Convenient = competitive? How Brick-And-Mortar Retailers can cope with Online Competition

Sandipan S. Sen[1] · Aliosha Alexandrov[2] · Subhash Jha[3] ·
William C. McDowell[4] · Emin Babakus[3]

Abstract

Due to the rise of online retailing, traditional brick-and-mortar retailers need to understand what customers find convenient when shopping at physical locations and focus their efforts on those convenience dimensions to remain competitive. We test a service convenience model in the auto-parts retailing industry and examine how various dimensions of service convenience affect customers' perceptions of the retailer (i.e., service quality, product quality, and perceived value), and subsequently their behavior (i.e., customer loyalty and share of wallet). The results suggest that in traditional retailing, the most important convenience dimensions are decision convenience and benefit convenience. We find that service convenience exerts its effect on customer loyalty and share of wallet through perceived service quality and perceived value, and product quality has an indirect effect through perceived value. Service convenience is an important driver of customer loyalty and share of wallet, and this study demonstrates the mechanism through which it happens.

1 Introduction

The convenience of online retailers poses a growing challenge to the regular brick-and-mortar stores. The decision of established retailers like Macy's, GameStop, Kmart and Sears to close many of their retail locations has raised many questions about the sheer existence of brick-and-mortar format of retailing (Rosen 2017; Yu 2017) as all firms try to find a competitive advantage (Clauss et al. 2020; Fabrizio et al. 2021; Davis et al. 2008) and seek innovative means for higher performance (Chang et al. 2021; Kraus et al. 2012; McDowell et al. 2018). Online retailing offers

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new advantages, including benefits such as 24/7 availability, easy check-out process, easy-to-search inventories and price comparison with other sites, etc. As a response, retailers explore new technologies (McDowell et al. 2016; Bouncken et al. 2021; Song et al. 2021; Weyer et al. 2020), and brick-and-mortar stores started offering new convenience features to create value to their customers. For example, Best Buy offers price matching, and Walmart emphasizes their online sales heavily (Camhi 2017). Apple Store offers cutting edge in-store retail strategies like mobile credit card swipers, store layout designed to encourage customers to try different products and responsive employees trained to be empathetic (Yu 2017).

If traditional retailing is to remain competitive, retailers need to understand what customers find convenient when shopping at brick-and-mortar stores and focus their efforts in improving those convenience dimensions. To fill this gap and provide practical recommendations to traditional retailers, we test the service convenience model developed by Berry et al. (2002) for brick-and-mortar retailers. In the present study, we examine some of the service convenience dimensions in the original framework for a national retail chain dealing in automobile parts. The selection of an auto-parts retailer is particularly relevant, considering the undergoing change in this industry. Commercial reports from Hedges & Company (2018) show that the market size of U.S. automotive aftermarket auto-parts is poised to grow to $388 billion in 2021, and online sales of automotive parts is projected to be at $18 billion. Half of all online auto-parts sales are done by Amazon (Kosman 2017).

The research objectives of the study are to identify the relative significance of the various service convenience dimensions in offline retail context, and to examine how those service convenience dimensions affect customer behavior. This is done through testing a research model where service convenience dimensions affect customers' perception of the retailer, which in turn affect customer behavior. The study was developed in close cooperation with an auto-parts retailer. The contribution to the literature is twofold. First, the results suggest that decision convenience and benefit convenience are the most important dimensions, which had the strongest total effect on consumer behavior. Second, the effect of service convenience on customer behavior, which comprises customer loyalty and share of wallet, is mediated by three variables: perceived service quality, product quality, and value.

2 Theoretical development

2.1 Literature Review

Brown defined the concept of convenience as "anything that adds to one's comfort or saves work; useful, handy or helpful device, article, service, etc." (Brown 1990, p. 54). People's perception of effort and time-saving benefits might influence their satisfaction and consumption behavior (Gross and Sheth 1989; Holbrook and Lehmann 1981), and companies can enhance the value-proposition to customers in terms of savings in both time and effort (Sen et al. 2005). The concept of service convenience can be explained using Transaction Cost Theory (Coase 1937) and the Stimulus-Organism-Response paradigm by Mehrabian and Russell (1974). Williamson (1975,

1981) extended this theory beyond economics, and proposed that the transaction cost approach is economizing the other costs associated with every step of a buyer-seller relationship, including the cost of time and effort. The different dimensions of service convenience are conceptualized to enable efficient spending of customer time and effort; thus, the core concept of service convenience falls under the realms of Transaction Cost Theory (Mpinganjira 2015). The Stimulus-Organism-Response (S–O–R) framework proposed by Mehrabian and Russell (1974) states that physical or social stimuli have a direct impact on the emotional state of a person, further influencing their behavior. This framework has been extended to retail service context by Donovan and Rossiter (1982). Baker et al. (1992) found that arousal, and pleasure derived from the physical environment of the store positively impact customer purchase intentions. Thus, the different service convenience dimensions that have been proposed to enhance the customer benefits derived from the store act as a stimulus, orchestrating a store patronage behavior among the customers (Mehrabian and Russell 1974).

All businesses, including retail business, have a service component (Berry et al. 2002). Consumers use service convenience as a proxy in a retailing context to help them judge the service outcome at the end of the purchasing process; and thus, a reduction of time and effort expended provides tangible evidence to the customers of service quality and value associated with the retailer (Nguyen et al. 2012; Berry et al. 2002) defined service convenience as a multi-dimensional concept, with consumers' time and effort perceptions being central to the concept in the context of service marketing. The dimensions proposed by Berry et al. (2002) were *access* convenience, *transaction* convenience, *benefit* convenience, *decision* convenience, and *post-benefit* convenience.

More than ten years after its conceptualization (Berry et al. 2002), the effect of service convenience on consumer behavior has been investigated only in a handful of studies. Service convenience has been tested in different industries, and despite many common results, it appears that some of the service convenience dimensions operate differently in different industries. Existing service convenience literature can be classified into two categories: Category A studies examining the impact of different service convenience dimensions on customer behavior; Category B studies examining service convenience as a one-dimensional construct or testing only the dimension relevant to the study. Table I summarizes the findings from the existing service convenience literature, considering both the categories of studies mentioned above.

The sample sizes and representativeness of the studies should be considered when interpreting the results. In the general case, the studies conducted on service convenience have small to medium sample sizes of less than 500 respondents (Chang et al. 2010; Chen et al. 2011; Leisen 2006; Benoit et al. 2017; etc.), with the exception of Lloyd et al. (2014), Seiders et al. (2007) and Moeller et al. (2009), who obtained larger samples from participating companies (Table 1). In other cases, researchers use convenient student samples (Colwell et al. 2008; Roy et al. 2016), and in some cases the sample is restricted to a particular type of respondent like women's apparel retailer (Seiders et al. 2007). Therefore, considering the challenge of obtaining broad cross-industry data and the diversity of the results, a viable approach is to incremen-

Table 1 Service Convenience Research

| Authors	Context	Study Method	Findings
Jones et al. (2003)	Banking and Hairstylist/ Barber (USA)	Study Category B, Survey. N=228 (Banks), N=206 (Barbers)	Locational convenience moderated the relationship between customer satisfaction and repurchase intention for more standardized, less personalized services like Banks, especially in times of low satisfaction.
Leisen (2006)	Hairdress-er/ Barber services (USA)	Study Category B, Survey. N=250	Increased levels of service satisfaction will prevent custom-ers from switching to a competitor even if the competition offers access convenience (location).
Seiders et al. (2007)	Women's apparels and home furnishing (USA)	Study Category A, Survey. N=981	Generated a 17-item SERVCON scale and identified antecedent and consequent effects of the five convenience dimensions acting independently within a nomological network.
Cold-well et al. (2008)	Cellular telephone service and internet services (Canada)	Study Category A, Survey. N=201 (N=100 internet, N=100 cellular service)	Developed and tested a 17-item service convenience scale and concluded that service convenience has a positive impact on satisfaction and sub-dimensions decision, benefit and post-benefit convenience significantly effects overall satisfaction.
Moeller et al. (2009)	German brand of grocery retailer	Study Category A, Survey. N=972	Generated 26-item shopping convenience measures and found that four convenience dimensions (except transaction convenience) positively impact share of wallet while three convenience dimensions (except transaction and after-sales convenience) have a significant effect on share of visits.
Chang et al. (2010)	Chinese restaurant chain brand in Taiwan	Study Category A, Survey. N=498	Service convenience positively impacts customer satisfac-tion which in turn impacted customer loyalty. Perceived service value mediated the impact of convenience on sat-isfaction and loyalty. Perceived service guarantee strength was also found to effect the convenience-satisfaction relationship.
Hsu et al. (2010)	Home delivery service in Taiwan	Study Category A, Survey. N=426	The study found that loss in service quality had a greater impact on customer loyalty than gain in quality. Service convenience was found to moderate the quality -loyalty relationship.
Chen et al. (2011)	Home delivery service in Taiwan	Study Category A, Survey. N=476	Customer satisfaction was found to be positively correlated with different convenience dimensions. Benefit conve-nience had the highest correlation followed by post-benefit convenience in the context of home delivery services.
Nguyen et al. (2012)	Kitchen-display showroom customers and concert attendees.	Study Category A, Survey. N=270 (Kitchen) N=320 (Concert)	Service convenience was found to moderate the relation-ship between outcome quality and customer perceived quality in retail (kitchen) setting while the relationship between interaction quality and customer perceived quality in moderated by service convenience in hedonic (concert) setting.
Chang and Po-lonsky (2012)	Taiwanese health club brand	Study Category A, Survey. N=270	Benefit convenience was positively related to overall cus-tomer satisfaction, which significantly impacted behavioral intention. It also had a significant effect on behavioral intention and this relationship was partially medicated by customer satisfaction.

Table 1 (continued)

Authors	Context	Study Method	Findings
Lloyd et al. (2014)	Shopping Malls (Hong Kong)	Study Category A, Survey. N=618	For high economic time value respondents, service convenience showed a positive impact on hedonic value while utilitarian value had a significant effect by convenience for low economic value respondents.
Kaura et al. (2013)	Retail Banking (India)	Study Category A, Survey. N=445	Four dimensions of convenience (transaction, access, decision, and benefit) except post-benefit convenience had a significant positive impact on customer satisfaction and loyalty.
Roy et al. (2016)	Retail banking and mobile phone service (India)	Study Category A, Survey. N=391 (mobile service), 309 (banking)	Decision convenience had a positive impact on perceived service quality and customer satisfaction. Fairness mediated impact of transaction convenience on satisfaction. For mobile services, four dimensions of convenience except decision convenience had a significant impact on fairness while only post-benefit convenience was significantly related to quality and satisfaction. Fairness mediated the effect of all convenience dimensions on satisfaction.
Benoit et al. (2017)	Western European grocery retailer	Study Category A, Survey. N=972	Service convenience significantly impacted customer satisfaction and factors like time pressure, income, shopping enjoyment and household -size moderated the convenience -satisfaction relationship.
Roy et al. (2020)	Indian grocery retailer	Study Category B, Survey. N=384	Organizational characteristics like store brand equity, store ambience, store design/ layout, information richness and employee responsiveness are positively related to service convenience which further positively impacts different dimensions of customer engagement behavior like service improvement, customer cooperation, positive word-of-mouth and helping other customers. Service convenience was also found to mediate the relationship between organizational characteristics and customer engagement behavior.
Shankar and Rishi (2020)	Indian mobile banking services	Study Category A, Survey. N=432	Access, transaction, possession/ post-possession convenience significantly impacts mobile banking adoption intentions.
Baena-Arroyo et al. (2020)	Spanish fitness class (in-person vs. virtual)	Study Category B, Survey. N=1943 (1143 vs. 800)	Service convenience had a greater impact on customer satisfaction and future intentions in the context of in-person instructor fitness classes compared to virtual fitness classes.
Wilkins et al. (2021)	Service providers based in the Emirate of Dubai	Study Category B, Survey. N=425	Service convenience was found to be the major factor, along with trust and value, contributing to the consumer's decision to sign rollover service contracts during initial service purchase.

tally continue the development of service convenience in different industries and extending its theoretical understanding.

3 Theoretical model

A theoretical model examining the impact of service convenience dimensions on customer behavioral intentions was developed and tested in this study (Figs. 1 and
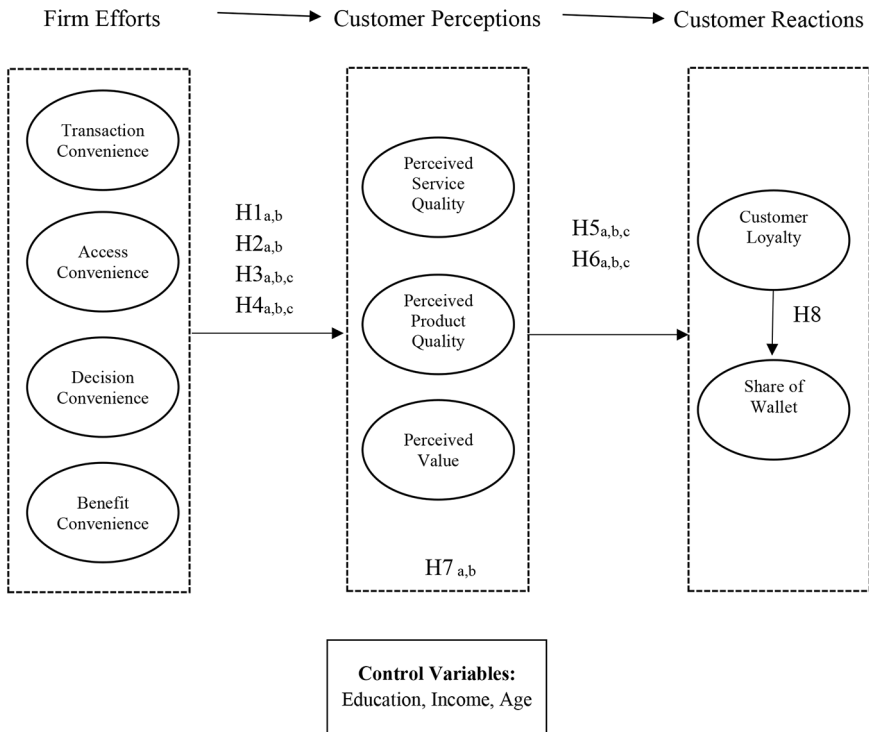
Fig. 1 Research Model. (NOTE: To keep the conceptual diagram simple, the single solid arrows depict combined paths from all independent to all dependent variables as specified by the hypotheses)

2). The underpinning framework of the model was that the firm takes actions that are evaluated by customers, which determines customers' reactions. Specifically, the firm takes actions to improve service convenience, which then forms perceptions in customers (i.e., perceived service quality, perceived product quality, and perceived value), and which subsequently lead to behavioral intentions in the form of share of wallet and customer loyalty.

The study was done in an auto-retailing context, an industry that continues to innovate (Albort-Morant et al. 2018). Considering the auto-retailing context of this study, the meaning of the service convenience dimensions should be clarified. Store locations, ease of parking, and operating hours, which represent the ease of accessing a store, represent the *access convenience* dimension. Access convenience plays a key role in saving consumers from spending more time and effort in initiating services, and also encompasses modern service features such as remote online access to the store services and store check-out process through self-service technology (Berry et al. 2002; Chang and Polonsky 2012). *Transaction convenience* comprises factors like time spent while waiting to be served at a counter or the length of checkout lines that determines the ease of a store transaction. This convenience dimension essentially represents the converging 'opportunity cost' (Berry et al. 2002, p. 7) of money and time and effort expenditure for a customer during a service consumption, right from
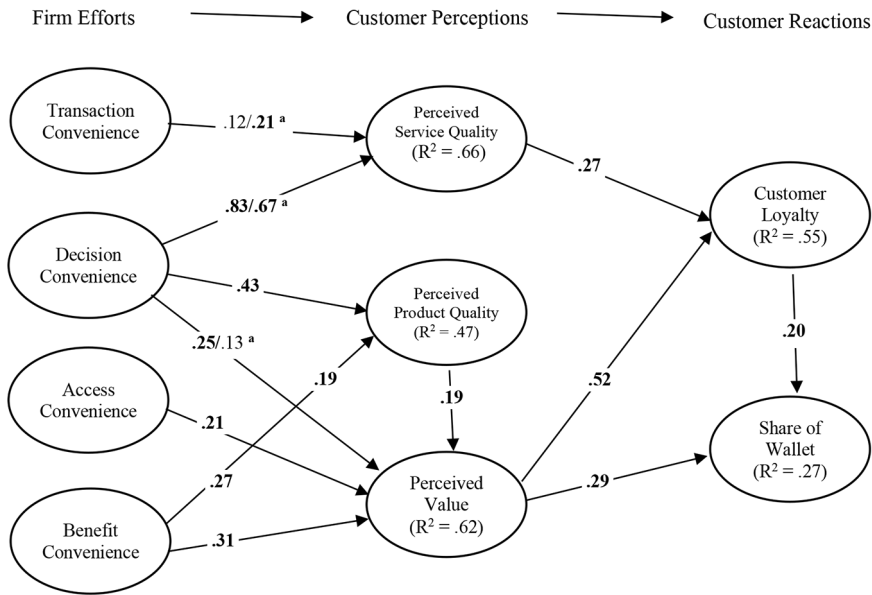
Fig. 2 Research Model: Visual Interpretation of the Final Results. NOTE: Results are based on the whole sample, n=12,657, (χ^2=2775.35, df=140, p=0.00, RMSEA=0.039, SRMR=0.02, NFI=0.98, NNFI=0.97, CFI=0.98, AGFI=0.97). Path coefficients with statistical and practical significance (i.e., ≥ 0.14) are bolded. The control variables Age, Income, and Education are not depicted because all of them do not have practical or statistical significance. a: Significant difference of path coefficients (females/males)

the decision of purchasing it to actually using or experiencing the service. Lack of transaction convenience can lead to consumers experiencing dissatisfaction due to perception of long wait times in checkout lines, and often lead to even abandoning shopping excursions. *Benefit convenience* facilitates customers to receive the core elements and benefits of the service they are in the store for. The ease of the customers, experiencing the benefits of a service consumption without having the feeling that they have made a substantial investment in efforts, helps with the confirmation of the utility of the service, and thus can lead to customer satisfaction. An example of a *benefit convenience* is an automobile parts store serving as a one-stop shop for all their customers' needs, such that the customers do not have to shop at multiple stores to find solutions. Finally, in the context of automotive parts, which are considered to share the qualities of credence goods (Zeithaml 1981), the expertise of the store employees to diagnose and assist customers with auto repairs, along with recommendations of parts/solutions, contribute to making the consumer decision making process simple and easy, thus providing *decision convenience* to the shoppers. The service providers, i.e., the store staff, reducing customers' time and effort investment in their product/service evaluation process can help customers arrive at a consumption decision faster, which often goes in the favor of the business offering such decision convenience (Berry et al. 2002).

3.1 Mediating variables

Three mediating variables are selected to explain the effect of service convenience on consumer behavioral variables: perceived service quality, product quality and value. *Perceived value*, conceptualized in Zeithaml (1988) as how a customer judges a product usefulness on the basis of their perceptions of what they have to sacrifice to receive its benefits, is determined by comparing perceived benefits and perceived costs (Lovelock and Wirtz 2000). Perceived value is influenced by factors like service friendliness and service customization (Ostrom and Iacobucci 1995) and has a stronger influence on service choice than on service quality (Gooding 1995). It is well documented that value is a driver of behavioral intention (Chang and Wildt 1994; Cronin et al. 2000; Brady et al. 2005). *Perceived service quality* is the customer's assessment of the overall excellence or superiority of the service (Zeithaml 1988), and naturally belongs in the model. Enhancements in quality can serve as a strategic and differentiating factor, helping not only to retain existing loyal customers, but also to attract new customers and even to lure customers away from competition whose products are perceived to be inferior (Babakus et al. 2004). *Perceived product quality* is instrumental in shaping how a customer shops and what product they select (Zeithaml 1988; Narasimhan et al. 1993; Cronin et al. 2000). It has effect on consumer loyalty in the auto industry context (Bei and Chiao 2001; Devaraj et al. 2001). Higher service quality perceptions lead to greater customer loyalty and increased revenue for organizations (Deshpande et al. 1993; Storbacka et al. 1994).

4 Research Hypotheses

Service responsiveness has a significant impact on customers' evaluation of service and choice (Parasuraman et al. 1985). Waiting time literature suggests that the pre-process, in-process, and post-process time during the service encounter, and the degree of control the service provider has over the waiting time also influence the affective responses of the customers (Larson 1987; Seiders and Berry 1998; Taylor 1994; etc.). Waiting time affects service quality perceptions (Houston et al. 1998). Hence, transaction convenience, which deals with the time expended by the customer in receiving the service, plays an important part in customers' service evaluation. Transaction convenience also was found to have a significant impact on the perceived value in a self-service technology context (Collier and Sherrell 2010). On the other hand, we do not expect an effect of transaction convenience on perceived product quality because a faster check-out process does not translate into a better perception of products.

In a retailing context pertaining to automotive parts, the key utility is choosing and purchasing the correct auto-parts, and thus, transaction convenience becomes an auxiliary benefit to the customers who are in the process of acquiring the primary benefit. Benoit et al. (2017) concluded that the transaction convenience of a faster checkout to be a significant indicator of service experience in their study. Hence, we propose that:

H_1: Transaction convenience positively affects: (a) perceived service quality, and (b) perceived value.

The overall importance of access convenience has been pointed out by Leisen (2006), who found that customers switch to retailers that offer more convenient locations. Access convenience should affect the overall perceived service quality because the easier the access to a store, the easier the overall transaction. Locational convenience of the store was found to be a barrier to customer defection in the case of lower satisfaction due to a service failure or some other reasons (Jones et al. 2003). In addition, customers tend to compare the price they paid for the auto-parts with the distance they travelled (e.g., spent time and money on gas). Perceived value would diminish if the customers had to travel significant distances to find comparable prices. We expect that access convenience does not have an impact on perceived product quality. In a similar fashion, access convenience also is a type of peripheral activity preceding the selection of and the acquisition of the primary benefit in auto-parts retailing.

H_2: Access convenience positively affects: (a) perceived service quality, and (b) perceived value.

In the present study, the frontline employees' knowledge and their overall ability to help customers choose the correct auto-part represent the essence of decision convenience. Employee performance is one of the key intrinsic service cues that has been shown to be an important determinant of customers' perceived quality (Bitner 1990; Darden and Babin 1994; Gagliano and Hathcote 1994). In a study by Sweeney et al. (1999), it was seen that the product knowledge of the employee contributed to reducing customers' risk perceptions while increasing their product quality perceptions. Therefore, we expect this high level of personal interaction to impact positively the overall perception of service quality. In addition, the selection of the parts to be purchased also is based heavily on interaction with frontline employees. They recommend a range of parts, discuss their qualities, decide the price with customers, and often recommend what to purchase. This substantial influence on the final choice can impact the overall perception of the auto-parts quality. Therefore, the decision convenience, which is associated with the knowledge and the expertise of the frontline employees, is expected to influence the perceived product quality.

Pine et al. (1999) proposed that progression of economic value of a product/service from inception to its consumption by the end user takes place in stages, where the product/service provider first creates a core quality product, then offers a better customer service, and then ultimately stages a one-of-a-kind personalized brand experience (Mitchell 2003). The latter two stages add the most value to the product in the perception of the customer (Yu and Fang 2009). The interaction between the customers and employees facilitates a co-creation experience by continuous dialogue and a problem-solving approach that ultimately influence not only the perceived service quality, but also the perception of value (Prahalad and Ramaswamy 2004). If a customer is unable to determine the quality of a suggested range of auto-parts, it ultimately is the employee who makes a final recommendation, considering the needs and the pricing range of the customer. The expertise of the employees thus creates decision convenience providing functional and technical cues to the customers to make value and quality judgements (Sweeney et al. 1999; Roy et al. 2016).

H_3: Decision convenience positively affects: (a) perceived service quality, (b) perceived product quality, and (c) perceived value.

Benefit convenience is hypothesized to positively impact all mediating variables. If auto-parts are not available when needed, it may result in frustration, which can be transferred to the overall evaluation of the quality of the products sold and may lead to the conclusion that the retailer does not provide good overall service. Benefit convenience signals reliability of service, which is the "ability to perform service dependably and accurately" (Parasuraman et al. 1988, p.23). It also may lead to the perception of customers that they wasted their time and effort. In contrast, when the needed auto-parts are available, it can be interpreted as a reliable overall service provided by the retailer, that the available parts are most desired and purchased by other customers, and that customers did not waste time and effort. Benefit convenience provides cues that help reduce consumer's cognitive effort during a service evaluation and plays a major part in a utilitarian service context, similar to the case of auto-parts retailer context examined in our study (Seiders et al. 2007). Hence, we propose that:

H_4: Benefit convenience positively affects: (a) perceived service quality, (b) perceived product quality, and (c) perceived value.

Customer loyalty is the degree to which customers show repeat purchase behavior, have a favorable attitude toward a service provider, and prefer that provider when they need a service (Gremler and Brown 1999; Boulding et al. 1993) showed a significant relationship between service quality and repurchase intentions and willingness to recommend. Similar results were reported by Zeithaml et al. (1996), who found a significant relationship between five different behavioral intention measures and service quality. Service quality has a significant relationship on store loyalty intentions (Sirohi et al. 1998). Previous research identified product quality to have a significant impact on customer loyalty (Dodds and Monroe 1985; Bei and Chiao 2001; Devaraj et al. 2001). Finally, according to Gale (1994), customers buy on value, and Durvasula et al. (2004) demonstrated that perceived value has a strong effect on consumer behavior. Gooding (1995) illustrated that perceived value was a better predictor of the choice of a service (i.e., behavioral intentions) than was quality. Hence, we propose:

H_5: Customer loyalty is affected positively by (a) perceived service quality, (b) perceived product quality, and (c) perceived value.

Share of wallet is the proportion of the actual share of business (in dollars) a customer allocates to a retailer (Keiningham et al. 2003). Share of wallet is considered to be a better reflector of customer retention (Reichheld 1996), and higher customer retention means a base of customers who buy more frequently and in greater volumes and are more prone to try other offerings by the firms, thus increasing revenues (Reichheld and Sasser 1990). Most of the literature makes a connection between the mediating variables in our model and share of wallet, but this connection is mediated by customer satisfaction. Product and service quality and customer perceived value are drivers of customer satisfaction in the restaurant context (Ryu et al. 2012; McDougall and Levesque 2000) reported perceived service quality and perceived value to have a significant impact on customer satisfaction across four service industries. Perceived value predicts customer satisfaction in other contexts (Andreassen and Lindestad 1998; Patterson and Spreng 1997; Chiou 2004; etc.). Customer satisfaction, however, is a strong predictor of share of wallet (Keiningham et al. 2003). Similarly, Cooil et al. (2007) also found that changes in customer satisfaction impact

customers' share of wallet. Thus, extending the previous research, we propose the following:

H_6: Share of wallet is affected positively by (a) perceived service quality, (b) perceived product quality, and (c) perceived value.

The subjective evaluation of the customers on the performance, the attributes and the resulting benefits of a product received against what had to be given to receive it helps formulate their value perceptions (Zeithaml 1988; Woodruff 1997; Snoj et al. 2004; Dodds et al. 1991) further conceptualized perceived value as a trade-off between perceived sacrifice and perceived quality, which ultimately results in a positive linkage between perceived quality and perceived value; and perceived sacrifice negatively influences perceived value of the customers. Thus, we suggest that perceived product quality, which is the customers' overall judgement of the superior performance of the product compared to other available competition, has a positive impact on their perceived value of the product (De Chernatony 2009; Agarwal and Teas 2004; Beneke et al. 2013). The existing literature has documented this proposed relationship very well (i.e., Dodds et al. 1991; Cronin et al. 2000; Snoj et al. 2004; Beneke et al. 2013; etc.). The perceived monetary value derived by the customers is expected to be enhanced by the quality of the auto-parts purchased in the context of our study.

We further propose a positive impact of customers' service quality perceptions on the perceived value of the product. Perceived service quality is the measure of the customers' perception of the superiority of the service delivery process, which is a key ingredient contributing to the overall success of the product in the eyes of the customers, thus enhancing their value perceptions (Zeithaml 1988; Yu and Fang 2009). Retailers achieve competitive advantage by providing superior service quality when the variability of their products sold is low (Berry 1986). Studies by Bolton and Drew (1991) and Sweeney et al. (1999) demonstrated that service quality positively contributed to perceived value. Product performance and customers' experience with the service and comparison to their expectations, collectively, are known to contribute to their value judgement (Bolton and Drew 1991; Rowley 1998).

H_7: Perceived value is positively affected by (a) perceived product quality, and (b) perceived service quality.

Share of wallet usually is the final outcome of service evaluations by the customer (Cooil et al. 2007; Keiningham et al. 2003; Wirtz et al. 2007; Meyer-Waarden 2007; etc.). Loyalty programs in the form of loyalty cards have a positive effect on share of wallet (Meyer-Waarden 2007), and the tenure with a retailer positively affects the amount of money customers are willing to spend (Cooil et al. 2007). Overall, the literature suggests that the more loyal a customer, the more he/she is willing to spend.

H_8: Customer loyalty positively affects share of wallet.

Our model also incorporated age, education and income as control variables based on the fact that customers with varying demographic backgrounds will have differing choice behavior (Mittal and Kamakura 2001). Individual characteristics of the consumers might impact their reaction to service inconvenience differently (Berry et al. 2002). Existing research on influence of consumer demographics on service elements has shown that male and older consumers have higher service expectations and are more intolerant to failure or absence of service elements (Sharma et al. 2012; Cooil

et al. 2007) found the relationship between satisfaction and share of wallet moderated by a demographic factor like income in a Canadian banking context. Bolton and Drew (1991) suggested that the service value model is context-specific and involves consumer-specific factors other than quality such as a customer's gender or orientation (e.g., cognitive vs. affective). In addition, demographic variables influence expectations and perceptions of service quality (e.g., Gagliano and Hathcote 1994; Stafford 1996). Loyalty of high-income customers for a West European retailer increases with different convenience features (Benoit et al. 2017). Thus, based on existing findings, we decided to include the three control variables, age, education, and income, to delineate the proposed effects of service convenience.

5 Method and results

5.1 Practical considerations

The study was jointly designed by the authors with participation from a team of representatives of a national retail chain dealing in automotive parts. The VP for human resources and director of IT of the company also were members of the team. The overall objective of the research was to examine various aspects of the services offered by the retailer. This is also in line with existing empirical studies in service literature, where researchers have collected data in participation with an existing business, e.g., Benoit et al. (2017), Seiders et al. (2007), and Nguyen et al. (2012).

5.2 Sample and data Collection

The study and the questionnaire were developed based on insights from focus groups and review of the relevant literature. Participants were chosen randomly from the

Table 2 Descriptive Statistics

	Mean	St. Dev.	TC	AC	DC	BC	PPQ	PSQ	PV	CL	SOW
TC	3.58	1.07	1.00								
AC	4.22	0.78	0.51	1.00							
DC	3.82	0.89	0.69	0.56	1.00						
BC	3.92	0.89	0.59	0.58	0.78	1.00					
PPQ	3.60	0.94	0.47	0.41	0.62	0.60	1.00				
PSQ	4.02	1.01	0.64	0.45	0.78	0.60	0.54	1.00			
PV	4.22	0.73	0.58	0.60	0.68	0.71	0.59	0.57	1.00		
CL	4.59	0.74	0.47	0.42	0.61	0.55	0.49	0.58	0.71	1.00	
SOW	7.70	2.44	0.29	0.36	0.43	0.43	0.35	0.39	0.49	0.48	1.00

NOTE: All correlations are statistically significant at $p < 0.001$. The means and standard deviations are based on averaged scores; the correlations are based on latent scores. TC – Transaction Convenience, AC – Access Convenience, DC – Decision Convenience, BC – Benefit Convenience, PPQ – Perceived Product Quality, PSQ – Perceived Service Quality, PV – Perceived Value, CL – Customer Loyalty, SOW – Share of Wallet.

retailer's database across regions. Subsequent to the focus groups, an initial measurement instrument was developed. This initial survey was mailed to 200 randomly selected current customers in one of the retailer markets. The pretest led to minor changes in the wording of some of the questions.

Customers from the company database were mailed a survey packet during the final stage of data collection (following the pilot study discussed above). The mailed packet included a short cover letter from the organization's CEO and a postage-paid return envelope addressed to the university research team. The total response rate was 14.1% (12,657 usable surveys were returned from the mailed 90,000). This response rate is comparable to those in prior studies (e.g., Zeithaml et al. 1996). The majority of the respondents were over the age of 35 (16% under 35; 53% between 35 and 54; 31% over 54); and almost half of them (47%) had a high school diploma, 20% had a college degree, and 33% had some college degree. About 90% of the sample was male, which is considered representative for the particular line of business. According to the regional managers, the demographic profile of the respondents was consistent with the customer population at large. The descriptive statistics can be found in Table 2.

5.3 Measures

To measure the four types of service convenience in the study, we employed measures that are comparable to those used by Colwell et al. (2008) and Seiders et al. (2007), but modified to reflect the nature of the auto-parts retailing business. All items for the service convenience dimensions were measured on a five-point scale relative to competitors (i.e., Much Better – Much Worse). This approach has been advocated strongly based on an argument that customer evaluations are more meaningful and actionable if they are solicited in comparison to competitive offerings (Gale 1994; McDougall and Levesque 2000).

The perceived product and service quality were measured using single-item measures, which is an accepted practice when space is limited (Wanous et al. 1997). The use of single-item measures in social sciences has increased (Petrescu 2013), and their use is appropriate when certain conditions are met. Bergkvist and Rossiter (2007) and Rossiter (2002) advise that single-item measures are acceptable when the constructs have concrete meaning and respondents can clearly understand and distinguish the measured concepts. In the auto-retail context, product and service quality are conceptually different because they are associated with tangible and intangible elements. A subsequent analysis of the measurement model indeed revealed that the two items are conceptually different. In addition, following Anderson and Gerbing (1998), we introduce measurement error in the model to account for less than perfect measurement. Overall, single-item measures can substitute well even for abstract multiple-item measures for constructs such as: the need to belong (Nichols and Webster 2013); burnout (Dolan et al. 2015); social identification (Postmes et al. 2013); self-esteem, academic performance, and socioeconomic status (Leung and Xu 2013); life satisfaction (Cheung and Lucas 2014); job satisfaction (Wanous et al. 1997); and quality of life (de Boer et al. 2004), to name a few.

Table 3 Confirmatory Factor Analysis (ML) of Items and Measurement Properties of the Scales

Scales	Standardized Loading	t-value
Transaction Convenience[a]($\alpha=0.90$, AVE$=0.82$, $\Phi^2=0.08-0.48$)		
1. Amount of time spent in parts counter lines	0.91	124.60
2. Amount of time spent in checkout lines	0.90	121.47
Access Convenience[a]($\alpha=0.90$, AVE$=0.54$, $\Phi^2=0.13-0.36$)		
1. Convenience of store location	0.73	75.83
2. Convenience of store hours	0.74	76.44
Decision Convenience[a]($\alpha=0.86$, AVE$=0.69$, $\Phi^2=0.18-0.61$)		
1. Providing accurate information to you	0.80	105.94
2. Ability to diagnose what is wrong with your vehicle	0.80	105.37
3. Employees listening carefully to you	0.85	115.89
4. Employees' knowledge about types of parts	0.87	120.17
Benefit Convenience[a]($\alpha=0.89$, AVE$=0.73$, $\Phi^2=0.18-0.61$)		
1. Variety of parts to choose from	0.81	106.58
2. Being able to get what you need	0.90	125.40
3. Having the parts in stock	0.86	117.05
Perceived Product Quality[a](AVE$=0.90$, $\Phi^2=0.12-0.38$)		
1. Quality of the parts sold	0.95	142.80
Perceived Service Quality[a](AVE$=0.89$, $\Phi^2=0.15-0.61$)		
1. Quality of the service provided	0.94	141.89
Perceived Value($\alpha=0.71$, AVE$=0.55$, $\Phi^2=0.18-50$)		
1. Overall quality for the prices you pay [a]	0.75	84.45
2. Satisfied with the prices you have paid [b]	0.72	87.95
Customer Loyalty[c]($\alpha=0.92$, AVE$=0.86$, $\Phi^2=0.18-0.50$)		
1. Recommend XYZ to others	0.96	137.24
2. Continue to shop with XYZ	0.90	123.26
Share of wallet(AVE$=0.90$, $\Phi^2=0.08-0.23$)		
1. In the past year, what percent of all your auto parts were purchased at this retailer	0.95	155.10

Model fit statistics: $\chi^2=2295.01$, df$=102$, (p$=0.00$), RMSEA$=0.041$, NFI$=0.99$, NNFI$=0.99$, CFI$=0.99$, AGVFI$=0.97$. Average Variance Extracted (AVE), Φ^2 – shared variance

[a] Items were scored on a five-point scale relative to competitors (i.e., *Much Better - Much Worse*)

[b] Items were not cast relative to competitors (i.e., *Very Satisfied - Very Dissatisfied*)

[c] Items were scored on a five-point likelihood scale (i.e., *Very Likely - Very Unlikely*)

The measures for perceived value and customer loyalty were adopted from existing literature (Sirohi et al. 1998; Oliver 1999). Share of wallet was measured as the percent of all auto-parts purchased from the specific retailer in the past one year on a 10-point scale (1 = less than 10%, 10 = 90–100%). Because the definition of share of wallet is very specific, authors often use a single measure (Moeller et al. 2009). We have used Podsakoff et al. (2003) paper to design the survey instrument. They have suggested using the mixed scale format to overcome the problem of common method bias. This approach has been used in several published papers (e.g., Babakus et al. 2004; Jha et al. 2013 & 2018). The measurement of the three control variables was as follows: age was measured on a 7-point scale (1 = under 18 years old, 7 = over 65 years old); and education (1 = grade school, 6 = college graduate), and income (1 = less than $15,000, 6 = over $50,000) were measured on a 6-point scale.

5.4 Measurement results

The dimensionality, convergent, and discriminant validity of the measures were assessed initially via a series of exploratory factor analyses with oblique rotation. The 18 measurement items produced 9 factors, which accounted for 70% of the variance, and the items loaded on the expected factors.

A confirmatory factor analysis based on the sample covariance matrices also produced acceptable results. The error variances of the single-item measures were fixed to 10% of their variance (i.e., $.10s^2$)[1], following Anderson and Gerbing (1998), to reflect less than perfect measurement. The fit statistics indicated that the measurement model was acceptable; $\chi^2 = 2295.01$, df = 102, root mean square error of approximation [RMSEA] = 0.041, normed fit index [NFI] = 0.99, non-normed fit index [NNFI] = 0.99, comparative fit index [CFI] = 0.99. The usable sample for the selected set of variables (i.e., cases with missing data were excluded) was 12,657.

To test whether the two single-item measures (i.e., perceived service quality and perceived product quality) pertained to a single construct, we tested an alternative measurement model, where the two items were forced to load on a single factor. The resulting model fit was significantly worse ($\chi^2 = 2848.63$, df = 108). Also, the explained variance of the items was significantly lower and the AVE was below 50%, which provided strong evidence that respondents perceive perceived product quality and perceived service quality as conceptually different.

The measurement properties of the items are presented in Table 3. The reliability coefficients (Cronbach's alpha) for all multi-item measures were above the 0.70 level suggested by Nunnally (1978), ranging from 0.71 to 0.92. All factor loadings were significant, suggesting convergence of the indicators with the appropriate underlying factors (Anderson and Gerbing 1998). The average variance extracted (AVE) by each

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[1] To test the sensitivity of the error variance assigned to the single-item measures, we also tested a measurement model with twice the values recommended by Anderson and Gerbing (1998), i.e., $.20s^2$. The model fit statistics did not change, and the only difference was marginally higher correlation of the single-item measures with the remaining constructs. The discriminant validity was preserved. The results suggested that even if single-item measure had twice the measurement error compared to the values recommended by Anderson and Gerbing (1988), the final results would not have changed, and if they did, that would have resulted in slightly inflated relationships.

Table 4 Test of Structural Model and Research Hypotheses

Structural Model Parameter	Calibration Sample Results (n=6,314)			Validation Sample Results (n=6,343)		
	Standardized Estimates	t-values	R^2	Standardized Estimates	t-values	R^2
TC → PSQ	**0.19***	11.96	0.66	**0.22***	14.82	0.67
AC → PSQ	0.00	0.05		−0.02	-1.03	
DC → PSQ	**0.70***	31.76		**0.70***	32.17	
BC → PSQ	−0.02	−0.99		−0.05*	-2.41	
Age → PSQ	−0.00	−0.12		0.01	0.87	
Edu → PSQ	0.03*	2.79		0.04*	3.12	
Inc → PSQ	0.05*	4.09		0.03*	2.60	
DC → PPQ	**0.43***	20.17	0.46	**0.42***	19.86	0.48
BC → PPQ	**0.26***	12.28		**0.29***	13.76	
Age → PPQ	−0.00	−0.29		0.03*	2.16	
Edu → PPQ	−0.03*	-2.72		−0.01	−0.77	
Inc → PPQ	−0.05*	-3.84		−0.07*	-5.45	
TC → PV	0.04*	2.16	0.61	0.07*	3.78	0.63
AC → PV	**0.20***	10.93		**0.21***	11.25	
DC → PV	0.07*	1.98		0.11*	4.56	
BC → PV	**0.32***	13.54		**0.31***	15.72	
PSQ → PV	0.09*	3.37		0.03	1.11	
PPQ → PV	**0.22***	11.66		**0.16***	8.58	
Age → PV	0.01	0.86		0.02	1.29	
Edu → PV	−0.03*	-1.96		−0.04*	-3.16	
Inc → PV	−0.04*	-2.99		−0.05*	-3.05	
PSQ → SOW	0.11*	6.24	0.25	0.07*	4.02	0.29
PPQ → SOW	0.01	0.76		0.07*	3.77	
PV → SOW	**0.30***	11.52		**0.27***	10.62	
CL → SOW	**0.16***	8.24		**0.23***	12.19	
Age → SOW	−0.03	−0.12		−0.04*	-3.17	
Edu → SOW	0.04*	2.79		0.03*	2.23	
Inc → SOW	0.02	1.73		0.03*	2.00	
PSQ → CL	**0.28***	18.28	0.54	**0.23***	17.65	0.56
PPQ → CL	0.05*	2.74		0.05*	2.22	
PV → CL	**0.50***	24.18		**0.48***	26.25	
Age → CL	0.03*	2.46		0.00	0.17	
Edu → CL	−0.01	−0.40		−0.01	−0.14	
Inc → CL	0.02	1.73		0.02	1.93	

NOTE: Statistically significant path coefficients are marked with (*). Bolded path coefficients indicate practical significance (i.e., larger than 0.14). TC – Transaction Convenience, AC – Access Convenience, DC – Decision Convenience, BC – Benefit Convenience, PPQ – Perceived Product Quality, PSQ – Perceived Service Quality, PV – Perceived Value, CL – Customer Loyalty, SOW – Share of Wallet

Fit for the calibration sample ($\chi2$=1560.25, df=140, p=0.00, RMSEA=0.040, SRMR=0.02, NFI=0.98, NNFI=0.97, CFI=0.98, AGFI=0.96). Fit for the validation sample ($\chi2$=1406.84, df=140, p=0.00, RMSEA=0.038, SRMR=0.02, NFI=0.98, NNFI=0.97, CFI=0.98, AGFI=0.97)

underlying construct was above 0.50, and none of the shared variances (Φ^2) between pairs of constructs was larger than the AVE for each construct (Fornell and Larcker 1981). Collectively, these results show that the measures are reliable, and exhibit convergent and discriminant validity.

5.5 Model Assessment and Hypotheses tests

The theoretical model was tested through cross-validation to ensure its generalizability. As a model becomes more complex, it can fit well the sample on which it is tested, but generalize poorly to other samples, which in statistics is referred to as the bias-variance tradeoff. Because the theoretical model in this study is fairly complex, it was warranted to verify that it generalizes to other samples. The cross-validation of covariance structures was advanced by Cudeck and Browne (1983) and De Gooijer (1995), who developed cross-validation indexes included in popular SEM software. Generally, in cross-validation, a model is fitted on a calibration (a.k.a. training/test) sample, and then its fit also is evaluated on a validation sample. An indication of good generalizability is when the model fits well on both samples. Practical guidelines about cross-validation can be found in Homburg (1991) and Lomax and Schumacker (2004).

The sample of 12,657 was randomly split into two approximately equal groups, which served as calibration and validation samples to test the research model on Fig. 1. The Cross-Validation Index [CVI] = 0.28, which is below the recommended level of 0.50 (Shelley 1984) and indicates that the model generalizes well across the samples. The fit of the calibration sample indicated a good model fit ($\chi^2 = 1560.25$, df = 140, p = 0.00, RMSEA = 0.040, SRMR = 0.02, NFI = 0.98, NNFI = 0.97, CFI = 0.98, AGFI = 0.96), and the validation sample also indicated a good and comparable fit ($\chi^2 = 1406.84$, df = 140, p = 0.00, RMSEA = 0.038, SRMR = 0.02, NFI = 0.98, NNFI = 0.97, CFI = 0.98, AGFI = 0.97). The results of the model tested in the two samples are presented in Table 4.

The results were evaluated for both *statistical* significance and *practical* significance (i.e., effect size). Significance levels represent sampling error, and as sample size increases, sampling error decreases. With a large sample like ours, almost all hypothesized relationships would appear statistically significant. On the other hand, practical significance as expressed by effect size can provide additional interpretation for the practical applicability of the results. For example, large samples can detect a significant difference between the satisfaction levels of two groups of customers, but the difference may not necessarily be enough for any practical recommendations. Our main concern, which led to the addition of practical significance, was that the large sample we utilize may lead to significant results, even for miniscule relationships in the model, and we would not want to provide practical recommendations without additional scrutiny of the results. Effect sizes provide guidelines about what is practically meaningful, and many authors recommend it in addition to statistical significance (Anderson et al. 2000; Cohen 1994; Greenwald et al. 1996; Sullivan and Feinn 2012).

In evaluating the results, we first evaluated all statistically significant results and then considered which of them have practical significance using the criteria of Cohen

(1988) and MacKinnon et al. (2002), who recommend that standardized regression coefficients lower than 0.14 (corresponding to 2% shared variance) should be considered of small effect size. In other words, regression coefficients below 0.14 would be too small for any practical relevance, even if they are statistically significant. Therefore, we consider a hypothesis is supported if the corresponding standardized path coefficient is statistically significant *and* above 0.14. In Table 4, both the statistical and the practical significance are indicated.

Transaction convenience affects significantly perceived service quality ($\beta=0.19/0.22$, where the two coefficients correspond to the calibration and the validation sample), thus landing support for H_{1a}. However, transaction convenience does not have a significant effect on perceived value ($\beta=0.04/0.07$), thus landing no support for H_{1b}. As expected, access convenience has a positive effect on perceived value ($\beta=0.20/0.21$), supporting H_{2b}, but it has no effect on perceived service quality, which does not support H_{2a}. Decision convenience affects significantly perceived service quality ($\beta=0.70/0.70$) and perceived product quality ($\beta=0.43/0.42$), but has no effect on perceived value ($\beta=0.07/0.1$), supporting H_{3a} and H_{3b}, but not H_{3c}. Benefit convenience affects significantly perceived product quality ($\beta=0.26/0.29$) and perceived value ($\beta=0.32/0.31$), but has no effect on perceived service quality ($\beta = -0.02 / -0.05$), thus supporting H_{4b} and H_{4c}, but not H_{4a}. Customer loyalty is affected significantly by perceived service quality ($\beta=0.28/0.23$) and perceived value ($\beta=0.50/0.48$), but not by perceived product quality ($\beta=0.05/0.05$), landing support for H_{5a} and H_{5c}, but not for H_{5b}. The effect of perceived service quality on share of wallet is not significant ($\beta=0.11/0.07$). Share of wallet is significantly affected by perceived value ($\beta=0.30/0.27$), which supports H_{6c}, but is not affected by perceived product quality ($\beta=0.01/0.07$), thus not supporting H_{6b}. Perceived value is affected by perceived product quality ($\beta=0.22/0.16$), but not by perceived service quality ($\beta=0.09/0.03$), therefore H_{7a} is supported, but H_{7b} is not. Finally, the effect of customer loyalty on share of wallet, H_7, is supported ($\beta=0.16/0.23$). Overall, of the 19 hypothesized relationships, eight are not supported. However, considering the stringent cutoff level based on effect sizes, the results do support the theoretical model well. The significant impact of convenience dimensions on the dependent variables

	Customer Loyalty		Share of Wallet	
	Standardized Estimates	*t-values*	*Standardized Estimates*	*t-values*
Transaction Convenience	0.09*	12.17	0.06*	9.86
Access Convenience	0.10*	13.34	0.08*	12.87
Decision Convenience	**0.33***	28.74	**0.21***	21.35
Benefit Convenience	**0.19***	19.01	**0.15***	18.17

Table 5 Total Effect of Service Convenience on the Dependent Variables (Whole sample n=12,657)

NOTE: Statistically significant path coefficients are marked with (*). Bolded coefficients indicate practical significance (i.e., ≥ 0.14).

through the mediators also provided support to the Stimulus-Organism-Response (S–O–R) theoretical framework (Mehrabian and Russell 1974) because the study results indicate access, transaction, benefit, and decision conveniences served as cues for the consumers during their service evaluation process.

The total effects of service convenience on customer loyalty and share of wallet are listed in Table 5. All effects are statistically significant, but only the effects of decision and benefit convenience have practical significance. Overall, our results are consistent with Seiders et al. (2007), although for some of their results, they report significant effects of 0.07, which we deem practically insignificant. For simplicity, Fig. 2 shows the path coefficients based on the whole sample.

A post-hoc analysis examined the moderating effect of gender on the model. The sample consisted mostly of males, i.e., 90%, which was within the norms of the auto-parts line of business, but that skewness could have hidden insights about differences based on gender. The large sample size allowed to test for a moderation employing two-group analysis. Of the 19 relationships in the model, most were equal between males and females, but three paths showed notable significant differences. Decision convenience had stronger effects on perceived value (i.e., 0.25 vs. 0.13) for females than for males. This result lands support for H3c for females, which was deemed unsupported before. Similar direction was observed for the effect of decision convenience on perceived service quality (i.e., 0.83 vs. 0.67) for females and males, respectively, which is consistent with H3a. The opposite effect was observed for the effect of transaction convenience on perceived service quality (i.e., 0.12 vs. 0.21) for females than for males, which supports H1a for males only.

6 Discussion and conclusion

The results reveal that of all the service convenience dimensions examined in our study, decision convenience has the highest impact and strongest total effect on the share of wallet and customer loyalty, which is in accordance with the Moeller et al. (2009) study in German grocery shopping context. Its effect is mediated through perceived service quality and perceived product quality. These results suggest that offline retailers should pay special attention to increasing decision convenience around their business by providing easy availability of quality information to the shoppers (Roy et al. 2016). The effect of decision convenience on perceived service quality is stronger for females than for males, and its effect on perceived value is practically significant only for females.

When it comes to the impact of benefit convenience, its significant effect was limited to that on perceived product quality and value, but interestingly, has no impact on perceived service quality. This is noteworthy because the effect of benefit convenience is not transferred through service quality, which may appear counter intuitive. The impact of benefit convenience on customer share of wallet and loyalty happens only through the perceived value of the retailer. This is important because if customers can find what they need (i.e., benefit convenience), they will perceive the store to offer more value to them. Considering that perceived value is the main propeller for the customer behavioral variables of share of wallet and loyalty, it means that instead

of lowering prices to increase value, offline retailers may increase the perception of value by offering a variety to choose from.

In contrast, perceived service quality is the only mediating variable significantly impacted by transaction convenience. However, this relationship is pronounced only for males, and falls below the practical significance for females. Overall, in the context of automotive parts retailing, the role of transaction convenience seems to be diminished, contrary to existing research in other retail contexts. In the same lines, only the mediating variable of perceived value was impacted by access convenience, but then the effect of the convenience dimension is not strong. Interestingly, access convenience does not affect service quality perceptions of the customers. Overall, in the auto-parts retail context, transaction and access convenience seem to play lesser roles than decision and benefit convenience.

The ways in which the mediating variables affect the dependent variables exhibit an interesting pattern. Both customer perceptions of service quality and value have a direct impact on the behavioral outcome variables, customer loyalty and share of wallet, while the effect of perceived product quality is exerted through perceived value. This result can be explained by the nature of the auto-parts business; auto-parts have, to a large extent, experience or credence qualities. Customers may not be able to evaluate the quality of the parts, and the only variables that impact their behavior are the immediate perceptions of service quality and value. Another important result is that the effect of perceived value on customer loyalty is twice as high as the effect of service quality.

The results indicate the remaining access and benefit conveniences do not directly effect the perception of service quality, and their effect is mediated through non-service variables. Second, the effect of service convenience is transferred through perceived service quality and perceived value on customer loyalty and share of wallet. This is consistent with Seiders et al. (2007) and Colwell et al. (2008), who also found that decision and benefit convenience have the strongest effect on purchase intentions. The effect of perceived product quality is transferred on the dependent variables through perceived value.

Finally, the demographics variables, age, education, and income, used as control variables in our model did not have any significant and practical impact (Table 4). This is contrary to our expectations and also findings from studies such as Wilkins et al. (2021), where gender, education and income were found to be major predictors of consumer repurchase behavior, along with service convenience in the context of signing up for rollover service contracts. However, we did find gender to moderate the impact of some of the service convenience dimensions on the mediators, with females having a higher preference for decision convenience on evaluating service quality and value; and where transaction convenience significantly impacted service quality perceptions in the case of the males.

6.1 Managerial implications

If the importance of the service convenience types had to be prioritized based on the results, then it would be: decision convenience, benefit convenience, access convenience, and transaction convenience. The ranking is based on the total effects on the

dependent variables in the model, where decision and benefit conveniences have the most practical significance. Therefore, offline retailers should focus exclusively on making it easy for customers to make in-store decisions and acquire the benefits they look for, and that should be their main strategy to retain customers. For example, an offline retailer should emphasize that it is easier to choose the correct product, which can be achieved through experienced staff or proper labeling. Adding self-service technology, where customers can check customer ratings or detailed product specs, also can make the decision easier. The benefit convenience also should be emphasized by noting that customers can get what they need immediately without having to wait. Offline retailers should not spend extra resources on the check-out process; instead, they should allocate those resources to helping customers make the right choice. Stores like Best Buy have a separate uniform and badge for their 'Geek Squad' members and 'Apple Geniuses,' thus making it convenient for their customers looking for those services.

Benefit and decision conveniences encompass essential retail elements, such as comprehensive store inventory, providing multiple choices to the customers, and the presence of empathetic and knowledgeable employees who can diagnose customers' problems and guide them to the correct solutions. When deciding on store assortment, customers often are not sure what they want to purchase (Mantrala et al. 2009), go for the product they had in mind when they came to the store (Puccinelli et al. 2009), or want multiple options without being overwhelmed. Because most retailers today have a dual offline and online presence, retailers have more latitude to stock a wider assortment of inventory, and customers have access to the inventory through in-store kiosks or other self-service ordering devices like mobile Apps. Almost every retail chain started offering store pick up or even return options for customers preferring to shop remotely.

Decision convenience dimension affects customer behavior mostly through service quality. This resonates with earlier findings about the need for the organizations to facilitate a supportive service climate where employees are more proactive in catering to the needs of their customers, which in turn, would enhance the customers' perceived service quality (Schneider et al. 1998; Roy et al. 2016). An effective and customer-oriented training session can instill confidence among the employees while assisting the customers, and the resulting positive feeling of accomplishment among the employees would positively impact the customers' evaluation of the service quality of the organization. Although not particularly strong, access convenience and transaction convenience also affect customer reaction through the perceived service quality, but their effects seem to be of a lesser importance to customers.

The experience involving an in-store visit currently is undergoing a redefining moment because of the ongoing COVID-19 pandemic, especially with the precautionary steps that the brick-and-mortar stores now are required to take to ensure safety for all concerned stakeholders. The initial shutdown of customer foot traffic at the onset of the pandemic led to catastrophic situations for most retailers trying to retain their offline presence, which ultimately forced major companies like JC Penney, Neiman Marcus, and Pier One to declare bankruptcy and close down stores (Bomey 2020). The results of the present study, which was conducted before the COVID-19 pandemic, can assist academics and practitioners mobilize existing

resources pertaining to critical service convenience dimensions, such as access, decision, and transaction conveniences to attract the post-pandemic consumer to step into the brick-and-mortar stores. Multiple store locations always have been an important antecedent to customer patronage of retail chains, but with the growing introduction of curb-side pickup options to serve a COVID-hit consumer-base, ease and availability of store access and convenient hours of operation can help instill a sense of safety in the minds of the shoppers who are able to conveniently pick up an order without being in harm's way. Stores are creating dedicated time slots for essential workers, customers with special needs and the elderly to shop at their own pace without having to deal with strict social distancing measures, which would have been difficult for them to follow, unlike other customers who can cope with shortened store hours. The organizations are even more pressured to feel the need to effectively manage customers' waiting time during the transaction by either having additional service employees available to assist them or having more counters open for a swift check-out. Retailers also are offering self-service options to the customers to expedite their transactions, but effectiveness of these options depends on several variables like order size, wait-time tolerance, previous experience, location convenience, and employee presence (Collier et al. 2015). Our findings and recommendations are echoed further in the Shankar et al. (2021) study, which concluded that customers in India prefer to utilize a combination of offline and online convenience options while shopping with an omni-channel retailer to complete their purchase. There are customers who like to research online and then shop offline, go to a store having physical products that they can see, touch, and try, something that is especially true in the case of specialized products like eyeglasses, home and garden tools, products and accessories, and auto-parts (Laney 2016). Thus, retailers need to incorporate both offline and online convenience features in their retailing strategies to address pandemic related shopping challenges.

Last, but not least, the moderating effect of gender provides important insights, which can lead to two levels of engagement. First, of the 12 relationships hypothesized in the model, only 3 were moderated by gender. This indicates that the tested convenience model is fairly uniform across males and females. If a company does not have the resources or the objective to provide more targeted approach to different genders, it still can benefit from the results in the study. However, considering that the auto-parts industry is male dominated, and if a company wants to attract more female customers, then our results can show what female customers value more, which can be used to design a service convenience model designed to attract female customers. Specifically, decision convenience is more important for females than for males, and if managers want to attract more female customers, they should focus more on making it easy for females to find the product solving their problem. For example, when a female customer enters an auto-parts store, employees should demonstrate readiness and walk with the customer through the aisles, help allocate the needed parts and make sure all needs are met. Improving decision convenience for females will lead to their increased perception of service quality and perceived value. On the other hand, transaction convenience does not have practical significance for females, which means that the firm can selectively allocate these resources more toward male customers. These findings are in accordance with existing literature, which shows

men are more achievement-oriented and always trying to maximize their utilitarian shopping value without exerting maximum effort and waiting time; thus, ease and speed of transaction is a key indicator of quality for males (Otnes and McGrath 2001; Sharma et al. 2012). Women, based on gender-schema theory, are social-relationship oriented and more disposed toward maximizing their communal goals and activities; thus, they evaluate a service outcome based on their interaction with the sales staff while formulating a purchase decision (Sharma et al. 2012; Bem 1974, 1981).

7 Limitation and future research directions

In general, the study confirms the service convenience model in the auto-parts retailing industry. The convenience dimensions were demonstrated to have an effect on customers' actions. However, the results with their specific estimates should not be interpreted as cross-industry generalizations because as the literature review showed, the service convenience model operates differently in different industries. The moderating role of gender for some of the hypothesized relationships further demonstrates the sensitivity of the service-convenience model. Still, the main findings confirm previous results such as the importance of decision and benefit conveniences, which suggests that although the estimates may be different, there are cross-industry similarities. Therefore, it is advised to continue accumulating knowledge to understand better the similarities and differences across industries.

Second, the study revealed the importance of gender as a moderator, but also that none of the control variables had a significant effect. It is possible that there could be other control variables that we missed. For example, in the auto-parts industry, the age of the automobile, the car make, or the type of an automobile could have an effect on service convenience. Overall, considering the sensitivity of the service convenience model, it is advised in future studies to include control variables pertaining to the industry it is tested in.

Finally, we did not measure all variables with multiple-item measures and include the post-benefit convenience dimension in the model. Single item scale allowed us to reduce the respondents' fatigue to get quality data. However, future research should measure the constructs with multi-item scale to validate the findings of this study. We further recommend examining the model from our study in an online context, by incorporating e-service convenience dimensions and observing their impact on online consumers' perceptions of product and service quality, product value and their behavioral intentions.

In conclusion, we believe the results based on nationwide data demonstrate the importance of service convenience for traditional brick-and-mortar retailers. We hope that our work is beneficial for marketing academicians and practitioners and will stimulate further academic research in the domain of service convenience.

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Authors and Affiliations

Sandipan S. Sen[1] · **Aliosha Alexandrov**[2] · **Subhash Jha**[3] ·
William C. McDowell[4] · **Emin Babakus**[3]

✉ William C. McDowell
billmcdowell@txstate.edu

Sandipan S. Sen
ssen@semo.edu

Aliosha Alexandrov
alexanda@uwosh.edu

Subhash Jha
sjha1@memphis.edu

Emin Babakus
ebabakus@memphis.edu

[1] Department of Marketing, Donald L. Harrison College of Business and Computing, Southeast Missouri State University, One University Plaza, Dempster Hall 220, MS 5875, 63701 Cape Girardeau, MO, USA

[2] Department of Marketing, College of Business, University of Wisconsin-Oshkosh, 800 Algoma Blvd, 54901 Oshkosh, WI, USA

[3] Department of Marketing & Supply Chain Management, Fogelman College of Business & Economics, The University of Memphis, 38152 Memphis, TN, USA

[4] Department of Management, McCoy College of Business, Texas State University, 78666 San Marcos, TX, USA