Service Categories and Customer Benefit Expectations: Empirical Insights from China

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Abstract

The more marketers understand which characteristics and benefits of these categories customers value, the better they understand customer choices regarding particular service products and brands. Alternative consumption modes, also labeled the "sharing economy" created novel service categories. In our study we focus on the example of bike sharing to explore benefit expectations towards this category. We conducted an empirical study in China as one of the most dynamic markets for sharing services. Especially in China bike sharing systems have been widely introduced to respond to increasing environmental problems. Appealing to customers' ethical or social motives, the use of these services should be fostered. Our results suggest that even though collective norms and value are of great importance in the Chinese culture, the choice of sharing services depends predominantly on the expectation of functional and hedonic benefits and, thus, on self-directed interests.

Keywords: Service category, consumer choice, behavioral intention, bike sharing, China

Track: Services Marketing

1. Introduction

Consumer research shows that customer choice of a particular service brand or provider often follows the selection of a certain service category (Howard, 1977, 1989). Service categories represent groups or classes of services that, from a customer perspective, share similar, prototypical characteristics and benefits. The decision for a service category embodies customer perceptions that this category is likely to satisfy individual benefit expectations. The more a service category offers characteristics that match customers' expected or desired benefits, the more likely is that customers choose this category. Thus, the service category choice shapes the decision for a service product or brand in such a way, that selections made on the first level (i.e. the service category) constrain a customer's choice at each subsequent level (Dorsch, Grove, & Darden, 2000). Hence, the better service providers understand customers' service category decisions, the more they are able to segment their markets, to find suitable market positions and to successfully target "right customers" (Onkvisit & Shaw, 1989).

Service innovations often create new service categories that offer novel characteristics and customer benefits. Among others, alternative consumption modes, known as "collaborative consumption" (Botsman & Rogers, 2010), "access-based consumption" (Bardhi & Eckhardt, 2012), or "sharing" (Belk, 2010) prepare the ground for novel service categories, which, overall, provide access to favorable resources, without the burden and cost of resource ownership (Botsman & Rogers, 2010). Commercial sharing services (such as shared cars and bikes, workspace or storage) show considerable growth rates in terms of users, providers, locations and market shares and therefore attract the interest not only of marketing managers (Lamberton & Rose, 2012; Wallenstein & Shelat, 2017). Scholars demonstrate a growing interest in perceptions, customer expectations and their effect on intentions to use these new service categories (Hamari, Sjöklint, & Ukkonen 2016).

Interestingly, to date, most studies focus on motives, attitudes and behaviors concerning a particular service or a particular service provider. Moreover, to our best knowledge, conceptual as well as empirical studies on sharing service consumption examine predominantly Western markets and consumers. By contrast, emerging markets, for instance India, China or Indonesia, are more promising target markets for sharing services, too. The sharing economy in China is estimated at more than US$230 billion, with an annual growth rate of 40 %. By 2025, the sector is expected to account for about 20% of domestic GDP (Pennington, 2017). To benefit from this development, better marketing knowledge about sharing services, perceptions of related service categories and customer choices in these markets is needed.

Against this background, this paper aims to answer the question which service category characteristics determine the choice of sharing services in China and to what extent findings from the Chinese market differ from results obtained from studies in Western countries. To this end, the paper includes findings from previous research on determinants of sharing service usage and tests related hypotheses employing an empirical study among Chinese bike sharing customers. The paper discusses commonalities and differences found in the result and concludes on implications for research and management.

2. Conceptual Foundation

Dorsch et al. (2000) suggest that customer intentions to use a service category depend on their expectations concerning fundamental benefits a service category delivers. They therefore propose a direct link between customer benefit expectations and service category use intentions. Furthermore, referring to research on consumer learning (Triantis 1977, 1980), Dorsch and colleagues (2000) assume that an individual's prior experiences with a service category enhances individual intention to use a service category. In line with that, our research model links customer benefit expectations as well as prior customer experiences directly to customers' intention to use the category of sharing services (see Fig. 1).

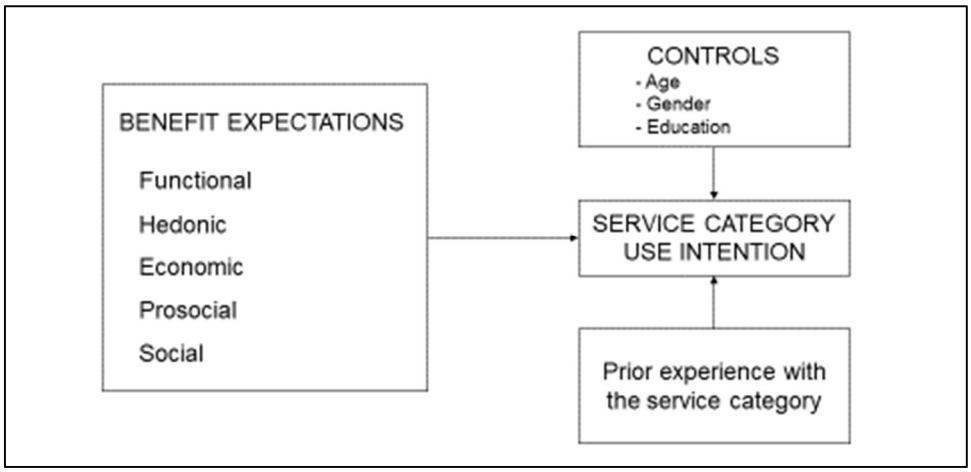

Fig. 1: Conceptual Model.

Customers select products and services for two fundamental reasons: (1) Service categories provide customers with functional or instrumental benefits or (2) with pleasant experiences and affective gratification, such as fun, playfulness, or emotional worth (Batra & Ahtola, 1991; Voss, Spangenberg, & Grohmann, 2003). Prior research on sharing service con-

sumptions underlines that both functional and hedonic benefit expectations play a role in customer decisions to choose a specific bike sharing service (Hellwig, Morhart, & Girardin, 2015; Lamberton & Rose, 2012; Möhlmann, 2015). We content:

H1: Functional benefit expectations relate positively to customers' intention to use the service category of bike sharing.

H2: Hedonic benefit expectations relate positively to customers' intention to use the service category of bike sharing.

Likewise, economic benefits can have a significant effect on customer choice. Service customers value cost savings and/or a time-saving service delivery. With regard to sharing services, several authors suggest that the expectation of economic benefits is an important factor to use such services (Bardhi & Eckardt, 2012). More precisely, several authors found price consciousness to be the most important factor for using sharing services (Lamberton & Rose, 2012; Moeller & Wittkowski, 2010). In line with that, we postulate:

H3: Economic benefit expectations relate positively to customers' intention to use the service category of bike sharing.

Research on sharing and collaborative consumption is often motivated by general wisdom that customers engage increasingly in prosocial behaviors. Consequently, several authors argue that alternative forms of consumption respond to customers' needs for practicing socially responsible, sustainable and ethical behaviors (Hamari et al., 2013**;** Jenkins, Molesworth, & Scullion 2014). Previous research finds at least partial support for the assumption that consumers tend to use sharing services if they expect positive effects from it for the society's well-being (Hellwig et al., 2015). We hypothesize:

H4: Prosocial benefit expectations relate positively to customers' intention to use the service category of bike sharing.

Notably, besides prosocial benefits, sharing services seem to support also more self-directed needs and objects. There is some empirical evidence that customers use sharing services because it helps them establishing and nurturing social ties with others (Bardhi & Eckardt, 2012; Hellwig et al., 2015; Yang, Song, Chen, & Xia, 2017). Customers expect to inter-

act with people with similar ideas and minds. Consensus about norms and values helps establishing relationships and receiving social benefits from these relationships, such as personal recognition, friendship and familiarity (Gwinner, Gremler, & Bitner, 1998). Based on that, we assume:

H5: Social benefit expectations relate positively to customers' intention to use the service category of bike sharing.

According to Dorsch et al. (2000), prior experience with a service category has a direct influence on an individual's intention to use this category in the future. Hence, we postulate a last hypothesis:

H6: Prior experiences with the service category of bike sharing relates positively to customers' intention to use this service category again.

3. Empirical study

3.1 Setting and construct measurements

Asia, and in particular China, is the biggest market for sharing services. The sharing economy in China is estimated at more than US$230 billion, with an annual growth rate of 40 %. By 2025, the sector is expected to account for about 20% of domestic GDP (Pennington, 2017). The number of bike sharing systems is growing worldwide, and strongest in China. Chinese metropolitan areas including Hangzhou, Wuhan and Shanghai host the worldwide largest bike sharing systems (Roland Berger, 2016). Hence, Chinese mega-cities offer a valuable ground for an empirical study on use intentions regarding sharing service categories.

We adopted the measurement of our constructs from the literature. We measured service category use intention using three items borrowed from Lamberton and Rose (2012). Functional benefits were captured by three items, which reflected to what extent customers perceive bike sharing services as useful. The measurement for hedonic benefits contained three items, which described the pleasure and fun of using bike sharing systems. We further adopted the measurements of economic, prosocial and social benefits from Lamberton and Rose (2012) and Möhlmann (2015). Construct items were measured using a 7-point Likert scale from "strongly disagree" (1) to "strongly agree" (7). In addition, usage frequency was captured on a 7-point scale from "never" (1) to "several times per day" (7). Service experience was captured by a 5-point ordinal scale ranging from "less than 3 months or never" (1) to

"more than 2 years" (5) of experience with this service category. The moderator education was measured using the options "High school or below", "Bachelor's degree", "Master's degree" and "PhD". The control age was queried in whole years.

The questionnaire was designed in English and translated to Mandarin. The translation was checked for validity and back-translated to guarantee accuracy and equivalence of the translation. Pre-tests of the questionnaire ensured that it is accurate, clear and understandable.

3.2 Sample generation and data collection procedure

Our model was tested using Chinese residents. In line with prior studies, we employed a convenience sample (e.g., Koenig-Lewis et al., 2015). We run a web-based survey in People's Republic of China. A common online survey tool (questback Enterprise Feedback Suite EFS) was used. Participants were invited during university lectures, via social networks and via E-Mail. The survey was accessible for 10 days.

In total, 206 respondents in China took part. Regarding 434 page-views on questback EFS, this numbers equals a completion rate of 50%. We found no irrelevant or problematic cases. Table 1 details the characteristics of respondents in the sample.

Gender	Male	96	44,44%	Female	120	55,56%
Age (years)	Average	25,04		Median	23	
Student	Yes	164	75,93%	No	52	24,07%
Use	Never	12	5,56%			
	Almost never	28	12,96%			
	Once a month	36	16,67%			
	Once a week	71	32,87%			
	Many times per wee	46	21,30%			
	Daily	11	5,09%			
	Many times per day	12	5,56%			

Responses	216		
Experience	Less than 3 months	27	12,50%
	3 to 6 months	21	9,72%
	7 to 12 months	43	19,91%
	1 to 2 years	103	47,69%
	More than 2 years	22	10,19%
Education	High school or below	23	10,65%
	Bachelors degree	118	54,63%
	Masters degree	68	31,48%
	PhD	7	3,24%

Table 1: Sample characteristics.

3.3 Measurement model

We used partial least squares (PLS) latent variable modelling (Chin, Marcolin, & Newsted, 2003). PLS modelling is well suited for this research and our model as its primary objective is to differentially weigh various variables to generate the best predictive construct scores. It deals with small sample size and strong variance in answers. The software tool SmartPLS 3 was used. Before testing the structural models, each of the measurement models was examined for reliability and validity, using average variance extracted, composite reliability und Cronbach's alpha (Fornell & Larcker, 1981; Nunnally, 1978). Variance inflation factors lower than 4.6 indicate that multicollinearity among the exogenous constructs was not

an issue. To evaluate the standardized path coefficients, we used several criteria, including the variance explained by the model in terms of R-square for the dependent variables; the Stone-Geisser Q2-criterion for predictive relevance; and the size, t-value, and significance level of the structural path coefficients. As the data analysis shows, R-square values for satisfaction and behavioral intention reach sufficient levels in both models (Chin, 1998). Thus, the independent variables explain a substantial percentage of the variance of the dependent variables. Regarding the predictive relevance of the model, the redundancy Q2-value for the dependent variable also confirms predictive relevance of the model (Chin, 1998).

4. Results

Results of our empirical analysis (see Table 2) provide support for some of our hypotheses, though not for all. Data suggests that we cannot reject hypotheses H1 and H2, which postulated that customer expectations of functional and hedonic benefits enhance their intention to use the category of bike-sharing services. In line with prior studies, our results point to the importance of service characteristics that provide customers with a functional service performance as well as with pleasure and a positive service experience. In fact, functional benefit expectations seem to have the strongest effect on service category use intention.

In contrast, hypotheses H3, H4 and H5 must be rejected – we find no evidence for a positive link between Chinese customers' economic, prosocial or social benefit expectations and the intention to use the service category of bike sharing.

Noteworthy, hypothesis H6 cannot be rejected and thus, our study echoes the findings from Dorsch et al. (2000): Customer experience with a service category strengthens individuals' intention to choose this service category again.

Regarding our controls – age, gender, and education – we find only age to significantly affect service category use intention. More precisely, use intention declines with increasing age. Education and gender revealed to be non-significant.

	SPC	t-Value	p-Value		R^2	Q^2	AVE	CR	α
H1: Functional Benefits → Use Intention	0.473	7.222	0.000	Usel Intention	0.556	0.433	0.865	0.950	0.922
H2: Hedonic Benefits → Use Intention	0.142	2.288	0.022	Functional Benefits			0.839	0.940	0.904
H3: Economic Benefits → Use Intention	0.086	1.222	0.222	Hedonic Benefits			0.865	0.950	0.922
H4: Prosocial Benefits → Use Intention	0.070	1.214	0.225	Economic Benefits			0.713	0.909	0.866
H5: Social Benefits → Use Intention	0.038	0.694	0.487	Prosocial Benefits			0.785	0.916	0.862
H6: Experience → Use Intention	0.140	2.033	0.042	Social Benefits			0.863	0.950	0.921

Note: SPC = standardised path coefficient; AVE = average variance extracted; CR = composite reliability; α = Cronbach's alpha)

Table 2: Results of the PLS analysis.

5. Discussion

Our study adds to the literature on service category usage and, in particular, to our understanding of reasons why customers select sharing services. Despite conventional wisdom that customer engagement in collaborative consumption and the use of sharing services is driven by ethical, sustainable motives, our study with Chinese customers reveals that functional and hedonic benefits are of great importance. Obviously, this finding is not valid only in Western markets, but also in one of the emerging markets for the "sharing economy."

This finding was surprising given prior studies, which recognize relational orientations and in particular the respect for and compliance with group norms as important Chinese cultural values with a substantial impact on customer behavior. Customer satisfaction with a product or service may depend not only on its functional or hedonic benefits, but also on the approval of other group members such as friends or relatives (Yau, 1988). From this perspectives, it might be reasonable to assume that Chinese customers would be more prone to get involved in alternative consumption modes and, thus, to more enthusiastically use related innovative service categories. However, our findings deny that ethical or prosocial benefits create value for Chinese customers of sharing systems. As in other Western markets, the selection of this service category is mainly driven by self-interest and the search for both instrumental qualities and individual pleasure. Notably, functional benefits were by far the most significant driver.

Our findings need further reflection and support. Future research should therefore intensify activities to explore different forms of sharing services and, hence, different forms of outcomes, customer participation, and customer value. Research should include international markets in order to detect commonalities and differences in customer attitudes and behaviors and, doing so, provide a rationale for the identification of transnational or global target groups.

Finally, research on the acceptance of novel services and service categories could make valuable contributions to research as the age of digitalization gives birth to a variety of new service categories, new business models and, as a consequence, changed perceptions of customers to what extent these service categories are able to generate benefits and value.

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