



Assignment 1: Blog Posts 1-3

GENERATING A RESEARCH PROPOSAL PORTFOLIO

Ling Lin 2006204| Identity and Approaches to Applied Business Research |22nd March 2021

word count:3494

Contents

Report 1: Investigating Ideas.....	2
Report 2: Evaluating a Core Theory.....	7
Report 3: Discussing Research Methodology.....	13

Lists of Figures

Figure 1: My social identity map (<i>adapted from source: Jacobson and Mustafa, 2019</i>)	3
Figure 2: An integrative model of online purchasing behavior (<i>sources: Taylor and Strutton, 2010</i>).....	5
Figure 3 UTAUT-2(<i>source: Saha, Zhuang and Li, 2020</i>).....	6
Figure 4 concept mapping diagram of report 2.....	7
Figure 5 Elements of a Conceptual Framework (<i>source: Ravitch & Riggan, 2017</i>).....	13
Figure 6 The adapted UTAUT-2.....	14
Figure 7 Influence on FLC stages on UTAUT-2 variables/conceptual model.....	15

Appendices

Appendix I.....	26
Appendix II.....	28
Appendix III.....	31
Appendix IV.....	32

Note: the source of cover picture is from baidu.com.

Report 1: Investigating Ideas

(word count: 1022)

Introduction and Personal Evaluation

When investigating the ideas for a viable research proposal, "self-reflexivity" (Cunliffe, 2011) plays an essential role in reflecting how our past educational, working, and training experience, interests, values are related to our research projects (Willig, 2001).

It is crucial "to acknowledge and articulate the varied motivations, theoretical and/or personal, underpinning any research, as these are likely to shape the way the research is conceived, carried out, interpreted and produced" (Haynes, 2012: 79).

For acquiring legitimate knowledge, both the research process's front stage and back stage should be paid attention to and emphasized (Harding, 1991). "The assumption, motivations, narratives and the relations which are part of the researcher's backstage" (McCorkel & Myers, 2003, p.200). Learning from Harding, I trace back my interest in the field of business management to the early stages of my bachelor educational experiences at Erasmus University in Rotterdam, although "identity" was not in my mind to make sense of my experiences at that time. The university cooperated with Pringles that belonged to P&G then to conduct marketing investigation through survey regarding to its new product package feasibility, putting marketing management theory into practice, which was seeming like seeds buried in marketing-related soil, acknowledging my interests in the marketing field of self-identity might have been ignited. One way to understand the knowledge was to derive from "sense experience, demonstrable, objective facts" (Kivunja, C. and Kuyini, A.B., 2017, p.27). The social identity map in Figure 1 proposed by Jacobson and Mustafa (2019) could be a starting point and a tool for me to visualize

my positionality, which provides a reciprocal way to interpret the world and myself (Day, 2012).

After my graduation, I worked in Dell computer Ltd. as a salesperson; I got plenty of training opportunities. Later on, I have been running a logistics corporation with my family, and are mainly responsible for online marketing and sales. Meanwhile, I am also a lecturer teaching marketing management module at my university. For the majority of B2C firms, Internet marketing capability has transited from "nice-to-haves" to "musts" (Taylor and Strutton, 2010).

My working and training experience cultivate my sensitivity towards the market and impact my motivation to conduct research topics relating to online consumer behavior that I always focus on. And this is just like Gouldner (1970, p.28) said, "There is no knowledge of the world that is not a knowledge of our own experience of it and in relationship to it."

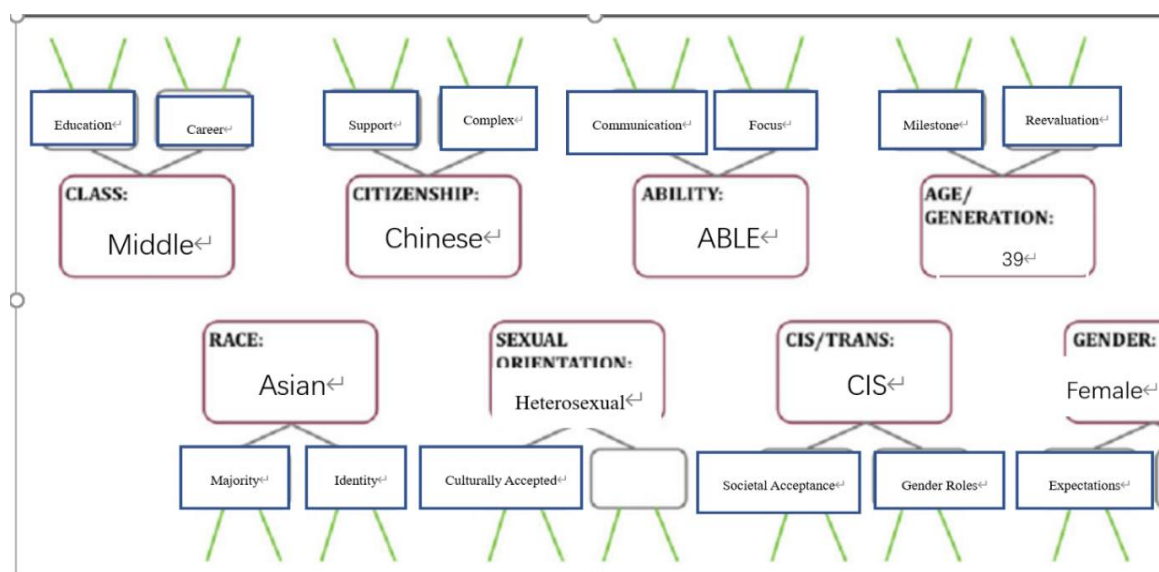


Figure 1 My social identity map (adapted from source: Jacobson and Mustafa, 2019, p.3)

Research Background

Online shopping has been prosperous due to the rocketing development of the Internet and information communication technologies. "Online shoppers" as a new customer segment

(Racolta-Paina and Luca, 2010) emerged, whose buying behavior differs from the conventional offline shoppers. Since China was No. 1 in terms of Internet users' numbers (Vijay, Prashar and Parsad, 2016), e-shopping becomes mature and saturated in the Chinese market, the competition is even more fierce with only a few mouse- clicks away. Behavioral models emphasize that technology acceptance and promotion innovation strategies may temporarily increase sales but limit the company's sustainability in the long run (Taylor and Strutton, 2010; Lee, 2020). It is significant to pay attention to the research of post-adoption behaviour of e-shoppers' (Lee, Choi and Kang, 2009; Taylor and Strutton, 2010; Chiu, et al.,2014; Lee, 2020; Jaiswal and Singh,2020) from the differentiation strategy standpoint to retain existing customers, which is more cost-effective and profitable than finding new ones (Lee, 2020). However, the study regarding to the influence of FLC stages on e-shoppers' post-adoption behavior remains scant, which needs be developed further and might become more effective in the future.

Because the research topic relating to e-shoppres' post-adoption behaviour has been prosperous for the recently 10 years, this paper calls for current sources within the recently five years, although some valid sources will be traced from the year of 2010 (for example, the Taylor and Stratton's), the recently ones will be supplemented as well.

Taylor and Strutton (2010) have filtered out 25 articles published from 1996 to 2007 in the domain of online consumer behavior among the "A+" level marketing journals, in which compiled the independent variables (online consumer behavior intention) and eight constructs (including the satisfaction). The reproductivity proves the source reliability.

E-Satisfaction is a key construct in post-adoption behavior to evaluate e-consumer's experiences and expectations. (Parthasarathy and Bhattacharjee, 1998; Lee, Choi and Kang,

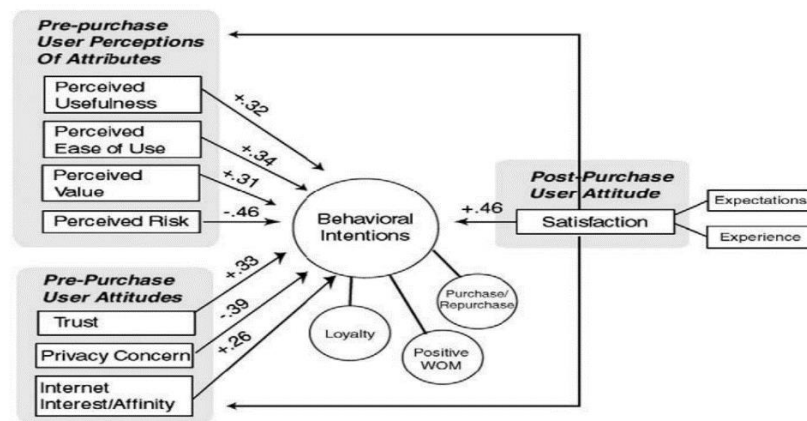


Figure 2 An integrative model of online purchasing behavior (sources: Taylor and Strutton, 2010)

2009; Taylor and Strutton, 2010; Lee, 2020; Saha, Zhuang and Li,2020). Rich works of literature have proved e-satisfaction was the primary driver of repurchase intention and e-loyalty (Oliver, 1997; Szymanski and Hise, 2000; Evanschitzky et al.,2004; Flavian et al., 2006; Lin and Wang,2006; Cao, Y., Ajjan, H. and Hong, P. ,2018; Saha, Zhang and Li, 2020). As the rapid expansion of e-commerce, customers switch to the other competitors due to the delivery delay arouse the attention paid on the delivery efficiency (YU, et al., 2015; Vakulenko, et al.,2019). On-time or speedy delivery is adding value and leads to customer satisfaction (Huang, et al., 2019; Cao, Ajjan and Hong, 2018; Chou, Chen and Lin, 2015). The influence of the cost-saving efficiency construct on customer satisfaction, and repurchase intention has been confirmed in the UTAUT-2 model (Escobar-Rodríguez and Carvajal-Trujillo,2014). The relationship between them could also infer to the transaction cost theory (Stock,2005). Rich studies have incorporated the costs factors into online shopping behaviour (de Kerviler, Demoulin and Zidda, 2016; Campo and Breugelmans,2015; Pappas et al, 2014). The online shopping experience is reconstructed from “shopping experience” (Rose, et al.,2012; Srivastava and Kaul, 2016). Customers seek experience as active participants in co-creating value during online shopping rather than simply receiving quality service online (McLean and Wilson,2016;

Izogo and Jayawardhena, 2018). Offering online experience beyond shopper's expectation will positively impact their online behaviour (Shobeiri et al., 2015). The browsing length of time perceived by e-shoppers as well as the online support (McLean and Wilson, 2016) are dimensions taken into account in this study. The measures of construct are valid since they all being stated clearly from the sources (see Appendix IV).

Taylor and Strutton (2010) argued that the technology acceptance model (TMA) was no longer appropriate for post-adoption behavior. Few studies in developing Asian countries apply the UTAUT-2. This research will adopt and extend this UTAUT-2 model (Figure 3) to examine how cost-saving efficiency, online shopping experience, and deliver efficiency affect the online repurchase intention. E-satisfaction plays as the role of mediator. The adapted conceptual model with the three new constructs can be found in Report 3. A more robust statistical technique like PSL-SEM might assure the validation of the causal relationship between the variables and be seen more appropriate (Zheng et al., 2015).

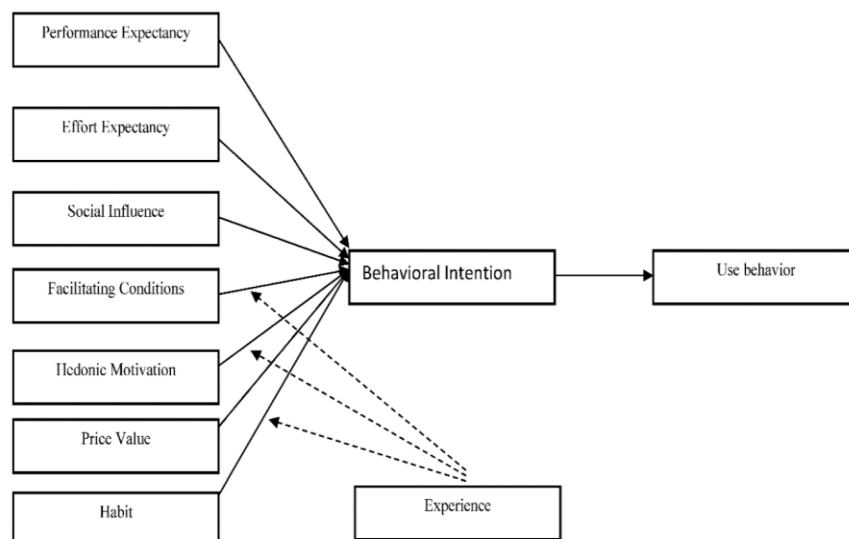


Figure 3 Unified theory of acceptance and use of technology (UTAUT-2)

(source: Saha, Zhuang and Li, 2020)

Report 2: Evaluating a Core Theory

(word count: 1220)

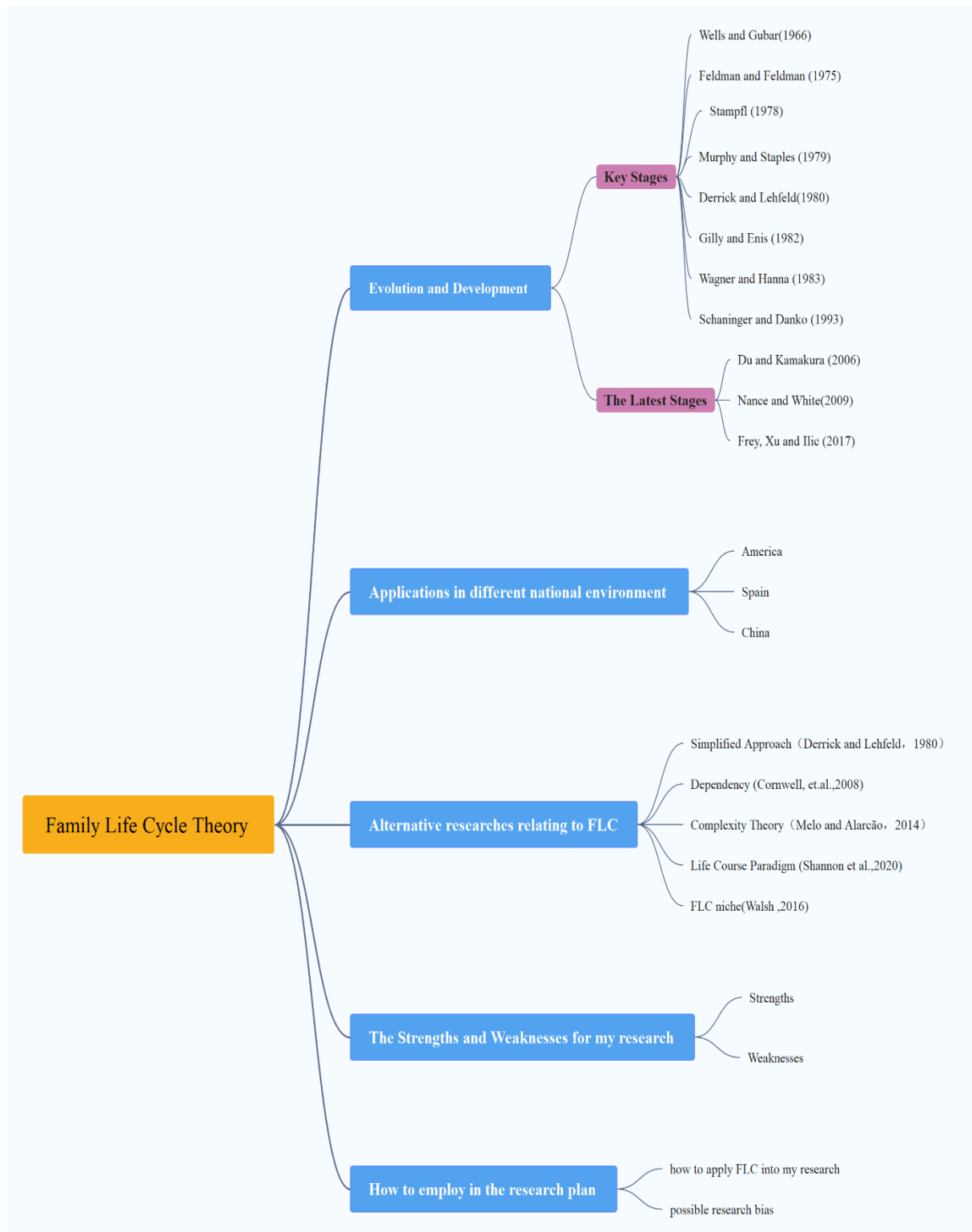


Figure 4 concept mapping diagram of report 2

Introduction

The family life cycle is a critical socio-demographic variable in the interpretation of consumer behaviour and market segments. Its efficacy has been demonstrated in many countries and markets, whether in the consumption of goods or services, the distribution of household consumption, or other business areas. (Redondo-Bellón, et.al.,2001). The family life cycle theory was originated and well-accepted in sociology (Loomis, 1936, cited in Gilly and Enis,2001, p.271) and then in marketing (Clark,1955, cited in Gilly and Enis,2001,p.271)as a handy yardstick for market segmentation and a key determinant of different kinds of consumer behaviour in consumption of various kinds of goods and services.

2.1 The Evolution and Development of Family Life Cycle Theory

The main stage of family life cycle model research was concentrated from the 1960s to the late 1980s. Most of the essential research models were created in this stage, divided into traditional life cycle models and the modern life cycle model. The development of FLC models from 1990 to 2020 is also added. (see Appendix I,II).

2.2 Applications in the different national environment

The family life cycle was originated and evolved from America; many essential models were built up based on the American nuclear family database (Wells and Gubar, 1966; Murphy and Staples,1979; Gilly and Enis,1982; Du and Kamakura,2006). There is a striking difference between the family life cycle constructed in Spain and the United States (Redondo-Bellón, Royo-Vela and Aldás-Manzano,2001). Extended family cohabitating with three generations was a commonplace family type in Spain, which is not fully included in the American family life model. Redondo-Bellón,et.al. adopted an adapted model with 11 stages (see Appendix II),

retaining Gilly and Enis' models' classification criteria. This adapted model is well-adapted to the demographic environment of Spain, and has reference value for the countries with a high proportion of extended families like China, Thailand that have collectivist culture (Shannon et.al.,2020).

Liu(2008) referred to Redondo-Bellón,et.al. 's model and adapted a family life cycle model according to the eastern urban city's demographic environment in China. China is a country with a high proportion of extended families similar to Spain to some extent. There are 14 stages of the model, which are quite different from the existing widely used models, such as Schaninger and Danko (1993). It considered the cohabiting couples and regarded it as an independent phase, which was aligned with the characteristics in the modern family's evolution. Besides that, the extended family types were added (see Appendix II).

2.3 Alternative researches relating to FLC

Due to the changes in demographics, marketers use demographic variables as yardsticks to market segmentation to predict consumer consumption behaviour becoming poor (Moschis, 2019). Although different types of family life cycle models used as demographic variable have been compared and modified (Schaninger and Danko,1993), they are all based on the same age and family structure assumption and offer a limited justification of consumer behaviour (Moschis, 2019).

Dependency (Cornwell, et.al.,2008) is another essential concept in understanding consumer behaviour; it took the family life cycle concept as a jumping-off point, both of them were in recognition of the dependent children importance. Dependence patterns cover other living things, groups, institutions and concept relationships. It not only suits traditional "orderly

progression" families but also accommodates multifarious dependencies. Marketers could apply it to identify different segments serving with the same or similar products or services. It also adapted to the complexity and rapid change of consumer behaviour patterns because it studies patterns and processes rather than structure and could adapt to a new culture and offer new insights.

Melo and Alarcão (2014) proposed complexity theory to lucubrate family development beyond the family life cycle which was seem too simplistic to understand the family forms diversity and challenges in the 21st. Family science could refer to the concepts and methods of complexity theory to facilitate the family development conceptualization as the increasing differentiation and integration and avoid neglecting the unique structural and dynamic characteristics of family development.

There are also rich literatures niching family life cycle in specific stage. Walsh (2016, p.339) examines the "challenge, opportunities and resilience" of people in their later life in terms of "retirement, financial security, grandparenthood... and end-of-life issue" and suggest to expand research lens to family needs in their later years. Researchers deem the FLC of elders are lucrative segment in the market (Law and Ng, 2016; Silva, Slongo and Rohde, 2016)

Shannon et al. (2020) proposed a "sensitising" framework to elucidate how to incorporate variables from the "life course paradigm" (LCP) to improve the traditional FLC model. The LCP expects the consumer behaviour within stages to create heterogeneity because of different transition timing, duration, stage-transition events and unexpected events. However, this study neglected cultural issues when carrying out the comparative study of consumer expenditures among four countries.

2.4 The Strengths and Weaknesses of FLC to a Possible Focus for my Future Research

Strengths

Market segmentation is considered to be one of the most critical strategic decisions, its potential business logic is that the differences in consumer demands, desires, purchasing habits and behaviours, and segmentation can classify consumers based on such differences efficiently (Marshall and Johnston, 2010) using more common and applicable socio-demographic variables comparing with the other types of variables (Kotler and Keller, 2006). Family life cycle stages rather than age have been proved to cause consumers' situational and behavioral changes with solid evidence (Erickson, Martinengo and Hill, 2010; Frey, Xu, and Ilic, 2017; Allen and Finkelstein 2014). Many studies have applied FLC as a predictor (Fischer, 1955; Wells and Gubar, 1966; Stampfl, 1978; Murphy and Staples, 1979; Gilly and Enis, 1982; Schaninger and Danko, 1993; Trinh and Wright, 2014) or mediator variable (Nance and White, 2009), although its application experienced downward trend after 2000, it has been renewable again recently (Bauer and Auer-Srnka, 2012).

The influence of FLC stages on consumer behavior is significant in China, where has collectivist culture with high proportion of extended families, decision making might usually stem from the elder generation and being made collectively (Yan and Zhou, 2016; Xu and Xia, 2014; Liu, 2008).

Weaknesses

- availability of data

The model of Du and Kamakura (2006) addresses the limitations of defining life stage and quantifying the transition probability between family stages, so it can predict the future needs of consumers and push the development of family life cycle theory to a better starting point.

However, this is hardly duplicated in other contexts with different cultures lacking such panel data. However, it provides a significant research direction for researchers in other contexts equipped with such panel data in the future.

- personal capability to deliver

Melo and Alarcão (2014) suggested conceptualizing family development by harnessing the contributions from Complexity Science in terms of its theory and methodology. The endeavours to propose novel research questions and carry out relevant empirical research relevant to the family proposed as the concept of "family complexity" is beyond my capability so far as a novice researcher.

2.5 How do I plan to employ the FLC theory in my research

Based on the above various FLC typologies, Liu's (2008) FLC classification system would become the reference and basis in my research in China context. The possible bias would lie down in the sampling area; the four cities in the eastern part of China might not be generalized in the whole country. Considering the feasibility of collecting data and as supplement to the current research, I will narrow down my research area to the cities in the southern part of China, where I have been living for years and most of my university students and their families coming from these cities.

Report 3: Discussing Research Methodology

(Word count: 1252)

Introduction

Figure 1.2 Elements of a Conceptual Framework

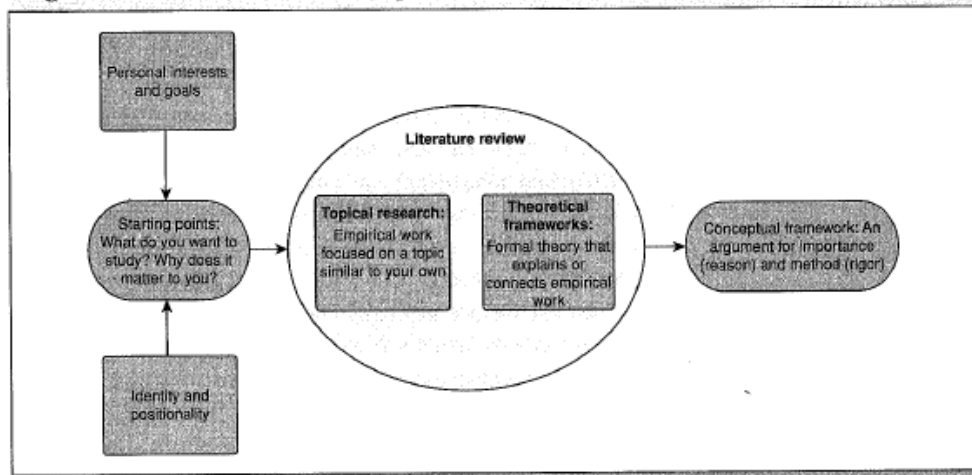


Figure 5 Elements of a Conceptual Framework (source: Ravitch & Riggan, 2017, p. 9)

In report 1, the 'identity and positionality' have been analysed combining with my motivation of doing research in the e-shopper's post-adoption behavior. The research background and constructs are elucidated with rich literature works. In report 2, the literature review focus on the family life cycle (FLC) core theory which is well-established and has been applying in the research area for almost a century; it is indeed a classical theory and has sparked with consumer changing experience in their leisure lifestyles (Frey, Xu, and Ilic, 2017; Backer and Lynch, 2017; Lin and Lehto, 2006), work-life balance (Erickson, Martinengo and Hill, 2010; Allen and Finkelstein 2014; Wepfer et al., 2015; Yan and Zhou, 2016;), brand loyalty (Trinh and Wright, 2014), e-shopping adoption (Hassanein and Head, 2010; Lian and Yen, 2014; Wagner, Amirtha and Sivakumar 2018; Amirtha, Sivakumar and Hwang, 2020). However, whether the FLC stages could sparkle the post-adoption behaviour of B2C e-commerce in the China context is still ambiguous. Moreover, this research might make a minor contribution to the existing

knowledge of e-shoppers' consuming behavior, which would be helpful for e-retailers as reference to figure out the relationship between the new variables of UTAUT-2 across FLC stages.

The objective of this study

This article aims to investigate whether the FLC stages influence e-shoppers' post-adoption behavior by using the UTAUT-2 model. The UTAUT-2 was applied in few studies in developing Asian countries like China (Saha, Zhuang and Li, 2020; Pappas et al., 2014). It is going to examine how cost-saving efficiency, online shopping experience, and delivery efficiency affect the online repurchase intention. E-satisfaction plays the role of mediator. Comparing to TMA, UTAUT-2 is more a comprehensive model integrating eight theories (see Appendix III). According to Gruzdt et al. (2012), the overall constructs in the UTAUT2 could be a very good start-point of learning behaviour intention and using social media (see Figure 3 in Part 1). As antecedents of e-satisfaction as well as repurchase intention, cost-saving efficiency, delivery

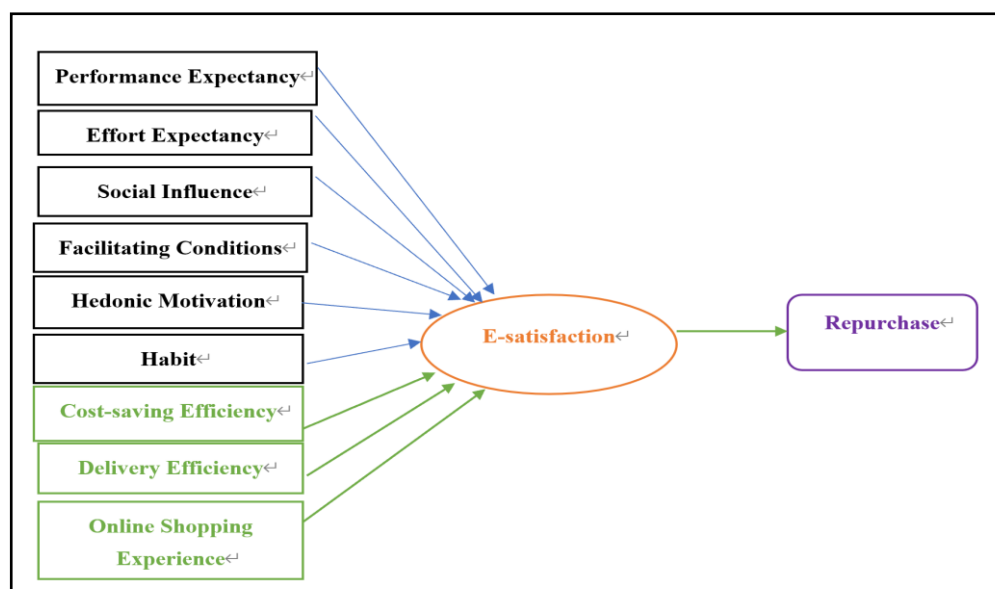


Figure 6 The adapted unified theory of acceptance and use of technology (UTAUT-2)

efficiency and online shopping experience are integrated into the UTAUT2 model (see Figure 6). This research is going to extend the application of UTAUT2 by adding the FLC stages as external variables.

Conceptual Framework

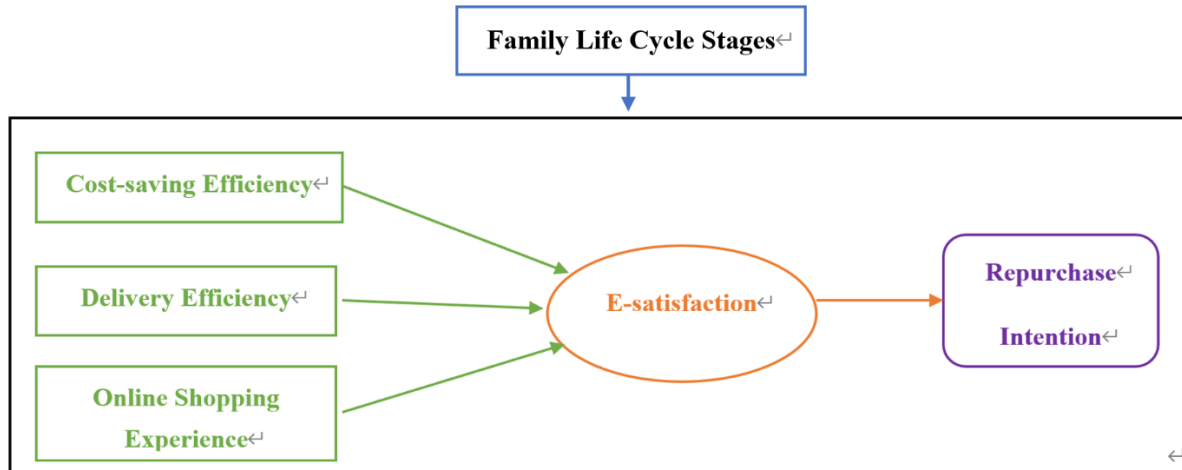


Figure 7 Influence on FLC stages on UTAUT-2 variables/conceptual model

Figure 7 presents the conceptual framework, which will be a guide to lead our research effort. This research's design is based on the adoption of the UTAUT-2 model, which hypothesizes all the variables will affect the mediator e-shoppers' satisfaction, in turn, influence their outcome variable-repurchase intention. Meanwhile, the relationship between the antecedents of e-satisfaction constructs in this paper and e-shoppers repurchase intention in each FLC stage will be analysed in depth using PLS-SEM, PLS-MGA and One-way MANOVA.

Justification of the research method choice

The homogeneity and commonality of measurements among different sources in this paper are crucial to ensuring the validity and reliability of these measuring variables. Within the unique research context (Jackson,2013), the observation of e-shoppers' post-adoption behavior being conducted with deductive logic to discover and predict the consuming patterns is

consistent with the positivist paradigm. The reality or knowledge is assumed to be objective and quantifiable and little dependent on the researcher or instrument (Bryman, 2016; Dawson, 2017; Creswell and Creswell, 2018). So quantitative research method rather than qualitative is chosen in this study. But it only proves the designated hypotheses and cannot interpret the motives and phenomenon behind.

If researchers have to create their own measuring variables instead, focus group is suggested, mixed research approach would be more appropriate employing a three-phase procedure: initially, try to interview with experience participants to create qualitative data; then develop an instrument based on the qualitative data which “yield quotes, codes and themes” to develop items, variables or scales; after that, survey the sample of population (DeVellis, 2012; Creswell, 2014). This positivist qualitative is more suitable for researcher to study the dynamic, emergent, less-understood digitization world in terms of advancing academic theory with positive stance and harnessing the “generalizability” of findings. (Cassell, Cunliffe and Grandy, 2018). However, this method needs plenty of time and commitment that is not allowed in this study.

Research Methodology

This study adopts a quantitative approach with non-experiment. The survey method is applied to collect data. E-questionnaire will be sent to my working university students coming from the southern part of China, whom have an online shopping repurchase experience. Meanwhile, these questionnaires are also sent to their families in different life stages with online shopping experience, maximize the balanced distribution of the questionnaire on each stage based on Liu's (2008)'s model. Information sheet addressing the informed consent issue

will be added in front of the questionnaire. There are two parts of this questionnaire.

Respondents' demographic profile relating to their family information (age, marital status, information regarding children, such as age, number, living situation, number of family members) are focus on part 1, which will be used for life stage categorisation. E-shoppers' perception towards the constructs: CSE (5 items), DE (5 items), OSE (5 items), ES (5 items) and RI (5 items), totalling a scale of 25 items are captured in part 2(those UTAUT-2 constructs were measured in other literature already, see Appendix III). A seven-point Likert scale is used in each construct statement.

Data Analysis

Preliminary tests

A pilot study with 15 samples will be conducted to test the constructs validity and clarity across all stages to enhance the response rate. To check the data reliability, descriptive statistics regarding each construct item, including mean, standard deviation, skewness, kurtosis, and CR value, will be calculated by SPSS. High internal consistency will be achieved if the CR value is higher than 0.7(Field, 2013). Factor loading value and average variance extracted (AVE) value will be applied to test the convergent validity. Discriminant validity will be confirmed by comparing the shared variances and the AVE value before the hypothesized relationships examination to avoid data bias (Field, 2018; Hubley, 2014).

Partial least square structural equation modelling (PLS-SEM)

After the preliminary test, the causal relationship between the constructs will be tested by the SEM, which could be examined by path analysis. Baron and Kenny (1986) claimed that “the common approach to unreliability is to have multiple operations or indicators of the

construct.” PLS-SEM is a well-known technique addressing mediation effects with multiple indicators (Roiguez-Entrena, Schuberth and Gelhard, 2018; Hair, Ringle and Sarstedt, 2011). The justification of applying PLS-SEM are as follows: it is appropriate for a small sample size (Hair, 2017) and testing multiple relationships simultaneously (the relationship between the constructs in the UTAUT-2 and the FLC each stage). The standard coefficient (β value) is the constructs relationship strength indicator, and the P-value is the supporting evidence of the coefficient value. In PLS, the R2 value will be used to indicate the model's explanatory and predictor power.

Partial least square multi-group analysis (PLS-MGA)

PLS-MGA is said to be the most straightforward method with a higher level of accuracy, according to Afthanorhan, Nazim, and Ahmad (2014). It is helpful for the researcher to see whether the group difference across each of the FLC stages relating to the UTAUT-2 variables is significant or not.

One-way MANOVA

For testing the individual item difference rather than the group difference, MANOVA will be recommended to apply further.

Research ethic risks

In Flinders' deontological layer (Seedhouse's consequential layer), reciprocity requires to ensure all participants fully understand the survey questions, and the research finding should be dealt with honest. Meanwhile, written assurance about the confidentiality and anonymity should be given in the questionnaire cover. According to Seedhouse's individual layer (Flinder's relational perspective), all the participants' participation is up to their own will (Stutchbury and Fox, 2009).

References

- Afthanorhan, A., Nazim, A. and Ahmad, S.,(2014) 'A Parametric Approach to Partial Least Square Structural Equation Modeling of Multigroup Analysis (PLS-MGA)'. *International Journal of Economics, Commerce and Management*, Vol. II, Issue 10.
- Anderson, R.E. & Srinivasan, S.S. 2003, 'E-satisfaction and e-loyalty: A contingency framework', *Psychology and marketing*, vol. 20, no. 2, pp. 123-138.
- Amirtha, R. and Sivakumar, V.J. (2018) 'Does family life cycle stage influence e-shopping acceptance by Indian women? An examination using the technology acceptance model'. *Behaviour & Information technology*, vol.37(3):267–294.
- Amirtha, R., Sivakumar, V.J., and Hwang, Y., (2020) 'Influence of Perceived Risk Dimensions on e-Shopping Behavioural Intention among Women: A Family Life Cycle Stage Perspective '. *Journal of Theoretical and Applied Electronic Commerce Research*, 16 (3), 320–355.
- Allen, T.D. and Finkelstein, L.M. (2014) 'Work–family conflict among members of full-time dual-earner couples: An examination of family life stage, gender, and age', *Journal of Occupational Health Psychology*, vol. 19, no. 3, pp. 376-384.
- Backer, E. and Lynch, D. (2017) 'Understanding the Proclivity of Visiting Friends and Relatives (VFR) Travel across Family Life Cycle Stages in Australia'. *International Journal of Tourism Research*, 19:447–454.
- Bryman, A. (2016) *Social Research Methods*. 5th edn. Oxford: Oxford University Press.
- Cao, Y., Ajjan, H. and Hong, P. (2018) 'Post-purchase shipping and customer service experiences in online shopping and their impact on customer satisfaction: an empirical study with comparison', *Asia Pacific journal of marketing and logistics*, Vol. 30, Iss. 2 : 400-416.
- Campo, K. and Breugelmans, E. (2015) 'Buying Groceries in Brick and Click Stores: Category Allocation Decisions and the Moderating Effect of Online Buying Experience', *Journal of interactive marketing*, vol. 31, pp. 63-78.
- Chester, R. (1977) 'Divorce and the family life cycle in Great Britain', in Cuisenier, J.(ed.) *The family life cycle in European societies: Le cycle de la vie familiale dans les sociétés Européennes*. Walter de Gruyter GmbH & Co KG.pp.207-227.
- Chiu, C.M., Wang, E.T., Fang, Y.H. and Huang, H.Y. (2014) 'Understanding customers' repeat purchase intentions in B2C e-commerce: the roles of utilitarian value, hedonic value and perceived risk'. *Information systems journal*, vol. 24, no. 1, pp. 85-114.
- Chou, S., Chen, C. and Lin, J. (2015) 'Female online shoppers: Examining the mediating roles of e-satisfaction and e-trust on e-loyalty development', *Internet research*, vol. 25, no. 4, pp. 542-561.

Colwell, S.R., Aung, M., Kanetkar, V. and Holden, A.L. (2008) 'Toward a measure of service convenience: multiple-item scale development and empirical test', *The Journal of services marketing*, vol. 22, no. 2, pp. 160-169.

Compeau, D.R. and Higgins, C.A. (1995) 'Computer Self-Efficacy: Development of a Measure and Initial Test', *MIS quarterly*, vol. 19, no. 2, pp. 189-211.

Cornell, T.B., Wamwara-Mbugua, L.W. and Nicovich, S.G. (2008) 'Dependence patterns in consumer behaviour: Exploration and refinement of a concept'. *Journal of Consumer Behaviour*, 1: 51-71.

Creswell, J. W. (2014) *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. 4th edn. London: Sage.

Creswell, J. W. and Creswell, J. D. (2018) *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. 5th edn. London: Sage.

Cunliffe, A.L. (2011) 'Why complicate a done deal? Bringing reflexivity into management research', in Cassell, C. and Lee, B. (ed.) *Challenges and Controversies in Management Research*. London: Routledge. pp. 404-418.

Davis, F.D. (1989) 'Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology', *MIS quarterly*, vol. 13, no. 3, pp. 319-340.

Day, S. (2012) 'A Reflexive Lens: Exploring Dilemmas of Qualitative Methodology Through the Concept of Reflexivity', *Qualitative Sociology Review*, vol. 8, no. 1, pp. 60-85.

Dawson, J. (2017) *Analysing Quantitative Survey Data*. London: Sage.

de Kerviler, G., Demoulin, N.T.M. and Zidda, P. (2016) 'Adoption of in-store mobile payment: Are perceived risk and convenience the only drivers'? *Journal of retailing and consumer services*, vol. 31, pp. 334-344.

Derrick, F. W. and Lehfeld, A. K. (1981) The Family Life Cycle: An Alternative Approach. *Journal of Consumer Research*, Vol. 7, No. 2, pp. 214-217.

DeVellis, R.F. (2012) *Scale development: Theory and application*. 4th edn. Thousand Oaks, CA: Sage.

Du, R.Y. and Kamakura, W.A. (2006) 'Household Life Cycles and Lifestyles in the United States', *Journal of Marketing Research*, vol. 43, no. 1, pp. 121-132.

Erickson, J.J., Martinengo, G. & Hill, E.J. (2010) 'Putting work and family experiences in context: Differences by family life stage'. *Human Relations*, 63(7):955-979.

- Escobar-Rodríguez, T. and Carvajal-Trujillo, E. (2013) 'Online drivers of consumer purchase of website airline tickets', *Journal of air transport management*, vol. 32, pp. 58-64.
- Evanschitzky, H., Iyer, G.R., Hesse, J. and Ahlert, D. (2004) 'E-satisfaction: a re-examination', *Journal of Retailing*, vol. 80, no. 3, pp. 239-247.
- Feldman, H. and Feldman, M. (1975) 'The Family Life Cycle: Some Suggestions for Recycling ', *Journal of marriage and family*, vol. 37, no. 2, pp. 277-284.
- Frey, R.M., Xu, R., and Ilic, A., (2017) 'Mobile app adoption in different life stages: An empirical analysis'. *Pervasive and Mobile Computing*, 40, 512–527.
- Field, A. (2018) *Discovering Statistics Using IBM SPSS*. 5th edn. London: Sage.
- Gilly, M.C. and Enis, B.M. (1982) 'Recycling the family life cycle: a proposal for redefinition'. *Advances in Consumer Research*. Vol.9:271-6.
- Gouldner, A.W. (1970) *The coming crisis in western sociology*. New York: Basic Books.
- Hair, J.F. (2017) *A primer on partial least squares structural equation modeling (PLS-SEM)*, 2nd edn. Los Angeles : Sage.
- Hair, J.F., Ringle, C.M. and Sarstedt, M. (2011) 'PLS-SEM: Indeed a Silver Bullet', *Journal of marketing theory and practice*, vol. 19, no. 2, pp. 139-152.
- Harding, S. (1991) *Whose science? whose knowledge? Thinking from women's lives*. Ithaca: Cornell University Press
- Haynes, K. (2012) 'Relexivity in qualitative research', in Symon, G. and Cassell, C. (ed.) *Qualitative Organization Research: core methods and current challenges*. Sage Publication Ltd.
- Helversen, B.V., Abramczuk, K., Kopeć, W. and Nielek, R. (2018) 'Influence of consumer reviews on online purchasing decisions in older and younger adults', *Decision Support Systems*, vol. 113, pp. 1-10.
- Hill, R.J. (1977) Review of 'Belief, Attitude, Intention and Behavior: An Introduction to Theory and Research', by Martin Fishbein, Icek Ajzen, *Contemporary Sociology*, Vol. 6, No. 2 pp. 244-245
- Hubley A.M. (2014) *Discriminant Validity*. Encyclopedia of Quality of Life and Well-Being Research. Springer, Dordrecht.
- Izogo, E.E. and Jayawardhena, C. (2018) 'Online shopping experience in an emerging e-retailing market: Towards a conceptual model', *Journal of consumer behaviour*, vol. 17, no. 4, pp. 379-392.
- Jackson, E. (2013) Choosing a methodology: Philosophical Underpinning, *Practitioner Research in Higher*

Education Journal, 7(1). Available at: <http://194.81.189.19/ojs/index.php/prhe> (Accessed 1 March 2021).

Jacobson,D. and Mustafa,N. (2019) 'Social Identity Map: A Reflexivity Tool for Practicing Explicit Positionality in Critical Qualitative Research'. *International Journal of Qualitative Methods*. Volume18:1–12.

Jaiswal, S. and Singh, A. (2020) 'Influence of the Determinants of Online Customer Experience on Online Customer Satisfaction', *Paradigm* (Ghāziabād, India), vol. 24, no. 1, pp. 41-55.

Kivunja,C. and Kuyini,A.B., (2017) 'Understanding and Applying Research Paradigms in Educational Contexts'. *Internal Journal of Higher Education*, Vol.6,No.5.pp.26-41.

Kotler,P. and Keller, K. (2006) *Marketing Management*. 12th edn. Prentice Hall, Upper Saddle River

Lee, H., Choi,S. Y. and Kang, Y. S.(2009) 'Formation of e-satisfaction and repurchase intention: Moderating roles of computer self-efficacy and computer anxiety'. *Expert Systems with Applications* 36 (4):7848–59. DOI:10.1016/j.eswa.2008.11.005.

Lansing, J.B. and Kish, L. (1957) 'Family Life Cycle as an Independent Variable', *American Sociological Review*, vol. 22, no. 5, pp. 512-519.

Leppel, K. and McCloskey, D.W. (2011) 'A cross - generational examination of electronic commerce adoption', *The Journal of Consumer Marketing*, vol. 28, no. 4, pp. 261-268.

Lian, J. and Yen, D.C. (2014) 'Online shopping drivers and barriers for older adults: Age and gender differences', *Computers in Human Behavior*, vol. 37, pp. 133-143.

Lin, Y.C. and Lehto, X. Y. (2006) 'A Study of Female Travellers' Needs Trajectory and Family Life Cycle', *Journal of Hospitality & Leisure Marketing*, 15(1), pp. 65–88. DOI: 10.1300/J150v15n01_05.

Liu, Y.B. (2008) *中国城市家庭生命周期模型的构建及与产品消费关系的实证研究 (The Modelling of Family Life Cycle of China Urban Families and Empirical Research of Its Relation with the Product Consumption-Take the Urban Families in Northeast for Example)* . PhD Thesis. University of Ji Ning.

McLean, G. and Wilson, A. (2016) 'Evolving the online customer experience ... is there a role for online customer support? ', *Computers in Human Behavior*, vol. 60, pp. 602-610.

Moore, G.C. and Benbasat, I. (1991) 'Development of an Instrument to Measure the Perceptions of Adopting an Information Technology Innovation', *Information systems research*, vol. 2, no. 3, pp. 192-222.

Moschis, G.P. (2019) *Consumer behaviour over the life course: Research frontiers and new directions*. New York, NY: Springer.

Marshall, G. and Johnson, M. (2010) *Marketing Management*, McGraw-Hill Higher Education, London.

- McCorkel, J.A., Myers, K. (2003) 'What Difference Does Difference Make? Position and Privilege in the Field'. *Qualitative Sociology* 26, 199–231. <https://doi.org/10.1023/A:1022967012774>
- Melo, A. T., and Alarcão, M. (2014) 'Beyond the family life cycle: Understanding family development in the 21st century through complexity theories'. *Family Science*, 5 (1), 52-59.doi: 10.1080/19424620.2014.933743
- Murphy, P.E. and Staples, W.A. (1979) 'A Modernized Family Life Cycle', *Journal of Consumer Research*, vol. 6, no. 1, pp. 12-22.
- Nance, W. and White, D. (2009) Service performance and procedural justice: the mediating roles of family life cycle and culture. *Journal of Services Marketing*, 23/3, pp. 195-207.
- Neulinger, A. and Radó, M. (2018) 'The impact of household life-cycle stages on subjective well-being: Considering the effect of household expenditures in Hungary'. *International journal of consumer studies*, 42(1), pp. 16–26.
- Osatuyi, B. & Qin, H. (2018) 'How vital is the role of affect on post-adoption behaviors? An examination of social commerce users', *International Journal of Information Management*, vol. 40, pp. 175-185.
- Pappas, I.O., Pateli, A.G., Giannakos, M.N. and Chrissikopoulos, V. (2014) 'Moderating effects of online shopping experience on customer satisfaction and repurchase intentions', *International journal of retail & distribution management*, vol. 42, no. 3, pp. 187-204.
- Parthasarathy, M. and Bhattacharjee, A. (1998) 'Understanding Post-Adoption Behavior in the Context of Online Services', *Information Systems Research*, 9(4), pp. 362–379. DOI: 10.1287/isre.9.4.362.
- Parasuraman, A., Zeithaml, V.A. and Malhotra, A. (2005) 'E-S-QUAL: A Multiple-Item Scale for Assessing Electronic Service Quality', *Journal of service research: JSR*, vol. 7, no. 3, pp. 213-233.
- Pappas, I.O., Pateli, A.G., Giannakos, M.N. and Chrissikopoulos, V. (2014) 'Moderating effects of online shopping experience on customer satisfaction and repurchase intentions', *International journal of retail & distribution management*, vol. 42, no. 3, pp. 187-204.
- Ravitch, S. M., and Riggan, M. (2017) *Reason & rigor: How conceptual frameworks guide research*. 2nd edn. Sage Publication.
- Redondo-Bellón, I., Royo-Vela, M. & Aldás-Manzano, J. (2001) 'A family life cycle model adapted to the Spanish environment', *European journal of marketing*, vol. 35, no. 5, pp. 612-638.
- Roiguez-Entrena, M., Schuberth, F. and Gelhard, C. (2018) 'Assessing statistical differences between parameters estimates in Partial Least Squares path modeling ', *Quality and quantity*, vol. 52, no. 1, pp. 57-69.
- Rose, S., Clark, M., Samouel, P. and Hair, N. (2012) 'Online Customer Experience in e-Retailing: An empirical model of Antecedents and Outcomes', *Journal of Retailing*, vol. 88, no. 2, pp. 308-322.

Roy, S.K., Balaji, M.S., Sadeque, S., Nguyen, B. and Melewar, T.C. (2017) 'Constituents and consequences of smart customer experience in retailing ', *Technological forecasting & social change*, vol. 124, pp. 257-270.

Schaninger, C.M. & Danko, W.D. (1993) 'A Conceptual and Empirical Comparison of Alternative Household Life Cycle Models', *Journal of Consumer Research*, vol. 19, no. 4, pp. 580-594.

Shannon, R., Sthienrapapayut, T., Moschis, G.P., Teichert, T., and Balikcioglu, B., (2020) 'Family life cycle and the life course paradigm: A four-country comparative study of consumer expenditures'. *Journal of Global Scholars of Marketing Science*, 30 (1), 34–44.

Song, J. H. and Zinkhan, G.M. (2008) 'Determinants of Perceived Web Site Interactivity', *Journal of Marketing*, vol. 72, no. 2, pp. 99-113.

Srivastava, M. and Kaul, D. (2016) 'Exploring the link between customer experience–loyalty–consumer spend', *Journal of retailing and consumer services*, vol. 31, pp. 277-286.

Stampfl, R.W. (1978) 'The Consumer Life Cycle', *The Journal of Consumer Affairs* (pre-1986), vol. 12, no. 2, pp. 209.

Stock, R.M. (2005) 'Can Customer Satisfaction Decrease Price Sensitivity in Business-to-Business Markets?' *Journal of business-to-business marketing*, vol. 12, no. 3, pp. 59-87.

Stutchbury, K. and Fox, A. (2009) 'Ethics in educational research: introducing a methodological tool for effective ethical analysis' *Cambridge Journal of Education*, 39: 4, 489-504.

Stuart, U.R. and Subhash, C.J. (1968) 'Social Class and Life Cycle as Predictors of Shopping Behavior '. *Journal of Marketing Research*, Vol.V, pp. 41-9

Szymanski, D.M. and Hise, R.T. (2000) 'E-satisfaction: an initial examination', *Journal of Retailing*, vol.76, no. 3, pp. 309-322.

Taylor, D.G. and Strutton, D., (2010) 'Has e-marketing come of age? Modeling historical influences on post-adoption era Internet consumer behaviors '. *Journal of Business Research*, 63 (9-10), 950–956.

Taylor, S. and Todd, P. (1995) 'Assessing IT Usage: The Role of Prior Experience ', *MIS quarterly*, vol. 19, no. 4, pp. 561-570.

Thompson, R.L., Higgins, C.A. and Howell, J.M. (1991) 'Personal Computing: Toward a Conceptual Model of Utilization ', *MIS quarterly*, vol. 15, no. 1, pp. 125-143.

Trinh, G., and Wright, M. (2014) 'The Relationship between Household Lifecycle and Brand Loyalty. ' *Advances in Consumer Research* 42. DOI:10.2139/ssrn.1842083.

Vakulenko, Y., Shams, P., Hellström, D. and Hjort, K. (2019) 'Service innovation in e-commerce last mile delivery: Mapping the e-customer journey', *Journal of business research*, vol. 101, pp. 461-468.

Wagner, N., Hassanein, K. and Head, M. (2010) 'Computer use by older adults: A multi-disciplinary review', *Computers in Human Behavior*, vol. 26, no. 5, pp. 870-882.

Wells, W. and Gubar, G (1966) Life cycle concept in Marketing research. *Journal of Marketing Research*, Vol. 3, No. 4, pp. 355- 363

Willig, C. (2013) *Introducing Qualitative Research in Psychology*. 3rd edn. Maidenhead: McGraw-Hill/Open University Press.

Wolfenbarger, M. and Gilly, M.C. (2003) 'eTailQ: dimensionalizing, measuring and predictingetail quality', *Journal of Retailing*, vol. 79, no. 3, pp. 183-198.

Wepfer, A.G., Brauchli, R., Jenny, G.J., Hammig, O. and Bauer, G.F. (2015) 'The experience of work-life balance across family-life stages in Switzerland: a cross-sectional questionnaire-based study', *BMC Public Health*, vol. 15.

Walsh, F. (2016) 'Families in Later Life: Challenges, Opportunities and Resilience', pp. 339–359 in McGoldrick, M., Carter, B. and Garcia Preto, N. (5th ed.) *The Evolving Family Life Cycle: Individual, Family, and Social Perspectives*. London, UK: Pearson.

Yan, S. and Zhou, Y. (2016) Research of Work-Family Balance Based on Family Life Cycle. *Open Journal of Social Science*, 4, 218-224.

Yeo, V.C.S., Goh, S. and Rezaei, S. (2017) 'Consumer experiences, attitude and behavioral intention toward online food delivery (OFD) services', *Journal of retailing and consumer services*, vol. 35, pp. 150-162.

YU, J., Subramanian, N., Ning, K. and Edwards, D. (2015) 'Product delivery service provider selection and customer satisfaction in the era of internet of things: A Chinese e-retailers' perspective', *International Journal of Production Economics*, vol. 159, pp. 104-116.

Zheng, R., Spears, J., Luptak, M. and Wilby, F. (2015) 'Understanding Older Adults' Perceptions of Internet Use: An Exploratory Factor Analysis', *Educational gerontology*, vol. 41, no. 7, pp. 504-518.

Zniva, R. & Weitzl, W. (2016) 'It's not how old you are but how you are old: A review on aging and consumer behavior', *Management Review Quarterly*, vol. 66, no. 4, pp. 267-297.

Appendix I

Table 1: The main and key stages of family life cycle models (from 1960-2020)

Author (year)	Key Findings
Wells and Gubar(1966)	They offered the definitive statement of the conventional family life cycle in the marketing area. There were 9 stages (see Appendix I), which served an excellent example of the consumer's longitudinal analysis. Age and life cycle stages were also compared as predictors of different kinds of products and services expenditure. Both Fischer (1955), as well as Wells and Gubar (1966), had recognized that there was deviation (divorce, remarriage, childless couple, widowed) from the traditional life cycle stages, but these exceptions only accounted for less than ten percent at that time in America.
Feldman and Feldman (1975)	They suggested using the "family career" term to depict a person's participation in their family during the lifetime as an alternative view of Wells and Gubar's. They proposed four sub-careers (see Appendix I) which could be used as a basis to do the developmental analysis because it suits any individual positions himself or herself in several or all of these sub-career categories, similar to stages.
Stampfl (1978)	It was a revision of the family life cycle into 13 stages to accommodate the full range of modern, highly developed economics consumers. Consumer behaviour should be explained by a set of variables rather than a single variable
Murphy and Staples (1979)	They took the changes in family composition and lifestyle into account. There are five major stages, including 13 subcategories, including the divorced and middle-aged married childless. They classified more families (the "other" category was only 0.8 percent) comparing to the Wells and Gubar's, where the "other" category occupied 8.4 percent.
Derrick and Lehfeld(1980)	They deemed that the traditional family life cycle tended to lose a great deal of information as the exceptions percentage mentioned by Wells and Gubar continued to rise. Differentiating from the alternatives that incorporated new stages (Feldman and Feldman, 1975; Murphy and Staples 1979) or more comprehensive "life style" (Stampfl, 1978; Murphy and Staples 1979), they applied a simplified approach to taking a position to test a set of related independent variables effect including economic and socioeconomic variables.
Gilly and Enis (1982)	They proposed that the family life cycle concept could be redefined and became a potentially useful foundation for consumer behaviour analysis. It strived to classify all households (13 stages), removing the "other" category, which would affect the analysis's validity. It defined the family life cycle, adding the single-person households, cohabitation married adults without a legal certificate (for example, the same sex), delayed parenting and divorced single parent, which would seem better and more objective than other models.
Wagner and Hanna (1983)	They compared the traditional family life cycle and revised family life cycle and found out that had no differences in terms of the predictive ability in clothing

	expenditure. Family life cycle variables could be used as a conceptual framework; however, socioeconomic and demographic variables could play more essential roles in clothing expenditures prediction.
Schaninger and Danko (1993)	They compared Duvall, Wells and Gubar, Murphy and Staples, Gilly and Enis' models by controlling for other socioeconomic variables such as income level and total consumption quantity to verify the validity of household life cycle prediction empirically. Gilly and Enis' model outperformed others; Schaninger and Danko suggested modification about how to incorporate nontraditional family forms, resulting in "the other" category only occupied 0.5 percent compared to 2.8 percent in Gilly and Enis'.
Du and Kamakura (2006)	applied the Panel Study of Income Dynamics of 8000 American households, tracked for 34 years starting in 1968, to establish the 13-stage family life cycle model, finally using the hidden Markov model. The most salient difference compared with the prior models is that they collected the longitudinal data over the 34 years instead of the snapshots of cross-sectional data at a single point in time; the former could reveal the household life cycle dynamics. Besides that, the model can subdivide the family life cycle and quantify the transition probability between family stages to predict the future needs of consumers.
Nance and White(2009)	applied family life cycle as a mediator to test the relationship between service performance and procedural justice, which was quite different from other literary works. Moreover, the result showed that the family life cycle was indeed a significant mediator between the research relationship and supported that the aging would affect the consumption patterns, which was FLC's general assumption. Because the research was employed in the higher education context, so it only examined the bachelor stage dividing into "fledglings" and "young adults." Extending the research into other FLC stages to test the expectation fluctuation would be the further research direction.
Frey, Xu and Ilic (2017)	applied FLC stages proposed by Du and Kamakura (2006) and investigate the influence of FLC on consumer's mobile app adoption through a large scale empirical study. Different from just illustrating the consumers' different consuming patterns in the snapshot life stage like other literature, the dynamic consuming process could also be comprehended in the analysis.

Appendix II

Table 2

Author (Year)	Family Life Cycle Stages
Wells and Guber (1966)	1. Bachelor stage; young single people not living at home;↵ 2. Newly married couples; young, no children;↵ 3. The full nest I, youngest child under 6;↵ 4. The full nest II, youngest child 6 or over;↵ 5. The full nest III, older married couple with dependent children;↵ 6. The empty nest I, older married couple, no children living with them, head in labour force.↵ 7. The empty nest I, older married couple, no children living at home, head retired.↵ 8. The solitary survivors, in labour force;↵ 9. The solitary survivors, retired;↵
Stuart and Subhash (1968)	1. Under 40 without children 2. Under 40 with children 3. 40 and over without children 4. 40 and over with children
Feldman and Feldman (1975)	"family career" 1. the sex experience career; 2. the marital career; 3. the parent-child career; 4. the adult-parent career
Duvall (1971, cited in Murphy and Staples, 1979, p.13)	1. Married couples (without children)↵ 2. Childrenbearing families (oldest children under 30 months)↵ 3. Families with pre-school children (oldest, 2.5-6)↵ 4. Families with pre-school children (oldest, 6-13)↵ 5. Families with tee-agers (oldest, 13-20)↵ 6. Families as launching centres (first child gone to last child's leaving home)↵ 7. Middle-aged parents (empty nest to retirement)↵ 8. Aging family members (retirement to death of both spouses)↵
Stampfl (1978)	1. Childhood↵ 2. Adolescence↵ 3. Early Singlehood↵ 4. Mature Single↵ 5. Newly Married Couples (young, no children)↵ 6. Full Nest I, II, III, IV↵ 7. Empty Nest I, II↵ 8. Older, Solitary Survivors in Labour Force;↵ 9. Solitary Survivors Retired↵
Murphy and Staples (1979)	1. Young single↵ 2. Young married without children ↵ 3. Other young. a. Young divorced without children b. Young married with children c. Young divorced with children ↵

	4. Middle-aged. a. Middle-aged married without children b. Middle-aged divorced without children c. Middle-aged married with children d. Middle-aged divorced with children e. Middle-aged married without dependent children f. Middle-aged divorced without dependent children[↵] 5. Older a. Older married b. Older unmarried[↵] Divorced[↵] Widowed[↵]
Derrick and Lehfeld (1981)	Propose simplified version of the FLC: [↵] a model included the FLC variables used by Wells and Gubar (1966);[↵] a model included the individual variables used to define FLC (age, marital status of the household head and age of the youngest child)[↵]
Gilly and Enis (1982)	1. Bachelor stage I;[↵] 2. Newly married couples;[↵] 3. The full nest I;[↵] 4. The full nest II;[↵] 5. The singer parent I;[↵] 6. The singer parent II;[↵] 7. Bachelor stage II;[↵] 8. The childless couple[↵] 9. The delayed full nest[↵] 10. The full nest III;[↵] 11. The singer parent III;[↵] 12. Bachelor stage III;[↵] 13. The empty nest[↵]
Redondo- Bellón, et.al. (2001)	One Adult Household[↵] 1. Bachelor I;[↵] 2. Bachelor II;[↵] 3. Bachelor III;[↵] Couple without children, with/without other person[↵] 4. Couple I[↵] 5. Couple II[↵] 6. Couple III[↵] Couple or single parent with youngest child under six; with/without other persons[↵] 7. Dependent Nest I[↵] 8. Dependent Nest II[↵] Couple or single parent with youngest child six or over; with/without other persons[↵] 9. Autonomous Nest I[↵] (family head under 35 years)[↵] 10. Autonomous Nest II[↵] (family head 35 to 64 years)[↵] 11. Autonomous Nest III[↵] (family head over 64 years)[↵] -

Liu (2008)	One Adult Household 1. Bachelor I; (under 35 years)[↵] 2. Bachelor II;(35-60 years)[↵] 3. Bachelor III; (over 60 years)[↵] Couple without children, with/without other person[↵] 4. Couple I (cohabitation)[↵] 5. Couple II (young couple without children, female head under 35 years)[↵] 6. Couple III (middle-aged couple without children, female head over 35 years, male head under 60 years)[↵] 7. Couple IV (male head over 60 years, without children or no living at home)[↵] Couple or single parent with youngest child under six; with/without other persons[↵] 8. Dependent Nest I (couple or single parent with preschool children)[↵] 9. Dependent Nest II (couple or single parent with school children)[↵] 10. Dependent Nest III (couple or single parent with teenage children)[↵] 11. Dependent Nest IV (couple or single parent with adult dependents)[↵] Extended family[↵] 12. Extended family I (3 generation living together, with preschool grandchildren, grandparents still work)[↵] 13. Extended family II (3 generation living together, with school grandchildren, grandparents still work)[↵] 14. Extended family III (3 generation living together, with teenager grandchildren, grandparents retired)[↵]
------------	--

Appendix III

Table 3 The eight theories and models integrating into the UTAUT

Theory	Author (year)	Function
Innovation Diffusion Theory	Moore and Benbasat, 1991	It studied the innovation characteristics and their impact on the technology adoption
Theory of Reasoned Action(TRA)	Fishbein and Ajzen, 1975, reviewed by Hill, 1977	It proposes that the behavior intention is the main predictor of human behaviors
Technology Acceptance Model (TAM)	Davis, 1989	Information technology acceptance is addressed and applied in the organisation
Motivational Model	Davis, et al. 1992	It addresses the explanation of user behaviour
Theory of Planned Behavior (TPB)	Ajzen, 1991	The shoppers' internal control variables are added
Decomposed Theory and Planned Behaviour (DTPB)	Taylor and Todd, 1995	Combination of TPB and TAM, it incorporates TPB predictors and TAM perceived usefulness
Model of Personal Computer Utilization (MPCU)	Thompson,et al., 1991	It refined the Triandis' model in the IS/IT context to predict usage behavior instead of intention.
Social Cognitive Theory (SCT)	Compeau, et al., 1995	It was used to elucidate human behavior extensively

Appendix IV

Table 4 survey measurement items

Cost-saving efficiency	<i>(source: Yeo, Goh and Rezaei, 2017; Escobar-Rodríguez, and Carvajal-Trujillo, 2013)</i>
CSE 1	"I can save money by using the prices of different online retailers"
CSE 2	"I like to search for cheap product deals on different online retailers' websites"
CSE 3	"Online retailers offer better value for my money"
CSE 4	"Overall, I am happy with online retailers' prices"
Delivery Efficiency	<i>(source: Chou, Chen and Lin, 2015; Cao, Ajjan and Hong, 2018)</i>
DE1	"I frequently receive my product in the estimated period"
DE2	"I expect to deliver the product supported on an allocated time"
DE3	"I frequently receive free/discounted delivery"
DE4	"I would be capable of recognizing my order position at whatever time"
DE5	"Overall, I believe that the online store process my order quickly"
Online Shopping Experience	<i>(source: McLean and Wilson, 2016; Song and Zinkhan, 2008)</i>
OSE1	"It took longer than I expected to find the information on the website"
OSE2	"The length of time spent searching for information on the website was acceptable"
OSE3	"It would have been useful to ask for advice while searching for the information."
OSE4	"I frequently update my knowledge about the functionalities of online purchases"
OSE5	"It would have been useful if the website facilitates instant (live) communication ..."
E-satisfaction	<i>(source: Colwell et al., 2008)</i>
ES1	"I have a great deal of experience with online shopping"
ES2	"I have been exposed to online shopping very frequently in the past"
ES3	"I am well-known with the different possibilities to exploit online shopping"
ES4	"I frequently update my knowledge about the functionalities of online purchases"
ES5	"I am very confident in employing online shopping"
Repurchase Intention	<i>(source: Roy et al., 2017)</i>
RI1	"I will carry on online shopping in the future"
RI2	"I will regularly use online shopping in the future"
RI3	"I intend to continue online shopping in the future"
RI4	"I propose to suggest the online shopping page that I frequently employ to people close by me"
RI5	"I intend to obtain product details from the online shopping site that regularly use"