Pharmacist's Interaction Behavior and Consumer Loyalty: The Mediating Role of Consumer Trust and Satisfaction

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The study aimed to examine a causal relationship of pharmacist's interaction behavior and consumer loyalty with the mediating role of consumer trust and satisfaction in pharmacies. The study was based on a convenient sample of 327 pharmacy consumers in Ho Chi Minh City and Dong Nai province of Vietnam. Data were analyzed using a structural equation model (SEM). The results indicated that the model fitted well with the empirical data, considering the goodness of fit measures: $\chi^2 = 48.44$ ($df = 312$), $\chi^2/df = 1.54$, $GFI = 0.90$, $TLI = 0.95$, $CFI = 0.96$, and $RMESA = 0.04$. Results of mediation effects were significant, revealing that consumer trust and satisfaction mediated the relationship between pharmacist behavior and pharmacies consumer loyalty ($\beta = .51$, $p < .001$; $\beta = .50$, $p < .001$). Additionally, perceived pharmacist's listening was statistically significant to consumer satisfaction ($\beta = .10$, $p < .05$) and trust ($\beta = .15$, $p < .01$); perceived pharmacist's advising impacts consumer satisfaction ($\beta = .26$, $p < .01$) and was statistically significant to consumer trust ($\beta = .64$, $p < .001$); perceived pharmacist's professional competence was associated significantly with consumer satisfaction ($\beta = .15$, $p < .001$) and trust ($\beta = .16$, $p < .001$). These findings offer implications regarding how pharmacist's behavior can enhance loyalty behavior through consumer trust and satisfaction in pharmacies. Pharmacies should focus on training by improving the relationship of pharmacists with consumers, as the key dimension of the service quality in driving the pharmacy loyalty.

Keywords: pharmacy consumer loyalty, pharmacist behavior, SEM, Vietnam

Vietnam's pharmaceutical market is considered attractive for investors, with the top growth rate in Southeast Asia (Angelino, Khanh, An Ha, & Pham, 2017). As a result, Vietnam is a deeply decentralized and fragmented market with over 1,000 drug wholesalers or distributors, leading to fiercer competition in the industry (General Statistics Office of Vietnam, 2018). A pharmacy's performance and sustainable success depend upon its competitiveness and its ability to attract, retain, and satisfy consumers (Mardanov & Ricks, 2013). Applying certain retail marketing strategies aimed at developing store loyalty may be an appropriate strategic path for pharmacies wanting to compete in this new arena (Castaldo, Grosso, Mallarini, & Rindone, 2016).

The new context of a competitive market environment requires independent and drugstore chains to develop effective marketing strategies to satisfy consumers. Pharmacies have to offer consumers unique services, medication price strategy to achieving and sustaining competitiveness based on building consumer trust, satisfaction, and loyalty (Lostakova & Horakova, 2014; Patterson, Doucette, Urmie, & McDonough, 2013). Among them, consumer loyalty is crucial in much business basic of its benefits (Mardanov & Ricks, 2013).

Consumer loyalty does not depend on only the prices of medicines but also the service

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quality. It was divided into two terms, which are perceived as the quality of pharmacy structure and perceptions about employees (Nitadpakorn, Farris, & Kittisopee, 2017). Further, Ricks and Mardanov (2012) investigated the impact of pharmacist and physician recommendations on the price-sensitive consumer's behavior. Previous studies confirmed the positive influence of consumer perceptions about pharmacist on purchase decision of pharmacy and consumer loyalty (Patterson, Holdford, & Harpe, 2019; Kevrekidis, Minarikova, Markos, Malovecka, & Minarik, 2018; Castaldo et al., 2016; Antunes, Gomes, & Cavaco, 2015; Athavale, Banahan, Bentley, & West-Strum, 2015; Moles & Stehlik, 2015; Rabbanee, Burford, & Ramaseshan, 2015; Mardanov & Ricks, 2013; Further, Ricks & Mardanov, 2012; Hanna & Hughes, 2011; Singh Gaur, Xu, Quazi, & Nandi, 2011).

Mancilla and Biedermann (2009) argued that with the growing use of technology for creating, maintaining, and transmitting health information, complicated by an inherent consumer distrust of these systems and increasing privacy concerns, it is critical for healthcare professionals, including pharmacies, to build trust with consumers. Along with consumer satisfaction, consumer trust is an important stepping stone for building customer relationships (Kim, Ferrin, & Rao, 2009). The present study aimed to test a causal relationship between pharmacist behavior and consumer loyalty with the mediating role of consumer trust and satisfaction in the context of the Vietnamese market.

Literature Review

Consumer loyalty has been defined as a behavioral measure, the loyalty of a consumer as observed from the customer's purchase behavior (Kumar & Shah, 2004). The theory of planned behavior by Ajzen (1991) is a generally applied model that predicts consumer behavior based on the intention to perform the behavior and perceived behavioral control. The behavioral intention is influenced by three constructs attitude towards purchasing the product, subjective norm about the behavior and perceived behavioral control. Actual behavior is again derived largely from behavioral intention but is mediated to some degree by perceived behavioral control.

Pharmacist's Interaction Behavior

Pharmacies are the most accessible providers of primary health care to the community, through the management of therapeutic use of medicinal products, as well as other related pharmaceutical services. Such services include, but not limited to distribution, consultancy, and management (Cavaye, Lehnbom, Laba, El-Boustani, Joshi, & Webster, 2018). Pharmacists have provided clinical expertise regarding selection, handling, preparation, procurement, and utilization of medications and, more recently, making sure that drugs attain the maximum benefits for the patients (Moles & Stehlik, 2015). The professionalism of a pharmacist is important to provide quality counseling and advising to consumers in purchasing drugs based on listening to consumer problems. The structural dimensions of pharmacist professionalism are listed as i) a distinct body of knowledge; ii) internal regulating capabilities; iii) extensive training and skill requirement; iv) code of ethics; v) service commitment; and vi) occupational autonomy (Mardanov & Ricks, 2013).

Pharmacist Behavior, Consumer Trust, and Consumer Satisfaction

The consumer-pharmacist relationship develops through advice and counseling services. Advising and counseling services in drugstores are widely practiced for prescription and over-the-counter drugs (Mardanov & Ricks, 2013).

Trust can be defined as the belief in the integrity, honesty and reliability of another person (Dwyer & Tanner, 2002). Trust is an important sub-process for regulating consumer patronage and subsequent recommendation intentions (Vlachos, Tsamakos, Vrechopoulos, & Avramidis, 2009). Consumer trust has been highlighted as a central antecedent to a solid and lasting customer commitment (Martin, Gutierrez, & Camarero, 2004).

Consumer satisfaction refers to satisfaction with pharmacy delivered counseling services include perceptions regarding the pharmacy visit frequency, counseling received, initiator of counseling episode and the usefulness and effect of counseling on patient's health-related behavior (Kansanaho, Isonen-Sjölund, Pietilä, Airaksinen, & Isonen, 2002).

Employee performance positively affects pharmacy customers' perceived value and trust in pharmacies (Rabbanee, Burford, & Ramaseshan, 2015). Pharmacists are expected to provide pharmaceutical care within a patient-pharmacist professional framework that is based upon caring, trust, communication, cooperation, and mutual decision making in which the pharmacist works very closely with the patient (Jose, Shukili, & Jimmy, 2015). Mesquita, Lyra Jr, Brito, Balisa-Rocha, Aguiar, and de Almeida Neto (2010) had an assessment focus aimed at documenting counseling behavior of practicing pharmacists, rather than an educational focus aimed at equipping pharmacists with effective communication skills. Cavaco and Romano (2010) showed the focusing on pharmacists' communication competencies, should be available to favour interaction skills resulting in a consumer's augment of proactive information-seeking behavior. Perepelkin and Di Zhang (2011) revealed that sincerity and competence have the most significant impact on building consumer trust. Ben Naoui and Zaiem (2010) showed that there is a significant relationship between the antecedents of relationship quality, namely, interpersonal communication, relational contact, conflict resolution, and client-oriented behavior, and relationship quality itself. Relationship quality also has an impact on loyalty, which is accounted for positively by satisfaction, and negatively by affective conflict.

There were 6 hypotheses proposed for this research-
H1: Consumers' perceptions of listening skills of pharmacists have a significant effect on consumer satisfaction.
H2: Consumers' perceptions of listening skills of pharmacists have a significant effect on consumer trust.
H3: Consumers' perceptions of pharmacist's advice have a significant effect on consumer satisfaction.
H4: Consumers' perceptions of pharmacist's advice have a significant effect on consumer trust.
H5: Consumers' perceptions of pharmacist's professional competence have a significant effect on consumer satisfaction.
H6: Consumers' perceptions of pharmacist's professional competence have a significant effect on consumer trust.

Consumer Trust, Consumer Satisfaction, and Consumer Loyalty

Customer loyalty is an intended behavior related to a product or service. A common approach is to distinguish between a consumer's attitudinal loyalty and behavioral loyalty (Chaudhuri & Holbrook, 2001; Zeithaml, 2000). Behavioral loyalty is repeated transactions or percentage of total transactions in the category, or total expenditures in the category and can

sometimes be measured quite simply with observational techniques. Attitudinal loyalty is often defined as both positive affect toward the relationship's continuance, and the desire to continue to remain in the relationship, and is sometimes defined equivalently with relationship commitment behavior among consumers (Al Dmour & Sweidan, 2013).

Athavale et al. (2015) found the effect of satisfaction and pharmacy trust as a multidimensional construct on pharmacy loyalty behavior. Rabbanee, Burford, and Ramaseshan (2015) showed consumer perceived value and trust fully mediates the relationships between employee performance and consumer satisfaction and behavioral loyalty in pharmacies. Castaldo et al. (2016) revealed that trust in pharmacists is the first driver of satisfaction and a direct and indirect (through satisfaction) driver of trust in pharmacies, which leads to consumer loyalty. Consumer satisfaction is often leading to loyalty (Rahmani, Ranjbar, & Gara, 2017). Nitadpakorn, Farris, and Kittisopee (2017) confirmed the indirect positive influence of consumer perceptions about pharmacist on pharmacy consumer devotion in providing pharmacy services via pharmacy engagement. There is a strong relationship between consumer trust and consumer loyalty (Cho & Hu, 2009; Eisingerich & Bell, 2007). Based on the review, 3 more hypothesis were proposed -

H7: Consumer trust has a significant effect on consumer satisfaction.
H8: Consumer trust has a significant effect on consumer loyalty.
H9: Consumer satisfaction has a significant effect on consumer loyalty.

Methodology

Sample and Data Collection

Hair, Black, Babin, and Anderson (2010) indicated that the sample size must total at least 100 to use exploratory factor analysis. Also, for confirmatory factor analysis and testing a structural model, Anderson, and Gerbing (1988) suggested a sample size of at least 150 to obtain parameter estimates of practical use. Bentler and Chou (1987) proposed that the ratio of a sample size to the number of free parameters can be at 5:1 for a normal theory, especially when many latent variables exist. According to Tabachnick and Fidell (2007), 300 cases or more provides a sample size large enough for factor analysis.

This study adopted non-probability sampling methods with convenience sampling techniques. The survey was conducted during February-March 2019 at major independent pharmacies and drugstore chains in Ho Chi Minh City and Dong Nai province of Vietnam. A total of 327 questionnaires were completed and adequately filled. Structural equation modeling (SEM) was adopted to estimate the parameters and test the hypotheses in the research model.

Measures

The questionnaire was built on the results of previous empirical studies and background theories. Besides, in-depth interviews with two groups (pharmacy consumers and pharmacists) were conducted to revise the questionnaire. In addition, the questionnaire was put into a pilot survey to assess scale's reliability through Cronbach's alpha coefficient. The lowest Cronbach's alpha value is 0.832, exceeding the recommended cut value of 0.70 (Hair, Black, Babin, & Anderson, 2010). Basic of these results, the completed questionnaire was used for the final

survey. The questionnaire was developed in English language and then translated to Vietnamese. The questionnaires were translated into Vietnamese by academic and industry experts in both languages. Then, the Vietnamese language questionnaires were used to collect the data. The translated Vietnamese version was later translated back into the English language for this study.

The measurement scale developed for this study is an interval scale which excludes a demographic of the respondents. All items were measured by a five-point Likert scale, in which 5 = strongly agree, 4 = agree, 3 = not sure, 2 = disagree and 1 = strongly disagree.

There are 27 items, measured six latent variables in the research model (see Table 2). Pharmacist's advice (abbreviated by PA) evaluated a consumer's perception regarding pharmacist's advice of medicinal products and was measured by five items (PA1, PA2, PA3, PA4, PA5). Listening skills of pharmacist (abbreviated by PL) evaluated a consumer's perception regarding pharmacist's empathy to consumer's problems and scored by four items (PL1, PL2, PL3, PL4). There are five items (PC1, PC2, PC3, PC4, PC5) were available for Pharmacist's professional competence (abbreviated by PC), evaluated consumer's perception about pharmacist's knowledge, skills in pharmaceutical service provision. Consumer trust (abbreviated by CT) was a moderation variable, assessed the trust perception of a consumer in a pharmacist's knowledge, skills, communications, and ethics based on their behavior with five items (CT1, CT2, CT3, CT4, CT5). Consumer satisfaction (abbreviated by CS) was also a moderation variable, evaluated the perception of a consumer in pharmacist's knowledge, skills, communications, and ethics when they compared the gap between expectation and perception about pharmacist's behavior with four items (CS1, CS2, CS3, CS4). Consumer loyalty (abbreviated by CL) was an independent variable in the research model, measured a consumer intention regarding repurchase behavior to a pharmacy with four items (CL1, CL2, CL3, CL4).

Results

Demographic Data

Demographic variables among pharmacy consumers consisted of gender, age group, income, level of education, marital status, and pharmacy styles. Some demographic characteristics of the samples are shown in Table 1.

The Measurement Model

To estimate a measurement model, the confirmatory factor analysis (CFA) was adopted to evaluate the measurement model with a maximum likelihood estimation method. The estimation results indicated that the measurement model had an acceptable fit and overall, all results proved the acceptability of the reliability and convergent validity of the measurement model as seen in Table 2. The results of confirmatory factor analysis demonstrated the following fit statistics by revealing $\chi^2 = 477.64$ ($df = 309$), $p = .000$ ($<.05$) was still acceptable due to the large sample size (Segars & Grover, 1993). $\chi^2/df = 1.55$ (Segars & Grover, 1993); $GFI = 0.90$, $TLI = 0.95$, $CFI = 0.90$ (Bentler & Chou, 1987; Segars & Grover, 1993; Chin & Todd, 1995), and $RMESA = 0.04$ (Taylor, Sharland, Cronin, & Bullard, 1993; MacCallum, Browne, & Sugawara, 1996; Segars & Grover, 1993).

Table 1

Demographic characteristics of the samples (n=327)

Demographic Variables		Frequency	Percentage
Gender	1. Male	155	47.40%
	2. Female	172	52.60%
Age	1. Under 24 years	107	32.70%
	2. 25-31 years	87	26.60%
	3. 35-45 years	85	26.00%
	4. Over 45 years	48	14.70%
Income/ month	1. Under 300 USD	37	11.30%
	2. 300 - 500 USD	44	13.50%
	3. 501- 750 USD	142	43.40%
	4. Over 750 USD	104	31.80%
Level of education	1. High school or lower	72	22.00%
	2. Graduate	195	59.60%
	3. Postgraduate	60	18.30%
Marital status	1. Others	181	55.40%
	2. Married	146	44.60%
Pharmacy styles	1. Independent pharmacies	153	46.79%
	2. Drugstore chains	174	53.21%

Mean ± SD:
PA = 4.13±0.68, PC = 4.20±0.73, PL = 4.02±0.66, CT = 3.85±0.7, CS = 3.92±0.65, CL = 3.81±0.70

Hypotheses Testing

Structural equation with maximum likelihood estimation approach was adopted to test the study's hypotheses.

Estimation results showed that theoretical models are consistent with market data: χ^2 = 484.36 (df = 312); χ^2/df = 1.55 (Kettinger, Lee, & Lee, 1995); GFI = 0.90, TLI = 0.95, CFI = 0.96 (Chin & Todd, 1995; Segars & Grover, 1993) and $RMESA$ = 0.04 (Taylor, Sharland, Cronin, & Bullard, 1993). This can be used to test the relationship, raising the model's expectations and assumptions. Figure 1 shows the structural model.
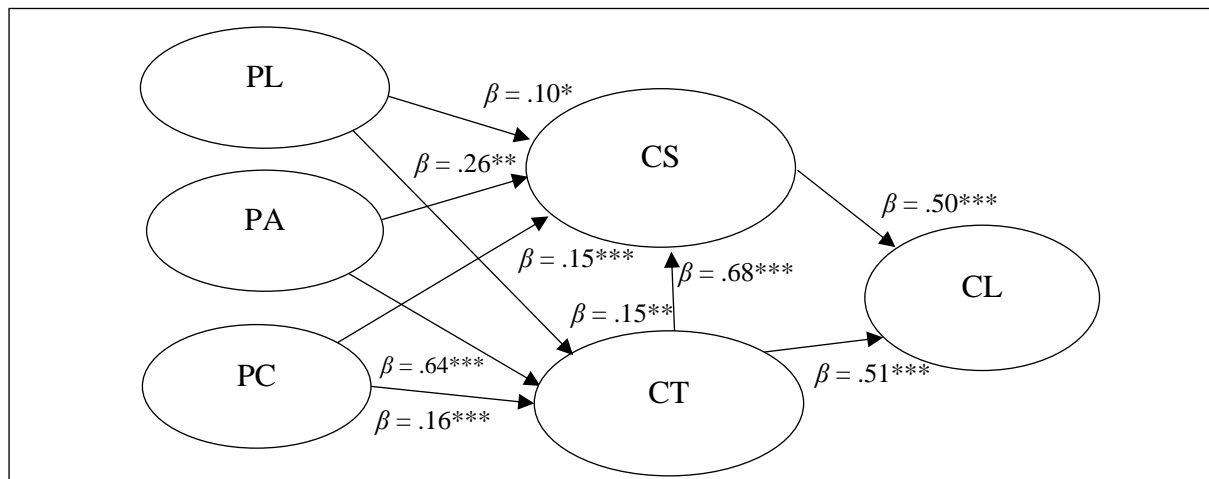

Figure 1. Path results for the structural model

Note. PL = Listening skills of pharmacists; PA = Pharmacist's advising; PC = Pharmacist's professional competence; CS = Consumer satisfaction; CT = Consumer trust; CL = Consumer loyalty, *Denotes significance level of 0.05; **denotes significance level of 0.01; *** denotes significance level of 0.001.

Table 2

Convergent validity of latent variables

Item	Question	Factor loading
Perceived pharmacist's advice (PA) (Cronbach's alpha = .82; CR = .83; AVE = .60)		
PA1	Pharmacist's consultant is enthusiastic.	.68
PA2	Pharmacists are always focused during counseling.	.68
PA3	Pharmacists fully explained the consumer health problems.	.78
PA4	Pharmacists are very enthusiastic in guiding the consumer on how to treat the disease.	.70
PA5	Pharmacists help the consumer remember consultation issues.	.66
Perceived pharmacist's professional competence (PC) (Cronbach's alpha = .90; CR = .89; AVE = .61)		
PC1	Pharmacists give complete instructions about side effects of drugs.	.75
PC2	Pharmacists offer advice on maintaining and caring for health.	.85
PC3	Pharmacists instruct to take the time to take the medication carefully.	.82
PC4	Pharmacists do not use many professional words to make consumer difficult to understand.	.74
PC5	Pharmacists have enough expertise to answer consumer questions.	.83
Perceived pharmacist's listening skills (PL) (Cronbach's alpha = .81; CR = .82; AVE = .53)		
PL1	Pharmacists are willing to listen to all the questions of the consumer.	.66
PL2	Pharmacists do not interrupt the words of the consumer.	.69
PL3	Pharmacists always listen to the consumer, without writing, to leave his work.	.77
PL4	Pharmacists always listen to the opinions of the consumer	.77
Consumer trust (CT) (Cronbach's alpha = .83; CR = .83; AVE = .50)		
CT1	Pharmacists are a reputable person in the work.	.60
CT2	Pharmacists are thorough, careful people.	.62
CT3	Pharmacists always bring to consumer a feeling of trust and persuasion.	.77
CT4	Pharmacists always bring to the consumer feeling to be concerned and directed to health.	.81
TT5	I always believe in the treatment of pharmacists.	.73
Consumer satisfaction (CS) (Cronbach's alpha = .82, CR = .81, AVE = .52)		
CS1	I am satisfied with the listening skills of pharmacists.	.73
CS2	I am satisfied with the advice of pharmacists.	.75
CS3	I am satisfied with the professional competence of pharmacists.	.70
CS4	I trust pharmacists.	.72
Consumer loyalty (CL) (Cronbach's alpha = .81, C.R = .81, AVE = .52)		
CL1	I will continue to return to the pharmacy.	.74
CL2	I will introduce others to the pharmacy.	.82
CL3	I will prioritize this pharmacy whether my friends recommend a better pharmacy.	.74
CL4	This pharmacy is always my first choice.	.57

The critical ratio (C.R.) and the P-value were adopted to test the significance of the research hypotheses. The C.R. should be greater than 1.96, based on the significance level of 0.05. Table 3 shows the path coefficients, along with their bootstrap values, and the C.R.

Results of testing hypothesis in Table 3 indicated that "perceived pharmacist's listening skills" was associated positively and significantly with both "consumer satisfaction" ($\beta = .10$, $p < .05$), as well as "consumer trust" ($\beta = .15$, $p < .01$). At the same time, "perceived pharmacist's advising" was associated positively and significantly with "consumer satisfaction" ($\beta = .26$, $p < .01$), and "consumer trust" ($\beta = .64$, $p < .001$). "Perceived pharmacist's professional competence" was associated positively and significantly with "consumer satisfaction" ($\beta = .15$, $p < .001$), as well as "consumer trust" ($\beta = .16$, $p < .001$). "Consumer trust" was associated positively and significantly with "consumer satisfaction" ($\beta = .68$, $p < .001$), as well as "consumer loyalty" ($\beta = .51$, $p < .001$). Additionally, "Consumer satisfaction" was associated positively and significantly with "consumer loyalty" ($\beta = .50$, $p < .001$).

Multigroup analysis was adopted to assess measurement invariance across consumer groups, based on the chi-square difference tests. Multigroup analysis of measurement invariance begins with the establishment of a baseline (unconstrained) model in which model parameters for each group are estimated separately and no equality constraints are imposed across groups. The fit of this configurable model then provides the baseline $\chi2$ value against which a series of increasingly restrictive models of invariance are compared to identify the source of non-invariance. A nonsignificant chi-square difference would serve as evidence for the equivalency across groups.

Table 3

Results of testing hypothesis

Relationship	ML	SE	CR	p	Results
Consumers' perceptions of pharmacist's listening skills → consumer satisfaction (H1)	.10	.05	1.89	.050	Supported
Consumers' perceptions of pharmacist listening skills → consumer trust (H2)	.15	.05	2.78	.005	Supported
Consumers' perceptions of pharmacist's advising → consumer satisfaction (H3)	.26	.08	3.12	.002	Supported
Consumers' perceptions of pharmacist's advising → consumer trust (H4)	.64	.07	8.48	.000	Supported
Consumers' perceptions of pharmacist's professional competence → consumer satisfaction (H5)	.15	.05	3.18	.001	Supported
Consumers' perceptions of pharmacist's professional competence → consumer trust (H6)	.16	.04	3.61	.000	Supported
Consumer trust → Consumer satisfaction (H7)	.68	.11	6.23	.000	Supported
Consumer trust → Consumer loyalty (H8)	.51	.15	3.32	.000	Supported
Consumer satisfaction → consumer loyalty (H9)	.50	.14	3.65	.000	Supported

The multigroup analysis results in Table 4 revealed that statistically significant differences between demographic groups (gender, age, income, level of education, married status, and pharmacies styles) do not exist in the relationships between pharmacist's interaction behavior and consumer loyalty in pharmacies.

Table 4

Results of the Multigroup Structural Analysis

		χ2	df	Δχ2	Δ df	p
Gender	Baseline (unconstrained) model)	849.19	624	8.58	9	.48
	Constrained model	857.77	633			
Age	Baseline (unconstrained model)	1727.75	1248	32.75	27	.21
	Constrained model	1760.50	1275			
Income	Baseline (unconstrained model)	1895.76	1248	24.03	27	.63
	Constrained model	1919.80	1275			
Level of education	Baseline (unconstrained model)	1379.80	936	21.52	18	.25
	Constrained model	1401.32	954			
Marital status	Baseline (unconstrained model)	867.01	624	12.40	9	.19
	Constrained model	879.41	633			
Pharmacies	Baseline (unconstrained model)	898.21	624	7.02	7	.43
	Constrained model	905.23	631			

Discussion

Competitiveness of any pharmacy as well as of any other business depends on retaining of consumer loyalty. Based on an integration model which contains most of the crucial variables, results of the structural equation modeling affirmed the role of pharmacist's behavior to consumer loyalty in pharmacies in Vietnam. The findings align with other research results (Nitadpakorn, Farris, & Kittisopee, 2017; Castaldo, Grosso, Mallarini, & Rindone, 2016; Antunes, Gomes, & Cavaco, 2015). Demographic factors did not affect the relationships between pharmacist's interaction behavior and consumer loyalty in pharmacies. This result is different from previous studies: age, gender, race, and income levels influence drug-purchasing behavior and loyalty among consumers to a pharmacy (Antunes, Gomes, & Cavaco, 2015; Mardanov & Ricks, 2013).

Researches revealed that competence and credibility have high explanatory power as antecedents of consumer trust and satisfaction, which has a considerable impact on value chain relationships, consumer word-of-mouth behaviors, and purchase behaviors (Perepelkin & Di Zhang, 2011; Sichtmann, 2007). Basic of perceived pharmacist's behavior included provision of pharmaceutical care services such as consultation of disease and medication with accurate knowledge, dependable services with willingness, prompt service and ability to inspire trust and confidence, consumers believed that pharmacists would give them with increased necessary medicines information, improve their medicines management ability, and reduce their medicine concerns. These consumers believe had a significant association with willingness to return for the use of the services at the same pharmacies. The results indicate that the pharmacist's skills, knowledge, and communication with the consumer are the important factors for enhancing pharmacy loyalty. Pharmacies have to fulfil their professional obligations of providing adequate counsel to their patients while maintaining business operational efficiency.

Research Limitations and Guidance for Future Research

The study has a few limitations. *Firstly*, the model has not concerned the role of determinants such as perceived quality of pharmacy structure, medication price strategy for consumer loyalty. In addition, the study has considered only consumer satisfaction and trust in examining the relationship between pharmacist behavior and consumer loyalty. Other variables

such as commitment could influence the link, which has not been considered in this study. *Secondly*, demographic variables are also not included in the research model as control variables directly to focus on considering the role of pharmacist interaction behavior factors to consumer loyalty. Future researches could consider these factors in the provision of a model in the prediction of consumer loyalty behavior in pharmacy. *Thirdly*, the data sets have only collected in the urban area, therefore the model might not fit for the rural area or whole country. In further studies, it should be having a comparative study of consumer loyalty between urban and rural pharmacies will help gain more insight to increase consumer loyalty due to accessibility of pharmacy services, customer service, and some patient/pharmacist trust issues between these places.

Conclusion

As the competition in the pharmaceutical industry in Vietnam becoming more intense, building collaborative relationships with patients, physicians, and other stakeholders in the supply chain is the key to sustain demand for pharmacy services on a long-term basis. Basic of a convenient sample of 327 pharmacy consumers in Ho Chi Minh City and Dong Nai province of Vietnam, the results of the structural equation modeling indicated that pharmacist's behavior has a significant impact on consumer loyalty with the mediating role of consumer trust and satisfaction among pharmacists. The results also showed that statistically significant differences between demographic variables such as gender, age, income, level of education, marital status, and pharmacy styles do not exist in the relationships between pharmacist's interaction behavior and consumer loyalty in pharmacies. The study contributes to the existing literature by focusing on how pharmacist's behavior affects loyalty of pharmacy consumers. It shows empirical evidence that pharmacist's behavior influences customers' satisfaction and trust, which leads to their loyalty in pharmacies. If the consumer is satisfied with the assistance provided by the pharmacist, loyalty will increase along sales, advocacy, and pharmacy competitiveness strengthens. Pharmacies should focus on training by improving the relationship of pharmacists with consumers, as the key dimensions of the service quality in driving the pharmacy loyalty. It deals with relationships, interaction, communication, associations and relational strategies or dynamics between pharmacists and consumers.

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