact that the web-based survey has been sent out through convenience sampling and snowball sampling within the personal network of the conductor. Therefore the high observed intentions to try out a new product may

be influenced, as it was introduced by a familiar person. As many DOI scholars explain in their research, the introduction into the personal circle of peers has a positive impact on the DOI (Rogers, 1995) – therefore the chosen form of interrogation may not be the best suited for this case. Additionally, a high number of students as well as Germans is found among the respondents underlining a potential selection bias due to the chosen recruitment of respondents through the personal network of the research conductor.

Beside the mentioned point, the scope selection of the analyzed social system may have caused an impact on the findings. By limiting the population only to the target group rather than the entire possible tourism market, certain groups less inclined to adopt in an early stage have been excluded. In particular, the individuals of this group are expected to be more skeptical about the app and display a more conservative posture regarding its adoption, making up to a large extent - the in this case underrepresented - Main Market. Broadening the sample population beyond the target group will help to understand whether this selection of social system may have caused the smaller Main Market than expected (Rogers, 1995, p. 24 ff.).

Another explanation for the described differing distribution of potential adopters from this research towards the DOI theory may lay also in the chosen research approach of using a survey to test adoption intention and further behavioral constructs. A respondent is generally more inclined to express the interest in purchasing a product than actually later to stick to it when making the adoption decision. Expressing the interest of downloading Local Wander thus does not necessarily imply automatically that this person will in the end also behave as previously stated. Since also behavioral charactistics were asked, the respondent had to give further answers about hypothetical situations. The accuracy on whether a respondent really knows how she or he will behave in reality is often times criticized by scholars (Gosling & Johnson, 2010). Additional comprehension difficulties may lead to different interpretations of survey questions (Wright, 2015). These reasons may have led to inaccurate answering of survey questions and might be an explanation why behavioral constructs, such as Social Participation or Prestige Seeking remained insignificant.

As the chosen indicators for the Opinion Leadership construct turned out to be unreliable, one of the major drivers of innovation adoption according to the theory could not be analyzed for its effects in the given case (Rogers, 1995, p. 37 ff.). One possible main driver of adoption intention remained therefore untested.

7.5.   Suggestions for future research

Further research should be conducted with a larger sample size and a wider scope covering the entire tourism market, not only the start-up's target audience on the one hand. On the other hand, a more representative sample population should be achieved, compensating the unbalanced high amount of students and German respondents. By that, one possible bias mentioned above causing the shift towards the left can be erased and the detected findings of this research can be cross-checked. Moreover, future research should rely on random based sampling approaches rather than convenience and snowball sampling in order to avoid a selection bias.

As the construct Opinion Leadership had to be excluded of the analysis due to low construct reliability and other tested behavioral constructs to a large extent did not show significant impact on the adoption intention, further research with more adequate behavioral testing approaches should be considered. Field and online experiments proved to be more accurate forms of researching in order to test a person's behavior and intention of purchasing (Gosling & Johnson, 2010; Rogers, 1995, p. 123 ff.).

As conducting such an online experiment is complex and demanding a large amount of resources, another alternative can be suggested in the given context of Local Wander in order to test the accuracy of the tested adoption intention. The survey collected in the end on a voluntarily basis e-mail addresses of the respondents. Those respondents can be asked at a certain point after the app release whether they already downloaded and tried the app. Since each respondent was assigned specifically to one of the five adopter groups, the actual download behavior for these users can be used as indicators for evaluating the accuracy of the previously expressed intention.

Finally, the start-up is recommended to do further qualitative in-depth research in order to gain more detailed insights about the adopter category related characteristics. The detected higher amount of females and Latin American heritage as well as more frequent usage of travel destination's website among Local Wander's Innovators has to be proven on a larger scale before the start-up's entire marketing strategy should be designed around these observations. Additionally, even though some differences appeared to be among the adopter categories regarding the motivation of product usage and further travel research sources, their actual significance could not be confirmed by statistic tests. Future research could help to find out more information about the different adopter categories' characteristics, motivations and intentions in order to design their marketing campaigns best suited to the needs of the respective potential user groups within the broader target public. Qualitative research in form of interviews or focus groups as

used by Stragier et al. (2013) will help the start-up to receive further insights and analyze causal relations. Such information is necessary to identify the different adopter categories among Local Wanders target audience and to design the future marketing strategy even more according to the users' preferences.

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APPENDIXES

Appendix I: Conducted survey

<u>Introduction:</u> Thanks a lot for volunteering to answer this survey! You are part of an exclusive and selected group of students who can make a difference helping an uprising Rio based start-up to enter the market! The questions are simple, the survey short – in around 5-6 minutes you should be already done with it. A small step for you, but a big one for this start-up on its long journey ahead!

1. **<u>Filter questions</u>**

    (1) Do you have a smartphone?

        i. Yes

        ii. No

    (2) Do you plan on buying a smartphone within the next year?
        i. Yes
        ii. No

2. **<u>General travel behavior</u>**

    (1) How often did you go on vacation lasting at least 3 days in the past?

        i. Every few years

        ii. Once a year

        iii. Several times a year (2-4 times)

        iv. More than 4 times a year

    (2) In which type of lodging did you generally stay? *[Likert scale: Never – Most of the time]*

        i. High-class & Premium hotels (4* and above)

        ii. Budget hotels (3* and below)

        iii. Hostel

        iv. Rented apartment (e.g. Airbnb)

        v. Couch Surfing

    vi. A friend's / relative's place

    vii. Camping

    viii. Cruise

    ix. Other:

(3) With whom did you normally go on vacation?

    i. Alone

    ii. With partner / family

    iii. With friends

    iv. Organized travel groups

(4) How much do you research before you travel? *[Likert scale: Not researching at all – Researching a lot]*

(5) How frequently do you use the following sources for your travel research? *[Likert scale: Never – All the time]*

    i. Travel blogs

    ii. Social Media (e.g. Facebook, Instagram, Twitter)

    iii. Online travel forums (e.g. Trip Advisor)

    iv. Travel apps (e.g. Foursquare, Yelp)

    v. Video-sharing websites (e.g. YouTube)

    vi. Printed travel guides (e.g. Lonely planet)

    vii. Printed city magazine

    viii. Local tourist information kiosk

    ix. Website of travel destination

    x. Local guide (e.g. touristic guide, free walking tour)

    xi. Hostel / Hotel staff

    xii. Friends who have been there

xiii. Friends who live there

xiv. Other:

(6) How relevant are the following concerns for you when doing travel research on current platforms? *[Likert: Not at all relevant – Extremely relevant]*

   i. Don't know if I can trust the source

  ii. Not up-to-date

 iii. Take a lot of time

 iv. Lack of interaction

  v. Not customized to my needs

 vi. Other:

3. **General behavioral questions**

(1) Please state quickly how much you agree or disagree with the following statements: *[Likert scale: Strongly disagree – Strongly agree]*

   i. It is very important to me to share my travel experiences (e.g. in conversations, on social networks)

  ii. I share my travel experiences only with a very small circle of friends

 iii. I like to interact with others to get travel tips

 iv. My friends come often to me for travel advice

  v. I seek often the advice of my friends regarding their opinion when planning a travel

 vi. I would do a trip to a destination even if my friends talked bad about it

 vii. Sharing unique travel experiences helps me to maintain a certain image others have of me

viii. Showing that I know authentic places at the travel destination would have a positive impact on what people think of me

ix. By knowing locals at the travel destination, I could definitely impress my friends

x. Generally I am among the first in my circle to try out new mobile applications

xi. Compared to my friends, I only use a few mobile applications

xii. I won't download a mobile application I haven't heard anything about previously

4. **LocalWander**

We would like to present to you now the idea of a young Brazilian start-up and hear what you think about it:

Local Wander is a mobile application for your smartphone that brings travelers together with locals of the travel destination. Through a chat the traveler gets the chance to interact and get personalized, authentic recommendations on time about the destination by these locals.

To get an idea, we would like to show you quickly how some of the apps screens will look like and how the app will be designed:

[Animated GIF with screens of app]

How does Local Wander work?

1) Download app

2) Fill out profile:

- in order for the locals get a better idea of you, you are asked some travel related questions: number of travelers, age, budget, and other preferences

3) Matching with 2 locals:

- you will be matched with two locals from your travel destination

- a chat window opens where you can write with the two locals and ask them for recommendations

- the chat will be available for the entire time of traveling, so you can ask the locals for advice whenever you have some doubts

What do you need to use it?:

- a smartphone (iOS or Android)

- internet connection

And this is how possible conversations might look like:

[Graphic with screens of possible conversations]

(1) As you have it in mind right now, up to what degree would you be interested in downloading the app if it was available?

    i. Download it immediately

    ii. Big chance I download it

    iii. Let's wait and see, maybe later

    iv. I don't think I will download it

    v. I most certainly will not download it

(2) What would be the most helpful purpose to get insider recommendations by locals? *[Likert scale: very useless – very useful]*

    i. Sightseeing & touristic attractions

    ii. Avoid touristic traps

    iii. Get to know local nightlife

    iv. Get to know local restaurants

    v. Get to know authentic places besides typical touristic attractions

    vi. Get to know what cultural events & concerts are currently going on in town

    vii. General advice & help (e.g. security concerns)

    viii. Other:

Local Wander is a very new designed product and about to enter the market. It's important for us to understand better how you think about using products & services.

(3) Please state quickly how much you agree or disagree with the following statements: *[Likert scale: Strongly disagree – Strongly agree]*

    i.   The Local Wander app seems very user-friendly to me

    ii.   I fear that using Local Wander is rather complicated

    iii.   Being connected to the internet when travelling would not be a problem

    iv.   Using Local Wander would help me to have a better travel experience

    v.   Local Wander will certainly make travelling easier for me

    vi.   As the product was presented in the photos, it has an attractive design and style.

(4) Given the app will be designed exactly to your needs and purposes, up to what degree would you be interested now in downloading the app (e.g. preferred language, preferred travel destinations, perfect locals fit, etc.)?

    i.   Download it immediately

    ii.   Big chance I download it

    iii.   Let's wait and see, maybe later

    iv.   I don't think I will download it

    v.   I most certainly will not download it

(5) Knowing that the app ha**s** some minor bugs in the beginning, up to what degree would you be now interested in downloading the app?

    i.   Download it immediately

    ii.   Big chance I download it

    iii.   Let's wait and see, maybe later

    iv.   I don't think I will download it

    v.   I most certainly will not download it

5. **Demographics**

(1) Gender:

      i. Male

     ii. Female

(2) Nationality:

       i. Argentinian

      ii. Brazilian

     iii. British

     iv. Chilean

      v. French

     vi. German

    vii. Italian

   viii. Lithuanian

     ix. Portuguese

      x. Uruguayan

     xi. US American

    xii. Others:

(3) Age:

      i. Below 18 years

     ii. 18-24 years

    iii. 25-34 years

    iv. 35 – 44 years

     v. 45 – 54 years

    vi. 55 – 64 years

   vii. 65+ years

(4) What is approximately you <u>average monthly income in US Dollar</u>?

    i. Less than 500 USD

    ii. 500 - 999 USD

    iii. 1,000 - 1,999 USD

    iv. 2,000 - 2,999 USD

    v. 3,000+ USD

(5) Occupation:

    i. Employed

    ii. Self-Employed

    iii. Unemployed

    iv. Retired

    v. Student

    vi. Other:

(6) Finished educational degree:

    i. High school

    ii. University degree (e.g. Bachelor)

    iii. Postgraduate (e.g. Master, PhD)

    iv. None of the above

(7) Marital status

    i. Married

    ii. In relationship (not married)

    iii. Single

    iv. Other:

(8) Do you have children?

    i. Yes

      ii. No

(9) Have you already been to Rio de Janeiro?

      i. Yes

      ii. No

(10) Are you generally interested to travel to Rio de Janeiro one day?

      i. Yes

      ii. No

You liked the idea of Local Wander and want to stay tuned once they go online? Leave your e-mail address here and we will let you know:

⇨ *INSERT EMAIL HERE*

Appendix II: Presented Local Wander app design & possible conversations
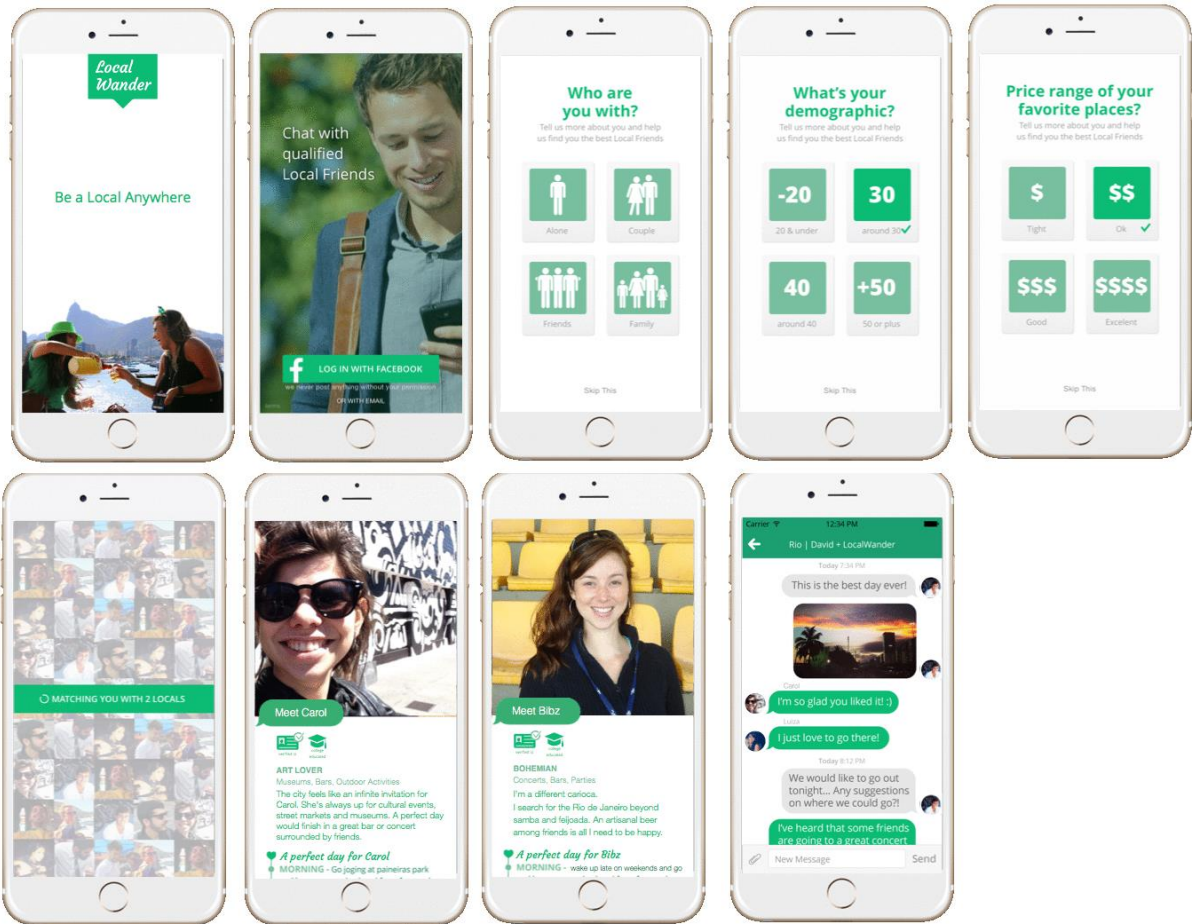
Animated GIF - Local Wander App Design; Source: http://www.localwander.com/
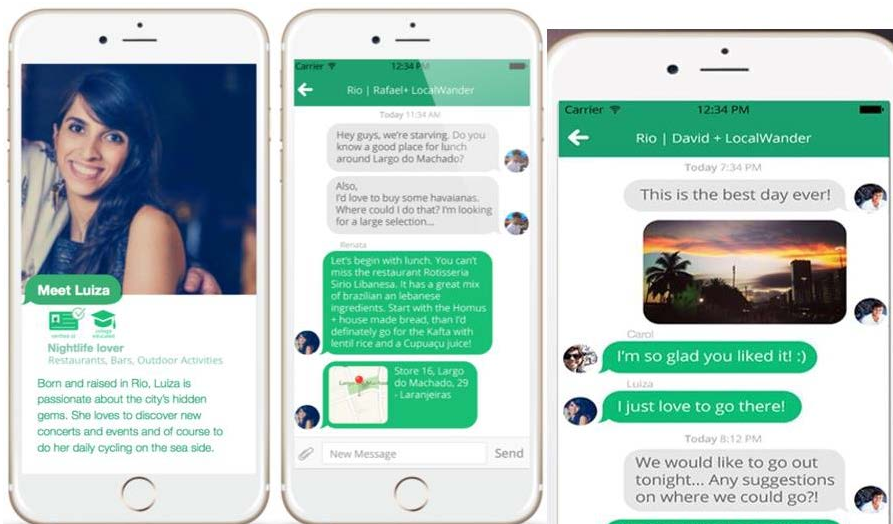
Screens of possible conversations; source: facebook/LocalWander , http://www.localwander.com/

Appendix III: Additional descriptive analyses on survey respondents
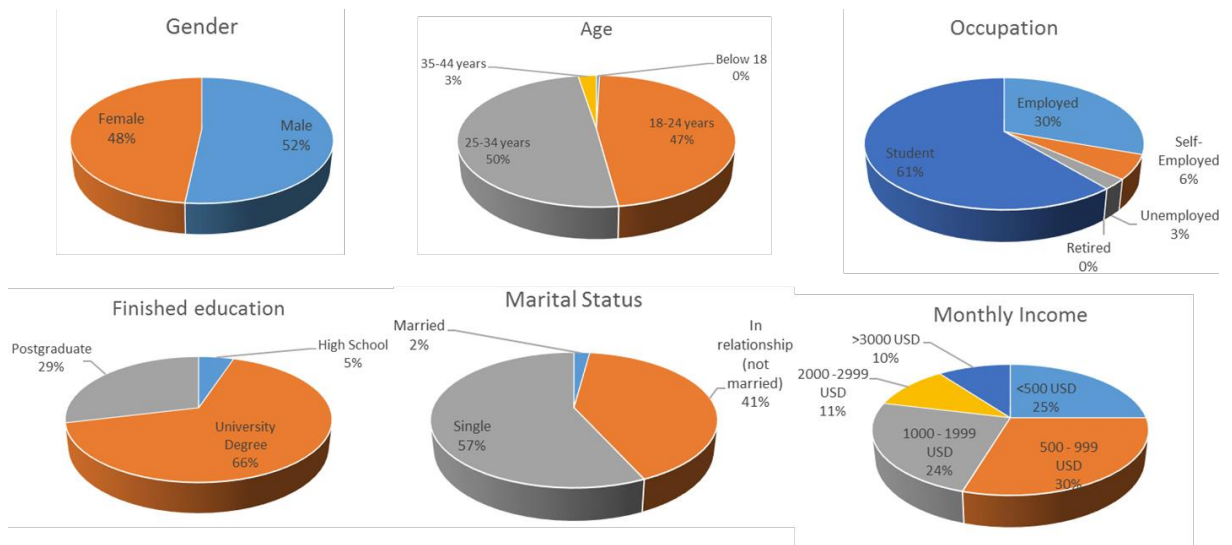
Appendix IV: Table pattern to assign respondents to adopter categories

Assigned Adopter Category (according to Verleye & De Marez (2005))			
Category to be assigned	Question1 (Q14)	Question2 (Q19)	Question3 (Q20)
Innovators	1		
Early Adopters	2	1	1
	2	1	2
	2	1	3
	2	2	1
	2	2	2
Early Majority	2	1	4
	2	1	5
	2	2	3
	3	2	5
*	2	3	3
*	3	2	3
*	3	2	2
*	4	1	2
*	4	2	2

*	3	1	2
Late Majority	3	3	3
	4	3	4
	4	3	5
*	4	2	4
*	3	3	4
*	3	3	5
Laggards	4	4	
	4	5	
	5		
originally not in Verleye & De Marez (2005) mentioned and added for this thesis			

Appendix V: Individual indicator reliability – original model

1. Individual indicator reliability (Outer Loadings)		Maximum Iterations	300		Abort Criterion	1.0E-5		Initial Weights	1
I. ORIGINAL DESIGNED MODEL									

	AdoptionIntention	CompitabilityDigital	CompitabilityHuman	Complexity	Innovativeness	OpinionLeadership	PrestigeSeeking	RelativeAdvantage	SocialParticipation
AI1_Q14_reversed	0,9267	0	0	0	0	0	0	0	0
AI2_Q19_reversed	0,9246	0	0	0	0	0	0	0	0
AI3_Q20_reversed	0,8999	0	0	0	0	0	0	0	0
CD1_Q7_1	0	0,7793	0	0	0	0	0	0	0
CD2_Q7_2	0	0,7212	0	0	0	0	0	0	0
CD3_Q7_4	0	0,5787	0	0	0	0	0	0	0
CD4_Q7_5	0	0,6131	0	0	0	0	0	0	0
CD5_Q7_9	0	0,5597	0	0	0	0	0	0	0
CD6_Q7_3	0	0,4416	0	0	0	0	0	0	0
CH1_Q7_11	0	0	0,7854	0	0	0	0	0	0
CH2_Q7_8	0	0	0,8121	0	0	0	0	0	0
CO1_Q17_1	0	0	0	0,7924	0	0	0	0	0
CO2_Q17_2reversed	0	0	0	0,7893	0	0	0	0	0
CO3_Q17_3	0	0	0	0,1445	0	0	0	0	0
EDU_Q25	0	0	0	0	0	0	0	0	0
GEN_Q21	0	0	0	0	0	0	0	0	0
IN1_Q10_10	0	0	0	0	0,8442	0	0	0	0
IN2_Q10_11reversed	0	0	0	0	0,6878	0	0	0	0
IN3_Q10_12reversed	0	0	0	0	0,6268	0	0	0	0
INC_Q30	0	0	0	0	0	0	0	0	0
OL1_Q10_4	0	0	0	0	0	-0,7132	0	0	0
OL2_Q10_5reversed	0	0	0	0	0	0,8549	0	0	0
OL3_Q10_6	0	0	0	0	0	0,0567	0	0	0
PS1_Q10_7	0	0	0	0	0	0	0,6019	0	0
PS2_Q10_9	0	0	0	0	0	0	0,9414	0	0
PS3_Q10_8	0	0	0	0	0	0	0,5926	0	0
Q17_6	0	0	0	0	0	0	0	0,4483	0
RA1_Q17_4	0	0	0	0	0	0	0	0,8919	0
RA2_Q17_5	0	0	0	0	0	0	0	0,8703	0
SP1_Q10_2reversed	0	0	0	0	0	0	0	0	0,4827
SP2_Q10_3	0	0	0	0	0	0	0	0	0,9145
SP3_Q10_1	0	0	0	0	0	0	0	0	0,3042

.=> Red colored fields directly taken out
.=> Orange colored fields taken out as well due to low reliability score
.=> Yellow colored left in because of theoretical value

Appendix VI: Individual indicator reliability – without unreliable indicators

II. MODEL WITHOUT UNRELIABLE INDICATORS	Maximum Iterations	300		Abort Criterion	1.0E-5		Initial Weights		1	
	AdoptionIntention	CompitabilityDigital	CompitabilityHuman	Complexity	Innovativeness	OpinionLeadership	PrestigeSeeking	RelativeAdvantage	SocialParticipation	
AI1_Q14_reversed	0,9276	0	0	0	0	0	0	0	0	
AI2_Q19_reversed	0,9246	0	0	0	0	0	0	0	0	
AI3_Q20_reversed	0,8988	0	0	0	0	0	0	0	0	
CD1_Q7_1	0	0,7846	0	0	0	0	0	0	0	
CD2_Q7_2	0	0,7568	0	0	0	0	0	0	0	
CD4_Q7_5	0	0,6477	0	0	0	0	0	0	0	
CH1_Q7_11	0	0	0,7862	0	0	0	0	0	0	
CH2_Q7_8	0	0	0,8114	0	0	0	0	0	0	
CO1_Q17_1	0	0	0	0,7945	0	0	0	0	0	
CO2_Q17_2reversed	0	0	0	0,7885	0	0	0	0	0	
EDU_Q25	0	0	0	0	0	0	0	0	0	
GEN_Q21	0	0	0	0	0	0	0	0	0	
IN1_Q10_10	0	0	0	0	0,8441	0	0	0	0	
IN2_Q10_11reversed	0	0	0	0	0,6879	0	0	0	0	
IN3_Q10_12reversed	0	0	0	0	0,6269	0	0	0	0	
INC_Q30	0	0	0	0	0	0	0	0	0	
OL1_Q10_4	0	0	0	0	0	-0,7281	0	0	0	
OL2_Q10_5reversed	0	0	0	0	0	0,8477	0	0	0	
PS1_Q10_7	0	0	0	0	0	0	0,6019	0	0	
PS2_Q10_9	0	0	0	0	0	0	0,9413	0	0	
PS3_Q10_8	0	0	0	0	0	0	0,5931	0	0	
RA1_Q17_4	0	0	0	0	0	0	0	0,9188	0	
RA2_Q17_5	0	0	0	0	0	0	0	0,8878	0	
SP1_Q10_2reversed	0	0	0	0	0	0	0	0	0,4793	
SP2_Q10_3	0	0	0	0	0	0	0	0	0,9166	

Appendix VII: Cross loadings

3.Cross Loadings

	AdoptionIntention	CompitabilityDigital	CompitabilityHuman	Complexity	Education	Gender	Income	Innovativeness	PrestigeSeeking	RelativeAdvantage	SocialParticipation
AI1_Q14_reversed	0,9273	0,2974	0,0189	0,3942	0,1291	0,1218	-0,0167	0,2563	0,208	0,534	0,1362
AI2_Q19_reversed	0,9248	0,3374	-0,0447	0,3176	0,0887	0,1076	-0,0264	0,323	0,1437	0,5323	0,1127
AI3_Q20_reversed	0,8991	0,2271	-0,0827	0,4001	0,0887	0,0419	0,003	0,2947	0,1307	0,4712	0,0577
CD1_Q7_1	0,2806	0,7999	0,07	0,0461	0,0909	0,3137	0,0875	0,2398	0,2226	0,2672	0,0854
CD2_Q7_2	0,2513	0,7999	-0,0079	0,0104	0,0352	0,2053	-0,0043	0,2239	0,0904	0,188	0,0496
CD4_Q7_5	0,1668	0,6805	-0,0439	0,0144	0,0301	-0,0018	0,0258	0,2289	0,1233	0,1612	0,0004
CH1_Q7_11	-0,0292	0,0303	0,7861	0,0118	0,1355	0,1323	-0,0967	-0,0967	0,1438	-0,0477	0,0144
CH2_Q7_8	-0,0309	0,0012	0,8115	-0,0087	0,1004	0,1448	-0,1275	-0,0855	0,0539	-0,1415	0,0378
CO1_Q17_1	0,3212	0,1367	0,0187	0,7945	0,0454	0,0438	0,01	0,0615	0,0986	0,387	0,0032
CO2_Q17_2reversed	0,3172	-0,0853	-0,0164	0,7885	0,0494	-0,0158	0,0142	0,0675	0,1255	0,1103	0,1045
EDU_Q25	0,0866	0,073	0,147	0,0599	1	0,1108	0,1652	0,0352	0,1385	0,0529	-0,0662
GEN_Q21	0,1002	0,2585	0,1736	0,0179	0,1108	1	-0,1749	0,002	0,0482	0,0163	0,009
IN1_Q10_10	0,2789	0,3073	-0,0807	0,0803	0,0199	-0,0436	0,1435	0,8441	0,2637	0,2088	0,0623
IN2_Q10_11reversed	0,1663	0,2525	-0,1021	-0,0051	0,0704	-0,0008	0,1475	0,6878	0,0035	0,1234	0,117
IN3_Q10_12reversed	0,2233	0,0864	-0,0727	0,0822	0	0,0595	-0,0793	0,6269	0,0568	0,07	0,1796
INC_Q30	-0,0151	0,0515	-0,1074	0,0152	0,1652	-0,1749	1	0,0956	-0,058	0,0384	-0,0444
PS1_Q10_7	0,0487	0,1525	0,0718	0,0375	0,0207	0,0109	-0,1178	0,0179	0,6019	0,0963	0,1429
PS2_Q10_9	0,1945	0,1622	0,1188	0,1658	0,1686	0,0566	0,0072	0,1728	0,9413	0,1536	0,0851
PS3_Q10_8	0,058	0,163	0,0606	0,0065	0,0063	0,0063	-0,1721	0,1595	0,5929	0,1179	0,0744
RA1_Q17_4	0,542	0,2613	-0,0859	0,3043	0,1012	0,0365	0,053	0,2159	0,152	0,9188	-0,0523
RA2_Q17_5	0,4649	0,2373	-0,1349	0,2628	-0,0144	-0,0106	0,1257	0,1257	0,1514	0,8878	-0,1138
SP1_Q10_2reversed	0,1144	0,0438	0,0286	0,0759	-0,0642	-0,0029	-0,036	0,1489	0,0835	-0,0945	0,4793
SP2_Q10_3	0,251	0,2138	0,1426	0,1077	0,0109	0,1349	0,0233	0,1207	0,1542	0,3057	0,9166

.=> all cross loadings are fine

4. Fornell - Larcker (VAVE) — discriminant validity

.=> conducted and all values proofed acceptable

Appendix VIII: Predictive relevance – blindfolding technique results

4. Predictive Relevance: Blindfolding		Construct Crossvalidated Redundancy	
Omission distance:	7		
Total	SSO	SSE	1-SSE/SSO
AdoptionIntention	708	456,8408	0,3547

Appendix IX: Adopter categories demographical characteristics analysis

| | PERCENTAGE WITHIN ADOPTER CATEGORY | | | | | |
	Innovators	**Early Adopte**	**Early Majorit**	**Late Majorit**	**Laggards**	**Overall %**
Overall #	100%	100%	100%	100%	100%	
Gender	**Gender**					
Male	33%	57%	51%	53%	78%	52%
Female	67%	43%	49%	47%	22%	48%
Heritage	**Heritage**					
Latin Americans	67%	32%	36%	15%	11%	33%
Europe	31%	63%	60%	76%	78%	61%
Others	3%	5%	4%	8%	11%	6%
Age	**Age**					
<18	0%	1%	0%	0%	0%	0%
18-24	53%	47%	49%	46%	33%	47%
25-34	47%	48%	49%	51%	67%	50%
35-44	0%	4%	2%	3%	0%	3%
Income						
<500USD	31%	14%	28%	34%	22%	25%
500-999USD	33%	33%	30%	22%	33%	30%
1000-1999USD	17%	34%	19%	20%	22%	24%
2000-2999USD	14%	9%	11%	14%	0%	11%
>3000USD	6%	10%	11%	10%	22%	10%
Occupation						
Student5	42%	70%	57%	61%	89%	61%
Self-Employed2	8%	8%	6%	3%	0%	6%
Employed1	39%	22%	36%	36%	11%	31%
Unemployed3	11%	1%	2%	0%	0%	3%
Finished Education Degree						
High School	3%	4%	8%	7%	0%	5%
University	61%	66%	66%	66%	89%	66%
Postgrad	36%	30%	26%	27%	11%	29%
Marital Status						
Married	0%	1%	4%	3%	0%	2%
In relationship (not marrie	28%	39%	47%	46%	44%	41%
Single	72%	59%	49%	51%	56%	57%
Children						
Yes	3%	5%	2%	3%	11%	4%
No	97%	95%	98%	97%	89%	96%

	PERCENTAGE WITHIN OVERALL INDICATOR DISTRIBUTION					
	Innovators	Early Adopte	Early Majorit	Late Majorit	Laggards	Overall %
Overall #	15%	33%	22%	25%	4%	99%
Gender						
Male	10%	37%	22%	25%	6%	100%
Female	21%	30%	23%	25%	2%	100%
Heritage						
Latin Americans	31%	32%	24%	12%	1%	1
Europe	8%	34%	22%	31%	5%	1
Others	8%	31%	15%	38%	8%	1
Age						
<18	0%	100%	0%	0%	0%	100%
18-24	17%	33%	23%	24%	3%	100%
25-34	15%	32%	22%	26%	5%	100%
35-44	0%	50%	17%	33%	0%	100%
Income						
<500USD	19%	19%	25%	34%	3%	100%
500-999USD	17%	37%	23%	19%	4%	100%
1000-1999USD	11%	47%	18%	21%	4%	100%
2000-2999USD	19%	27%	23%	31%	0%	100%
>3000USD	8%	33%	25%	25%	8%	100%
Occupation						
Student5	10%	38%	21%	25%	6%	100%
Self-Employed	21%	43%	21%	14%	0%	100%
Employed	19%	24%	26%	29%	1%	100%
Unemployed	67%	17%	17%	0%	0%	100%
Finished Education Degree						
High School	8%	25%	33%	33%	0%	100%
University	14%	33%	22%	25%	5%	100%
Postgrad	19%	35%	21%	24%	1%	100%
Marital Status						
Married	0%	20%	40%	40%	0%	100%
In relationship (not marri	10%	32%	26%	28%	4%	100%
Single	19%	35%	19%	22%	4%	100%
Children						
Yes	11%	44%	11%	22%	11%	100%
No	15%	33%	23%	25%	4%	100%

Appendix X: Adopter categories travel habit analysis

Accomodation type per adtoper category

Travel research frequency

Current travel research concerns
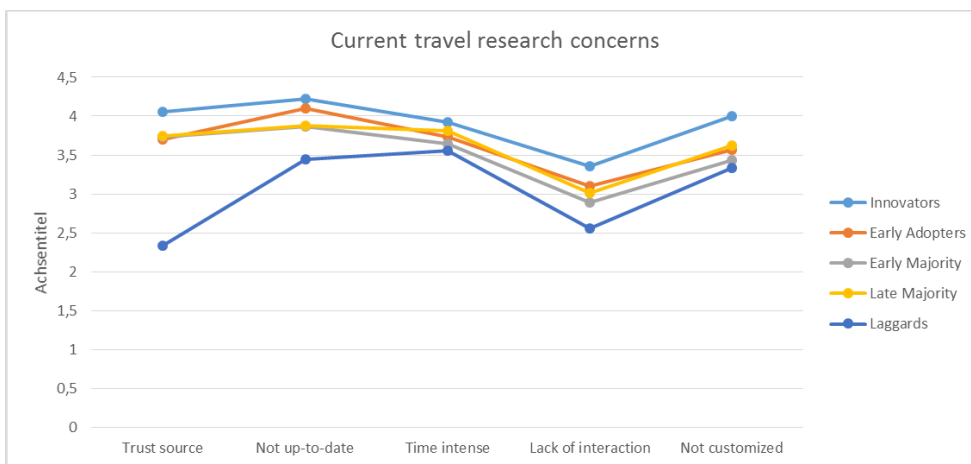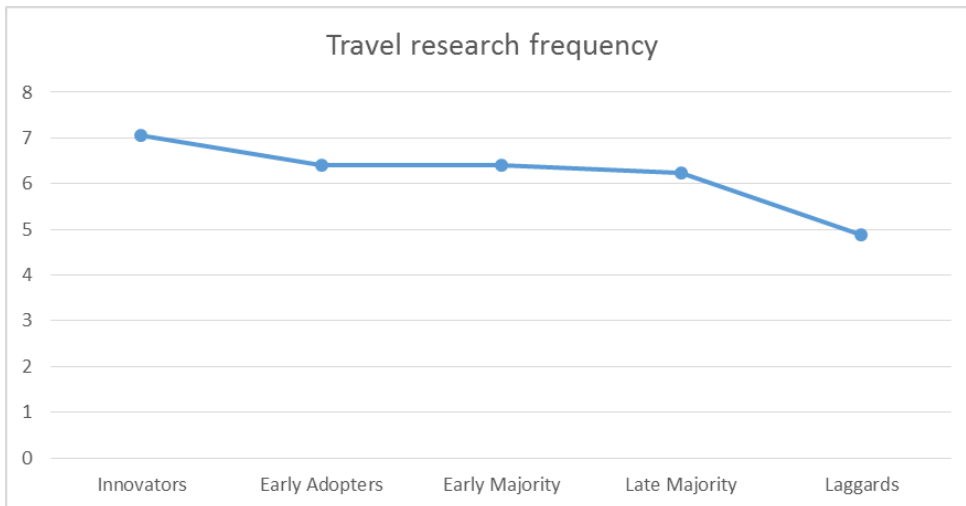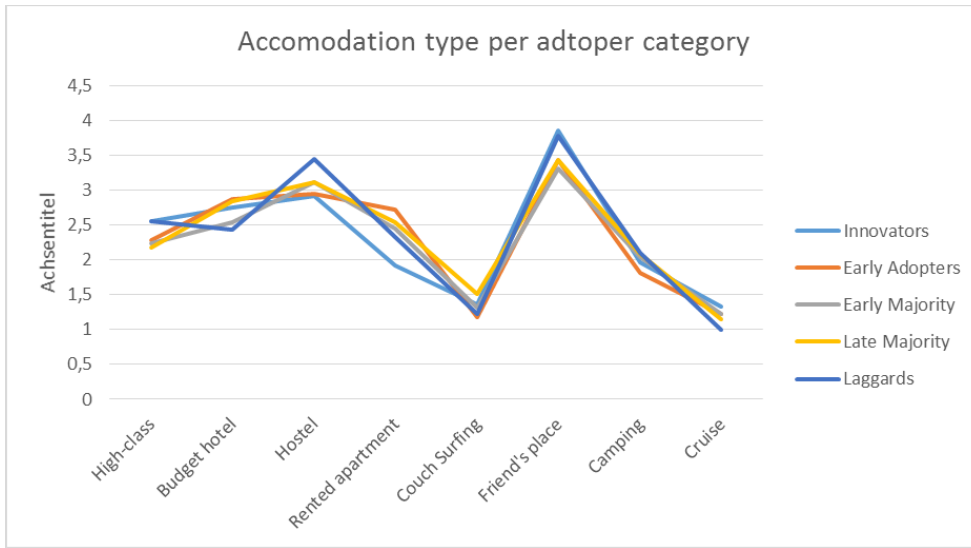
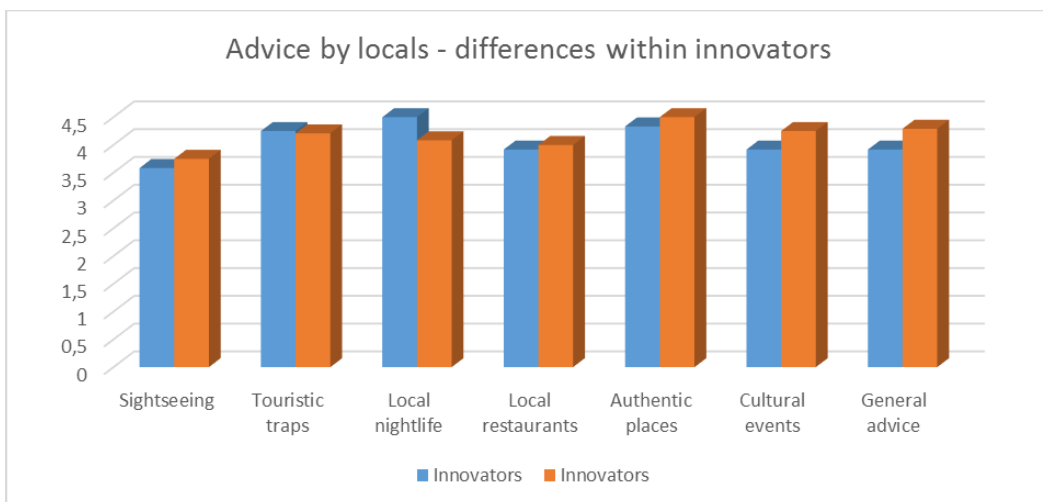**Appendix XI: Boxplots accommodation per adopter category**
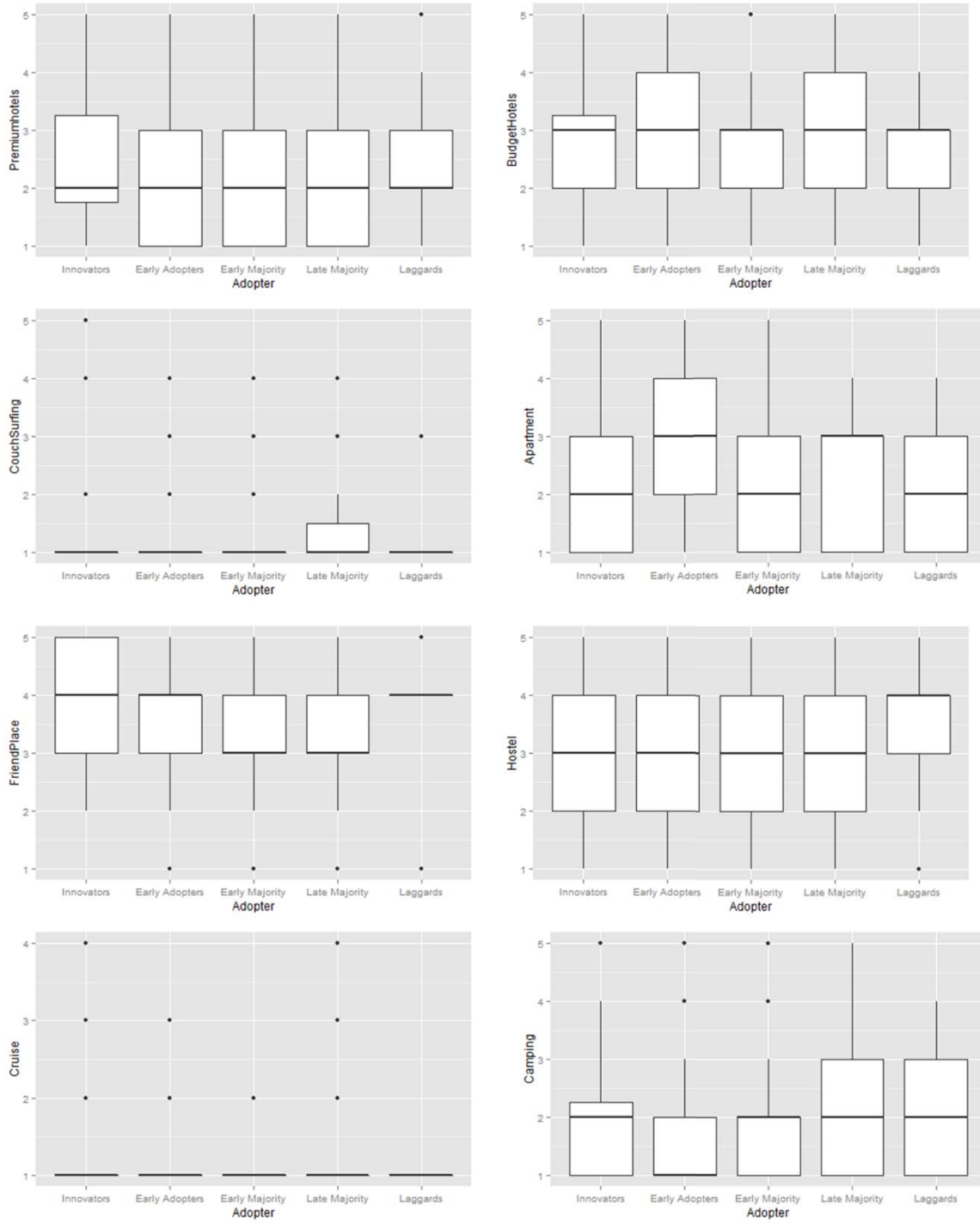
Appendix XII: Boxplots travel research per adopter category
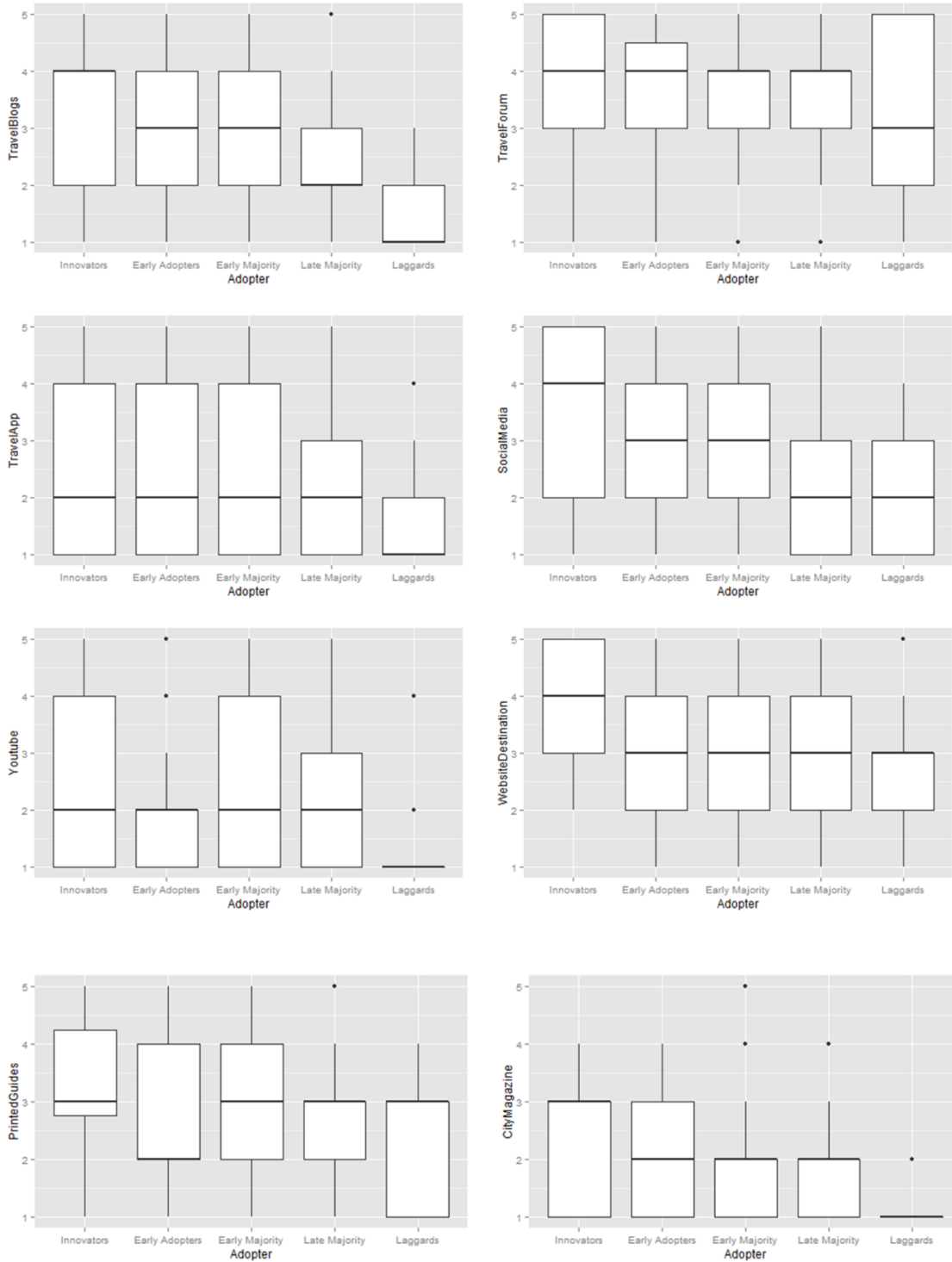
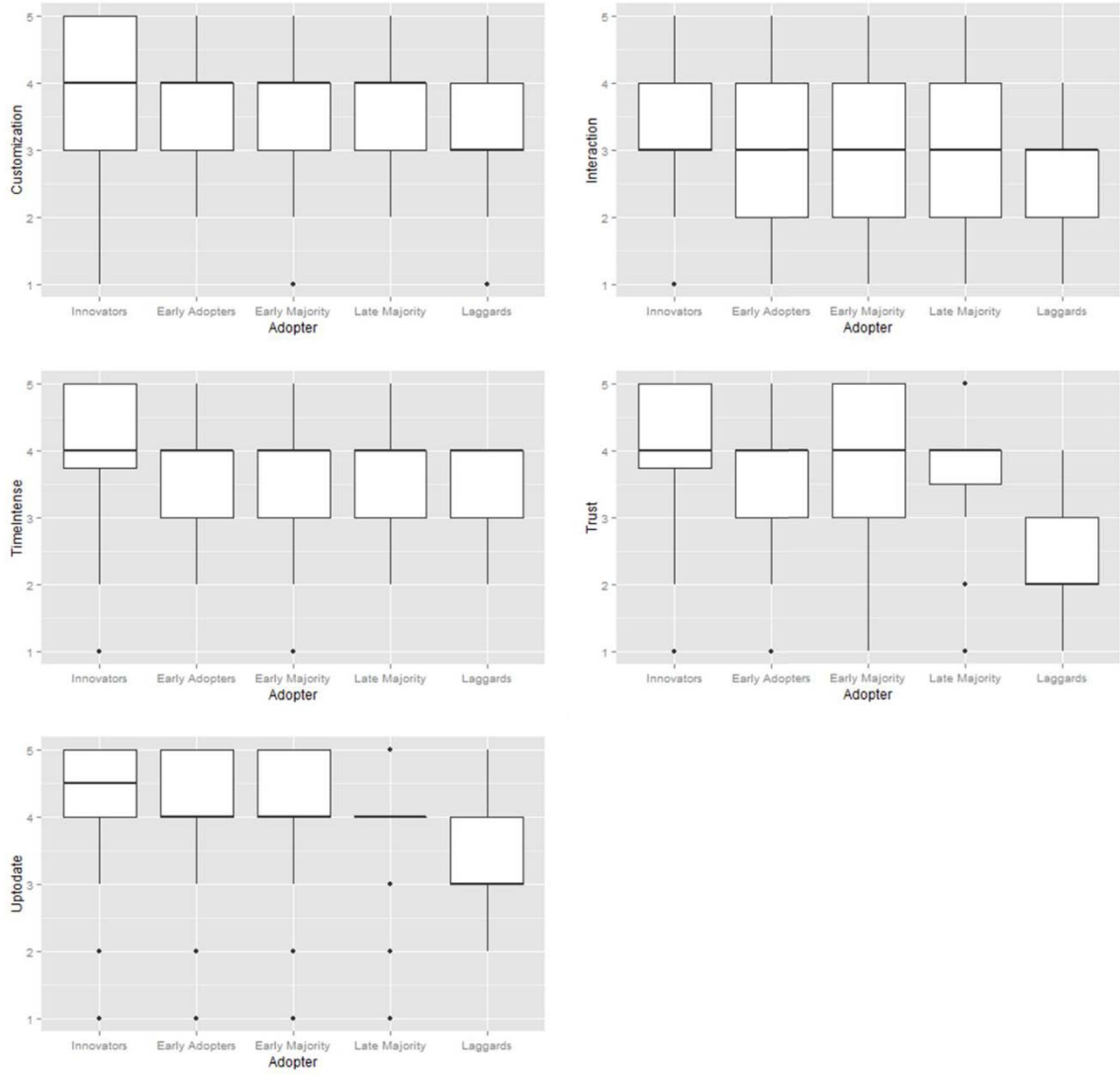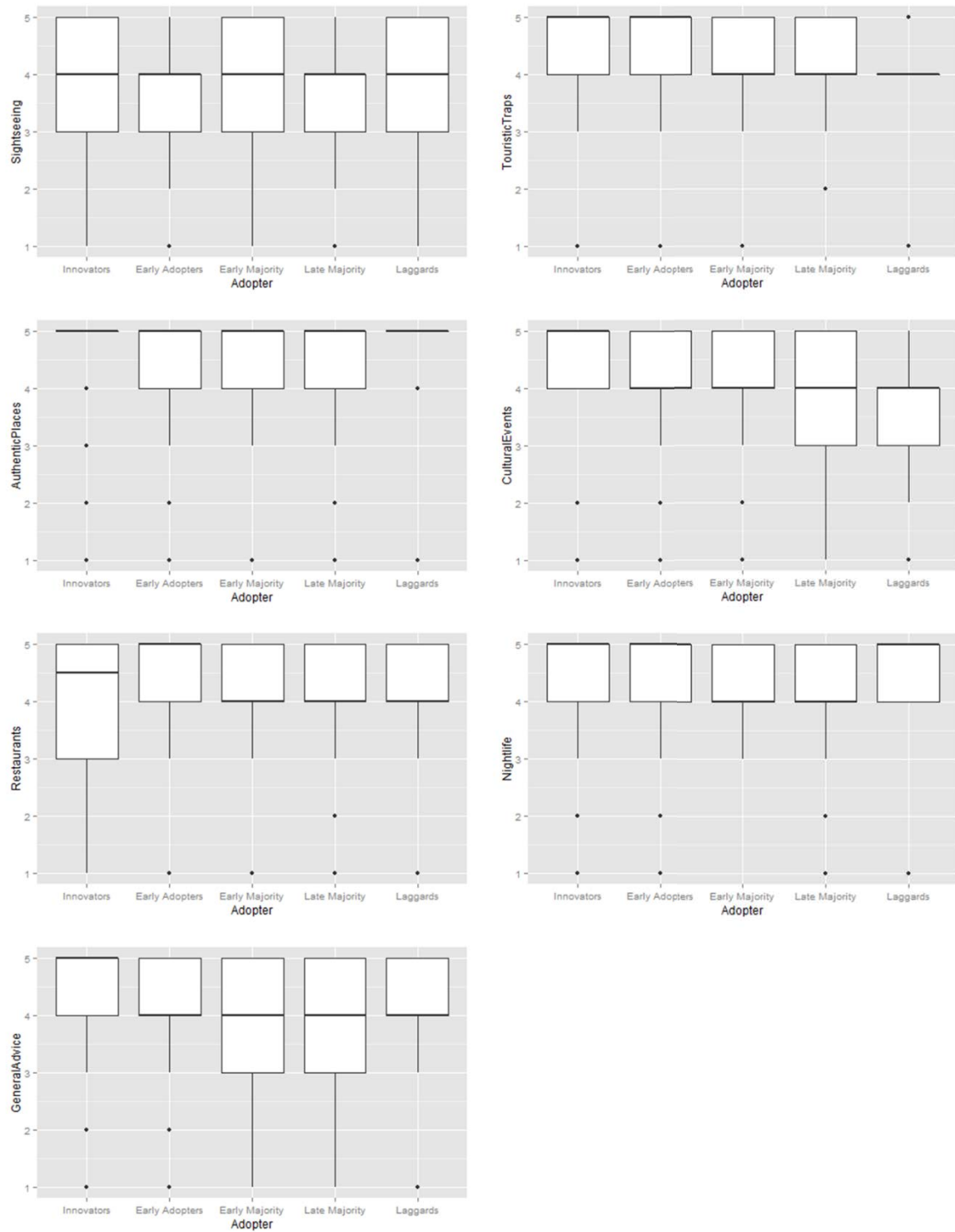**Appendix XIII: Differences in product usage preferences among Innovators**

Appendix XIV: Boxplots travel research concerns per adopter category

Appendix XV: Boxplots preferred local advice per adopter category

Appendix XVI: Conducted t-tests & chi-square tests

T-Tests (two-sided)
Travel Blogs

	Innovators	Early Adopt.			Early Adopt.	Early Major.
Mittelwert	3,33333333	2,6835443		Mittelwert	2,91666667	2,86792453
Varianz	1,82857143	1,39857189		Varianz	1,33571429	1,65529753
Beobachtunge	36	79		Beobachtung	36	53
Hypothetische	0			Hypothetisch	0	
Freiheitsgrade	60			Freiheitsgrad	80	
t-Statistik	2,48276895			t-Statistik	0,18645856	
P(T<=t) einseit	0,00792539			P(T<=t) einse	0,42627859	
Kritischer t-We	1,67064886			Kritischer t-W	1,66412458	
P(T<=t) zweise	0,01585078			P(T<=t) zweise	0,85255719	
Kritischer t-We	2,00029782			Kritischer t-V	1,99006342	
If t Stat < -t Crit	2,48276895 >	2,00029782				
CAN BE REJECTED! DIFFERENCES EXISTING!!				CANNOT BE REJECTED!!!		

	Innovators	Early Major.			Innovators	Late Major.			Innovators	Laggards
Mittelwert	3,33333333	2,86792453		Mittelwert	3,33333333	2,42372881		Mittelwert	3,33333333	1,44444444
Varianz	1,82857143	1,65529753		Varianz	1,82857143	1,11046172		Varianz	1,82857143	0,52777778
Beobachtung	36	53		Beobachtung	36	59		Beobachtung	36	9
Hypothetisch	0			Hypothetisch	0			Hypothetisch	0	
Freiheitsgrad	73			Freiheitsgrad	61			Freiheitsgrad	24	
t-Statistik	1,62502361			t-Statistik	3,44747467			t-Statistik	5,70988089	
P(T<=t) einse	0,0542338			P(T<=t) einse	0,00051543			P(T<=t) einse	3,4912E-06	
Kritischer t-V	1,66599622			Kritischer t-V	1,67021948			Kritischer t-V	1,71088208	
P(T<=t) zwei	0,10846761			P(T<=t) zwei	0,00103086			P(T<=t) zwei	6,9824E-06	
Kritischer t-V	1,99299713			Kritischer t-V	1,99962358			Kritischer t-V	2,06389856	
CANNOT BE REJECTED!!! No clear differences				REJECTED!! DIFFERENCES!				REJECTED!! Differences		

T-Tests (two-sided)
Social Media

	Innovators	Early Adopt.			Early Adopt.	Early Major.
Mittelwert	3,25	2,88607595		Mittelwert	2,75	2,81132075
Varianz	2,19285714	1,30736774		Varianz	1,56428571	1,61756168
Beobachtunge	36	79		Beobachtung	36	53
Hypothetische	0			Hypothetisch	0	
Freiheitsgrade	55			Freiheitsgrad	76	
t-Statistik	1,30757728			t-Statistik	-0,22546161	
P(T<=t) einseit	0,09822817			P(T<=t) einse	0,41111268	
Kritischer t-We	1,67303397			Kritischer t-V	1,66515135	
P(T<=t) zweise	0,19645634			P(T<=t) zwei	0,82222536	
Kritischer t-We	2,00404478			Kritischer t-V	1,99167261	
	CANNOT BE REJECTED				CANNOT BE REJECTED	

T-Tests (two-sided)
Travel Forum

	Innovators	Early Adopt.			Early Adopt.	Early Major.			Innovators	Early Major.
Mittelwert	3,63888889	3,58227848		Mittelwert	3,58227848	3,39622642		Mittelwert	3,25	3,39622642
Varianz	1,43730159	1,29763064		Varianz	1,29763064	1,43613933		Varianz	2,19285714	1,43613933
Beobachtunge	36	79		Beobachtung	79	53		Beobachtung	36	53
Hypothetische	0			Hypothetisch	0			Hypothetisch	0	
Freiheitsgrade	65			Freiheitsgrad	108			Freiheitsgrad	64	
t-Statistik	0,23847697			t-Statistik	0,89181899			t-Statistik	-0,49290207	
P(T<=t) einseit	0,40613071			P(T<=t) einse	0,18723631			P(T<=t) einse	0,31188436	
Kritischer t-We	1,66863598			Kritischer t-V	1,65908514			Kritischer t-V	1,66901303	
P(T<=t) zweise	0,81226141			P(T<=t) zwei	0,37447261			P(T<=t) zwei	0,62376873	
Kritischer t-We	1,99713791			Kritischer t-V	1,98217348			Kritischer t-V	1,99772965	
	CANNOT BE REJECTED				CANNOT BE REJECTED!!!				CANNOT BE REJECTED	

T-Tests (two-sided)
City Magazines

	Innovators	Early Adopt.			Early Adopt.	Early Major.
Mittelwert	2,38888889	1,98734177		Mittelwert	1,98734177	1,83018868
Varianz	1,1015873	0,91009413		Varianz	0,91009413	0,79753266
Beobachtunge	36	79		Beobachtung	79	53
Hypothetische	0			Hypothetisch	0	
Freiheitsgrade	62			Freiheitsgrad	117	
t-Statistik	1,95656026			t-Statistik	0,96414819	
P(T<=t) einseit	0,02745345			P(T<=t) einse	0,1684801	
Kritischer t-We	1,66980416			Kritischer t-V	1,65798166	
P(T<=t) zweise	0,0549069			P(T<=t) zwei	0,33696019	
Kritischer t-V	1,99897152			Kritischer t-V	1,9804476	
	CANNOT BE REJECTED				CANNOT BE REJECTED	

T-Tests (two-sided)
Website Travel Destination

	Innovators	Early Adopt.			Innovators	Early Major.			Innovators	Late Major.
Mittelwert	3,83333333	2,96202532		Mittelwert	3,83333333	3,20754717		Mittelwert	3,83333333	3,06779661
Varianz	1,05714286	1,47289841		Varianz	1,05714286	1,62917271		Varianz	1,05714286	1,09877265
Beobachtunge	36	79		Beobachtung	36	53		Beobachtung	36	59
Hypothetische	0			Hypothetisch	0			Hypothetisch	0	
Freiheitsgrade	79			Freiheitsgrad	84			Freiheitsgrad	75	
t-Statistik	3,97657097			t-Statistik	2,55254609			t-Statistik	3,49460541	
P(T<=t) einseit	7,6913E-05			P(T<=t) einse	0,00625136			P(T<=t) einse	0,00040026	
Kritischer t-We	1,66437141			Kritischer t-V	1,66319668			Kritischer t-V	1,66542537	
P(T<=t) zweise	0,00015383			P(T<=t) zwei	0,01250273			P(T<=t) zwei	0,00080051	
Kritischer t-We	1,99045021			Kritischer t-V	1,98860967			Kritischer t-V	1,99210215	
	CAN BE REJECTED! DIFFERENCES EXISTING!!				CAN BE REJECTED! DIFFERENCES EXISTING!!				CAN BE REJECTED! DIFFERI	

	Innovators	Laggards		
Mittelwert	3,83333333	2,66666667		
Varianz	1,05714286	1,75		
Beobachtung	36	9		
Hypothetisch	0			
Freiheitsgrad	11			
t-Statistik	2,46608197			
P(T<=t) einse	0,01566933			
Kritischer t-V	1,79588482			
P(T<=t) zwei	0,03133865			
Kritischer t-V	2,20098516			
NG!!	CAN BE REJECTED! DIFFERENCES EXISTING!!			

T-Tests (two-sided)
Friends

	Innovators	Early Adopt.			Innovators	Early Major.
Mittelwert	4,13888889	3,98734177		Mittelwert	4,13888889	3,94339623
Varianz	0,80873016	0,75624797		Varianz	0,80873016	0,55442671
Beobachtunge	36	79		Beobachtung	36	53
Hypothetische	0			Hypothetisch	0	
Freiheitsgrade	66			Freiheitsgrad	66	
t-Statistik	0,84667837			t-Statistik	1,07736673	
P(T<=t) einseit	0,20011702			P(T<=t) einse	0,14261931	
Kritischer t-We	1,66827051			Kritischer t-V	1,66827051	
P(T<=t) zweise	0,40023403			P(T<=t) zwei	0,28523863	
Kritischer t-We	1,99656442			Kritischer t-V	1,99656442	
	CANNOT BE REJECTED				CANNOT BE REJECTED	

T-Tests (two-sided)

Research frequency

	Innovators	Early Adopt.			Innovators	Early Major.
Mittelwert	7,05555556	6,39240506		Mittelwert	7,05555556	6,39622642
Varianz	3,9968254	4,24148004		Varianz	3,9968254	3,66690856
Beobachtunge	36	79		Beobachtung	36	53
Hypothetische	0			Hypothetisch	0	
Freiheitsgrade	70			Freiheitsgrad	73	
t-Statistik	1,63398759			t-Statistik	1,55314846	
P(T<=t) einseit	0,05337571			P(T<=t) einse	0,06235631	
Kritischer t-We	1,66691448			Kritischer t-V	1,66599622	
P(T<=t) zweise	0,10675142			P(T<=t) zwei	0,12471262	
Kritischer t-We	1,99443711			Kritischer t-V	1,99299713	
	CANNOT BE REJECTED				CANNOT BE REJECTED	

T-Tests (two-sided)

Trust concerns

	Innovators	Early Adopt.			Innovators	Early Major.
Mittelwert	4,05555556	3,69620253		Mittelwert	4,05555556	3,73584906
Varianz	1,36825397	0,93216488		Varianz	1,36825397	1,23657475
Beobachtunge	36	79		Beobachtung	36	53
Hypothetische	0			Hypothetisch	0	
Freiheitsgrade	58			Freiheitsgrad	73	
t-Statistik	1,61019254			t-Statistik	1,29087546	
P(T<=t) einseit	0,05639276			P(T<=t) einse	0,10041005	
Kritischer t-We	1,67155276			Kritischer t-V	1,66599622	
P(T<=t) zweise	0,11278552			P(T<=t) zwei	0,20082009	
Kritischer t-We	2,00171748			Kritischer t-V	1,99299713	
	CANNOT BE REJECTED				CANNOT BE REJECTED	

T-Tests (two-sided)

Not up to date

	Innovators	Early Adopt.			Innovators	Early Major.
Mittelwert	4,22222222	4,10126582		Mittelwert	4,22222222	3,86792453
Varianz	1,09206349	0,81012658		Varianz	1,09206349	1,11683599
Beobachtunge	36	79		Beobachtung	36	53
Hypothetische	0			Hypothetisch	0	
Freiheitsgrade	60			Freiheitsgrad	76	
t-Statistik	0,60037148			t-Statistik	1,56262653	
P(T<=t) einseit	0,27525987			P(T<=t) einse	0,06114758	
Kritischer t-We	1,67064886			Kritischer t-V	1,66515135	
P(T<=t) zweise	0,55051974			P(T<=t) zwei	0,12229516	
Kritischer t-We	2,00029782			Kritischer t-V	1,99167261	
	CANNOT BE REJECTED				CANNOT BE REJECTED	

T-Tests (two-sided)

Not customized

	Innovators	Early Adopt.			Innovators	Early Major.			Innovators	Late Major.
Mittelwert	4	3,56962025		Mittelwert	4	3,43396226		Mittelwert	4	3,62711864
Varianz	1,08571429	0,78675755		Varianz	1,08571429	1,21190131		Varianz	1,08571429	0,61718293
Beobachtunge	36	79		Beobachtung	36	53		Beobachtung	36	59
Hypothetische	0			Hypothetisch	0			Hypothetisch	0	
Freiheitsgrade	59			Freiheitsgrad	78			Freiheitsgrad	59	
t-Statistik	2,14874009			t-Statistik	2,45813594			t-Statistik	1,8501358	
P(T<=t) einseit	0,01788478			P(T<=t) einse	0,0080916			P(T<=t) einse	0,03465171	
Kritischer t-We	1,67109303			Kritischer t-V	1,66462464			Kritischer t-V	1,67109303	
P(T<=t) zweise	0,03576956			P(T<=t) zwei	0,0161832			P(T<=t) zwei	0,06930342	
Kritischer t-We	2,00099538			Kritischer t-V	1,99084707			Kritischer t-V	2,00099538	
	CAN BE REJECTED! DIFFERENCES EXISTING!!				CAN BE REJECTED! DIFFERENCES EXISTING!!				CANNOT BE REJECTED	

GENDER within innovators							
T-Tests (two-sided)				T-Tests (two-sided)			
Nightlife				**Authentic Places**			
	MALE	*FEMALE*			*MALE*	*FEMALE*	
Mittelwert	4,5	4,08333333		Mittelwert	4,33333333	4,5	
Varianz	0,81818182	1,99275362		Varianz	0,96969697	1,82608696	
Beobachtunge	12	24		Beobachtung	12	24	
Hypothetische	0			Hypothetisch	0		
Freiheitsgrade	32			Freiheitsgrad	29		
t-Statistik	1,0715042			t-Statistik	-0,4207694		
P(T<=t) einseit	0,14597894			P(T<=t) einse	0,33851271		
Kritischer t-We	1,69388875			Kritischer t-V	1,69912703		
P(T<=t) zweise	0,29195788			P(T<=t) zwei:	0,67702542		
Kritischer t-We	2,03693334			Kritischer t-V	2,04522964		
	CANNOT BE REJECTED				CANNOT BE REJECTED		

T-Tests (two-sided)				T-Tests (two-sided)			
Cultural events				**General advice**			
	MALE	*FEMALE*			*Variable 1*	*Variable 2*	
Mittelwert	3,91666667	4,25		Mittelwert	3,91666667	4,29166667	
Varianz	2,08333333	2,02173913		Varianz	1,71969697	1,7807971	
Beobachtung	12	24		Beobachtung	12	24	
Hypothetiscl	0			Hypothetiscl	0		
Freiheitsgrad	22			Freiheitsgrad	22		
t-Statistik	-0,65643991			t-Statistik	-0,80406969		
P(T<=t) einse	0,25917452			P(T<=t) einse	0,21498004		
Kritischer t-V	1,71714437			Kritischer t-V	1,71714437		
P(T<=t) zwei	0,51834903			P(T<=t) zwei	0,42996009		
Kritischer t-V	2,07387307			Kritischer t-V	2,07387307		
	CANNOT BE REJECTED				CANNOT BE REJECTED		

Chi-square tests		
Gender: among all categories		
0,083874358 >		0.05=α
Gender: only Innovators		
0,027478181 <		0.05=α
Heritage:among all categories		
0,00022446 <		0.05=α
Heritage: only innovators		
2,33102E-05 <		0.05=α
Marital status: only innovators		
0,147370212 >		0.05=α