International Journal of Advanced Research in Science Management and Technology
ISSN(Online)-2454-4159 Volume 3, Issue 8, August 2017

An Empirical Study on Online Grocery Shopping Intentions of Consumers in Surat City

Dr. Amol Ranadive[1]

Assistant Professor, School of Business & Law, Navrachana University, Vadodara, Gujarat, India[1]

ABSTRACT— Online grocery shopping is a new means of buying preferred grocery products over the Internet for household consumption. The phenomenon has already picked up momentum in the developed countries and an increasing number of urban and sub-urban consumers are utilizing it for their benefit and convenience. The markets in India have also started responding positively to this phenomenon. Slowly but steadily, in almost a decade every Indian metropolitan city has embraced this technology and is now gradually spreading to tier-II and tier-III cities. In the state of Gujarat, the online grocery business practically took off in the year 2012. In cities like Surat, there have been quite a few upcoming companies in this segment at the local level viz. Grabvia.com, Mycitycart.com and Homebethe.com and few others. A few national level players have also entered this city for selling groceries online. This paper attempts to present a study conducted on determining the shopping intentions of consumers towards online grocery products in the city of Surat, Gujarat.

KEYWORDS- Online, grocery, shopping, theory of planned behaviour.

I. INTRODUCTION

India's retail market is the fourth largest and fastest developing market in the world with numerous companies entering the market; nevertheless, it is extremely fragmented once compared to other countries' retail market. (KT Kearney Global Retail Development Index 2015) divulges, "India rises to 15th, behind the solid growth in retail sales and strong prospects for future GDP growth. India's retail market is expected to grow to $1.3 trillion by 2020, and GDP is expected to grow at eight percent over the next three years, making India the world's fastest-growing major developing market." Since the future for this sector seems to be quite promising, the unorganized retail is too at the same echelons but the real growth can be realised in the organized retail sector. It is projected that the modern retail is likely to touch USD 175-200 billion by the end of the year 2016.

The Indian retail industry is divided into organised and unorganised retail. First, organised retail statesthat the trading activity is undertaken by licensed retailers, such as departmental stores, supermarket, hypermarket, malls etc. Second, unorganised retailers are old-style retailers such as local kirana shops (neighbourhood grocery stores) and mom & pop shops. Kirana is a small, typically family-owned shop selling groceries and other assortments. The second shop Mom & Pop shop is again a small, self-governing, usually family-owned, controlled, and operated business that has a least possible amount of employees, has only a small amount of business capacity, and is typically not franchised, therefore open for business only in a single location and universally these retail establishments are known as shops/stores.

India has one of the maximum concentrations of shops with around15 million medium and small retail outlets (14 shops per 1000 people) (Aggarwal, 2000). The retail sector is categorized by a high degree of fragmentation with above 95% of the Indian retail stores less than 500 sq.feet in size and having an average turnover of Rs. 186,075 (approximately $3500 per annum). Due to their small size, Indian retailers partake very little bargaining power with producers and undertake only a few of the activities as channel partners distinctive to retailers in the developed countries. (Sarma, 2000, Economic Times, 2011).

This growing segment and competition has also created a need among these online grocery companies to understand the consumer's intent to adapt to these new technological arenas. The better and faster a company understands the consumer's intent and attitude in this respect, the more will this understanding contribute to the company's success.This study focuses on measuring the consumer's shopping intention towards such online grocery services in the state of Gujarat. The study utilizes some popular consumer behavioural models and their underlying theories to gauge the consumers' intention.

II. LITERATURE SURVEY

Since its introduction, the Theory of Planned Behaviour (TPB) has been used in numerous technology adoption contexts to predict and explain individual behavioural intentions as well as actual self-reported behaviour, both from the organizational and from the consumer perspective (e.g. Brown and Venkatesh 2005, Chau and Hu 2002, Chau and Hu 2001, Gentry and Calantone 2002, Venkatesh and Brown 2001, Pedersen 2005, Venkatesh et al. 2003). Recently, Liaw (2004) applied the TPB to the study of behavioural intentions to use search engines as a learning tool. Study of the consumer by use of the TPB is gaining Momentum in behaviour toward digital technologies research: Goby (2006) studied online purchasing using the TPB, Hsu and Chiu (2004) used a decomposed version of the TPB to study electronic service continuance, and Hsu et al. (2006) used the TPB model to predict online shopping behaviour. Other studies have modified the TPB to specific contexts, such as consumers' adoption of broadband Internet (Oh, Ahn and Kim 2003) or bases of social influences in online environments (Bagozzi et al. 2006).

But all the versions of the Technology Acceptance Model (TAM I/II/III) fall under the domain of Information systems and are a little distant from the mainstream psychology domain. Also certain factors from the TAM theory are irrelevant more particularly to online grocery shopping platforms as the later ones being new, have never being tried by the consumers in Gujarat. Thus factors viz. ease of use, Perceived Usefulness, Effects of trust and Perceived Risk can only be measured in a situation where the consumers are well versed with the usage of such online grocery systems.

In current years, numerous models and theories have been proposed for the purpose of elucidating consumer online behaviour. It has been recommended (Peterson et al., 1997) that products chosen by consumers largely on the basis of search attributes are most acquiescent to online retailing as direct experience is not essential. Moreover, Klein (1998) suggests that the Internet is predominantly helpful for searching for information with respect to products due to low perceived cost of search. Verhoef and Langerak (2001) have considered potential factors of consumers' acceptance of electronic grocery shopping based on the theory of diffusion of innovations. Shim et al (2001) have proposed an online model for pre-purchase intentions, which has been derived from Kleins (1998) interaction model of pre-purchase consumer information search and the theory of planned behaviour (Ajzen, 1985, 1991). In addition to such illustrations, a need for more analytical research on online consumer behaviour is often felt in the literature for research. Goldsmith (2001) asserts that much research with reference to online consumer behaviour is fairly descriptive in nature and not based on consumer theory. Elliot and Fowell (2000) advocate that additional research is immediately required to investigate the nature of the groups of factors that determine Internet shopping behaviour. In response to such needs, the purpose of this research is to test systematically the ability of the theory of planned behaviour in predicting consumer online grocery buying intention.

The commencement of Online Grocery Shopping has the prospect to radically reduce the time spent on the grocery shopping by consumers and, thus, create value to the second dimension of convenience (Morganosky and Cude 2000; Slonae 2000). This innovative retail conduit has become a pragmatic option for a growing number of consumers since the number of people with technological facilities such as personal computers, mobile phones, internet connections and subscription to online services at home or in the workplace is also growing at a high pace (Park et al. 1998). Hence started off from the Unites States in the late 1980s', Online Grocery Shopping has fascinated the attention of many retailers and grocery consumers in a number of regions (Schuster and Sporn 1998; Morgan 2000; Morganosky and Cude 2000; Slonae 2000). On the whole, there are two distinct practices of online grocery retailers (Morganosky and Cude 2000). The first one is called 'Online Retailers'. These are essentially virtual supermarkets as they only exist online. Usually, they pick and fill consumers' orders by employing a warehouse that stores a variety of products. Products are then delivered to consumers as per the desired delivery schedule (Morganosky and Cude 2000, Kirsner, 1999 #564). Additionally, a few other online grocers offer consumers with a special unit, consisting of refrigerated and frozen grocery items at no extra cost (Lundegaard 1997; Morganosky and Cude 2000).

III. PROBLEM DEFINITION

The online grocery buying phenomenon being completely new to the Indian consumer, the online grocery retailing companies are still in much of darkness with respect to their consumer traits and buying patterns (Dahiya, 2015). With an overwhelming penetration of the Smartphone applications technology, the average consumer has gained more power in accessing the information on options available for buying products / services. Thus in this case, the company that quickly estimates the consumer intention of buying grocery products online will also be the one to get the "First Mover Advantage" (Berman, 2016).

With a long list of literature review available for online retailing businesses in the segments viz. electronics, apparels, tickets booking etc. very few studies have been conducted so far for the grocery segment under the online retailing business. Also within the state of Gujarat, where this phenomenon is relatively much newer, there is an ardent need for understanding the intentions of the Gujarati consumers. Most of the local online grocery companies in the state of Gujarat, being in their infant stages have not been able to gauge the consumer intention, either due to paucity of research & development facilities and infrastructure, scarcity of funds or a mere lack of desire in determining consumer's interest. The online grocery buying phenomenon being completely new to the Indian consumer, the online grocery retailing companies are still in much of darkness with respect to their consumer traits and buying patterns. With an overwhelming penetration of the Smartphone applications technology, the average consumer has gained more power in accessing the information on options available for buying products / services.

The results of the study would help the online grocers in not only determining as to what, how and when to offer these grocery products, but also lay down a foundation in building consumer profiles through which the online grocers can customize their merchandizes and offers to the specific tastes and preferences of the customers.

The objective of this research is to establish a relationship between four variables constituting the Theory of Planned Behaviour:

i. Attitude towards purchasing behavior for online groceries in Surat city
ii. Subjective norms
iii. Perceived behavioural control
iv. Purchase Intention

IV. PROPOSED SOLUTION

The Theory of Planned Behaviour (TPB) (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975) was used as a primary model to measure the Purchase Intention of consumers towards online grocery shopping in Surat city. Figure 1 depicts the theory in the form of a structural diagram. For ease of presentation, possible feedback effects of behavior on the antecedent variables are not shown. As in the original theory of reasoned action, a central factor in the theory of planned behavior is the individual's *intention* to perform a given behavior. Intentions are assumed to capture the motivational factors that influence a behavior; they are indications of how hard people are willing to try, of how much of an effort they are planning to exert, in order to perform the behavior. As a general rule, the stronger the intention to engage in a behavior, the more likely should be its performance.

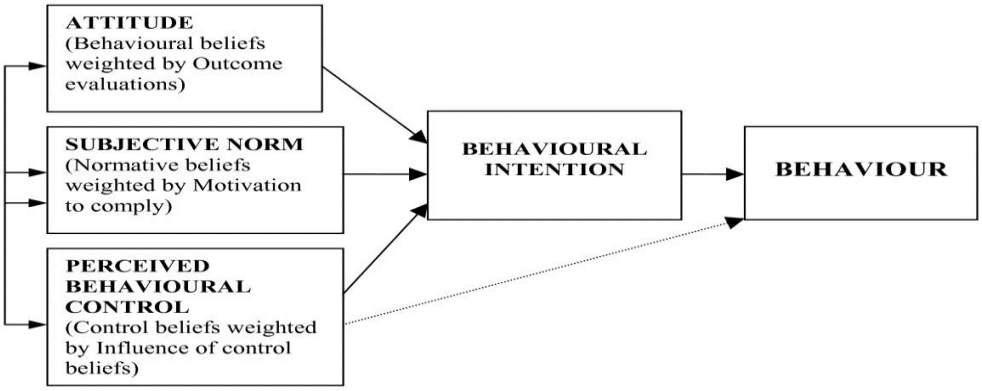

Fig.1 The Theory of Planned Behaviour (Ajzen & Fishbein)

1. **Attitudes -** This refers to the degree to which a person has a favorable or unfavorable evaluation of the behavior of interest. It entails a consideration of the outcomes of performing the behavior.
2. **Subjective norms -** This refers to the belief about whether most people approve or disapprove of the behavior. It relates to a person's beliefs about whether peers and people of importance to the person think he or she should engage in the behavior.
3. **Perceived behavioral control -** This refers to a person's perception of the ease or difficulty of performing the behavior of interest. Perceived behavioral control varies across situations and actions, which results in a person having varying perceptions of behavioral control depending on the situation. This construct of the theory was added later, and created the shift from the Theory of Reasoned Action to the Theory of Planned Behavior.
4. **Behavioural Intentions –**This is an indication of an individual's readiness to perform a given behavior. It is assumed to be an immediate antecedent of behavior. It is based on attitude toward the behavior, subjective norm, and perceived behavioral control, with each predictor weighted for its importance in relation to the behavior and population of interest.

For the above purpose of the study, a 4x4x3 relationship between the variables was derived where Attitude towards purchase behaviour (behavioural beliefs viz. Ease-of-use, perceived usefulness and compatibility weighted by outcome evaluations), Subjective Norms (normative beliefs viz. Peer influence, superior's influence weighted by motivation to comply) and perceived Behavioural Control (control beliefs viz. Self-efficacy, resource facilitating condition and technology facilitating condition weighted by influence of control beliefs) were the independent variables and Purchase intention (for purchase) was the dependent factor.

The study was based on the data collected by from the respondents using a structured questionnaire. The sample of 324 individuals from the city of Surat was selected for the study. A Stratified Convenient Sampling method was used for the survey. These 324 respondents were from different occupations viz, Service Class, Business Class and Professional Class. Out of the total sample size, 40% samples were selected from service class and 30% each were selected from business and professional class.

Besides primary data the use of secondary data such as reports, studies and information available at different government sources was also made. A number of reports and surveys conducting information of online grocery shopping are available. These studies have been conducted both at individual and Government levels but comparison of the results of these studies is difficult and results have to be treated with certain amount of caution due to variation in the data and definitional differences. A closed ended questionnaire was used as a data collection instrument.

Various sets of questions in the questionnaire instrument made up for the factors individually viz. Attitude, Subjective Norms, Perceived Behavioural Control and Intention (Purchase). The constructs of these questions were based on the Theory of Planned Behaviour (Ajzen & Fishbein). A 5-Point Likert Scale was used to measure the responses for each of the questions composing the factors in the questionnaire.

A set of hypothesis was devised and tested using various statistical tools and software. Following are the set of Hypotheses:

H1: There is NO significant ATTITUDE towards purchasing online groceries in Surat.

H2: There is NO significant SUBJECTIVE NORMS towards purchasing online groceries in Surat.

H3: There is NO significant PERCEIVED BEHAVIOURAL CONTROL towards purchasing online groceries in Surat.

H4: There is NO significant INTENTION towards purchasing online groceries in Surat.

V. EXPECTED RESULTS

To study the internal consistency and reliability of the data collected, Cronbach alpha was applied and following was observed.

Table 1. Table Showing Test of Reliability of Data through Subjective Norms, Attitude, Perceived Behavioural Control and Purchase Intention for Online Grocery Shopping in Surat city.

Factors	Cronbach's Alpha Score
Attitude	0.733
Subjective Norms	0.777
Perceived Behavioural Control	0.882
Intention	0.791
Overall	**0.909**

- From the above table, it can be observed that overall; the data was found to be highly reliable and consistent.
- For Surat city, the alpha value of 0.909 which suggests that the data was internally consistent and reliable.
- Moreover all factors affecting the Purchase Intention were also found to be highly reliable.

The results of the study were determined by carrying out the Test of Hypothesis which is as below:

H1: There is NO significant ATTITUDE towards purchasing online groceries in Surat.

Table 2. Measurement of Attitude as a factor towards Online Grocery Shopping in Surat city

Sr. No.	Factor	Attitude
1.	Preference of online grocery over physical store	
	Mean	4.58
	s.d.	0.64
	Chi. Square	173.01 (p = 0.000)
	t-value	128.522 (p = 0.000)
2.	Buying online grocery is good for me	
	Mean	3.99
	s.d.	0.68
	Chi. Square	483.778 (p = 0.000)
	t-value	105.773 (p = 0.000)
3.	Online grocery is good for community	
	Mean	4.16
	s.d.	0.37
	Chi. Square	146.679 (p = 0.000)
	t-value	202.298 (p = 0.000)
4.	Online grocery shopping is a good idea	
	Mean	4.91
	s.d.	0.29
	Chi. Square	218.383 (p = 0.000)
	t-value	309.144 (p = 0.000)
5.	There is too much hype about Internet Grocery Shopping	
	Mean	3.75
	s.d.	0.43
	Chi. Square	81.000 (p = 0.000)
	t-value	155.644 (p = 0.000)

- The Attitude as a factor towards Online Grocery Shopping was measured by observing the mean values of responses to the questions that make up the Attitude factor as a whole. In the primary data collection instrument, the Attitude factor was broken down into a set of five (05) different questions which compositely make up the Attitude factor.

- On a 5-point Likert scale all values above the median value 3.00 can be considered as high and the factor represented by these values would be considered to be on a positive side.
- This suggests that the Attitude as a factor was found to be highly positive in Surat city. Thus the **Hypothesis (H1)** was rejected and the Alternate Hypothesis that Consumers' Attitude towards online grocery shopping in Surat city is significantly high and positive, was accepted.
- To test the significance of these mean values and also to analyze the responses statistically, the chi square test and t-test were applied to the data and it was observed that for online grocery shopping, the Attitude was found to be highly significant (p = 0.000), as depicted in the Table 2 above.

H2: There are NO significant SUBJECTIVE NORMS towards purchasing online groceries in Surat.

Table 3. Measurement of Subjective Norm as a factor towards Online Grocery Shopping in Surat city

Sr. No.	Factor	Subjective Norms
1.	Family's influence on online grocery purchase	
	Mean	4.10
	s.d.	0.53
	Chi. Square	211.463 (p = 0.000)
	t-value	139.120 (p = 0.000)
2.	Friend's/ peer's influence on online grocery purchase	
	Mean	4.10
	s.d.	0.50
	Chi. Square	250.722 (p = 0.000)
	t-value	148.693 (p = 0.000)
3.	Media's influence on online grocery purchase	
	Mean	4.17
	s.d.	0.38
	Chi. Square	141.346 (p = 0.000)
	t-value	199.618 (p = 0.000)
4.	People important to me think I should buy grocery online	
	Mean	4.17
	s.d.	0.38
	Chi. Square	365.13 (p = 0.000)
	t-value	195.385 (p = 0.000)
5.	People's whose opinion I value, approve of my online grocery buying	
	Mean	4.02
	s.d.	0.12
	Chi. Square	304.309 (p = 0.000)
	t-value	585.461 (p = 0.000)
6.	Buying grocery online is expected of me	
	Mean	4.17
	s.d.	0.46
	Chi. Square	278.000 (p = 0.000)
	t-value	162.270 (p = 0.000)
7.	People important to me buy grocery online	
	Mean	3.70
	s.d.	0.49
	Chi. Square	208.574 (p = 0.000)
	t-value	135.585 (p = 0.000)
8.	People's whose opinion I value, buy grocery online	
	Mean	3.84
	s.d.	0.38
	Chi. Square	377.019 (p = 0.000)
	t-value	183.827 (p = 0.000)

The Subjective Norm as a factor towards Online Grocery Shopping was measured by observing the mean values of responses to the questions that make up the Subjective Norm factor as a whole. In the primary data collection instrument, the Subjective Norm factor was broken down into a set of eight (08) different questions which compositely make up the Subjective Norm factor.

- On a 5-point Likert scale all values above the median value 3.00 can be considered as high and the factor represented by these values would be considered to be on a higher positive side.
- This suggests that the Subjective Norm as a factor was found to be highly positive in Surat city. Thus the **Hypothesis (H2)** was rejected and the Alternate Hypothesis that Consumers' Subjective Norms towards online grocery shopping in Surat city are significantly high and favourable, was accepted.
- To test the significance of these mean values and also to analyze the responses statistically, the chi square test and t-test were applied to the data and it was observed that for online grocery shopping, the subjective norm was found to be highly significant (p = 0.000), as depicted in the Table 3 above.

H3: There is NO significant PERCEIVED BEHAVIOURAL CONTROL towards purchasing online groceries in Surat city.

Table 4. Measurement of Perceived Behavioural Control as a factor towards Online Grocery Shopping in Surat city.

Sr. No.	Factor	Perceived Behavioural Control
1.	Capability of buying grocery over the Internet	
	Mean	4.08
	s.d.	0.54
	Chi. Square	396.815 (p = 0.000)
	t-value	137.16 (p = 0.000)
2.	Buying groceries online being entirely within control	
	Mean	4.07
	s.d.	0.49
	Chi. Square	266.741 (p = 0.000)
	t-value	150.45 (p = 0.000)
3.	Having resources, knowledge & ability to buy grocery online	
	Mean	4.14
	s.d.	0.38
	Chi. Square	378.389 (p = 0.000)
	t-value	195.82 (p = 0.000)
4.	Importanceof feeling comfortable while buying grocery online	
	Mean	4.17
	s.d.	0.38
	Chi. Square	144 (p = 0.000)
	t-value	200.94 (p = 0.000)
5.	Importance of buying grocery online by one's own self	
	Mean	4.00
	s.d.	0.00
	Chi. Square	622.485 (p = 0.000)
	t-value	495.86 (p = 0.000)
6.	One's capability to buy grocery online even when there is no one around to help	
	Mean	4.16
	s.d.	0.47
	Chi. Square	273.685 (p = 0.000)
	t-value	160.61 (p = 0.000)

- The Perceived Behavioural Control as a factor towards Online Grocery Shopping was measured by observing the mean values of responses to the questions that make up the Perceived Behavioural Control factor as a whole. In the primary data collection instrument, the Perceived Behavioural Control factor was broken down into a set of six (06) different questions which compositely make up the Perceived Behavioural Control factor.

- On a 5-point Likert scale all values above the median value 3.00 can be considered as high and the factor represented by these values would be considered to be on a higher positive side.
- This suggests that the Perceived Behavioural Control as a factor was found to be highly positive in Surat city. Thus the **Hypothesis (H3)** was rejected and the Alternate Hypothesis that the influence of consumers' Perceived Behavioural Control towards online grocery shopping in Surat is significantly high, was accepted.
- To test the significance of these mean values and also to analyze the responses statistically, the chi square test and t-test were applied to the data and it was observed that for online grocery shopping, the Perceived Behavioural Control was found to be highly significant (p = 0.000), as depicted in the Table 5 above.

H4: There is NO significant INTENTION towards purchasing online groceries in Surat.

Table 5. Measurement of Purchase Intention as a factor towards Online Grocery Shopping in Surat

Sr. No.	Factor	Purchase Intention
1.	Online Grocery Products search for future purchases	
	Mean	4.00
	s.d.	0.41
	Chi. Square	364.500 (p = 0.000)
	t-value	176.091 (p = 0.000)
2.	Buying grocery online for future purchases	
	Mean	4.08
	s.d.	0.28
	Chi. Square	494.019 (p = 0.000)
	t-value	259.296 (p = 0.000)
3.	Spending time on websites to learn about online grocery options	
	Mean	4.15
	s.d.	0.41
	Chi. Square	584.420 (p = 0.000)
	t-value	182.170 (p = 0.000)
4.	Taking more time for online grocery items as compared to typical buying	
	Mean	4.16
	s.d.	0.50
	Chi. Square	230.019 (p = 0.000)
	t-value	148.443 (p = 0.000)
5.	Chances of buying grocery online in next 1 to 2 years	
	Mean	4.25
	s.d.	0.45
	Chi. Square	271.063 (p = 0.000)
	t-value	171.404 (p = 0.000)
6.	Percentage of grocery likely to be bought online in future	
	Mean	4.24
	s.d.	0.53
	Chi. Square	186.463 (p = 0.000)
	t-value	143.944 (p = 0.000)

- The Purchase Intention as a factor towards Online Grocery Shopping was measured by observing the mean values of responses to the questions that make up the Purchase Intention factor as a whole. In the primary data collection instrument, the Purchase Intention factor was broken down into a set of six (06) different questions which compositely make up the Purchase Intention factor
- On a 5-point Likert scale all values above the median value 3.00 can be considered as high and the factor represented by these values would be considered to be on a higher positive side.
- This suggests that the Purchase Intention as a factor was found to be highly positive for Surat city. Thus the **Hypothesis (H4)** was rejected and the Alternate Hypothesis that Consumers' Purchase Intention towards online grocery shopping in Surat is significantly high, was accepted.

- To test the significance of these mean values and also to analyze the responses statistically, the chi square test and t-test were applied to the data and it was observed that for online grocery shopping, the Purchase Intention was found to be highly significant (p = 0.000), as depicted in the Table 5.

VI. CONCLUSION

From the research conducted in Surat city, it can be concluded that Purchase Intention of respondents was found to be high for online grocery shopping. Also the factors Attitude, Subjective Norms and Perceived Behavioural Control were also found to be high and contributed sufficiently to the formation of Purchase Intention for online groceries. Further, tests conducted on the data revealed that respondents' demographic profile also had an influence on the purchase intention towards online groceries.

It can also be concluded that considering the number of sample population having done online shopping before, the intention to purchase groceries online was found to be high since it would be based on their prior experiences of shopping products online. Thus, it can also be concluded that respondents from Surat city had a high positive purchase intention towards online grocery shopping. Such positive purchase intentions can lead the respondents towards a favourable behaviour for adoption of online grocery shopping practices for their regular needs. The companies offering grocery products and services online have a huge market potential to tap. If online grocery companies especially the ones operating at a local level can further study consumers' behaviour and come up with better and smarter features in their grocery portals to service customers better, this would not only escalate their overall revenues and broaden their reach but also add to the customer delight for online grocery shopping. These local online grocers can also give a hard-hitting competition to the national or supposedly International players in the online grocery space.

REFERENCES

[1] **Chan, Ricky Y. K. & LAU, Lorett B. Y. (2000). Antecedents of green purchases: A survey in China. Journal of Consumer Marketing, 17 (4), 338-357.**

[2] **Chan, Ricky Y. K. (2001). Determinants of Chinese consumers' green purchase behaviour. Psychology & Marketing, 18 (4), 389-413.**

[3] **Chiu, Y., S. Fang and C. Tseng (2010). Early Versus Potential Adopters: Exploring the Antecedents of Use Intention in the Context of Retail Service Innovations, *International Journal of Retail and Distribution Management*, Vol. 38,No. 6, pp. 443-59.**

[4] **Close, A.G. and M. Kukar-Kinney (2010). Beyond buying: Motivations behind consumers' online shopping cart use, *Journal of Business Research*, Vol. 63, No. 9, pp. 986–992.**

[5] **Conner, M., &Armitage, C. J. (1998).Extending the theory of planned behaviour: A review and avenues for further research. Journal of Applied Social Psychology, 28, 1429-1464.**

[6] **Cottrell, S. P. & Graefe, A. (1997).Testing a conceptual framework of responsible environmental behaviour. The Journal of Environmental Education, 29(1), 17-27.**

[7] **Covello, V. T., von Winterfeldt, D., & Slovic, P. (1984). Communicating scientific information about health and environmental risks: Problems and opportunities from a social and behavioural perspective. In V. T. Covello, L. B. Lave, A. Moghissi, & V. R. R. Uppuluri (Eds.), Uncertainty in risk assessment, risk management and decision making (Advances in risk analysis) (Vol. 4). New York: Plenum Press.**

[8] **Cox, T. (2007) Advances in theory, methodology and practice in risk management for work-related stress. Keynote to Health & Safety Canada IAPA 2007.**

[9] **Cox, T. (2010) Work-related stress in Europe. Keynote paper: Italian Society for Occupational Medicine Annual Conference. [148] Keith, Kaitlin, "Dangerous Decor: Consumer Knowledge of Health Risks within Interior Spaces" (2011). Master's Thesis Paper 3934.**

[10] **Curran, J.M. and M.L. Meuter (2005). Self-Service Technology Adoption: Comparing Three Technologies, *Journal of Services Marketing*, Vol.19, No.2, pp.103-13.**

[11] **Dabholkar, P.A. (1994). Technology-Based Service Delivery: A Classification Scheme for Developing Marketing Strategies, in Advances in Services Marketing and Management, Teresa A. Schwartz, David E. Bowen, and Stephen W. Brown, eds. Greenwich, CT: JAI Press, Vol. 3, pp.241–71.**

[12] **Dabholkar, P.A. (1996). Consumer Evaluations in New Technology- Based Self-Service Options: An Investigation of Alternative Models of Service Quality, *International Journal of Research in Marketing*, Vol.**

[13] **Dabholkar, P.A. and R.P. Bagozzi (2002). An Attitudinal Model of Technology-Based Self-Service: Moderating Effects of Consumer Traits and Situational Factors, *Journal of the Academy of Marketing Science*, Vol. 30, No. 3, pp. 184-201.**

[14] **Dabholkar, P.A., L.M. Bobbitt and E.J. Lee (2003). Understanding consumer motivation and behaviour related to self-scanning in retailing: Implications for strategy and research on technology-based self- service, *International Journal of Service Industry Management*, Vol. 14, No. 1, pp. 59-95.**

[15] **Darner, R. (2009).Self-determination theory as a guide to fostering environmental motivation.The Journal of Environmental Education, 40(2), 39-49.**

[16] **Davis, F.D., R.P. Bagozzi and P.R. Warshaw (1989). User acceptance of computer technology: A comparison of two theoretical models, *Management Science*, Vol. 35, No. 8, pp. 982-1003.**

[17] **Dean, D.H. (2008). Shopper age and the use of self-service technologies, *Managing Service Quality*, Vol. 18, No. 3, pp. 225-238.**