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Service Quality of Online Grocery Shopping in Korean Local Regions*

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Abstract

Purpose – This paper aims to measure the overall satisfaction of online grocery shopping and identify the quality components of online grocery delivery service. Furthermore, we examine the relationship between service quality, customer loyalty, customer satisfaction and intention of repurchase.
Research design, data, and methodology – To test hypotheses, data was collected using questionnaires from online grocery shopping customers living in Korean local regions (Daejeon, Cheonan, Sejong). Quantitative research is applied using confirmative factor analysis and multiple linear regressions.
Results – On the whole, customers are satisfied with the online grocery shopping. We found that convenience and reliability of grocery delivery service have a positive effect on the customer loyalty and customer satisfaction. Furthermore, we found that customer satisfaction has a mediating effect between convenience, reliability and customer loyalty. However, responsiveness of grocery delivery service does not have a positive effect on the customer loyalty and customer satisfaction.
Conclusions – Since the quality of groceries are very sensitive to time and difficult to standardize, we need to analyze the quality components of delivery service unlike other commodities and find relationships with customer satisfaction, customer loyalty and repurchase intention. The results of research will contribute to providing satisfactory service and capturing loyal customers in retail industry.

Keywords: Online Grocery Shopping, Delivery Service Quality, Customer Satisfaction, Customer Loyalty.

JEL Classifications: M10, M11, M19.

1. Introduction

Online grocery shopping is growing rapidly in Korea as well as around the world and multichannel grocery shopping is becoming the popularity since online shopping provides various conveniences such as reduction in shopping time, time flexibility, saving of physical effort, and reduction of risk of engaging in impulse buying or directly responding to an advertisement (Kau et al., 2003). Specifically, online groceries have already captured 6% of the market in the UK (OliverWyman, 2014) and Packaged Facts (2014) forecasts that online grocery shopping sales will grow from about $23 billion in 2014 to approach $100 billion by 2019 which captures 12% of total grocery spending. According to the National Statistical Office of Korea, they announced that online shopping market in Korea surpassed 50 trillion won in 2015 which is increased 19.1% compared to 2014 and grocery market increased by 34.2%.

Online shopping environments will present different challenges and opportunities for consumers with compared to traditional supermarkets, online shopping customers can purchase products and services at any time and at any place where they are located. Search and comparisons among online retailers relating prices for a certain product

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can be done easily and efficiently in online environment. Three in five online grocery shoppers cite ease or convenience as their main reason for using the online channel (Alvarez & Marsal, 2014). But on the other hand, online shopping has also its own disadvantages as, for example, consumers cannot touch or small actual products and they have much concerns about the freshness before buying particularly in foods and groceries. Many customers still resist the idea of having someone else pick fresh food for their family.

Grocery delivery or pickup is an extremely convenient service for customers and global retailers are expanding click and collect service such that customers could receive their purchases via home delivery or by picking them up inside the store, at a dedicated pickup facility at a designated location (Alvarez & Marsal, 2014).

Rise of the online shopping and increasing competition has pushed the entire retail industry to innovate and think of novel ways to attract and retain customers. Increasing efficiency in the last mile of the supply chain is one of the most competitive areas for global or domestic retailers.

Gupta et al. (2006) find that the impact of a 1% improvement in customer retention is five times greater than the effects of a similar increase in margin. Therefore, providing satisfying service for online customers and capturing loyal customers is an important challenge for retails.

In this paper, we try to analyze the quality components of online home delivery service including food and grocery in Korea. Since the quality of groceries is very sensitive to time and difficult to standardize, we expect the quality components of grocery service will be different with other commodities. Furthermore, we examine the relationships among service quality, customer loyalty, customer satisfaction and repurchase intention since online grocery shopping is growing rapidly and customer satisfaction is a basic building block of inducing repurchasing.

2. Literature Review

2.1. Online Grocery Shopping

Muhammad et al. (2016) examined the state of online shopping adoption in the groceries and assessed the electronic service quality (eServQual) of online groceries.

Lim et al. (2016) examined the relationship between subjective norm, perceived usefulness and online shopping behavior and investigated the mediating effect of purchase intention. Lee et al. (2015) investigated the willingness to adopt t-commerce for grocery shopping in Korea and found different motivations for t-commerce based on their previous shopping experience. Du and Tang (2014) studied how to improve offline service quality under Chinese O2O business model. Shin and Joo (2015) proposed a research model that describes the relationships between customer socialization, customer participation, and customer loyalty in the online service industry and found that customer participation plays an important precursor to customer loyalty and customer socialization will be a new strategy to increase customer participation. Tsai and Yang (2013) found that O2O business model may help retailers to learn about their customers through social network service. Hand et al. (2009) studied to find key factors of online grocery shopping for customers in the UK based on motivational and innovation theory and mentioned that many customers consider delivery charges as a main barriers of online grocery shopping. Liu et al. (2013) investigated the relationship between perceived quality of website and purchase intention for an online store and found that descriptions of word, function of online chatting and reviews of consumer have a positive influence on perceived quality.

2.2. Service Quality of Online Grocery Shopping

Recently, Bhatt and Bhanawat (2016) performed a literature review about the service quality in retail industry. Over the years, many researchers have proposed various models for measuring service quality and SERVQUAL (Parasuraman et al., 1985) is the most prominent and widely used. SERVQUAL is composed of five dimensions of service quality like tangibles, reliability, assurance, responsiveness and empathy. Parasuraman et al. (2005) introduced two different scales for capturing online service quality such as eServQual and e-RecS-QUAL and eServQual is composed of seven dimensions such as efficiency, fulfillment, system availability, privacy, responsiveness, compensation and contact. Dabholkar et al. (1996) proposed that service quality in retail industry is composed of five determinants such as physical aspects, personal interaction, reliability, problem solving and policy. Mentzer et al. (1999) proposed that logistics service quality consists of nine factors: personal contact quality, information quality, ordering procedures, order quality, order discrepancy handling, ordering release quantities, order condition, order accuracy and timeliness. And Gil-Saura et al. (2008) found that logistics service quality is mainly determined by two factors: empathy and reliability.

2.3. Customer Satisfaction

Customer satisfaction is a measure of the customers' evaluation of the service or product and can be defined as the degree of overall pleasure or contentment felt by the customer, resulting from the ability of the service to fulfill the customer's desires, expectations and needs in relation to the service (Hellier et al., 2003). Assuming that the customer is capable of evaluating the service performance, the result is compared to expectations prior to purchase or consumption (Oliver, 1980). Churchil and Surprenant (1982) state that

customer satisfaction is an output, coming from the comparison between customer's pre-purchase expectation and perceived cultural performance. Parasuraman et al. (2005) suggest that customer satisfaction is influenced mostly by service quality, product quality and price.

2.4. Customer Loyalty

Customer loyalty can be defined as a customer's sense of belonging or identification with the services or products of a company (Dick & Basu, 1994). Although there is no consensus definition of loyalty, extant research generally agrees that it represents a mix of attitudes and behaviors that benefit one firm relative to its competitors (Dick & Basu, 1994). Customer loyalty is defined as "a deeply held commitment to re-buy or repatronize a preferred product/ service consistently in the future" (Oliver, 1999). Gil-Saura et al. (2008) defined customer loyalty as "a dedication on the part of the customer to maintain a relationship and a devotion to buy the product or service repeatedly". Ganesh et al. (2000) empirically derived two distinct dimensions of the loyalty construct: active and passive loyalty. Active loyalty are those that require a deliberate and conscious effort to undertake, and can be identified from purchase behavior and purchase intentions. Passive loyalty are those that behaviors or intentions of customers are changed in price or switching cost.

2.5. Repurchase Intention

Although there is no consensus whether there is a strongly direct relationship between customer satisfaction and intention of repurchase, early studies in consumer behavior investigated the relationship between repurchase intentions and the level of satisfaction. Many researchers investigated repurchase intention at online shops using different theories such as Theory of Reasoned Action (TRA), Technology Acceptance Model (TAM), Expectation Confirmation Theory (ECT) and Unified Theory of Acceptance (UTA) and Use of Technology (UT).

TRA is a theory to predict a range of behaviors based on the attitude behavior and subjective norm. TAM is a theory to predict an acceptance of information technology and usage on the job based on the perceived usefulness, perceived ease of use, and subjective norm. ECT suggests that confirmation and user satisfaction are the primary determinants of repurchase intention. UTA and UT are theories to help researchers in studying consumer intentions and following behavior towards usage of an information system (Dharmawirya & Smith, 2012).

Hellier et al. (2003) proposed a hybrid model which is the integration of customer brand preference and customer perceptions of equity and value into an repurchase intention. This model describes whether repurchase intention of customer is mainly influenced by seven factors such as service quality, equity, value, past loyalty, customer satisfaction, brand preference and expected switching cost.

Base on the previous studies, the hypothesis were developed as follows.

The research questions in this paper are that the quality of groceries is very sensitive to time and difficult to standardize and the quality components of grocery service will be different with other commodities. Furthermore, we examine the relationships among service quality, customer loyalty, customer satisfaction and intention of repurchase. The hypotheses <H1>~<H5> are related with the direct effects among variables.

<H1> Quality of online grocery shopping has a direct effect on customer satisfaction.
<H1-1> Convenience has a direct effect on customer satisfaction.
<H1-2> Reliability has a direct effect on customer satisfaction.
<H1-3> Responsiveness has a direct effect on customer satisfaction.
<H2> Quality of online grocery shopping has a direct effect on customer loyalty.
<H2-1> Convenience has a direct effect on customer loyalty.
<H2-2> Reliability has a direct effect on customer loyalty.
<H2-3> Responsiveness has a direct effect on customer loyalty.
<H3> Customer satisfaction has a direct effect on customer loyalty.
<H4> Customer satisfaction has a direct effect on repurchase intension.
<H5> Customer loyalty has a direct effect on repurchase intention.

Besides direct effects among variables, mediating effects of customer satisfaction and customer loyalty are also tested. The hypotheses <H6>~<H7> are related with the mediating effects.

<H6> Customer satisfaction has a mediating effect between quality of online grocery shopping and customer loyalty
<H6-1> Satisfaction has a mediating effect between convenience and loyalty.
<H6-2> Satisfaction has a mediating effect between reliability and loyalty.
<H6-3> Satisfaction has a mediating effect between responsiveness and loyalty.
<H7> Customer loyalty has a mediating effect between customer satisfaction and repurchase intention

3. Methodology

3.1. Research Model

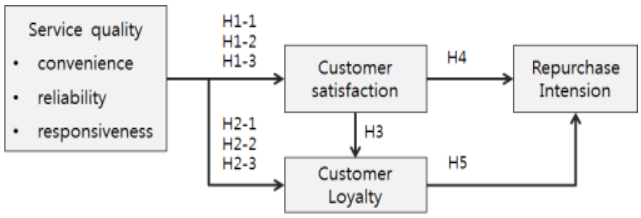
Based on the previous review, a new scale for the quality components of online grocery shopping is proposed in this paper, which is a combination of Parasuraman et al. (2005), Dabholkar et al. (1996) and Mentzer et al. (1999).

The first component of service quality is a convenience. Many reasons that customers are going over online in many retail sectors is a convenience of ordering and savings in shopping time. The second component of service quality is a reliability. Since customers cannot touch or smell actual food and groceries, they have much concerns about not only the bulks or weights but also the freshness of food and groceries that will be delivered. The last component of service quality is a responsiveness. Unlike commodities, there are many possibilities of disputes for the food and groceries delivered since they are not standardized. Thus, responsiveness during the exchange or refunds process may be an important component of service quality.

The research model displayed in <Figure 1> shows the three components of service quality and relationship with customer satisfaction, customer loyalty and repurchase intention.

3.2. Data Collection

To test the hypothesis, data was collected using self-administered questionnaires from online grocery shopping customers living in korean local regions (Daejeon, Sejong, Cheonan). Five-point Likert scale was used throughout the study and 240 samples were analyzed after excluding incomplete or unfaithful questionnaires. In <Table 1>, you can find the demographic profile of respondents.



<Figure 1> Research model: Direct Effect

4. Results

4.1. Reliability and Validity Test

In general, customers are satisfied with the online grocery delivery service in the order of reliability, convenience and responsiveness as you can see in <Table 2>.

Using SPSS 21, exploratory factor analysis using principal component analysis was performed and details are displayed in <Figure 2>. The KMO (Kaiser-Meyer-Olkin) index was 0.712, which shows the adequacy of factor analysis. For the reliability verification, the values of Composite Reliability (C.R.) and Average Variance Extracted (AVE) are calculated. As you can see in <Table 2>, the value of C.R. exceeded over 0.7 and the value of AVE exceeded over 0.5. Thus, the reliability and convergent validity seems to be secured

<Table 1> Demographic profile of respondent

Characteristic	No.	Percent	Characteristic	No.	Percent
Age			Major shopping items (plural response)		
20 ~ 30	40	16.7	grains	41	17.1
30 ~ 40	69	28.8	vegetables	24	10.0
40 ~ 50	84	35.0	fruits	27	11.3
50 ~ 60	39	16.3	eggs/meats	22	9.2
60 ~	8	3.3	fishes	7	2.9
Shopping frequency			nuts	21	8.8
1 time/month	89	37.1	milks/cheese	19	7.9
2 times/month	71	29.6	processed foods	49	20.4
1 time/week	50	20.8	organic foods	30	12.5
2 times/week	22	9.2	etcs	12	5.0
3+ times/week	8	3.3			
Expense per shopping			Income (monthly)		
~ $30	26	10.8	~ $2,000	37	15.4
$30 ~ $50	69	28.8	$2,000 ~ $3,000	33	13.8
$50 ~ $70	79	32.9	$3,000 ~ $4,000	53	22.1
$70 ~ 100	47	19.6	$4,000 ~ $5,000	65	27.1
$100 ~	19	7.9	$5,000 ~	52	21.7

<Table 2> Exploratory factor analysis for variables

Variables	Measurement	Factor loading	Eigen value	Variance (%)	Mean	S.D	C.R.	AVE
Repurchase Intention	repur4	.913	5.62	24.4	3.8	0.7	0.89	0.68
	repur3	.881			3.7	0.7		
	repur2	.852			3.7	0.7		
	repur1	.605			3.7	0.8		
Convenience	conv4	.852	2.62	11.4	3.7	0.8	0.84	0.57
	conv3	.847			3.9	0.7		
	conv2	.711			4.0	0.7		
	conv1	.574			3.6	0.8		
Reliability	rel1	.798	2.16	9.4	3.9	0.7	0.81	0.53
	rel2	.771			4.2	0.6		
	rel3	.729			4.0	0.6		
	rel4	.586			3.6	0.5		
Customer Loyalty	loyal3	.801	1.77	7.7	3.9	0.7	0.80	0.51
	loyal2	.790			3.7	0.7		
	loyal4	.707			3.8	0.7		
	loyal1	.520			3.9	0.5		
Responsiveness	resp2	.917	1.60	6.9	3.3	0.7	0.87	0.69
	resp3	.898			3.0	0.9		
	resp1	.642			3.1	1.0		
Customer Satisfaction	sat2	.808	1.39	6.0	3.9	0.5	0.81	0.50
	sat1	.769			3.7	0.7		
	sat3	.668			3.9	0.7		
	sat4	.547			3.8	0.7		

<Table 3> Correlation and AVE

	1	2	3	4	5	6
1. Convenience	(0.68)	0.249**	0.078	0.231**	0.278**	0.212*
2. Reliability	-	(0.49)	0.261**	0.303**	0.242**	0.172
3. Responsiveness	-	-	(0.53)	0.081	0.049	0.057
4. Customer Satisfaction	-	-	-	(0.51)	0.346**	0.407**
5. Customer Loyalty	-	-	-	-	(0.69)	0.421**
6. Repurchase Intention	-	-	-	-	-	(0.45)

**p<0.01, *p<0.05

(Fornell & Larcker, 1981). To test the discriminant validity of research model, correlation and AVE were compared in <Table 3>. Since the square roots of all AVE are greater than correlation values, the discriminant validity of all variables seems to be acceptable.

4.2. Hypotheses Test

The purpose of this paper is to identify the components of service quality that have a direct effect on customer satisfaction and customer loyalty. Furthermore, we want to verify the mediating effect of customer satisfaction between service quality and customer loyalty.

The hypotheses <H1>~<H5> are tested by using the regression analysis. As you can see in <Table 4>, all the hypotheses showed statistically significancy at p=0.01 except the hypotheses <H1-3> and <H2-3>, both of which are related with the responsiveness. The test results show that convenience and reliability are dominant components of service quality in online grocery service that have a direct effect on the customer loyalty and customer satisfaction. Furthermore, customer loyalty and customer satisfaction has a direct effect on the repurchase intention. Due to the small delivery region and special attentions for the groceries, there may be a little disputes about the freshness and returns of groceries till now. Nevertheless, special attentions about the responsiveness are required to provide a differentiated

delivery service for customers.

The hypotheses (<H6>, <H7>) about the mediating effects are tested by using hierarchical regression analysis (Baron & Kenny, 1988) and results are displayed through <Table 5> ~ <Table 8>. We found that customer satisfaction has a mediating effect between convenience (reliability) and customer loyalty respectively since the hypotheses <H6-1> and <H6-2> are supported. However, the hypothesis <H6-3> was not supported since <H1-3> and <H2-3> was not supported. And we did not verify a mediating effect of customer loyalty between customer and repurchase intention since <H7> was not supported.

<Table 4> Results of hypothesis test for the direct effects among variables

Hypotheses	B	S.E	t	sig.	Results
H1: Quality of online grocery shopping has direct effect on customer satisfaction.	-	-	-	-	Partially Accept
H1-1: Convenience of online grocery shopping has direct effect on customer satisfaction.	.179	.069	2.61	0.010	Accept
H1-2: Reliability of online grocery shopping has direct effect on customer satisfaction.	.318	.09	3.49	0.001	Accept
H1-3: Responsiveness of online grocery shopping has direct effect on customer satisfaction.	.05	.059	0.89	0.378	Reject
H2: Quality of online grocery shopping has direct effect on customer loyalty.	-	-	-	-	Partially Accept
H2-1: Convenience of online grocery shopping has direct effect on customer loyalty.	.235	.074	3.18	0.002	Accept
H2-2: Reliability of online grocery shopping has direct effect on customer loyalty.	.277	.101	2.74	0.007	Accept
H2-3: Responsiveness of online grocery shopping has direct effect on customer loyalty.	.035	.065	0.54	0.590	Reject
H3: Customer satisfaction of online grocery shopping has direct effect on customer loyalty.	.378	.094	4.04	0.000	Accept
H4: Customer satisfaction of online grocery shopping has direct effect on repurchase intension.	.527	.108	4.89	0.000	Accept
H5: Customer loyalty of online grocery shopping has direct effect on repurchase intention.	.498	.098	5.08	0.000	Accept

<Table 5> Results of hypothesis test for the mediating effects

Hypotheses	Results
H6: Customer satisfaction has a mediating effect between quality of online grocery shopping and customer loyalty	Partially Accept
H6-1: Customer satisfaction has a mediating effect between convenience of online grocery shopping and customer loyalty.	Accept
H6-2: Customer satisfaction has a mediating effect between reliability of online grocery shopping and customer loyalty.	Accept
H6-3: Customer satisfaction has a mediating effect between responsiveness of online grocery shopping and customer loyalty.	Reject
H7: Customer loyalty has a mediating effect between customer satisfaction and repurchase intention	Reject

<Table 6> Mediating effect of satisfaction between convenience and loyalty

	Dependent Variable	Independent Variable	Unstandardized coefficient		Standardized coefficient	t	sig.
			B	S.E.	β		
Step1	Satisfaction	(Constant)	2.73	.262		10.418	.000
		Convenience	.179	.069	.231	2.605	.010
Step2	Loyalty	(Constant)	2.95	.282		10.436	.000
		Convenience	.235	.074	.278	3.171	.002
Step3	Loyalty	(Constant)	2.06	.373		5.519	.000
		Convenience	.176	.073	.209	2.423	.017
		Satisfaction	.325	.094	.298	3.452	.001

<Table 7> Mediating effect of satisfaction between reliability and loyalty

	Dependent Variable	Independent Variable	Unstandardized coefficient		Standardized coefficient	t	sig.
			B	S.E.	β		
Step1	Satisfaction	(Constant)	2.15	.361		5.956	.000
		Reliability	.318	.091	.303	3.484	.001
Step2	Loyalty	(Constant)	2.74	.402		6.819	.000
		Reliability	.277	.101	.242	2.738	.007
Step3	Loyalty	(Constant)	2.03	.439		4.634	.000
		Reliability	.173	.102	.151	1.698	.092
		Satisfaction	.328	.097	.300	3.369	.001

<Table 8> Mediating effect of loyalty between satisfaction and repurchase intention

	Dependent Variable	Independent Variable	Unstandardized coefficient		Standardized coefficient	t	sig.
			B	S.E.	β		
Step1	Loyalty	(Constant)	2.545	.321		7.92	.000
		Satisfaction	.378	.094	.346	4.04	.000
Step2	Repurchase	(Constant)	1.945	.371		5.249	.000
		Satisfaction	.527	.108	.407	4.887	.000
Step3	Repurchase	(Constant)	.987	.434		2.274	.025
		Satisfaction	.385	.109	.297	3.527	.001
		Loyalty	.376	.100	.318	3.764	.000

5. Discussion and Conclusion

5.1. Summary

Online grocery shopping is growing rapidly and multichannel in retail is becoming the popularity. In this study, we tried to measure the overall satisfaction of online grocery shopping and identify the quality components of online grocery delivery service. Furthermore, we examine the relationship between service quality of online grocery shopping and customer satisfaction, customer loyalty, repurchase retention. In general, customers are satisfied with the online grocery delivery service in the order of reliability, convenience and responsiveness. Through hypothesis testing,

we found that convenience and reliability of grocery delivery service have a positive effect on the customer satisfaction and customer loyalty. However, responsiveness of grocery delivery service has not a positive effect on the customer satisfaction and customer loyalty. Furthermore, we found that customer satisfaction has a mediating effect between convenience, reliability and customer loyalty.

5.2. Implications of Research

Since the freshness of groceries are very sensitive to time and difficult to standardize, we expect the quality components of grocery service will be different with other commodities. Overall, customers in korea local regions are satisfied with the online grocery delivery service in the order of reliability, convenience and responsiveness. Due to the small delivery region and special attentions for the groceries, there may be a little disputes about the freshness and returns of groceries till now. Nevertheless, special attentions about the responsiveness are required to provide a differentiated delivery service for the customers in the future.

5.3. Limitations & Further Research

Although some meaningful implications are found from this study, it has several limitations. First, the number of questionnaires are relatively small and respondents are limited to the customers living in korean local regions. Second, respondents may be confused by the service quality of groceries and other commodities in a multichannel environment. Third, indirect effects among variables are not investigated in this study. Further research is needed considering a new variable and refining the quality components of service quality such as KANO model.

References

Alvarez & Marsal (2014). Home delivery fulfillment in UK grocery. Retrieved August 28, 2014. from http://www.alvarezandmarsal.com.

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology,* 51, 1173–1182.

Bhatt, A. K., & Bhanawat, D. S. (2016). Service quality in retail - a literature review. *International Journal for Research in Business, Management and Accounting*, 2(3), 27-35.

Churchill, G. A., & Suprenant, C. (1982). An investigation into the determinants of customer satisfaction. *Journal of Marketing Research,* 19, 491-495.

Dalholkar, P. A., Thorpe, D. I., & Rentz, J. O. (1996). A measure of service quality for retail stores: scale development and validation. *Journal of Academy of Marketing Science,* 24, 3-15.

Dharmawirya, M., & Smith, B. A. (2012). Analysis of consumer repurchase Intention towards online shopping in Indonesia's online retail business market. *International Journal of e-Education, e-Business, e-Management and e-Learning,* 2(3), 202-205.

Dick, A. S., & Basu, K. (1994). Customer loyalty: toward an integrated conceptual framework. *Journal of the Academy of Marketing Science,* 22, 99-113.

Du, Y., & Tang, Y. (2014). Study on the development of O2O e-commerce platform of china from the perspective of offline service quality. *International Journal of Business and Social Science,* 5(4), 308-312.

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research,* 18(1), 39-50.

Ganesh, J., Arnold, M. J., & Reynolds, K. E. (2000). Understanding the customer base of service providers: an examination of the differences between switchers and stayers. *Journal of Marketing,* 64, 65-87.

Gil-Saura, I., Servera-France, D., Berenguer-Contri, G., & Fuentes-Blasco, M. (2008). Logistics service quality: a new way to loyalty. *Industrial Management and Data Systems,* 108(5), 650-668.

Gupta, S., Hanssens, D., Hardie, B., Kahn, W., Kumar, V., Lin, N., Ravishanker. N., & Sriram. S. (2006). Modeling customer lifetime value. *Journal of Service Research,* 9(2), 139-155.

Hand, C., Riley, F. D., Harris, P., Singh, J., & Rettie, R. (2009). Online grocery shopping: the influence of situational factors. *European Journal of Marketing,* 43, 1205–1219.

Hellier, P. K., Geursen, G. M., Carr, R. A., & Rickard, J. A. (2003). Customer repurchase intention: a general structural equation model. *European journal of marketing,* 37(11), 1762-1800.

Kau, A. K., Tang, Y., & Ghose, S. (2003). Typology of online shopper. *Journal of Consumer Marketing,* 20(2), 139-156.

Lee, D., Jeong, H., Cho, J., Jeong, J., & Moon, J. (2015). Grocery Shopping via T-Commerce in Korea. *International Food and Agribusiness Management Review,* 18(2), 1-16.

Lim, Y. J., Osman, A., Salahuddin, S. N., Romled, A. R., & Abdullahe, S. (2016). Factors influencing online

shopping behavior: the mediating role of purchase intention. *Procedia Economics and Finance,* 35, 401–410.

Liu, F., Sun, Y., & Na, S. H. (2013). The influence of online-store cue on consumers perceived quality and online purchase intention. *Journal of Distribution Science,* 11(4), 13-21.

Mentzer, J. T., Flint, D. J., & Kent, J. L. (1999). Developing a logistics service quality scale. *Journal of Business Logistics,* 20(1), 9-32.

Muhammad. N. S., Sujak, H., & Rahman, S. A. (2016). Buying groceries online: the influences of electronic service quality (eServQual) and situational factors. Procedia *Economics and Finance*, 37, 379–385.

Oliver, R. L. (1980). A cognitive model of the antecedents and consequences of satisfaction decisions. *Journal of Marketing Research,* 17, 460-469.

Oliver, R. L. (1999). Whence consumer loyalty?. *Journal of Marketing,* 63, 33-44.

OliverWyman (2014). *The future of the UK life industry.* Retrieved May 22, 2015, from http://www.oliverwyman.com.

PackagedFacts (2014). *Online grocery sales will near $100 billion by 2019.* Retrieved May 22, 2015, from http://www.packagedfacts.com.

Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985). A conceptual model of service quality and its implications for future research. *Journal of Marketing,* 49(3), 41-50.

Parasuraman, A., Zeithaml, V. A., & Malhotra, A. (2005). E-S-QUAL: A multiple-item scale for assessing electronic service quality. *Journal of Service Research,* 7(3), 213-234.

Shin, M. S., & Joo, J. H. (2015). Relationships between customer socialization, customer participation, and loyalty of on-line service providers. *Journal of Distribution Science.* 13(11), 15-22.

Tsai, T. M., & Yang, P. C (2013). Pilot study toward realizing social effect in O2O commerce services. Proceedings of the 5th International Conference on Social Informatics, 8238.