



Trust Transfer in the Sharing Economy - A Survey-Based Approach

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Abstract

The sharing economy is experiencing explosive growth around the globe in which trust plays a crucial role and builds the foundation of the services. With the rise of the sharing economy and the increasing numbers of cross-contextual users, this research aims at the lack of trust transference possibilities across the Peer-to-Peer applications and has the goal to find out whether and how trust can be transferred between the platforms, so that new users do not have to create their reputation from scratch every time they join a new platform. First, this research provides an in-depth literature review of trust transfer theories. Secondly, a conceptual research model for the role of the imported trust in the context of the sharing economy is outlined and analysed by proposing and evaluating a questionnaire using structural equation modeling. Throughout the study, a three-dimensional scale of trust, i.e. ability, benevolence and integrity, is validated in the context of the sharing economy. The experimental study shows that both the overall and subdimensional trust in the provider is directly affected by the overall trust in the platform, the perceived reputation as well as the perceived social presence. The study also provides empirical evidence for the existence of trust transferability. The findings show that in addition to the immanent ratings, imported ratings also significantly affect the perceived reputation of the provider positively. Finally, this paper discusses further details of the trust transfer processes and broadens implications for future research.

Keywords: Sharing Economy, Trust, Trust Transfer, Reputation, Peer-to-peer

1. Introduction

Uber, the world's largest taxi company, owns no vehicles [...] Alibaba, the most valuable retailer, has no inventory. Airbnb, the world's largest accommodation provider, owns no real estate. - (Bear, 2015)

One of the most remarkable developments of the 21st century global marketplace is indeed the rapid growth and the evolution of the sharing economy (Bert et al., 2016). Today, ordinary people can rent or short-term everything from high-end houses to cars, luxury handbags to musical instruments, designer pets to power boats. Sharing economy has established itself as a competitive sector with huge potential and thus, gained much importance in recent years. A prognosis of the consulting agency PWC showed that a potential revenue opportunity of this industry would worth 335 billion US-Dollar by 2025. As a matter of fact, Airbnb now already averages 425,000 guests per night, nearly 22 % more than Hilton Worldwide (Vaughan and Hawksworth, 2014).

If peer-to-peer marketplace is the future, it will require trust between the peers which is a crucial element because

trust is the currency of the new economy (Botsman, 2012). Jack Ma, the executive chairman of Alibaba Group¹ emphasized as well that trust is the most important element at P2P marketplaces where people do not even trust face to face, especially in countries like China.

While a multiplicity of independent P2P platforms is developing, a problem has been identified – the technically independent platforms are not connected with each other, i.e. new users have to establish their reputation every time from scratch when they join a new platform (Zacharia et al., 2000), even though they have well-documented trust history on other participating platforms. The research objective of this work is to find out if, and how the trust between different sharing economy applications transfers. This article contributes by developing a model where the linkage between different platforms is proposed. E.g., a new user of Ebay would theoretically be able to link his profile of Airbnb to show his available reliability and trustworthiness, in order to create a better reputation.

The core of the research question is how would trust

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transfer throughout the platforms in detail. E.g. Would a well-reputed Ebay seller be qualified as a trustworthy Airbnb host? And vice versa? It is obvious that more elements play important roles in this conducted research model. One may enjoy a high reputation for his expertise in one domain, while having a low one in another, e.g. Linux Guru has high reputation in Linux Forum but low reputation in Windows operations (Zacharia et al., 2000).

The main part of the study's development is derived from the established three trust dimensions - ability, integrity and benevolence as well as some trust (transfer) theories. A complete literature review of trust transfer is provided where various trust transfer situations are analysed, classified and synthesized. Subsequently in the conducted study, data of trust transfer between four selected sharing economy platforms was collected with 140 participants. The systematic approach follows a matrix combination from the "target platform" to the "origin platform". Therefore, the observation is based on the trust of the provider side (i.e., driver, host, seller, lessor). Correspondingly, the participants take the role of the consumers, i.e., car passenger, guest, buyer or renter. The reputation would be only considered based on the star-ratings.

The rest of the work is structured as follows: section 2 discusses and provides introduction for the context of this work's background with focus on the sharing economy and the trust dimensions. The next section 3 summarizes and synthesizes the previous studies of trust transfer, defines and discusses the trust transfer situation in the sharing economy with a presentation of existing trust transfer solutions. Section 4 then develops and presents the hypotheses in figure 4 regarding the "imported trust" underlying trust transfer. In section 5, the study results and the design of the conducted experiment (and a preliminary questionnaire) are presented and the research model is described. Finally, the article concludes with a discussion, limitation and implications for future research.

2. Theoretical Background

This chapter aims to provide theoretical background of the topic and comprises a literature review of three relevant aspects: the sharing economy, trust and its dimensions. The sharing economy, as the context the process takes place in, is briefly introduced in section 2.1. The definition and the dimensions of trust are then presented in section 2.2.

2.1. Sharing Economy

The term "sharing economy" is disputable. First, it has a few synonyms - Botsman and Rogers (2011) described it as "collaborative consumption", Gansky (2010) "the mesh" and Lamberton and Rose (2012) "commercial sharing systems". However, a "shared definition" lacks in the sharing economy, as Botsman (2012) put it. A variety of definitions exist. The Harvard Business Review and the Financial Times have argued that "sharing economy" is a misnomer (Eckhardt

and Bardhi, 2015; O'Connor, 2016). The former one suggested the correct word in the broad sense of the term to be "access economy" because the market-mediated "sharing" through a company as intermediary between individual consumers is no longer "sharing" in the traditional definition at all. Rather, consumers are paying to access someone else's goods or services. Thus, the term of sharing economy in this work refers accordingly to a business model where the participants share unused resources among them via peer to peer services (Boeckmann, 2013; Kamal and Chen, 2016) and is assumed to be a synonym of the word "peer-to-peer services".

The scope of sharing economy is wide. There are sharing economy models in various types throughout different areas. To name a few examples, Blablacar², Uber³ and Lyft⁴ count to automotive & transportation; Airbnb⁵ and Couchsurfing⁶ belong to Hospitality category; Retailing also sets its foot in sharing economy with Kleiderkreisel⁷ or Rent-the-runway⁸; More platforms like TaskRabbit⁹ provide even human and knowledge resources in form of freelance labor to match local demand on everyday-tasks. Sharing economy enables more efficient resources being money-and-time-saving and traffic-and-pollution-reducing. In this sense, it is considered as important as the "Industrial Revolution" in terms of how people think about ownership (Botsman and Rogers, 2011) as we are currently living in a world facing problems of global warming, rising fuel prices and growing pollution (Belk, 2013).

2.2. Trust and its Dimensions

President Ronald Reagan once said famously, "Trust but verify" which is an obfuscation. Trusting means actually that you do not have to verify. The roles of trust and risk have yet to be identified and defused. Trust is risk mitigation (Green, 2015). If we could all decide purely based on faith or if we could predict others' behavior and intentions with definite certainty, then trust itself would not be necessary and required, according to Lewis and Weigert (1985).

Yet the fact is, we need trust and trust is very important, especially in the context of the sharing economy which was born with stacks of promises. The consulting company BCG listed trust as one of the three core principles of the sharing economy (trust, coverage and value). People leverage their trust for creating efficiency participating in sharing economy services. In this special case of P2P platforms and social networks, there is additionally the culture of anonymity (Nunes and Correia, 2013), and people behave differently when they are anonymous (Brogan and Smith, 2009). For this reason P2P platforms carry naturally higher risks than e.g. B2C e-commerce because there is no institutional credibility provided by a company in this case (Nunes and Correia, 2013).

²<http://www.blablacar.com>

³<http://www.uber.com>

⁴<http://www.lyft.com>

⁵<http://www.airbnb.com>

⁶<http://www.couchsurfing.com>

⁷<http://www.kleiderkreisel.com>

⁸<http://www.renttherunway.com>

⁹<http://www.taskrabbit.com>

Creating "sharing trust" in sharing economy, thus, is important but also challenging.

Companies like Airbnb have the obstacle to convince users not to fear, but to entrust complete strangers by creating a trust system including ratings and comments. Just like the trusted hotel brand Hilton which made people feel safe, sharing economy has brought people to the era trusting (and be trusted by) one another in the web of complex peer-to-peer network. Therefore, the role of trust is, as an imagined "currency", very crucial.

Trust

Trust has been the main driving force behind the human bonding and social reciprocities (Kamal and Chen, 2016). The commercial role of trust, being initially important in the context of e-commerce (Stolle, 2002; Palvia, 2009; Mui et al., 2002) has now been already frequently investigated in the context of the sharing economy, too. To name a few examples: Hawlitschek et al. (2016); de Jonge and Sierra (2016); Kamal and Chen (2016); Teubner et al. (2016); Zervas et al. (2015) and Green (2015). Besides, recent incidents such as shootings by an Uber driver (Kauzlarich, 2016) or robbery at hosted Airbnb apartment (Arrington, 2011) also reminded us on the importance of trust concerning. These incidents underlined again that trust is the key to sustain the growth and success of a world of sharing instead of owning (Botsman and Rogers, 2011). The consulting house Roland Berger emphasized that "to share is to trust. That, in a nutshell, is the fundamental principle." (Schönberg, 2014) - Trust is, despite merits, a decisive element in the context of the sharing economy and is accordingly considered as a fundamental factor in this work.

Trust has been defined as "the intention to accept vulnerability based upon positive expectations of the intentions or behaviors of another" (Rousseau et al., 1998). Deutsch (1958) defined trust with three typically consisting trust dimensions inspired from Aristotles' Rhetoric long ago: intelligence (corresponding "ability"); good character (corresponding "integrity") and goodwill (corresponding "benevolence"). Meanwhile trust contains behavioral intentions and cognitive elements where the former case deals with increasing vulnerability to each other by interdependent actors and the latter case deals with context-related beliefs about the trusted party that provide justification for the behavior (Rossiter and Pearce, 1975; Lewis and Weigert, 1985; Gefen and Straub, 2004).

The Trust Dimensions

The subdivision of trust dimensions is disputable. Some researchers agree that trust is multidimensional (Mayer et al., 1995; Rousseau et al., 1998) in consistency as mentioned, whereas few researchers believe that trust functions as a unitary concept, e.g. Rotter (1980) defined interpersonal trust as "an expectancy held by an individual or a group that the word, promise, verbal or written statement of another individual or group can be relied on". For analyzing and understanding how trust can be transferred from one entity or con-

text to another, trust needs to be subdivided into structured clusters in this context. Therefore, this work is consistent with the multidimensional point of view. Details of the trust dimensions will be discussed in the following passages.

In table 1, table 2 and table 3, previous literature reviews of varying trust dimensionality summarized by Gefen and Straub (2004); McKnight et al. (2002) and additional summary of this work are presented in three separate tables for a better overview. They are conceptually clustered to categories. There are 19 columns describing the related dimensions and accompanying subtypes of trust which are grouped in the following categories: (i) *ability* (competence(C), expertness(E), dynamism(D)); (ii) *benevolence* (goodwill(G), benevolence(B), responsiveness(R)); (iii) *integrity* (integrity(I), morality(M), credibility(C), reliability(R), dependability(D), honesty(H)); aspects (iv) *not included* in the main categories (predictability(P), openness(O), carefulness(C), attraction(A), shared social expectations(S), belief and willingness in trustworthiness(B), positive expectation(P)). The reasons for division of the tables are both making clear this work's contribution of completion and literature updating with more recent research, since the context of the sharing economy is relatively new. Besides, it should be noted that the dimensions mentioned in the literature above are context-specific, that means the trust processes take place in different settings (Luhmann, 1979; Gefen and Straub, 2004).

As the tables show, although many trust dimensions existed in the reviewed literature through the years, the three most frequently used trusting beliefs are unequivocal to see as both of the *counts* of each table and the *final count* in the third table show — competence, benevolence and integrity. Because of the clear dominance of the final count showing involved categories along with the additional supporting statements of Gefen (1997), Bhattacharjee (2002) and Mayer et al. (1995), these three beliefs are shown as the most widely accepted and adapted and thus are decisive¹⁰ for this work.

To be noticed is that in the research model (clarified in section 4) the three above mentioned dimensions of overall trust are yet, broken down to only two (constructs): "provider's ability" and "providers' integrity and benevolence". The first reason is that Gefen (2002a) suggested to look upon trustworthiness beliefs as "a set of interrelated beliefs" rather than as one overall assessment. The authors stated that a general bundling belief would be an "oversimplification" owing to the fact that consumer beliefs in the ability of the provider may affect shopping intentions whereas the aspect of integrity and benevolence affect purchase intentions. Although many other researchers also considered three components of trust, Ridings et al. (2002); Lu et al. (2010) suggested that in the context of the virtual community two dimensions — ability and a combined benevolence and integrity dimension, are applicable with the rationale

¹⁰I also want to thank Rachel Botsman for her analogue suggestion as valuable input.

that both lead to the same behavior. In addition, they are hard to be distinguished as acknowledged in preparation opinion poll letting interviewees sort the matching items and constructs. Thus, this view is adopted in this work and the dimension of integrity and benevolence belief are bundled in the practical research.

The three trust dimensions are explained as follows, according to the research of McKnight et al. (2002). Possible examples are attached to each dimension based on logical dependencies and own experience in P2P services.

(i) *Competence* means primarily ability of the trustee to do what the truster needs.

For example, an Airbnb host should be able to organize and manage the place of accommodation; An Ebay-Seller ought to know the process of selling operation and has the competence to send his items to the buyer; A Blablacar driver as trustee needs to at least have the technical ability to control the vehicle properly.

(ii) *Benevolence* stands for kindheartedness, the quality of being well-meaning and general decency as a human. A benevolent trustee is caring and motivated to act in the truster's interest. Benevolence represents one's goodwill and responsiveness whereas integrity refers to one's morality, credibility, reliability and dependability to show that they have ethical right-mindedness.

(iii) *Integrity* demands the trustee's quality of being honest and having strong moral principles, e.g. keeping promises.

I would give some examples regarding the selected platforms. A typical character feature of a benevolent provider with integrity would be e.g. answering phone for requests, being punctual and respectful. They have normally no desire to hurt or deceive and have readiness to help in case something is wrong. Such an Airbnb renter would show the guest the house and quickly does a handover, they may also answer some (e.g. touristic) questions if they can. An Uber driver would be punctual, and he would not e.g. intentionally operate a circuitous route. A Blablacar driver would be caring and arrive at the destination place as arranged, or even drop off someone who lives on the way. An Ebay user of benevolence and integrity would describe his selling articles in an honest way and would not act with intention to defraud.

Despite of adapting the three selected trust dimensions, another popularly accepted trust dimension of *predictability* is still worth-mentioning since the definition of "trust" by Stewart (2003) is that of a trustworthy agent with "benevolent, competent, honest and *predictable* behavior in a situation. Lewicki and Stevenson (1997) found that predictability enhances trust even if the other's behavior is untrustworthy, for the reason that we can predict the ways that the other will violate the trust. For instance, Buntain and Golbeck (2015) applied this aspect for their strategy trust game by defining varying degree of trust based on identifying the behavior patterns and recognizing participants' predictability. In context of this work there are currently no clear indicators allowing trustors to establish the point. Future work could alternatively consider this dimension. Furthermore, it is to be no-

ted that there are still missing aspects such as cultural differences (Sia et al., 2009) which are not included in the summarized tables.

3. Trust Transfer - A Review

In this section, the process of trust transfer is analyzed based on related literature. In section 3.1, the methodology used, trust-transfer-relevant mechanisms and theories are reviewed. Subsequently in section 3.2, trust transfer in the special context of the sharing economy as well as the existent corresponding solutions are discussed separately.

3.1. Literature Review

The following passages provide an in-depth literature analysis of trust transfer. In order to examine how trust can be transferred, the trust dimensions discussed above will serve as the foundation. The literature review is structured as follows: first, section 3.1.1 gives a short summary of the methodology used for the literature-based review part. Next, section 3.1.2 presents how the trust transfer model functions with different roles. Finally, section 3.1.3 shows an overview of literature-review-based trust transfer theory classified by the source of trust transfer process.

3.1.1. Methodology of Literature Review

The literature review of trust transfer is based on the review guideline provided by Webster and Watson (2002). The broad structure of this review follows the following sequence: (1) Scoping search and planning, (2) Literature research, (3) Analysis and selection, (4) Literature synthesis.

The term "trust transfer" has been discussed in various scopes of research fields. Since the context of the sharing economy is relatively new in research, a restriction in this field would lead to a too narrow-setting boundary. The scoping search showed that although many applicable works have been found with the key variable of "trust transfer", the modern context of the "sharing economy" has not allowed me to find an established literature foundation. The object of this literature review can be observed as the second type of review papers according to Webster and Watson (2002). This is to summarize and emerge the hitherto existing related theories, expose the potential theoretical foundations and eventually, adapt the knowledge and phenomenon, if applicable, to the field of this work - the sharing economy.

A scoping search was undertaken using search results of the site of Google Scholar¹¹ which serves as a database of full text scholarly literature across publishing formats and disciplines. The antecedent of the topic originates from psychology whereas the most results belong to the field of e-Commerce (Ballester and Espallardo, 2008) with literature of information networks (e.g. distributed networks (Dong et al., 2007) and social networks (Golbeck, 2005)). Therefore, the literature review drawn upon in this work will be, in a

¹¹<https://scholar.google.de> (accessed on 09.11.2016)

Source	Ability			Benevolence			Integrity					Not included							
	C	E	D	G	B	R	I	M	C	R	D	H	P	O	C	A	S	B	P
<i>summarized by Gefen and Straub (2004)</i>																			
Anderson and Narus (1990)	x				x								x						x
Blau (1964)	x				x		x												
Butler (1991)	x						x							x					
Crosby et al. (1990)					x		x												
Dwyer et al. (1987)	x			x															
Elangovan and Shapiro (1998)					x		x												
Ganesan (1994)	x				x				x	x									
Gefen (2000)																			x
Gefen (2002b)																			x
Gefen et al. (2003a)																			x
Gefen et al. (2003b)	x				x		x												
Gefen and Silver (2000)	x				x		x												
Giffin (1967)	x	x	x	x	x		x			x	x		x			x			
Hart and Saunders (1997)	x			x	x								x	x					
Hosmer (1995)								x											
Jarvenpaa et al. (1998)	x				x		x												
Jarvenpaa and Tractinsky (1999)					x		x												x
Kollock (1999)																			x
Korsgaard et al. (1995)				x			x						x						
Kumar (1996)													x	x					
Kumar et al. (1995a)					x		x						x						
Kumar et al. (1995b)					x		x						x						
Luhmann (1979)					x		x												
Mayer et al. (1995)	x				x		x												
McAllister (1995)					x														x
McKnight et al. (2002)	x				x		x												
McKnight et al. (1998)	x				x		x					x	x						
Mishra (1995)	x				x					x				x					
Moorman et al. (1993)	x						x												
Moorman et al. (1992)																			x
Morgan and Hu (1994)							x			x									
Pavlou and Gefen (2004)																			x
Ramaswami et al. (1997)																			x
Ridings and Gefen (2001)	x				x		x												
Rotter (1980)												x							
Rotter (1971)													x						
Rousseau et al. (1998)																			x
Schurr and Ozanne (1985)													x						
Zucker et al. (1986)																			x
Zucker et al. (1986)																			x
<i>Count</i>	16	1	1	4	20	0	19	1	1	4	3	5	6	3	0	1	1	10	1

Table 1: Clustered trust dimensions in previous research - 1

nutshell, dominantly in the field of Information Systems (IS).

Approaching a systematic research as suggested by Webster and Watson (2002), a structured identification process should include major search in the leading journals, forward search and backward review.

The top journals in the leading database - the "Senior Scholars Basket of eight Journals" have been looked up first.

The used search term was "trust transfer"¹². Besides, journals published on *Communications of the Association for Information Systems* and *Journal of Information Technology Theory and Application (JITTA)* have also been reviewed by the same search term. Eighteen results were identified in total.

¹²<https://aisnet.org/?SeniorScholarBasket> (accessed on 08.11.2016)

Source	Ability			Benevolence			Integrity				Not included								
	C	E	D	G	B	R	I	M	C	R	D	H	P	O	C	A	S	B	P
<i>summarized by McKnight et al. (2002)</i>																			
Baier (1986)	x			x															
Barber (1983)	x							x											
Blakeney (1986)		x	x	x				x							x	x			
Bonoma (1976)					x				x	x	x								
Cummings and Bromiley (1996)					x			x											
Dunn (1988)				x															
Gabarro (1978)	x			x				x						x	x	x			
Gaines (1980)					x														
Heimovics (1984)		x	x		x					x									
Holmes (1991)					x	x													
Husted (1990)								x											
Johnson-George and Swap (1982)					x	x		x		x	x								
Kasperson et al. (1992)	x				x									x					
Kee and Knox (1970)	x				x														
Koller (1988)	x				x			x		x									
Krackhardt and Stern (1988)				x															
Lindskold (1978)					x					x									
McGregor (1967)					x														
McLain and Hackman (1999)	x				x														
Rempel et al. (1982)					x	x		x						x	x				
Ringand and den Ven (1994)				x					x										
Sato (1988)					x			x											
Sitkin and Roth (1993)	x																		
Solomon (1960)					x														
Thorslund (1976)	x			x					x										
Worchel (1979)				x					x										
Yamagishi and Yamagishi (1994)				x															
Zaheer and Vekatraman (1993)								x	x										
Zaltman and Moorman (1988)						x						x							
<i>Count</i>	9	2	2	9	15	4	8	6	1	5	3	0	3	3	2	0	0	0	0

Table 2: Clustered trust dimensions in previous research - 2

Continuing with the *forward search* using database of *Google Scholar*, the search terms used were "trust transfer"¹³, "trust transfer" + "sharing economy"¹⁴ and "trust in sharing economy"¹⁵.

All of the raw "potential literature" pieces were first evaluated regarding their relevance for the review in the above defined context. The process occurred by first reading publication titles and abstract in the previous review; on the next level depending on the degree of relevance, sections such as conclusion, result and even the whole text have been studied particularly.

¹³The results on the previous five pages have been set as potential literature, i.e. 50 publications, later results do not match the trust transfer term in this related context any more.

¹⁴With six results found.

¹⁵Only the first page results, i.e. 10 publications were in range according to the defined research boundary.

If the content of the literature piece was rated as rather relevant, *backward reference searching* was also involved, that is, examining the references cited in those selected articles in order to study the origins, development and experts of the themes. A second-level backward reference search has also been used, if the literature piece is frequently cited. From all the previously mentioned literature base after removing redundant content, eighty-three literature works are presented in the following review, sorted by categories.

3.1.2. Trust Transfer Mechanism

Stewart (2003) defined trust transfer as following: when a person (the trustor) bases initial trust in an entity (a person, group, or organization referred to as the target) on trust in some other related entity, or on a context other than the one in which the target is encountered, e.g. a different place or platform. The process of trust transfer is also referred to transitivity of trust (Buntain and Golbeck, 2015).

Source	Ability			Benevolence			Integrity					Not included							
	C	E	D	G	B	R	I	M	C	R	D	H	P	O	C	A	S	B	P
<i>Contribution of this work</i>																			
Belanche et al. (2014)									x								x		
Buntain and Golbeck (2015)					x								x					x	x
Delgado-Marquez et al. (2013)	x										x							x	
Doney and Cannon (1997)					x		x	x				x			x			x	
Doney et al. (1998)											x							x	
Dong et al. (2007)													x						
Falcone and Castelfranchi (2012)	x																x	x	x
Fukuyama (1995)			x									x	x						
Gambetta (1988)																		x	
Gefen (2002c)	x				x		x												
Gulati (1995)																	x		x
Han et al. (2016)									x	x	x	x						x	
Larzelere and Huston (1980)					x		x					x							
Lee (2009)	x										x		x	x					x
Lee et al. (2011)					x				x			x						x	
Lin et al. (2011)	x										x		x	x					x
Lu et al. (2010)																		x	
Shan and Lu (2009)	x				x		x		x										x
Mayer and Davis (1999)	x				x		x											x	
Mishra and Morrissey (1990)	x						x												x
Stewart (2003)	x				x							x	x						
Stewart (2006)	x				x		x					x	x						
Stewart and Zhang (2003)	x				x							x	x						
Sun (2010)	x				x		x					x							
Venkatadri et al. (2016)	x										x	x	x					x	
Wang et al. (2013)	x				x		x												
Yang and Xu (2008)																			x
Zand (1972)																			x
<i>Count</i>	14	0	1	0	12	0	9	0	3	3	6	9	9	0	3	0	3	13	7
<i>Final count</i>	39	3	4	13	47	4	36	7	5	12	12	14	18	6	5	1	4	23	8

Table 3: Clustered trust dimensions in previous research - 3

Trust transfer mechanisms are established on the basis of natural neurological procedures. They are the outcome of the activation of brain areas which generates trust. Through brain activation, activity in the insular cortex (brain area that encodes uncertainty and risk) relates to situational normality perceptions in human beings (Riedl et al., 2010).

In this work, two kinds of trust transfer mechanisms are taken into account — “direct” trust transfer and trust transfer with a broker (Zacharia et al., 2000; Stewart, 2006).

Both of the two mechanisms involve up to three actors. First, the person who makes judgments on whether to trust the other is the *trustor*. In this case, initial trust in an entity or a context of the trustor is already available so that the trust can be eventually transferred. Secondly, the person whose trustworthiness is assessed by the trustor has the role of the *trustee*. Thirdly, but not necessarily, a *broker* functions as a mediator if there is one (Stewart, 2006). The underlying logic with a party is that when the trustor trusts in the third party, i.e. a mediator or broker such as a platform or

person, there is also a close relationship between the trustee and the third party. The trustor’s trust in the third party will be therefore transferred to the trustee (Wang et al., 2013).

To express the logic as described above and showed in figure 1 in sentences, the first case with two parties involved would be that *a trustor trusts a trustee*. An exemplary trustor in the context of the sharing economy could be the person or entity that is the potential renter or user, i.e. person who demands the asset on Airbnb. In this case, the trustee could be the owner of the asset who can be a person or entity. It has to be noticed here that also the context requirement (in this case, Airbnb) of a trust mechanism. The trust dimensions represent different specific requirements for the actors depending on the context (see section 2.2). The second situation with three parties would be that *a trustor trusts an intermediate trust broker, which is trusted by a trustee so that the trust can be transferred from the trustor to the trustee*. To illustrate, Trustcloud can be named as a representative example for the trust broker case. Specific aspects will be considered

in section 3.2.2. In the latter involving case, the third party is referred to the source of trust transfer and the trustee as the target of trust transfer (Wang et al., 2013) while in the first situation with two involved parties, the trustor is the source of trust transfer.

Both trust transfer mechanisms serve as the basis for the trust transfer theories in section 3.1.3. From another angle, more practical examples of these two models can be found in the next section.

3.1.3. Trust Transfer Theory

Stewart's definition of the cognitive process allows trust to possibly transfer from one entity or context to a separate entity or context (Buntain and Golbeck, 2015) while a *context* refers to the situation in which a target is encountered, specifically the institutional structures in the situation which will be clarified in the section 3.1.4 (Stewart, 2003). The following literature-based trust transfer theory is divided into two parts, categorized by different kinds of sources — trust transfer from an entity in section 3.1.4 and trust transfer from a context (to an entity or a context) in section 3.1.4. An overview is given by table 4. Each category will later be discussed in depth with a concept table respectively. The concept tables outline the most representative trust transfer processes and are thus only a subset of the reviewed literature. The terminology is defined according to Strang et al. (2003) and Tavakolifard et al. (2008): an *entity* is a person, a place or an object and a *context* is the set of all context information characterizing the entities relevant for a specific task with their relevant aspects.

3.1.4. Trust Transfer from an Entity

For trust transfer from an entity as the source of trust, the transitivity only occurs when a person bases initial trust in an entity on trust in some other related entity (Stewart, 2003). In this review, the definition is applicable except for the one and only case of 1.2 trust transfer from entity to context. This chapter contains trust transfer (1) from entity to entity and (2) from entity to context. The first category is broken down into subsets: intra-channel trust transfer and others. An overview is given by table 5, where the reviewed references are sorted in alphabetic order.

Intra-channel Trust Transfer from Entity to Entity

In a special case, the transfer refers to consumer trust in one entity being moved to another related entity in the same channel which the work of Lin et al. (2011) referred to. These types of trust transfer are grouped together with the adapted term of "intra-channel trust transfer". Most of them are in the context of e-commerce (and the rest: classic product marketing), for example offline to offline (Perk and Halliday, 2003) and online to online (Stewart, 2003, 2006). In the latter case, Kollock (1999); Riegelsberger and Sasse (2001) named reputation-sharing mechanism as a fundamental trust transfer way. E.g. the online auctioneer platform Ebay is based on an unconscious process of trust transfer which is derived

from trust in other participant's honest rating of one individual. The assumed initial trust leads to trust in the general reputation rating system on the platform of Ebay and thus is transferred to the individual (Komiak et al., 2008).

Stewart found out that trust is transferred from hyperlinked text on similar web pages of organizations to unfamiliar business-to-consumer websites with the known hypertext (Stewart, 2003). As a result, trust is transferred across hypertext links based on the observed, perceived interaction and comparability, sameness of the linked organizations. The fact that hyperlink affordance affects trust in the target site in the online-to-online trust transfer process has also been confirmed by Lee et al. (2014a). Additionally, in the area of social media, a parallel concept has been investigated by Pentina et al. (2013) who found out that similarity of "self-Twitter" personality (cf. "hyperlink") strengthens the transferred trust towards the platform of Twitter.

Equivalently, trust in one known online brand can be transferred to an unknown online brand by associating itself with the familiar one so that the consumer trust and purchase intention of the unknown brand can be improved (Ballester and Espallardo, 2008). Similarly, the brand marketing works in the same way by using the trust transfer process from one product to another. When one brand is well-known and has a good reputation, the corporation can take the advantage of their existing well-reputed products to promote other unknown product with the same brand. The "hyperlink" among the products can be established and more information can be provided for the new product based on the available verified facts. Moreover, potential risks of launching a brand new product can be reduced (Keller, 1993; Tulin, 1998).

The first mentioned type of transfer within the offline channel refers to the general branding strategy (Perk and Halliday, 2003). To give an instance, a consumer who trusts the product of brand A purchased in one affiliate would most likely trust a newly-released product of brand A in another retail store. One would consider McDonald's as a trustworthy consuming place everywhere on the earth by using brand trust. Another practical example of "brand extension" is to be found in the work of Aaker and Keller (1999). More information is explained in section 7.1. The authors evaluated the effectiveness of the trust-transfer process from the established brand names to their new entered products or services. Extension products could be Hard Rock Café t-shirts¹⁶; Brand extension service could be car-sharing services such as DriveNow (BMW und Sixt)¹⁷, car2go (Daimler and Europcar)¹⁸ or Multicity (PSA Peugeot Citroën mit DB Rent)¹⁹. Trust of the most Business-to-Consumer car-sharing services is based on and established by the brand and reputation of the service providers which is mostly an automotive OEM or a well-known car rental company (Bert et al., 2016).

¹⁶<https://rockshop.hardrock.com/> (accessed on 31.12.2016)

¹⁷<https://www.drive-now.com/> (accessed on 31.12.2016)

¹⁸<https://www.car2go.com/> (accessed on 31.12.2016)

¹⁹<https://www.multicity-carsharing.de/> (accessed on 31.12.2016)



Figure 1: An illustration of two trust mechanisms from *trustor* to *trustee*. (Left: trust transfer mechanism with two involved parties; right: trust mechanism with three involved parties.)

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- 1. Trust Transfer from Entity**
 - 1.1 Trust Transfer from Entity to Entity
 - 1.1.1 Intra-channel Trust Transfer from Entity to Entity
 - 1.1.2 Other Forms of Trust Transfer from Entity to Entity
 - 1.2 Trust Transfer from Entity to Context
 - 2. Trust Transfer from Context**
 - 2.1 Institutional-factors-based Trust Transfer from a Context
 - 2.2 Trust Transfer from Context to Entity
 - 2.3 Interchannel Trust Transfer from Context to Context
 - 2.3.1 Offline to Online (web)
 - 2.3.2 Online (web) to mobile
 - 2.3.3 Offline to Offline
 - 2.3.4 Online (web) to Online (web)
 - 2.3.5 Online (web) to Offline
-

Table 4: An overview of the trust transfer literature review.

Referene of Study	Related trust transferred from ...	dependent variable of transfer target
1.1 Trust Transfer from Entity to Entity		
<i>1.1.1 Intra-channel Trust Transfer from Entity to Entity</i>		
Aaker and Keller (1999)	Trust in an existing brand with well-developed image	Trust in a different product category (as brand extension) of the same brand name
Ballester and Espallardo (2008)	Trust in one known online brand	Trust in an associating unknown brand
Keller (1993); Tulin (1998)	Trust in an existing product with good reputation	Trust in other unknown promoting product with the same brand
Perk and Halliday (2003)	Trust in one offline channel	Trust in another related offline channel
Riegelsberger and Sasse (2001)	Trust in other e-shopping-participants whose ratings will be aggregated to form one's reputation	Trust in individual with reputation rating
Stewart (2006)	Trust in similar hypertext website links of organization	Trust in similar websites with the hyperlinks
<i>1.1.2 Other Forms of Trust Transfer from Entity to Entity</i>		
Golbeck (2005); Katz and Golbeck (2006); Dong et al. (2007)	propagating trust values using trust transitivity	Trust across social networks for not directly connected entities
Pentina et al. (2013)	Trust in social-media brand Twitter	Trust towards "followed" brand and patronage intention
Uzzi (1996); Strub and Priest (1976)	Trust in known targets of individual entity	Trust of connected unknown target of a third party
1.2 Trust Transfer from Entity to Context		
Lee et al. (2014b)	Trust in holding mega-event or festival	Trust for event hosting country

Table 5: Sorted references of related works on trust transfer from an entity.

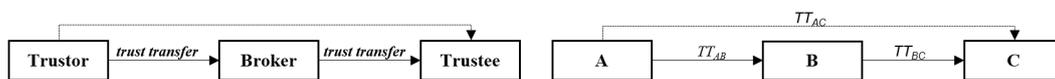


Figure 2: An illustration of trust transfer model with a mediator. (Left: model discussed in section *trust transfer mechanism* (3.1.2); Right: transfer inference algorithm of *TidalTrust* with direct trust transfer *TT* from A to B (TT_{AB}) as well as B to C (TT_{BC}) following with a possible computable trust value of A to C (TT_{AC}).)

Other Forms of Trust Transfer from Entity to Entity
 Another forms of trust transfer from entity to entity has been researched more frequently according to Buntain and Golbeck (2015). The main context in this sub-category is the

interpersonal or social network.
 Trust in a known third party serves as an important basis for trust in an unknown party (Coleman, 1990). Strub and Priest (1976) and Uzzi (1996) discussed interpersonal trust-

worthiness based on how desiring drug users tried to expand their social networks to procure drugs. The latter work confirmed previous findings showing that individuals arranged their business built on third-party recommendations as a mediator. To be more precise, the model presents a trust transfer from an individual entity of known targets to another individual entity of unknown targets with a trust broker.

Correspondingly, Xing et al. (2010), Sun et al. (2002) and Marchesini and Smith (2005) proposed mathematical and computational models for this kind of calculation. The relevant model is illustrated in figure 2 where A stands for a trustor as a person, B as a mediator person connecting A and C, C as a trustee. Furthermore, the work of Dong et al. (2007) presents a basic model with formally described trust transfer formulae based on trust policies, too. The necessary constraints for mentioned trust transfer between actors in distributed decentralized networks were suggested, e.g. social network.

In the same way, Kimery and McCord (2002) aimed to apply the above mentioned trust model in the context of e-shopping by connecting a third-party assurance seal. Yet, the expected positive relationship between third-party assurance and customers' trust in an unfamiliar e-retailer is not confirmed. Nonetheless, the results from Jiang et al. (2008) supported the same kind of hypothesis that the perception of third-party certificates is related to e-shoppers' intensity of seal exposure as well as the perceived importance of the trust factors.

In the area of social media, Pentina et al. (2013) confirmed the robustness on the transference of trust from the social-media platform – Twitter to users' trust and patronage intention towards the brands using so called "social media marketing". The author also investigated on the potential culture-based differences. By the same principles with Twitter-branding as an eWOM (electronic word-of-mouth) referral, Kim and Prabhakar (2000) have predicted that a person with strong personal ties could positively affect the effect of his word-of-mouth referral and establish high-level initial trust in the field of e-commerce. This is a part of "influencer marketing" (Brown and Reingen, 1987).

Trust Transfer from Entity to Context

The least research has been found in this categorization of trust transfer from entity to context whereas the controversial (context to entity) theory frequently appeared. The context is unusual in comparison to the rest of the study. Only one literature piece was found. Lee et al. (2014b) considered, based on trust transfer theory, the impact of attitude towards a mega event on it towards the hosting country. With the example of Shanghai Expo Mega event, the authors showed that the attitude towards a mega event influences the attitude towards the event-hosting country and both aspects have a positive impact on visitors' intentions to revisit China.

Trust Transfer from a Context

Trust transfer from a context has been studied much more than the previous category. In this work, the related literature is divided into three major parts: (i) Institutional-factors-

based trust transfer from a context; (ii) Trust transfer from context to entity; (iii) Interchannel trust transfer from context to context. In the third part, different sub-situations are taken into consideration and are respectively synthesized. An overview of related works for trust transfer from a context can be found in table 6 where the most relevant literature works are listed in afore-sorted categories.

Main Objects and Advantages

According to the related literature, trust transfer across contexts both online and offline has several advantages. Exchange of reputation and trust between domains of context can be a valuable resource for both users and existing contexts such as virtual communities (Grinshpoun et al., 2009). The main advantages are listed as following:

- The transference process of trust could reduce complexity in management of trust relationships by simplified leverage process of reputation data from multiple contexts (Neisse et al., 2006). This is especially important when the users maintain different active communities or channels in varied contexts for the reason that the received evaluations may differ (Grinshpoun et al., 2009). Also in order to produce more accurate recommendations to improve the whole process (Neisse et al., 2007), the leverage process can be a main advantage.
- Trust transference provides protection against changes of identity and first time offenders in order to enhance trust establishment (Rehak et al., 2006; Rehak and Pechoucek, 2007).
- The process offers the chance to learn policies as well as norms at runtime (Toivonen and Denker, 2004; Rehak et al., 2006).
- Users and actors of inter-contextual communities or platforms with the trust transferring mechanism are able to maintain their global or community-specific "offline reputation certificates", known as "reputation capital" (Grinshpoun et al., 2009; Labalme and Burton, 2001).
- For inter-context reputation it is also easier and more practical for the cross-contextual users, because the reputation does not have to be built from scratch on when the entity wants to join a new context (Grinshpoun et al., 2009).
- The aforementioned aspect supports faster establishment of the new context, especially regarding to virtual platforms and communities. By exporting and importing reputation data (Grinshpoun et al., 2009), trust transfer can also help to infer trust information in context hierarchies (Holtmanns and Yan, 2006) and therefore, improves performance (Rehak et al., 2006).

Institutional-factors-based Trust Transfer from a Context

Institutional-based trust is defined by McKnight et al. (1998) as the reflection of the security one feels about a situation "because of guarantees, safety nets or other structures." It deals with the structures that "make an environment feel trustworthy" such as legal protection, according to McKnight et al. (2002). This environment is important for the institution-based trust as it presents the perception of the situation. One dimension of the institution-based trust defined by McKnight et al. (2002) is structural assurance. In the commonly researched context of e-commerce, it could be legal or technological Internet protections from loss of privacy, identity and money. Another dimension is named as situational normality which represents one's belief in an environment which is "appropriate, well-ordered and favourable" (Baier, 1986). Thus, institutional-based trust transfer is part of *trust transfer from a context* (to a context or entity).

Institutional-based trust is presented in daily life as Doney and Cannon (1997) pointed out that trust for a consumer in a broad-scaled supplier firm will transfer to its salesperson so that customers usually believe in those representatives of the firm for giving true facts. Holtmanns and Yan (2006) named this kind of trust "certificate-based" trustworthiness, e.g. when we trust a banking employee with the bank account; or a police officer can check our cars. The former case has also been proven to be valid in both ways, that is, customers' trust in certain (well behaving and convincing) sales agents of a firm also refer to consumers' trust in the greater concept of the company.

The institutional-based factors have effective influence in various types of contexts. This could also be for example the "larger organization" of society: the effects on general measures of trust have been not only proven to be based on religious composition of a society (Porta et al., 1997), but also on communications infrastructure (Fisman and Khanna, 1999).

In a general context within an organization, Zaheer et al. (1998) proposed and demonstrated a strong correlation between trust in an organization and trust in an individual within the organization. Grayson et al. (2008) confirmed that trust in a broad-scoped organization such as business context, industry and system, governmental regulation or professional association rules and standards can lead to transitivity of trust in a narrow-scoped firm within this organization. The governmental public e-service has also been researched - the root of trust in the public e-services can be followed from both of trust on the public administration and on the continuance intention of the Internet (Belanche et al., 2014).

In the context of e-commerce, the referral is also known as a strong influencer of consumer behavior (Brown and Reingen, 1987). Consumers tend to transfer their trust on the general e-commerce environment to the specific merchant and website to justify purchases (Thatcher et al., 2013). Correspondingly, trust in general Internet shopping is transferred from the trust in greater Internet merchants and the general Internet shopping medium since the process is a transaction-based evidence (Lee and Turban, 2001). This

kind of trust transfer based on contextually-related institutional structures, along with the trust in the intermediary e-marketplace and its feedback mechanism, lead to the trust in the community of sellers in an e-marketplace, such as Amazon (Pavlou and Gefen, 2004). Accordingly, how trust in a platform can be transferred and conducted to trust in the renter of the online environment was showed by Hong and Cho (2011).

It is also worth to mention that the extending study of Fang et al. (2014) showed that the e-commerce institutional mechanisms is controversial. A new construct of Perceived Effectiveness of E-Commerce Institutional Mechanisms (PEEIM) was introduced and it was found that PEEIM negatively moderates the relationship between trust in an online vendor and online customer repurchase intention, since it reduces the importance of trust to promoting repurchase behavior. They suggested to set a new starting point for the paradoxical role of e-commerce institutional mechanisms (Fang et al., 2014).

Finally, different perspectives were found in the e-commerce context. Sun (2010) studied, different from most of the prior research of buyers' perspective, on how online-sellers' trust transference mechanism functions. As a result, trust of sellers in intermediary, i.e. the service provider, creates trust impact on how they trust the community of buyers in online marketplaces.

The referral of institutional factors also takes place in the context of the sharing economy. The transaction process of peer-to-peer platforms is made up of special and differently detailed products or services (Han et al., 2016). In particular, in the case of Airbnb, a user has to make a purchase decision on an accommodation from an unknown host. This is reasonable that such trust in hosts may be transferred from the platform itself, according to the trust transference argument (Doney and Cannon, 1997; Stewart, 2003). To be more precise in the situation, trust in the cognitive-based Airbnb improves trust in the affect-based host, stated Han et al. (2016). The authors also considerate Airbnb's measures for preventing distrusting hosts (e.g. prohibition from lower raters or hosts low-quality condition etc.) as a stimulus to reduce the feeling of uncertainty of transaction and thus trust the platform more since it is "well-managed". Meanwhile, the same logic has also been proven from the sellers' perspective.

Trust Transfer from Context to Entity

Aside from institutional-based trust transfer from context, McKnight et al. (1998) also investigated the mechanism of this kind of trust formation. He presented how initial trust can be formed and established in new relationships where the involved parties have no prior participation with each other. On the contrary, Buntain and Golbeck (2015) considered this mechanism as not directly related to trust transfer, however, it regards one's context in new relationship as very important for high levels of initial trust. The contextual environment of one person is a hidden, yet unexpectedly crucial factor for enabling the other person to have trust without former experience. Therefore, it is categorized to *trust transfer from*

context to entity.

Based on the first knowledge of initial trust, Riegelsberger et al. (2005) enlarged the model and expanded the aforementioned institutional-based signal by including additional aspects from social and temporal context. The research found that social norms as well as reputation, together with temporal context, such as the length of interaction and expected probability if the communication will take place again, are factors involved for trustworthy behavior, too. For example, one would not have the same behavior regarding to trustworthiness in the context of an interaction which occurs to be in a crowded room, in comparison to a conversation at an important event. Likewise, if two entities are probably not going to interact again, there is less incentive to behave in a trustworthy manner than in a context with a possible repeated reunion.

In addition to the aforementioned works, trust transfer from context to entity can also be noticed in sales management (Milliman and Fugate, 1988). Salesmen use the technique of trust transfer by proofing their claims of a service or product (entity) using a verifiable evidence (context) so that the clients are more likely persuaded and therefore, have more belief and greater intention to purchase.

Interchannel Trust Transfer from Context to Context

Trust transfer from context to context (of mostly the same entity) seems to be a relatively rarely studied concept (Buntain and Golbeck, 2015), whereas this kind of inter-context transfer occurs frequently in our daily lives. Trust in one domain has an effect on trust in another one (Hong and Cho, 2011; Lu et al., 2010). Lin et al. (2011) defined such transfer of trust from one context to another also as "inter-channel" trust transfer which occurs mainly in different channels - First from offline to online and next, from online to mobile channels. As a matter of fact, most of the related recent research works seem to be based on how consumers transfer their trust in (e.g. a retailer's) physical mortar-and-brick offline store to the same firm's e-business platform; and how web-based online perception, in turn, affects mobile services in the recent years. The latter case is relatively new in the research field. In addition, other cases of offline-offline, online-online and online-offline trust transfer will also be discussed.

Offline to online:

In general, several works found out that trust in the offline brick-and-mortar form of a firm or organization positively and directly affects the perception of the firm's online merchandising portal (Kuan and Bock, 2007; Verhagen and v. Dolen, 2009; Hahn and Kim, 2009). To name two representative cases, the results of Lee et al. (2007) indicated that trust in offline bank services has a direct effect on online banking services; the customers' trust in the offline bookstore was also proven to affect their trust in the online bookstore in a positive way (Lee et al., 2011). Therefore, retailers and organizations with e-channels could increase trust on their online shopping platforms by employing this find. For those online shoppers who are not experienced, personal

familiarity of a certain known brand or retail organization influences the likelihood of a first try of e-shopping experience in a positive way (Riegelsberger and Sasse, 2001). E.g. Amazon's affiliate program²⁰ is incorporated with this idea (Riegelsberger and Sasse, 2001) - providers and individuals are offered an incentive to link and advertise their products by earning advertising fees. Therefore, the trust potential e-shoppers would have in individuals or providers (e.g. websites, blogs) is transferred in this case to Amazon.

Stewart (2003) and Levin et al. (2002) also studied how trust in traditional shopping channels can be formatted into web-based online organization (based on evidence that the Internet-based organization has a physical store). The positive research results confirmed the fact that the trust intention to buy from an online retailer would be higher, if a picture of a physical retail location is showed on the website which generates more trust.

Turel et al. (2008) looked at the aspect of e-customer service. The results supported the thesis that trust in service representative and procedure mediates trust in e-customer service. As a consequence, it triggers more intention to reuse the service.

In addition, Shankar et al. (2002) stated in their work that online trust is "intertwined" with offline trust and these two are connected. From a stakeholder's perspective, to improve online trust means developing the firm's overall performance in a more positive way, especially for multichannel organizations with multiple touch points between which trust transfer takes place. The linkage between online and offline trust transfer is thus necessarily inevitable for such multichannel marketing with consistency and commonality.

Online to mobile:

The last paragraphs addressed the trust transfer from offline to online. Extending onto the context of e-commerce on mobiles, trust in general web services, functional consistency as well as perceived "entitativity" (Lickel et al., 2000) can be transferred to trust on mobiles' word-of-mouth services (Wang et al., 2013).

The cross-context trust transfer evolved through the "mobile revolution" in recent years. The gradual development of mobile-based services makes the trust transfer in web commerce context more complex. Lin et al. (2011) investigated on the role of inter-channel trust transfer establishing trust on mobile commerce. Their results showed that higher trust in online brokerage services directly contributes to the trust in mobile brokerage service counterpart.

Shan and Lu (2009) proposed and confirmed that online trust positively influences initial trust in mobile banking and customers' perceived structural assurance of mobile banking. Regarding to trust in web-based and mobile-based payment services, Lu et al. (2011) brought to light that this kind of trust in the context works in quite the same manner as consumers transfer trust from the aforementioned Brick-and-Mortar stores to websites (Buntain and Golbeck, 2015).

²⁰<https://affiliate-program.amazon.com/> (viewed on 26.11.2016)

Worth noting is that all the related literature in the above mentioned online-mobile section originates from Chinese researchers. The reason may be that the Chinese market for mobile services is proceeded and making headway. More information is to be found in the listed literature.

In the following passages another inter-context trust transfer will be introduced. They comprise trust from offline to offline context (Buntain and Golbeck, 2015; Delgado-Márquez et al., 2012; Delgado-Marquez et al., 2013); trust transfer from online to online context (Grinshpoun et al., 2009; Venkatadri et al., 2016) as well as from online to offline (Botsman, 2012).

Offline to offline:

The general trust transfer in distinct offline contexts was explored based on two rounds of game playing (*Berg's investment game* and *Battleship*) using automated agents (Buntain and Golbeck, 2015). The intention was to stimulate varying degrees of human trust and to observe how trust in the initial round of game can be transferred to the second new round with a new game. By analyzing how the agents select teammates in the second round of the game, it became clear that the tendency is strongly influenced by the prior experience in the first round of the game with each teammate. (Such kind of "reciprocity influence" has already been proven by Delgado-Márquez et al. (2012). Delgado-Marquez et al. (2013) proposed and tested two robust indicators for it: the trust transfer index and the trust transfer reciprocation index.)

Buntain's result supports some intuitive decisions in our daily lives. For example, if a co-worker A of person B is reliable for B, then B may ask A to take care of her plants without any information about how A's horticultural skills are. This seems to be reasonable because despite contextual distinction, B has trust beliefs in A through prior experience. Even though the performance will be in a new context in which B has no information how A performs, B has beliefs that A is going to behave appropriately. Several works have confirmed the existence of such kind of initial trust (Jones and George, 1998; Lewicki and Stevenson, 1997; McKnight et al., 1998; Berg et al., 1995) whereas some argued that such trust comes from people's common grounds, that is, people tend to trust others (Holtmanns and Yan, 2006), e.g. for family, work colleagues, church community or from the same village, etc. In addition, such trust transfer between offline contexts has also been studied by Gulati who demonstrated that repeated relations in alliances lead to (inter-firm) trust in offline context (Gulati, 1995).

Online to online:

In context of online virtual platforms and communities Grinshpoun et al. (2009) proposed a CCR (Cross-Community Reputation) model for sharing reputation knowledge across such communities. In this study the authors attempted to apply information-sharing to online community reputation for leveraging a new state of a user in new communities so that internal trust of certain communities can be quantified, transferred and consequently, established more quickly. This idea

of supporting trust building and trust transfer has also been mentioned by Eisentraut et al. (2001). The research was based on the assumption or situation that reputation information of virtual communities is very important as a part of a user's online identity. Additionally, an exchange of such information is a valuable resource for both users and communities. As a conclusion, a CCR model is created and assembled based on a detailed example of converting the reputation score from *TripAdvisor* to *Expedia* and *Booking.com* which gives motivation for ability of transferring reputation.

Similarly, Venkatadri et al. (2016) also investigated on inter-domain trust transfer from platform to platform. Their prior intention is to strengthen weak identities on separate platforms from honest users by creating a fundamental shift of online transferring identities. Assumed an honest user has multiple channels to maintain which requires a lot of energy, time and money and causes expenditures, Venkatadri et al. presented how their proposed cross-domain framework can strengthen this kind of trustworthiness (especially on young domains such as *Pinterest*) by using extensive data from other domains like *Facebook*, *Twitter* and the Email service. They concluded that the transfer to young domains such as *Pinterest* is feasible and effective: the users on the young domain could have more reputation and be whitelisted from early on while the probability of misbehavior on the domain can be reduced to 2,5% lower.

Online to offline:

Furthermore, trust transfer from online to offline context can be observed on the website "*Stack Overflow*"²¹ which is a platform for programmers to post and solve technical questions. The website has a system of reputation score where users can earn reputation points by voting on and providing professional answers. The more convincing one's technical answer is, the more reputation score can be earned, and the more power the user possesses. Eventually, the reputation scores were found frequently mentioned in CVs and the headhunters were searching through the platform for needed developers with specific skills. As a result, Stack Overflow launched an invitation-only job board for purpose (Botsman and Rogers, 2011). In this case, one's trust belief in an online context is transferred to the offline environments where real jobs take place. The cross-contextual value of trust is also demonstrated by Shankar et al. (2002) and by Gal-Oz et al. (2010) on the platform of LinkedIn²².

3.2. Trust Transfer in the Sharing Economy

Most of the time trust transfer issues have been intensively researched in the context of e-commerce, as the establishment of the Internet has given much importance to the web-based and later mobile-based business model requiring a trust transfer process as described in details (section 3.1). Although trust transfer of few virtual online-to-online contexts

²¹<http://www.stackoverflow.com/> (viewed on 06.11.2016)

²²<http://www.linkedin.com/> (viewed on 06.11.2016)

Referece of Study	Related trust transferred from ...	Transfer target
2.1 Institutional-factors-based Trust Transfer from a Context		
Belanche et al. (2014)	Trust in public administration and Internet on continuance intention	Trust in the public e-services
Doney and Cannon (1997)	Trust in a supplier firm	Trust in firm's representatives
Grayson et al. (2008)	Trust in an organization, business context in braod-scope	Trust in a narrow-scoped firm
Han et al. (2016)	Trust in cognitive based Airbnb	Trust in the affect-based host
Hong and Cho (2011)	Trust in the platform itself	Trust in the renter (online environment)
Lee and Turban (2001)	Trust in Internet shopping medium as process-based evidence	Trust in Internet-shopping
Pavlou and Gefen (2004)	Trust of institutional structures; managing intermediary etc.	Trust in the community of sellers in an e-marketplace
Sun (2010)	Trust from seller in intermediary as service provider	Trust from community of buyers
Thatcher et al. (2013)	Trust in great e-commerce environment	Trust to specific merchant and website to justify purchases
2.2 Trust Transfer from Context to Entity		
McKnight et al. (1998)	Trust in institutional-based factors	Initial interpersonal trust between people without firsthand knowledge
Milliman and Fugate (1988)	Trust in verifiable proven evidence as salesman's source	Trust in salesman's argument
Riegelsberger et al. (2005)	Insitutional cues, temporal and social context	incentivized trust by behavior
2.3 Interchannel Trust Transfer from Context to Context		
<i>2.3.1 Offline to Online (web)</i>		
Kuan and Bock (2007); Verhagen and v. Dolen (2009)	Trust of a customer in offline stores	Trust in online counterpart and word-or-mouth services
Lee et al. (2007)	Trust of customer in the offline bank services	Trust of customer in online banking
Lee et al. (2011)	Trust in offline bookstore	Trust in online bookstore
Riegelsberger and Sasse (2001)	Familiarity of known retail organizaion	Trust for a first try online-shopping experience
Stewart (2003); Levin et al. (2002)	Trust in traditional shopping channel	Trust in online web-based organisation
Turel et al. (2008)	Trust in service representative and procedure channel	Trust in e-customer service
<i>2.3.2 Online (web) to mobile</i>		
Lin et al. (2011)	Trust in online brokerage services	Trust in mobile brokerage services
Lu et al. (2011)	Trust in web-based payment services	Trust in mobile-based services
Shan and Lu (2009)	Trust in online banking services	Trust in mobile banking services
Wang et al. (2013)	Trust in web services, functional consistency and perceived entitativity	Trust in mobile services in word-of-mouth context
<i>2.3.3 Offline to Offline</i>		
Buntain and Golbeck (2015); Delgado-Márquez et al. (2012); Delgado-Marquez et al. (2013)	Trust of an individual in a context	Trust of an individual's performance in another context
Gulati (1995)	Repeated relations in alliances	Trust in offline context
<i>2.3.4 Online (web) to Online (web)</i>		
Grinshpoun et al. (2009); Eisentraut et al. (2001); Gal-Oz et al. (2010)	Reputation of one community	Leveraged reputation in another online community
Jiang et al. (2008)	Trust of customer in a third-party certification	Trust in e-marketer
Venkatadri et al. (2016)	Trust in extensive social platforms	Trust established or enhanced in younger domains
<i>2.3.5 Online (web) to Offline</i>		
Botsman (2012)	Reputation in online community	Reputation and trust in real environment
Gal-Oz et al. (2010)	Trust and promotion from personal social network such as LinkedIn	Reputation as valuable asset for getting attractive job offer and contacts in real life
Shankar et al. (2002)	Trust in online domain and other multichannels	intertwining offline trust

Table 6: Sorted references of related works on trust transfer from a context.

has been recently reviewed, none of the literature and anecdotal evidence I found investigated the (direct) trust transfer issue based on the context of the sharing economy. As stated in the introduction, the initial situation is based on the point that users often own none or weak reputation when they register in a new independent platform, although existing trust history of other platforms could make to improve the reputation establishment more efficient. All that, therefore, leads to economic disadvantage and inefficiency. The research objective of trust transferability between different sharing economy platforms is illustrated in figure 3.

3.2.1. Trust Transfer Situation

The situation starts with the trustor (entity 1 in the illustration) who is assumed to have initial trust on trustee X (entity 2 in the illustration). This trust is described as "immanent trust" as represented. The immanent trust represents as inherent existing trust, which is intrinsic and fundamental. For example, a trustor trusts a trustee in context of Airbnb as a trustworthy host. Next we have imported trust which

is introduced from a different place or context than the purpose platform. For example, a trustor who trusts the trustee in context of Airbnb fundamentally would "import" his trust towards the same trustee in the new context, Blablacar. The main issue is to answer the question how the trust transfer process works, i.e. if the same trustee is still perceived as trustworthy in the new context.

According to the trust transfer theory outlined in section 3.1.3, two main categories could be recognized and defined - trust transfer from an entity and from a context. In the context of the sharing economy as described, the trust transfer processes *from* an entity (trustor, in this case consumer of a platform) with initial trust on another entity X (trustee, in this case a provider) in a certain context A (e.g. a provider on Airbnb) *to* the same entity X in another context B (e.g. the same provider on Blablacar).

It is ambiguous how the case can be assigned to the sorted references. Two views are consolidated. On the one hand, it is about trust transfer of the same trustee person assuming two different roles in two contexts (in our example, it would

be the trustee on Airbnb and Blablacar) which indicates the classification of trust transfer from entity to (the same) entity. At this point, however, it is doubtful if the process still counts as "transfer" when the source equals the target. On the other hand, the only varying condition of the trust transfer process is the circumstance surround the trustee, thus the case can also be considered as trust transference from context to context. Moreover, since the situation has more similarity to the available inter-contextual examples at hand, it would be more suitable to assign it to the inter-contextual trust transfer.

A conclusion can be drawn that although this model is not easily classifiable at first sight, more arguments speak for the assignment to the context-context trust transfer.

3.2.2. Existing Trust Transfer Solutions

For the solution of travelable credential history, two possibilities for approach are taken into consideration: First, a direct transfer possibility from platform to platform. As mentioned in section 3.1.4, the main objective for inter-context reputation is to analyze and investigate a practical solution of directly "travelable" reputation credential-history for the cross-contextual users. Secondly, a "reputation board" from a third party ("trust authority") analyzes and offers information of entities' trustworthiness. The former case is the major discussion section of the following behavioral experiment, which will be clarified and analyzed in section 5. The latter proposal is to create an integrated centralized solution which is provided by a third party. Such solutions already have existed and are having more progress recently. Detailed information can be found later in the section.

In real life, we have institutions and companies providing software for calculating a person's credibility score. For example *SCHUFA*²³ in Germany and *FICO*²⁴ in America. The abbreviation *SCHUFA* actually stands for "Schutzgemeinschaft für allgemeine Kreditsicherung" (General Credit Protection Agency), yet since *SCHUFA* was founded in 1927, the name has been standing for integrity and reliability. People need and rely on such information sources to create trust by making safe and efficient transactions. The same principle can be found in the context of stock exchange - the rating (e.g. S&P or Moody's) of emitter and investment funds help to make the reliability and credit-worthiness transparent. In a digitalized world like peer-to-peer marketplaces, such credential reputation has become important as well. There are already similar services provided by different startups trying to digitize such "FICO-score" in an online version as a kind of "paypal of trust" (Botsman, 2012). An overview of the solutions found including currently inactive and active startups for "reputation dashboard" are listed in table 7. The example of the startup *Legit* will be discussed in detail later.

Schultz et al. (2001) have suggested a similar concept for firms, namely the "sticky reputation" system for ranking the

reputation of a firm which should theoretically combine every information knowable about this firm and this sticky reputation should be durable and "tends to reproduce itself over time". There are different rankings by many publishers and magazines, e.g. the most well-known one by fortune Magazine's. The author emphasized the exemplary differences between various rankings (e.g. *Fortune* has as third criteria "Innovativeness" whereas *the Danish Ranking* has "price compared with quality") and proposed a more procedural and methodical solution which is manifestly a construction. Transferring it to the trust transfer model in the sharing economy, solutions like *Trustcloud*, *legit* and *whytrusted.com* which are designed to prove one's trustworthiness in P2P marketplaces based on online credibility sources, P2P transactions and social network metrics, have similar problems (Nunes and Correia, 2013). Although the exact algorithms are unknown, different settings of criteria are definitively a demerit of an independent integrated solution.

By building systems as reputation dashboards, a user's activity, ratings, reviews or comments across sites have to be aggregated, combined and calculated in order to create a universal metric for a person's trustworthiness. *Legit*, a San Francisco-based symbolic startup focusing on becoming such a credit system of the sharing economy as well as protecting and empowering users accountability, is one of the reputation ventures. They shared three of their biggest lessons after the startup joined Facebook (Barton and Boyle, viewed on 22.10.2016). They found out that many early-bird users of sharing economy were excited to try new services with little need for additional sources of trust. Additionally, marketplaces themselves want to have control over their own user experiences which weakens third party widget participation. Subsequently, as a matter of fact, the current scale of sharing economy is too small for a data sharing system like the cross-platform reputation system.

Most of the currently active startups list the usual suspects to social platforms like LinkedIn, Facebook or Twitter building the base of trust verification because a large count of real people as friends is tough to fake on Facebook. Also Airbnb users can verify themselves with a Facebook account connection and Lyft passengers and drivers must sign-up through Facebook accounts to verify their identity. The privacy-respecting aspects of such centralized trust management systems are currently on focus and have been discussed and approached by Pingel and Steinbrecher (2008). The lack of consideration is mentioned in the section 7.1.

Currently, there are no significant users of above named "reputation boards". Although the principle should function theoretically, it still seems to be difficult to persuade the market. As mentioned at the beginning of this section, the reality check of the existing trust transfer solution via third-party "trust authority" is only peripheral in this work. The suggested "direct transferring" proposal will be analyzed in the next chapter.

²³<https://www.schufa.de/en/> (viewed on 23.11.2016)

²⁴<http://www.fico.com/en/products/fico-score> (viewed on 23.11.2016)

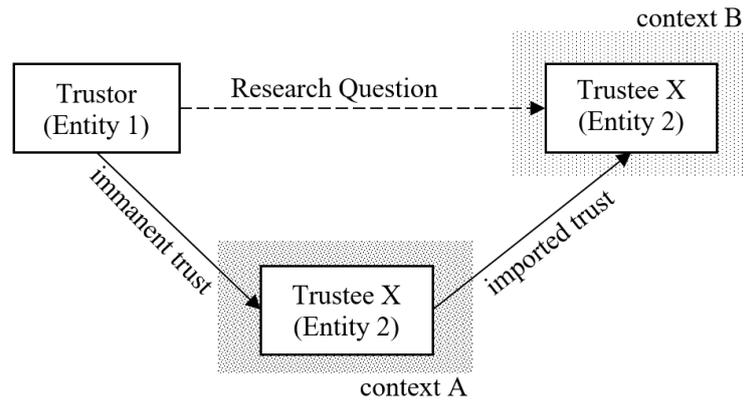


Figure 3: Depiction of the Research objective.

(Is the trust of a trustor (consumer - "entity 1") towards a certain trustee X (provider - "entity 2") transferable between sharing economy platform applications?)

4. Research Model

In section 3.2.1, the trust transfer type of the research model was defined as *trust transfer from a context* (to context). The research model of this work is depicted in figure 4 where the main hypotheses are serially numbered as H_x and other established statements are counted as consecutive capital letters. The objectives of the conducted study were (i) to verify the hypothesis, (ii) to especially examine whether imported rating could have an effect on the defined dimensions of trust scales through perceived reputation, and accordingly affects the intention to use the platforms and (iii) to confirm that trust is affected by the control variables. In the following part, the presented constructs as well as the causal relations are explained. The control variables are presented in subsection 4.1. They can be recognized by text boxes with dashed line. Some explanation based on the study design has referral to section 5.

Immanent rating. Immanent rating symbolizes the classified score by inherent built-in trust in one platform. This is represented by e.g. the cases 5, 10, 15 and 20 of the study in figure 5. More information about the study design can be found in section 5. The immanent rating represents the existing latent trust on the platform itself, including the scale of promising service and experience the users have shared for creating trust and spreading word-of-mouth reputation. Thus, the immanent rating is constituted in form of a scale, signaling the degree of trustworthiness (e.g. typically scored by five-star-system on Airbnb, Blablacar and Ebay with five being the best). The rating normally shows an aggregation of all individual ratings for a particular service provider and it is aimed to be used to inform the others about one's impressions²⁵. Thus, it is logical to state that the existence of the immanent rating would improve the perceived reputation in a positive way.

Perceived reputation. "Perceived reputation" is defined by Doney and Cannon (1997) as the extent to which buyers believe an organization is honest and concerned about its customers.

Perceived reputation is added as an additional control variable between the stages of rating and trust beliefs. The reason is based on a recent review study which showed that a five star rating wasn't the most trusted by consumers to purchase a product (PowerReview, 2015). The reason may be that there is both genuine and fraudulent review which leads one to be extremely sensitive while reviewing "too good" or "too negative" ratings - one assumes that "nothing is perfect". E.g. one would consider a five-star-rating as impossible and thus can be too effusive to be real. It remains unclear whether it is caused by deliberate manipulation or by "perfunctory rating behavior", but the researchers like Schuckert et al. (2016) mentioned to pay attention to such effects. The variable of "perceived reputation", thus, controls the aspect for the above mentioned case and captures the possible side effect.

There are also other arguments over the five-star-rating-mechanism regarding to reciprocity and collusion of the system. Slee (2013) criticized the reputation system for not discriminating among actual good and bad drivers because the system does not reflect the real experience, once reciprocal review of the reviewee is visible. Examples like Blablacar and Ebay were named: when both sides of the transaction are better off with reciprocal ratings, the rating is likely "traded".

Nevertheless, the existence of an immanent rating should bring more credibility to the virtual context than none, because the perceived reputation in the online context depends on the feedback system and the users' feedback effects on other consumers' purchasing behavior (Matsuo and Yamamoto, 2009). The rating, hence, has gained much importance since people perceive it as "social capital" or simply "reputation". Therefore, it can be hypothesized that:

G. *Immanent Rating affects perceived reputation of a platform positively.*

²⁵<https://www.tripadvisor.com/hc/en-us/articles/200613867-What-is-a-rating-> (last accessed: 30.01.2017)

Start-up	Description	Status	Country
legit.co	Universal reputation system that could help sharing economy services verify whether users are trustworthy	inactive, joined Facebook	US
connect.me	Connect.Me turns the existing social networks into a personal reputation network	inactive	US
credport.org	Trust and credibility reputation is built in one place	inactive	US
fidbacks.com	Aiming to be the trust profile of the sharing economy for leveraging online reputation on peer-to-peer marketplaces	inactive	France
peertru.st	PeerTrust is building a digital identity document that helps participants in the sharing economy trust one another by knowing who they are dealing with beforehand based on a peer-validated web of trust.	inactive	Belgium
repstamp.com	RepStamp's goal is building a single reputation system for e-commerce marketplaces.	inactive	Israel
settlebox.com	SettleBox collects the online reviews and lets one use them wherever one buys, sells, lends or hires.	inactive	Sweden
tru.ly	tru.ly maximizes personal privacy by providing users with a single, verified identity on the Internet.	inactive	US
trustcloud.com	TrustCloud gives members in the Sharing Economy the tools for trust and accountability that enable better decision-making and improves every transaction. We measure one's virtuous online behaviors and transactions to build a portable TrustScore one can easily use within the Sharing Economy.	inactive	US
trustribe.com	Complete user review and verification system for marketplaces and communities.	inactive	US
virtrue.us	Virtrue provides verified personal information used in human resources, background checks, identity verification and other situations.	inactive	US
whytrusted.com	Whytrusted aggregates in one place one's public information, reviews and scores and keeps track of the online reputation trail.	inactive	Portugal
deemly.co	Reputation site, which shows the trustworthiness of users engaging in peer to peer transactions by combining ratings and reviews from multiple sharing platforms.	active	Denmark
erated.co	eRated unlocks sellers' hidden potential and presents what one's existing and new potential sellers are already doing in the competitor marketplaces in an automated data driven approach	active	UK
miicard.com	Create trust online through real proven identities, unlocking the true potential of the Internet so that we can all meet and transact with greater ease, confidence and security.	active	UK
traity.com	Traity aims to let one user own his reputation. One can use your reputation passport to become a trusted member of any community.	active	Spain
truste.com	Truste powers privacy compliance and trust by enabling businesses to use data across their customer, employee and vendor channels.	active	US

Table 7: Overview of startup solutions for "reputation dashboard" so far

In comparison to the "immanent rating", imported rating is the rating which is "brought from outside" or introduced from a different context, in this case, "imported" from other

platforms. Relating to the study in section 5, this kind of rating comprises in figure 5 all bilateral cases with different destination- and origin-context. Column-wise observation

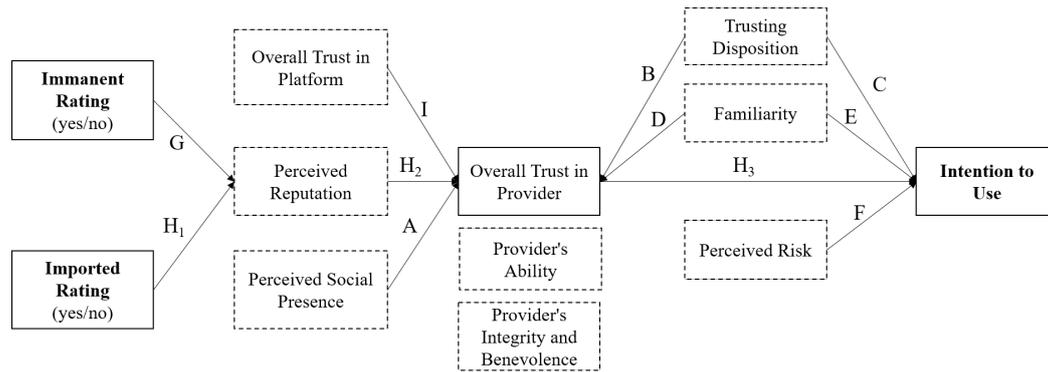


Figure 4: The research model.

represents the respective trust-receptive potential of a certain platform. E.g., the cases 9, 13, 17 represent Airbnb's imported rating (from respectively Blablacar, Ebay and Uber); similarly, trust-exuding potential of a certain platform can be observed in the rows. The effect of the imported rating is the focus of the study with the objective to find out how the imported rating affects one's perception about providers' overall trust and reputation. Following the common-sense logic, an additional piece of positive reputation information would give one more reasons to believe. Although the information is external, one is more likely to predict the trustor's behaviour in future following the other records of the trustor's positive credibility.

The credibility is a crucial predictor of the "information adoption behavior" in the context of eWOM (Cheung et al., 2009; Pan and Chiou, 2011; Sussman and Siegal, 2003). Regarding the "imported rating" as a special type of credibility (which is brought from outside) (Wang et al., 2013), the existence of imported rating should increase the perceived reputation.

Furthermore, as discussed in section 5.1, a preliminary questionnaire was conducted and the first results of the interviewees could be evaluated. The attitude towards the concept of the "imported rating" was questioned. It is conspicuous that over two thirds of participants answered the question of transferability in a positive way whereas the half of them mentioned clearly that a certain set of human qualities and features is not likely to change platform-dependently, to name a few mentioned points – character of honesty, kindness, reliability and respectfulness. It was also obvious that the strongest argument against the mechanism was the difference of requirement sets including ability (role as a renter versus role as a driver) as well as benevolence and integrity (e.g. changing environment from [online] Ebay to [offline] Airbnb).

The control variable perceived reputation could capture possible side effects as discussed before. Nevertheless, it is expected to see a positive effect on perceived reputation and subsequently on level of overall trust in provider. Thus, the hypothesis can be made:

H₁. *Imported Rating affects perceived reputation of a platform in a positive way.*

Reputation is a "valuable asset that requires a long-term investment of resources, effort, and attention to customer relationships" which signalizes a trust-appelling message about the customer-provider relationship (Smith and Barclay, 1997). Thus, the costs of untrustworthy behavior are considered to be higher for well-reputed firms, particularly if there is a high chance of communication among the buyers such as writing negative reviews or giving poor ratings because reputation is meant to reduce information asymmetry (Axelrod, 1984). Findings of Jarvenpaa et al. (1998) suggested that perceived reputation is an important factor in creating consumer trust in an online merchant. In the context of the sharing economy, ratings are obviously main predictors of the perceived reputation. When one provider is able to present himself with positive rating, meaning he has no intention of being fraudulent, one's perceived risk reduces and the overall trust will increase. In addition, it has been proven in the retail context that the seller's reputation is related with the buyer's trust in the seller in a positive way (Ganesan, 1994; Anderson and Weitz, 1989).

There is little reason to believe in the quality of being honest if only little reputation is perceived. In this case, there is little reason to believe in one's benevolence either because the consumer is not convinced of having responded with good service and be taken care of in a kind, helpful or generous way when the provider's perceived reputation is poor. Even though the perception people have is based on what has happened in the past, the provider's ability may also be scrutinized carefully since the users may doubt if they are dealing with competent providers when they are conscious of inferior reputation. Thus, it can be hypothesized that:

H₂. *A consumer's overall trust in the provider inclusive the providers' ability and combined integrity and benevolence is positively related to the providers' perceived reputation.*

The theory of Luhmann (1979) infers that trust is a prime mechanism people would utilize to reduce the additional complexity, and consequently impact consumers' decisions with the provider. Based on the theory of reasoned action

(Fishbein and Ajzen, 1975), Ajzen (1988) supported the research result stating that trusting beliefs have a positive effect on intention as performed action. In addition, this positive relationship has been confirmed by researches as well, such as McKnight et al. (1998, 2002); McKnight and Chervany (2002); Nicolaou and McKnight (2006); Gefen and Straub (2004); Gefen (2000, 2002a); Stewart (2003). It seems reasonable that strong beliefs that the vendor is of full integrity, strong competence and benevolence lead to willingness to have the intention to "depend on the vendor" because people are willing to rely on people with "beneficial characteristics" (McKnight and Chervany, 2002).

Nevertheless, the distinguishment between overall trusting beliefs and trusting intentions is necessary. Consistent with this research model, Stewart (2003) pointed out that there is a possibility that one might hold his trusting beliefs but still be "unwilling to make oneself vulnerable to the other's action" because of potential risks. The risk perception has been discussed in (Mayer et al., 1995) and is also a part of this model (section 4.1).

According to Gefen and Straub (2004), the fact that the trusted party "knows its job" reduces the uncertainty of showing inadequate ability to the trustor. In the context of the sharing economy, when there is a lack of ability such as substandard skills of car driving, the expected performance outcome will be influenced. Therefore, the ability of providers should support the positively hypothesized causal link to trusting intentions.

"Benevolence" shows the caring belief of the trustee which can be considered as an aspect of emphatic good service (Gefen and Straub, 2004). Such service generally increases customer satisfaction and retention (Gefen, 2002b) and thus reduces uncertainty of having undesirable, unpredictable behavior and affects trusting intention. Furthermore, the characteristic of "integrity" implies an honest host, seller or driver. A dishonest provider may use the personal information or even provoke physical danger (Kamal and Chen, 2016). The trusting belief in the integrity of the providers should decrease the uncertainty involved in such behaviors, because the possibility range of intolerable social behaviors is reduced. As a result, consumers are assured of their expected outcomes (Gefen and Straub, 2004).

H₃. *The trusting intention to use a platform grows with augmentation of consumer's overall trust in providers inclusive their (1) ability and (2) integrity and benevolence.*

4.1. Control Variables

Overall trust in platform. The overall trust in the platform is proposed to positively impact the overall trust in the provider. "When a situation feels safe, we tend to believe that those in the situation have trustworthy attributes" (McKnight et al., 1998). This can also be applied in the context of the sharing economy. This implies that when we have trust beliefs in a greater institution (e.g. P2P platform), we incline to have positive trusting beliefs in the smaller units. The positive relationship between trust in platforms and trust in

providers were already found (Han et al., 2016; Son and Benbasat, 2006; Chen et al., 2009) and confirmed (Möhlmann, 2016) in several prior studies. In section 3.1.4, the research of McKnight et al. (2002) already inferred that a consumer who is comfortable with the general web situation, the security and roles of the structure that provide good assurance, is more likely to have high trusting beliefs in a specific vendor because of the contextual security feeling. For example on Airbnb.com, every registered user has to accept the general terms of the platform which enables systematic verification and revises distrustful users (Mittendorf, 2016). Hence, this contextual assurance of "legal, regulatory, business, technical environment" and security feeling can also be applied to the specific context of this work (McKnight and Chervany, 2002).

I. *The overall trust in provider is positively related to overall trust in platform.*

Perceived social presence. The context of the social presence is an important characteristic of trust (Blau, 1964) because trust is built through constructive interactions with other people (Blau, 1964; Fukuyama, 1995; Luhmann, 1979). Gefen (2002a) defined that social presence should build trust through the perception of personal, social and sensitive human presentation. "Social touch" such as a profile with a smiling face added to a website or personalized email and website communication increases trust beliefs of users (Gefen, 2002a). The same can be applied to the existence of genuine profile pictures, personal information description or other ways of expressing human sensitivity and warmth. Reciprocally, low social presence transmitting "cold-shoulder" messages does not build trust (Blau, 1964). A trustor does not have the belief in a provider's benevolence and integrity if the service seems not to be as expected. As a consequence, trustors have few reasons for believing in good service in that case. Also, the ability of the provider will be questioned if the website seems to be irresponsive. Therefore, the causal link can be hypothesized as following:

A. *Higher social presence perceived from the platform increases the overall trust in a provider consisting of ability as well as integrity and benevolence.*

Disposition. The Disposition to trust has been studied and suggested as an important control variable by a broad selection of literature. It represents one's general consistent tendency or propensity to trust or the willingness to depend on others across situations and persons (McKnight et al., 2002; Rotter, 1971). However, this definition does not refer to a person's trait. Rather, disposition to trust is a generalized trend which could possibly add colors to one's interpretation and actors of situations. Thus, it can influence an individual's overall trusting beliefs and intention towards a provider (Nicolaou and McKnight, 2006). Individuals usually enter a relationships with a certain degree of "initial trust" (Meehan, 2000; Rotter, 1980; Mayer et al., 1995) depending on one's faith in humanity (Gefen and Straub, 2004), one's cultural background (Blau, 1964) and one's "socialized trusting stance" (Rotter, 1980; Meehan, 2000). Accordingly, this kind of initial trust is based on one's life socializing experience that forms the trust disposition degree of one person (Gefen

and Straub, 2004). As Bigley and Pearce (1998) and Rotter (1971) proposed, the direct effect of disposition to trust on trusting beliefs should be the strongest when both the overall trust (in the institutional context) and the specific provider are unfamiliar to the trustor.

Furthermore, disposition to trust also reflects the general optimism (Uslaner, 2000) which brings individuals to think positively and therefore, have trust in the provider. However, impact of such trust disposition on trusting beliefs could be mediated to a great extent if one has sizeable experience with institution-based trust (Nicolaou and McKnight, 2006). Nonetheless, it is the willingness to have general trust without justifying it on prior experience with the particular party (Gefen and Straub, 2004). Also, the hypothesis was strongly supported by the results of McKnight et al. (2002) and Nicolaou and McKnight (2006). Overall, the causal factors can be expressed as:

B. *Trusting disposition positively affects users' overall trusting beliefs in peer-to-peer providers.*

C. *Trusting disposition positively affects users' intention to consume the peer-to-peer service.*

Familiarity. McKnight et al. (2002) and Gefen (2000) claimed that trusting beliefs differentiate from familiarity. Familiarity is defined as an understanding based on previous interactions, experiences, and learning of what, why, where and when others do what they do, according to Luhmann (1979). Familiarity gives one an understanding of the current actions of other people or of objects (Gefen, 2000). In the context of this work, familiarity describes an activity-based cognizance found on previous experience of the platform interfaces and learning of the utilization methods. Meanwhile, familiarity reduces uncertainty by establishing a structure (Luhmann, 1979) which would impact the overall trust in provider as well as the corresponding intention in a positive way. In the case of using sharing economy platforms, familiarity is also assumed to reduce complexity through the structure and interaction of the interface and involved procedures. Subsequently, Gefen (2000) stated that familiarity provides a framework within which specific affirmative expectation from the trustee can be made. Confirmation of such favourable expectations increases users' trust in providers. Conclusively, a better understanding of the interface and context through the platform (i.e. increased familiarity) would consequently improve people's ability to maintain their trusting belief.

D. *Increased degree of familiarity with a peer-to-peer platform and its procedures increase overall trust beliefs in providers.*

E. *Increased degree of familiarity with a peer-to-peer platform and its procedures increase users' willingness to use the service on the platforms.*

Perceived risk. The idea of taking risk into consideration in the context of the sharing economy has been discussed by Hawlitschek et al. (2016) who stated that sharing involves procedural risks. The risk theory of Sitkin and Pablo (1992) and Keil et al. (2000) proposed that risk perception will negatively affect willingness to perform a risky behavior. Further-

more, Ajzen (1985, 1991) propounded the theory of planned behavior, suggesting that a user has purchase intention of a process which is perceived as low risky, even if his attitude towards the provider is not highly optimistic and vice versa. The theory substantiates the impact of perceived behavioral control on the use intention. Jarvenpaa et al. (2000) and Gefen et al. (2008) already found that B2C perceived risk negatively affects intention to transact with a Web vendor. In the sharing economy context, the perceived risk associated with the booking process may reduce users' perception of control (Jarvenpaa et al., 2000) which may influence their willingness to book on the platforms. Perceived risk is hence considered as an attitude-shaping independent and direct influence on the "intention to use". On account of this, the causal link F is presented as:

F. *Reduced perceived risks associated with booking process on sharing economy platforms increase the users' intention to purchase the service.*

5. Methodology: Study Design

As discussed in the last sections, trust contexts, i.e. platforms of independent peer-to-peer applications, are technically not connected. A new user of a platform has to create his platform-dependent trustworthiness from scratch when joining it, even if the user has established well documented trust and credibility history on other platforms in other contexts. The study design in this work has the main goal to find out how trust transfer functions in detail differentiating the trust dimensions' ability, integrity and benevolence by connecting the "reputation score" of four selected representative P2P platforms together. In order to study the trust and reputation transfer process between P2P platforms, a large-scale online-survey as well as a preliminary survey as a complete assisting preparation have been conducted.

The selection of these platforms was not systematic and thus is also discussed in the limitation section 7.1. However, there are certain criteria which support the choice. In June 2015, Airbnb reported that it was on track to hit \$900 million in revenue by the end of 2015. Based on that estimate and Slice's report, the company could be hovering near \$1.7 billion in revenue (Love, 2016). The most successful sharing economy platform soars 89% of growth while the hotel industry has a growth rate of 19%. While Airbnb has over 2,000,000 listings in 34,000 cities and 191 countries, Uber is currently active in over 66 countries and over 507 cities worldwide (status 11.2016). This fact justifies the selection of these two platforms. As for Ebay, half of the participants in the preliminary survey mentioned that they would first think of Ebay when it comes to sharing economy. Additionally, BlaBlaCar is the world's largest long-distance ridesharing community (Wauters, 2015) and is popular in the local region of Germany. These arguments round up the justification for the selection of the platforms in this research.

The following passages explain the methodology used in this work respectively for both conducted surveys - the small-

scaled preliminary survey for preparation in section 5.1 and the large-scaled online survey in section 5.2 .

5.1. Preliminary Questionnaire

The preliminary survey based on several open questions is about participants' experience of sharing economy platforms as well as the users' general attitude towards them. Additionally, possible potential of trust transfer in the relevant context has been asked to be evaluated. This process gives the research a basic impression of users' attitude, ideas and thoughts by analyzing 28 participants' free-text answers using Google form ²⁶ in an explorative way. This is a qualitative survey. Aspects that are new or special have helped to develop and expand the research model and consequently take more perspective into consideration. Selected representative results of the preliminary survey are briefly presented in the following paragraphs.

The online preliminary questionnaire received 28 complete open-text answers within four days (from Oct 17 2016). The group includes 43% of male and 57% of female with an average age of 24 (comprising 21-30 year-olds). The educational level is at least Abitur where Bachelors and Masters are nearly equally distributed. All of the participants knew about platforms Airbnb and Ebay; 96% (86%) of them knew Blablacar (Uber). 61% of the partakers have already used the service of Airbnb as consumer whereas half of them have already experienced Ebay as both provider and consumer. The general trust towards selected P2P platforms is overall very positive with 98% affirmative answers (78% definitive trust; 18% conditional trust). This aspect reflects on the answer of the question if one would accept an offer on one P2P platform in spite of empty reputation record: 68% would accept the offer (with 61% conditionally) regardless of unavailable rating record. This infers the importance of both "trust disposition", "familiarity" and the "overall trust in platform" which are elements of the research model. Participants have emphasized that in this case the way of communication as well as the profile description (with profile picture and enough seriousness of the profile as well as depiction of the listing) would play a role for deciding whether the provider is trustworthy. Perceived social presence is also, thus, constructed within the research model for such effects.

The top five features of trustworthy providers covering 81% of all nominated qualities are ranked as following: well-ratedness (good reputation) 28%; honesty and transparency 26%; reliability and seriousness 18%; good communication 14%; controlled by the platform 7%. Some of the mentioned aspects are categorized and described in the research model, such as providers' integrity and benevolence.

The opinion of trust transferability between different platforms was also a question. The corresponding answers can be approximately divided into three evenly distributed

groups: yes; no; and conditionally yes. This diverging answer makes the research even more meaningful to find out if the principle could work. There are mainly two alluded points: half of the participants mentioned diverse requirements of personal qualities caused by different features of the platforms (e.g. driving versus hosting); however, a quarter of participants argued that general personal qualities such as honesty and reliability are transferable. The diverse beliefs build an initial ground of impression of others' options about trust transfer.

5.2. The Online Survey

The large-scale online survey with (expected: 400, actual: 139) participants is conducted and processed for collecting trust-transfer data between the four selected well-known sharing economy platforms mentioned above. The quantitative model will be evaluated empirically later. The measurement is based on 44 survey items using seven-point Likert scales. All the items of the constructs are adapted from adequate templates of available and specific items from related works. The content was validated by carrying out a sorting assessment with 8 judges who were no involvers of the research. Certain items were reconsidered and revised after getting feedback.

Voluntary participants were recruited via the pool of Karlsruhe Decision & Design Lab (KD2Lab). The survey items were presented in German language.²⁷ As incentive, a prize including 2 x 50 Euro and 20 x 20 Euro was raffled among all participants completing the survey who needed to enter their email address at the end of the survey voluntarily if they wanted to take part in the lottery. It was clearly disclaimed that the email address would not be matchable with their answers in the questionnaire.

In the questionnaire, the 44 items are distributed and presented in 6 blocks of 4-8 questions each. The sequence of blocks and the items varies randomly. At the beginning, a short introduction passage was available for explaining the presented situation.

In this study, trust transfer scenarios are simulated with the four mentioned P2P platforms – Airbnb, Blablacar, Ebay and Uber. The Matrix presented in figure 5 shows the systematic combination of the platforms. Every treatment from number one to twenty is assigned to a *platform of origin* (trust transfer from...) and a *platform of destination* (trust transfer to...). The first four cases are defined as the lower baseline, since there is no trust transfer origin, i.e. the user has no previous rating. The "upper baseline" presents the cases of immanent trust. The rest of the cases are scenarios of imported trust. Altogether there are $k^2 + k$ treatments with k as the number of the platforms. Here we have twenty treatments. They are also shown as a network graph as illustrated in figure 6. The number of the survey's participants should be, hence, at least about $20(k^2 + k) = 400$ for $k = 4$.

²⁶https://docs.google.com/forms/d/e/1FAIpQLSea1NhiR0sCoK3TqyeenPZ1iuXZKv9TGGL1ZzeEf5hL16L_yQ/viewform (viewed on 27.11.2016)

²⁷The constructs along with their respective items are presented in the Appendix.

		to [B]...				
		TO				
From [A]...				ebay		
		FROM	N/A	1	2	
airbnb	5		6	7	8	
Blablacar	9		10	11	12	
ebay	13		14	15	16	
UBER	17		18	19	20	← upper baseline

Figure 5: Matrix of Treatments - The study's trust transfer scenarios.

(N/A: no rating available; black marked diagonal: upper baseline; grey-marked row: lower baseline.)

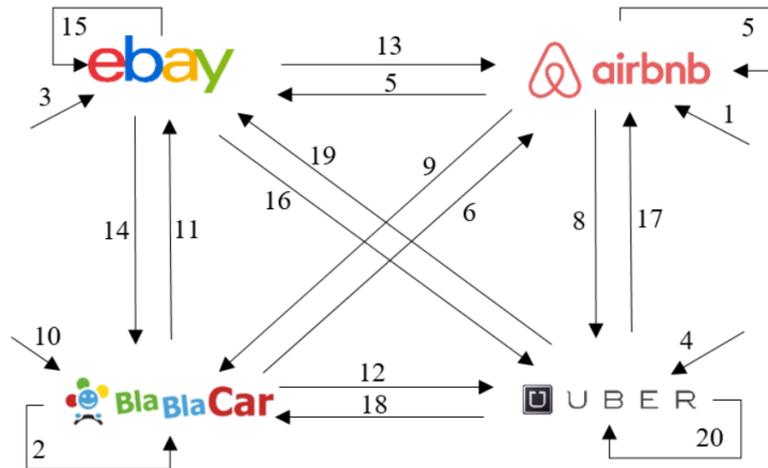


Figure 6: Network Graph - The Study's trust transfer scenarios.

The survey's focus is put on the provider side, i.e. renter, host, seller and driver. The assignment to the treatment is automated and randomly generated. To demonstrate, two examples will be clarified here. The two exemplary screenshots of the respective survey interfaces are listed in Appendix. For example, the fourth case represents the following situation: the user is new on the Uber platform and does not have any rating yet. He has no other reputation record, either. On base of this initial situation, the inquiry will be filled in. Another example can be explained with the sixth treatment. In this case, the survey participants take the role of a Blablacar consumer. The Blablacar driver is also a new user and has no rating history. However, the (connected) available reputation of the same provider on Airbnb is shown. The participant is then asked to complete the survey after being clarified.

Worth mentioning is also the selection of the construct design. The two primary ways of "within-subject" and

"between-subject" designed experiments were in sight. Advantages and disadvantages to each approach were analyzed. "Within" design has a stronger "demand effect" which can make the results furious because each individual is exposed to more than one of the treatments being tested and the certain pattern or intentions recognized could change participants' behavior consciously or not (Rosenthal, 1976; White, 1977). According to Charness et al. (2012), although "within" analysis has clear advantages like independent internal validity on random assignment and alignment with most theoretical mindsets, in environments where a participant has to only "face a single decision", a "between" design has more external validity. Additionally, due to the limit of time this research is based on "between" construct design. Nevertheless, the designed "within" items are displayed in the Appendix giving an idea of an alternative solution. The favoured items used in the construct are presented in the

Appendix.

6. Study Results

1200 participants were invited via email. The survey was available from Feb.02.2017 to Feb.10.2017 and with that was accessible for 9 days. Overall, 397 people took part in the survey until Feb.10.2017 11:00 A.M. GMT+1 and that implies to average 20 participants per treatment. Due to time reasons, only the first 139 sets of data until Feb.03.2017 13:00 P.M. GMT+1 were considered in the following data analysis. To ensure the data quality, 2 of the completed data were excluded for the reason that they did not pass the attention controlling question. Moreover, the subjects that took less than 2'58 or more than 12'28 minutes for the survey completion were excluded. In conclusion, there are 130 sets of data in total which were taken into account with an average completion time of 5 minutes 40 seconds.

The female and male rate are respectively 22% (N=29) and 78% (N=101). The female is underrepresented at KIT, according to the official KIT statistics.²⁸ The participants' Age ranges from 19 to 35 with mean 24.11 and median 24.00 years. The education level is high due to the university environment. Of all of the participants, 45% own Abitur, 46% a Bachelor degree, 9% a Master or Diploma degree. The research model was examined using PLS (SmartPLS software). PLS combines a factor analysis with multiple linear regressions to estimate the parameters of the measurement model (item loadings on constructs) together with those of the structural model (regression paths among the constructs) by minimizing residual variance (Gefen, 2002a). Subsequently, the *t*-values and the *p*-values are estimated using bootstrapping method. Figure 7 and figure 8 show the result of the main research models along with the statistical significance level. The former one has a unitary trust construct: "overall trust in provider", whereas the latter one deals with the two constructs of the trust dimensions explained in section 2.2. Coefficients supported at a 0.001, 0.1, 0.05 and 0.1 level are shown with triple, double, single asterisk and a plus sign, respectively. In the Appendix, the research model without the statistically insignificant paths is evaluated and showed.

The analysis shows that the perceived reputation was affected by the source of the rating, i.e. whether the rating is immanent or imported. The moderate value of R-squared (41%) is considered to be acceptable since the perceived reputation should mostly be affected by the reputation (e.g. rating score) itself. Furthermore, 67% and 56 % of variation in "overall trust in provider" and "intention to use" can be substantially and moderately explained.

Cronbach's alpha, a measure of internal consistency reliability, is well above the conventional limit of 0.7 (Nunnally, 1978) for almost all constructs. Only for "perceived risk", it

falls short of the limit with values of 0.629. Yet no value falls below 0.6 which would indicate a lack of reliability (Henseler et al., 2009). The results are presented in the Appendix.

As of the discriminant validity as another aspect of construct quality criteria, it serves for analysing relationships between latent variables. Its assessment has the goal to ensure that a reflective construct has the strongest relationships with its own indicators, in comparison with than any other construct in the PLS path model (Hair et al., 2014; Fornell and Larcker, 1981). The results of the research model is presented in table 8. The square of AVE (average variance extracted) in the diagonal of the table is constantly greater than other correlations between the constructs with the latent variables in the lower triangle area. Thus, the discriminant validity has been established. The results of the cross-loadings also support the discriminant validity, which appear in the Appendix.

A goodness of fit measure for PLS-SEM (structural equation modeling) can ensure the avoidance of model misspecification (Henseler et al., 2014). The bootstrap-based SRMR does a similar job as a Chi-square test (Dijkstra and Henseler, 2015). As an absolute measure of model fit criterion, the standardized root mean square residual (SRMR) allows assessing the average magnitude of the discrepancies between observed and expected correlations (SmartPLS, assessed 10.2.2017). The SRMR is defined as the difference between the observed correlation and the model implied correlation matrix. The SRMR of the model has a value of 0.071 whereas a value less than 0.10 or 0,08 is considered a good fit (Hu and Bentler, 1998). Additionally, the value of Normed Fit Index (NFI) should result in values between 0 and 1, where the closer the NFI to 1, the better the fit (SmartPLS, assessed 10.2.2017). NFI values above 0.9 usually represent acceptable fit (Lohmöller, 1989). The result of this research model is 0.79 which falls closely below the critical value. This can be explained by the low complexity of the model, because the more parameters in the model, the better and larger the NFI result (SmartPLS, assessed 10.2.2017). The NFI value of the same model without statistically insignificant paths (Appendix) is 0.83 which is higher. Overall, the model seems to have acceptable fitness measures.

With the respect of statistical significance, the data analysis shows that the paths from familiarity, perceived risk and trusting disposition are statistically insignificant, which can not confirm the hypothesized results in accordance with the literature. Both the overall trust in the provider and trust in the subdimensions of the provider are affected by the overall trust in platform, perceived reputation as well as the perceived social presence. The intention to use or purchase is positively affected by both of the overall and subdimensional trust in provider. Furthermore, both immanent rating and imported rating affect the perceived reputation in a positive way.

²⁸KIT Statistics: 72% Male; 28% Female (https://www.kit.edu/download/Statistik_SS2016.pdf July 2016)

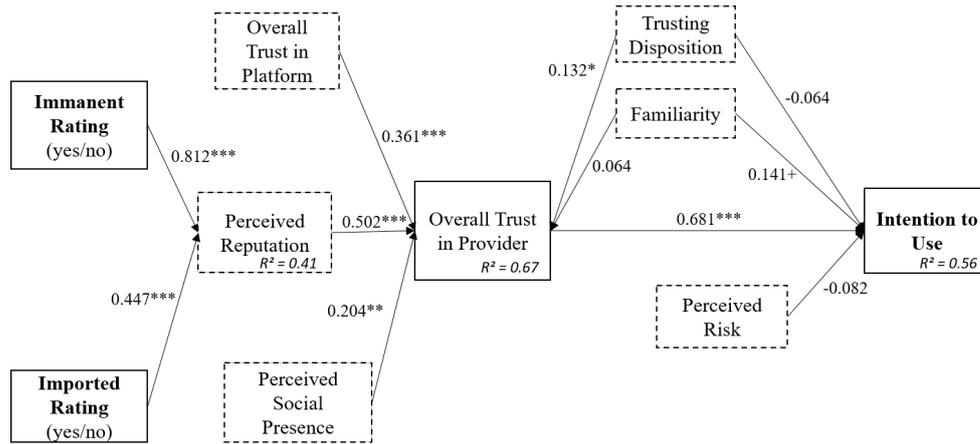


Figure 7: Findings of the study (Overall Trust): path coefficients

(Statistical Significance Level: *** p<.001, ** p<.01, * p<.05, + p<.1)

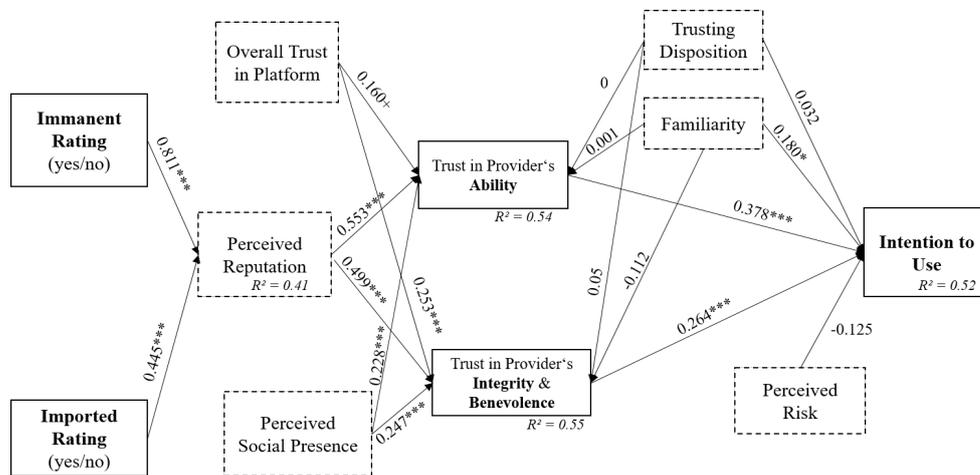


Figure 8: Findings of the study (Trust dimensions): path coefficients

(Statistical Significance Level: *** p<.001, ** p<.01, * p<.05, + p<.1)

	FAM	IMM	IMP	INT	TPL	TPR	REP	RSK	PSP	DTT
Familiarity (FAM)	0.963									
Immanent Rating (IMM)	-0.112	1.000								
Imported Rating (IMP)	0.061	-0.617	1.000							
Intention To Use (INT)	0.286	0.266	0.069	0.969						
Overall Trust in Platform (TPL)	0.549	-0.110	-0.037	0.452	0.822					
Overall Trust in Provider (TPR)	0.207	0.287	0.012	0.732	0.493	0.826				
Perceived Reputation (REP)	0.056	0.536	-0.055	0.626	0.118	0.661	0.852			
Perceived Risk (RSK)	-0.130	-0.194	0.009	-0.472	-0.336	-0.567	-0.431	0.760		
Perceived Social Presence (PSP)	0.148	0.192	-0.060	0.424	0.342	0.576	0.445	-0.222	0.839	
Trusting Disposition (DTT)	0.105	0.052	0.064	0.233	0.282	0.388	0.216	-0.217	0.254	0.838

Table 8: Fornell-Larcker Criterion

7. Discussion

This study contributes to the trust transfer theory by refining the models offered by previous research from the con-

text of e-commerce, by expanding and conducting a model testing the trust transferability in the context of the sharing economy and by including three dimensions of trust to the

model.

As discussed in section 2.2, trust is claimed as very crucial in the context of the sharing economy. The study upholds this thesis and shows that 52% - 56% of the variance of consumer intentions to purchase were explained by the elements of trust in the provider. Moreover, the results showed that the construct of the overall trust in platform not only directly affects the overall trust in provider as confirmed by literature (Han et al., 2016), but also has direct impact on the trust in provider's ability and integrity & benevolence. The direct effect on the subdimensions implicates for practitioners that users' overall trust in the platform is important, because the more positive the overall trust in the platform is, the more trust consumers will have in the peer's ability and integrity & benevolence.

The data were analysed to differentiate between female and male users as well as between experienced and inexperienced users. However, no effects were observed.

The study results also reinforced the multidimensional trust, especially the two dimensional construct design in an online context, as Ridings et al. (2002) and Lu et al. (2010) suggested. It was showed that users' trust in providers' ability and a combination of benevolence and integrity are significant antecedents of the intention to use in the context of the sharing economy.

With respect to the control variables, it is worth noting that also the perceived social presence affects the trust in provider's ability positively, even though the profile pictures in the study were blurred consciously, in order to avoid a possible major influence. This can be explained by the possible semblance of an interpersonal interaction (Gefen, 2002a) and the general perception of social presence factors in a website, e.g. the fact that there is one profile picture and there is a description structure.

The main goal of this research model was to develop and find out if trust can transfer from different platforms of the sharing economy and how it functions in detail. The first question can be answered by the findings of the first main hypothesis. The findings show that not only the existence of immanent ratings directly affect the perceived reputation, but furthermore, it is also related to the existence of imported ratings. The path coefficient of 0.447 shows a positive link for H_1 , though the selected platforms generally require different competence and expertise. How trust in details works can be answered by a first draft of the trust transference score matrix in figure 9.

Due to the relatively small data sets (N=130) and a treatment number of 20, the matrix can only be interpreted with caution. A further research with more data sets should be done, in order to determine more accurate results of the trust transfer performance. In the matrix, a simplified average score of "overall trust in provider" (TPR) is calculated with the quantity of participants in the brackets. A first glance at the matrix offers an average value of 4.2 out of 7 among the imported results, which supports a positive overall transference performance.

In total, the platform with the best trust-exuding potential

is Airbnb, which serves as the platform with the least trust-receptive potential simultaneously. This can be explained first by the degree of personal interaction on a physical level of a hosting experience. In comparison, P2P virtual transaction platforms do not require physical transactions and only has risk factors of monetary loss or possible loss of reputation score (Kamal and Chen, 2016); P2P riding sharing services involve more risk factors such as life risk (Kamal and Chen, 2016), but the time of the sharing service is limited. At Airbnb, there is a greater potential risk, both monetary and physically. Along with the issues of privacy and intimacy people require to feel comfortable when living elsewhere, it seems to require the most trusting factors of all four platforms and thus, is the most difficult to exude to and the most trustworthy platform to transfer the reputation from.

As of the first four treatments which represent the lower baseline, the first study results show that when there is no previous rating available, one would have the most trusting belief in Ebay and the least in Uber. The explanation could be that there is low risk, namely only limited monetary loss on Ebay. In spite of recordless trust history, Airbnb and Blablacar still scored 3.2 and 3.6. This could be resulted by a strong overall trust in the platforms' infrastructures itself or a positive influence of perceived social presence. With the respect of Uber, the degree of availability in Germany is still low and the sample shows that the most of the users do not have experience with this specific service. Thus, a reasonable explanation is the situation of unfamiliarity.

7.1. Limitations

Several limitations of the work presented need to be mentioned and discussed. First of all, the use of students from Karlsruhe Institute of Technology as surrogates might not represent all the potential users in the sharing economy. Though the age class is identified as a main user group of the sharing economy services (Vaughan and Hawksworth, 2014), additional research should examine whether these results apply equally well to other users for ensuring the generalizability of the observations. Subsequently, the voluntary participation of the survey might possibly implicate to the inherent response bias. The sample selection might already be biased regarding the context of the sharing economy. It is quite possible that both familiarity with the target platforms and the trust beliefs work differently with inexperienced users.

The selection of the four platforms used in the survey was not systematic. The results might be different when choosing other platforms. Hence, a construct of fitness should be added in the future research. Details will be explained in section 7.2. In addition, only star ratings were considered in the survey as transferable reputation. Other measures such as review text, comments or linkage of social media sites were not concluded in the design.

There are also many contingencies that will indirectly but undoubtedly affect the level of trust, according to Gefen and Straub (2004). For example, the branding, size of purchase

to [B]... From [A]...		TO				∅
				ebay		
FROM	N/A	3,2 (9)	3,6 (7)	4,1 (7)	2,9 (3)	3,5
	 airbnb	4,5 (9)	5,0 (7)	4,3 (7)	4,6 (10)	4,6
	 BlaBlaCar	4,4 (4)	4,8 (8)	3,4 (9)	4,5 (6)	4,3
	ebay	3,2 (3)	5,3 (2)	3,3 (1)	3,5 (7)	3,8
	 U B E R	3,8 (6)	4,0 (6)	4,8 (10)	5,5 (9)	4,5
∅		3,8	4,5	4,0	4,2	

Figure 9: "How does trust transfer?" – Matrix presentation of the overall trust score

(booking), previous history with the e-provider, the professional appearance of the website, article written about the company, placement of ads for the site and the speed of loading for the site etc. None of these possible factors were addressed in this work. Additional research is needed to sort out such effects.

Moreover, the privacy problems while providing and possibly transferring reputation between different communities were not taken into account, as investigated by Pingel and Steinbrecher (2008). The trust transfer mechanism is based on the rating-score visibility of all platforms. By doing this, privacy problems come into light. One might not wish to publicize his real property location, what car he owned and the destination of his shared riding at the same time. Additional research is needed to investigate this aspect.

7.2. Future Research

This work has implied two indications for the future research. First, since this work’s trust transfer only bases on the star ratings, textual comments and other forms of feedback and reputation system should also be included in the design. They also have an impact on trust perception, according to the results of the exploratory preliminary survey. Another reason for taking other measures into consideration is that bilateral reviewed platforms like Airbnb were claimed to be overrated, as Dellarocas and Wood (2008) and Bolton et al. (2013) pointed out. A more complete analysis of the reputation system would give a better overview.

Secondly, a construct of fitness could be included in the future research. This is inspired by the study of brand extensions (Aaker and Keller, 1999). The context of trust transfer and the fit construct will be introduced in the following.

As mentioned in section 3.1.4, one of the most representative examples of "trust transfer from an entity" is the transfer process from available trust on existing (original) product of a known brand to a new product of the same brand. Firms use established brand names to facilitate the desire to enter new markets with less cost. The study focuses on the total

consumer evaluation of brand extensions while my work prioritizes the specific aspect of trust leverage and transfer. Being consistent with the trust definitions, leveraging a strong brand name can reduce the risk of introducing a product in a new market since consumers have knowledge about the established brand and are familiar with it. Likewise, there is a risk of image damaging association when the extension is wrong.

Aaker and Keller considered the fit (between the original and extension product classes) as an important factor to a brand extension. The role of "fit" or "similarity" of the product classes could impact consumers’ perceived quality of the brand and subsequently, enhance the attitude towards the extension. Three measures for the dimensions of fit were developed. The two demand-side perspectives, "Complement" and "Substitute" consider the economic product usage. An example could be a brand which produces downhill skis. As a complementary extension, it could provide ski clothing. A substitute extension is to provide ice-skates. The third dimension which has also been diagnosed as one of the main reasons for low-rated extensions, is the most relevant for this work – "Transfer", which reflects consumers’ perceived ability of brands providing in the first (original) product class to make a new product in the second (extension) product class. It is about if the consumers think that the facilities and skills of a firm (used for the original product) would be transferable effectively in making the extension successful. That also means, negative reaction would come upon if it is incongruent, i.e., the observing firm does not appear to be competent in the stretching area.

In this paper’s research model, though the difference between the selected platforms (especially regarding the required ability) has been mentioned, the aspect of "fit" is not considered in the research model yet. In the future, this could be constructed separately measuring the perceived similarity and transferability between the origin and target platforms. Since the dimension of trust has been divided into two: (1) ability and (2) benevolence and integrity, especially the aspect of the first dimension would be required to mea-

sure the degree of fit. If the human characteristic of benevolence and integrity is shown to be transferable, the ability transfer would be the biggest hurdle. E.g., proposing that the providers of the ride-sharing platform Blablacar and the P2P taxi platform Uber both have the ability requirement of driving skills, would it be more likely to transfer the trust between these "similar" platforms?

8. Conclusion

This research has given a starting point for studying the trust transfer process by providing a literature review of the trust transfer theories and conducting an empirical test of the process in the context of the sharing economy and P2P platforms. The literature review provided a categorical view clustered by the sources of trust (entity and context). The research model also reinforced that trust consists of a set of beliefs (McKnight et al., 2002), which resulted to be directly affected by the overall trust in the platforms as well. This was a new suggestion at how trust in peer-providers can be increased. The main goal of the study was to find out whether and how trust can be transferred between platforms in the context of the sharing economy. The results of the research model consisted with the hypothesis by providing empirical evidence of the positive effect of imported trust on the perceived reputation. Future research should focus on the detailed transference mechanism by adding a construct of fitness as well as taking other reputation elements such as textual comments into consideration.

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