Narrating adoption: Chinese customers reactions to self-service technologies

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Abstract

Self-service technologies surround us in our daily lives. Previous research finds that cultural influences self-service technologies adoption. This research explores Chinese customers' thought and intention toward unknown self-service technologies. Observation and Laddering interview methods are adopted in this research. We collect the data through 20 in-depth interviews and observations. We find out that Chinese way of thinking (Holistic thinking) is in the interview. So we use a yin-yang perspective to analysis the data as influences toward and a way from use. After research, we find out that Chinese have tendency of uncertainty avoidance and have more trust on human. For positive reactions, Chinese think using self-service technologies is a symbol of follow the trends. It is important for practice to raise usage of self-service technologies by reduce people's worries and build trust by human connection.

Keywords: Self-service technologies, laddering interview, observation

1. Introduction

1.1 Introduction

Self-service technologies (SSTs) are a way of offering service to customers without direct involvement of employees (Meuter, Ostrom, Roundtree, & Bitner, 2000) This means customer need to put in their own labor and become more involved with technology in order to accomplish specific task. Customers in Taiwan, for example, have used ATMs, ticket machines, and vending machines for quite some time. More recently, self-service I-bon kiosk (in 7-11 convenience stores), self-service gas station's refueling machines, self-checkout in the library and, express deliver lockers have become more visible. (See Figure1)

Figure1 Example of self-service technologies in Taiwan

Self-service engine oil station was developed in 2015 and started to appear at locations in Taiwan a short while after that. There are four steps to changing the oil yourself. First, choose the capacity that you need and then insert the fee (i.e., NT$100). Second, open oil filler hole and insert the nozzle from the machine. Third, choose the, "change oil" option from the machine while keeping the nozzle in the bike. Fourth, return the nozzle to the machine and close the oil filler hole. The supplier states they offer their service machine at a reasonable price, 24 hours a day. They promote their machines as easy to use, provide high quality engine oil and offering receipts as needed. They also position the machine as green since they have no plastic bottles and they legally recycle the waste oil.

What is interesting, in the context of this study, is people's reactions online to this self-service machine. People's reactions on blogs include, ". . . I don't know where the oil comes from and the quality of oil is a concern. I may not want to use this machine", "If naughty children let machine suck up sand then the next person who uses the machine will get into trouble," and ". . . now, new motorcycles have a warranty that requires you to use the original brand oil. Just this point makes it hard to use this machine."

This is an interesting example of a new type of self-service machine. We can see how customers talk about and react to this SST. In this study I am interested in exploring how customers, who are not yet users, think, talk about and react to self-service technologies.

1.2 The importance of self service

Self-service technologies (SST) are playing a significant role around the globe for both customers and suppliers. Service machines and their systems surround customers in their daily life. There are lots of benefits that self-service technologies bring to customers lives. They can purchase what they want in flexible hours of operation without waiting in long queue. These STTs are understood to offer convenience as customers can buy what they want in a place of their choice. They can also help customers to avoid service personnel who display a bad attitude (Meuter et al., 2000). For business SSTs offer important opportunities to reduce the costs of supply (Elliott, Meng, & Hall, 2008). If businesses are to achieve these kinds of cost reductions then they need to understand if customers are willing to use SSTs.

1.3 Theoretical explanations of customers' willingness to use SSTs

Theories that use more often in SSTs are: Technology Acceptance Model (Davis, 1989).Technology Readiness Index (Parasuraman, 2000) A Unified Theory of Acceptance in the use of Technology(Venkatesh, Morris, Davis, & Davis, 2003). All these theories, however, were developed in the Western world. These theories have been criticized for not explaining how people in other cultures thinking about SST adoption (Lee, Lee, & Hwang, 2015; Leidner & Kayworth, 2006; Lu, Chou, & Ling, 2009; Mao & Palvia, 2006)

1.4 Chinese customers in technology adoption

So, for example, people in Chinese culture know the benefits that can bring to them, but still choose not to adopt SSTs (Lu et al., 2009). For example, in train station in Taiwan and China it is easy to see people avoid to use ticket machines and

instead queues for a service clerk. The same is true for airport self-check-in which has low rates of use by Chinese passengers (Lu et al., 2009). We need to understand how these customers think and talk about the possibilities of using these types of SSTs.

The purpose of this study is to explore how Chinese people talk and think about their possible use of SSTs. Since there is little research on this issue I will use qualitative research. Specifically, I plan to use laddering theory (Reynolds & Gutman, 1988) to organize my data collection strategy. The following study can be divided into 5 sections. The First, Chinese in self-service technology adoption. The Second, method, third, results, fourth discussion and final limitations and further research.

2. Chinese in self-service technology adoption

In this chapter I will start by introducing culture and then connect culture with technology. Next, I will introduce technology adoption, the factors that influence customers to use self-service and limits of (Western) technology adoption theories and features of Chinese culture final, Chinese way of thinking.

2.1 What is Culture?

Hofstede (1984, p. 82) states, "culture is the collective programming of the mind which distinguishes the members of one group or society from those of another." Culture is reflected in several parts: how people see the meanings of life, the way people look at the world, what is the role they play. What values and beliefs they pursue and in their collective beliefs, how they evaluate in different issue. Culture also affects patterns of thinking (Nisbett, Peng, Choi, & Norenzayan, 2001). Differences between cultures suggest that Western and Eastern peoples will have different thoughts and behavior.

While Hofstede (1984) gives us a basic way to describe culture this does not help us to explain why people behave or think in specific ways (McSweeney, 2002) . Schein (2010) states that culture can be dived to three levels. First level is basic assumptions which show individuals' beliefs about human behavior, relationships, reality and truth. Basic assumptions are how people use their cognitive structures or interpretive schemes to explain situations, on-going events, activities and human relationships, thereby shaping the basis of collective action. Basic assumptions spread as members of a group use them to solve problems and share with others (socialization). The second levels are values and norms that reflect the basic cultural assumptions. These are experienced by people in a culture, for example, in communication patterns. The third levels are cultural artifacts. This level includes art, technology, accessible mode and rituals. This level is the most visible manifestation of culture. Culture can be transferred and handed down between people. For example, parents set examples for their children to follow. Teachers spread values to their students in school. Friends pass on beliefs to their friends when they get along together.

2.2 Culture and technology

Leidener and Keyworth (2006) state that culture influences IT acceptance and development. More specifically culture shapes social behaviors, and managerial processes that may directly, or indirectly, influence IT. Kang (Im, Hong, & Kang, 2011, p.2) argues, "technology adoption is as much a cultural issue as a rational decision-making process. Because technology is frequently used in cultural contexts, culture can be said to play a major role in technology adoption".

Culture influences the design and look of service technologies. For example, in Western countries water machines are designed as a functional machine. In Taiwan, by contrast, water machines look like people (with metal face, arms and legs) to give customers a warmer more human feeling. ATMs, too, are often designed in Taiwan with a built-in telephone (for easy channel switching) in contrast with American ATMs that do not have this feature.

Culture also affects the processes by which customers use self-service technologies. For example, i-Bon in Taiwan offers customers a range of services; you can see variety of service on i-bon interface. The interface design in Western is more concise against Eastern. This reflect Chinese customers' different way of thinking with Western culture (Ning, 2016) The

i-Bon machine is also positioned near the counter in 7-11 so if the customer has any problems (e.g., if the customer shows a confused face) then the service staff will come and help. The design of the i-Bon processes means the customer makes their own choices (e.g., about products and amounts) and then finishes their transaction (I.e., payment and asking questions) with a member of service staff. It cannot carry on without personnel service in transaction. This process is designed for Chinese people for making them feel more security.

Technology also has an influence on culture, too. Mobile payment is rapidly growing in China and changing people's transaction norms. Payment by cash has always been a Culture strong assumed behavior for Chinese customers. Increasing numbers of customers now use their phone with an APP to make payments (Wu, Liu, & Huang, 2016). As a result of this phenomenon, people pay more attention to their own financial security, rights and privacy.

When application software develops, it becomes national activity among Chinese people (Vodanovich, McKenna, & Cai, 2017). They like to use social application software (for example, Line, Wechat) to communicate with others. They prefer to ask for the Line ID, rather than a cell phone numbers, when they make new friends. In workplace, Chinese people often use it to leave messages, assigned matters, send files. In family, people often use Line to talk to their family members, concerned about their life. Vodanovich and his colleague(2017, p. 6) states "Culture is often reflected by or perceived through shared practice in a community" In this phenomenon also show Chinese people engage with technologies with social purpose.

2.3 Self-service technology adoption theory

Self- service technology adoption refers to the, "propensity to embrace and use new technologies for accomplishing goals in home life and at work" (Parasuraman, 2000.,P308) . In this section, we discuss several adoption theories that are commonly used in western countries I.e., Technology Readiness Index (TRI), Technology Acceptance Model (TAM) and Unified Theory of Acceptance in the Use of Technology (UTAUT).

Technology Readiness Index (TRI) was introduced by Parasuraman (2000). The TRI measures an individual's tendency to adopt and use new technology by evaluating how "techno-ready" individuals are. The TRI identifies four dimensions of technology belief that impact an individual's level of techno-readiness. (1) Optimism: users believe that technology can bring benefit and can better control life. (2) Innovativeness: users want to know more about innovative technology. (3) Discomfort: users feel a lack both control over technology and technology work. (4) Insecurity: user worry about technology-based product, service or process.

Technology acceptance model (TAM) was developed by Davis (1989). It had been widely used in many studies. Venkatesh and his colleague (Venkatesh et al., 2003) state, "TAM, in its initial conceptualization, makes no attempt to incorporate the effect of the social environment on behavioral intention". TAM has four-stage process in sequence is external variables, beliefs, attitude and behavioral intention, they influenced in order. External variables are variety by individual difference it might be computer self-efficacy, objective usability, direct experience, compatibility, train ability etc. Beliefs had been discussed in perceived usefulness and perceived ease of use. Davis (Davis, 1989., p. 320) supposed Perceived usefulness as "the degree to which a person believes that using a particular system would enhance his or her job performance." Perceived ease of use refers to "the degree to which a person believes that using a particular system would be free of effort." TAM suggests that perceive ease of use influences perceived usefulness and, in turn, both beliefs influence behavioral intention to use a specific IT.

Unified Theory of Acceptance and Use of Technology (UTAUT) (Venkatesh et al., 2003) This model review and integrates elements from eight different technology acceptance models. The eight models including the theory of reasoned action, the technology acceptance model, the motivational model, the theory of planned behavior, a model combining the technology acceptance model and the theory of planned behavior, the model of PC utilization, the innovation diffusion theory, and the social cognitive theory. The UTAUT model consists by four core variable that is performance expectancy, effort

expectancy, social influence and facilitating conditions. The first three are direct influence behavioral intention, and the last one is direct influence user behavior. Gender, age, experience and voluntariness of use are moderating variables. Both TAM and UTAUT are theories that represent Western values. For example, both TAM and UTAUT focus on how users think about technology adoption. Customers or users are assumed to focus on benefits in terms of how; for example, technology will help them to save time, perform better or work more easily. People are assumed, too, to focus on themselves, individually, in terms of how the technology might benefit them. Both TAM and UTAUT assume users thinking about whether benefits outweigh the disadvantages. If they do, then this predicts an intention to use that SST. Furthermore, both models focus very much on the users themselves and the service technology without much reference to other people or the context in which they actually engage with the technology.

2.4 Failure of Western theory to explain Chinese customers in adoption

Western theories propose that customers value the benefits that SSTs bring to them; such as, saving time or ease of transaction. These ideas do not seem to explain, though, Chinese customers' behavior. For example, when you go to a train station in Taiwan, you can see very few people use the self-service ticket machines. When ask people will acknowledge that these self-service machines might save time or be convenient but they still prefer to queue and wait to be served by a clerk. These kinds of observations are supported by studies indicating that Western theory does not explain how Chinese customers actually think about self-service technology adoption.

Mao (Mao & Palvia, 2006) find that TAM, in particular, is less applicable or predictive for customers in non-Western countries; such as, Japan, Switzerland, and Arabic countries. In collective cultures people care about how others think about them so social norms have an important role in shaping behaviors. UTAUT does not account for cultural factors; such as, complex social norms, either.

Lu, Chou, and Ling (2009) find out that attitude, external stimulus (for example, employees' demonstrations and other passengers' utilization) perceived service quality and perceived behavioral control are much more important than perceive usefulness and ease of use as investigate Taiwan passengers' intention to use technology-based self- check in service. For attitude is passengers' psychological tendency that is expressed by evaluating the kiosk with some degree of favor or disfavor. When passengers have employees demonstrate for them, they are more willing to give a try. Chinese people, they care about how people think about them, so the other passengers' utilization is an example for them. Service quality is significant to Chinese passengers for they expect self -check in kiosk is reliable, fluent, clearness, and well performance. The Chinese passengers' also care about if they can acquire requisite resources and opportunities necessary to perform the kiosk as their uncertainty avoidance is lower than the people in the West.

Elliot and his colleague (2008) use TRI (Parasuraman, 2000) and "Likelihood to use self-service technologies" (Bitner, Ostrom, & Meuter, 2002) in questionnaire form to investigate college students in united states and China for the likelihood to use Self-service technologies. They find out that Chinese customers are less likely to use self-service than Western. Chinese, more specifically, are less optimistic and innovative than Western people. Chinese people report a greater degree of discomfort and insecurity, too, than their Western counterparts.

2.5 Characteristics of Chinese culture

Chen (Chen & Chen, 2004., p 306) state, guānxī is ". . . an indigenous Chinese construct and define it as an informal, particularistic personal connection between two individuals who are bounded by an implicit psychological contract to follow the social norm of guanxi such as maintaining a long-term relationship, mutual commitment, loyalty, and obligation." In Chinese culture, connection (guānxī) is important. Confucianism does not have word for guānxī and instead centered on the idea of benevolence (rén). Rén is a fundamental idea for ancient Chinese to deal with others. Confucious emphasized the importance of benevolence through the five-cardinal relationships (wū lún): ruler-subject, father-son, husband-wife, elder

brother-younger brother and friend-friend. Each member in the relationship pairs had clear obligations toward the other. Guānxī is two individuals connected or more connected themselves as a group. According to Hwang (1987) states guānxī can be understood in three broad categories i.e., social-affective, instrumental and mixed. Social-affective is more focus on feeling, family-like relationship. Instrumental is the type of market resources exchange. It is focus on reciprocity relationship. The type of guanxi that have both social-affective and instrumental is called mixed. In this type of guānxī include exchanges of both feelings and material benefits.

2.6 Holistic or yin-yang thinking

When have quarrel Chinese believe that both parties may have some wrong and may have some true, Chinese believe that everything simultaneously has both a positive and a negative side and call this idea yin-yang. (See Figure2)

Figure2 Yin-Yang sign from Tao

Yin-yang principles come from Taoism. Yin (the feminine and dark and passive). Yang (the masculine and light and active) Yin and Yang go along with each other. Nothing is always good and, nothing is always bad either. The world is unceasingly changing and is full of contradictions. Nisbett (2004, p.14) states, "The principle of yin-yang is the expression of the relationship that exists between opposing but interpenetrating forces that may complete on each another, make each comprehensible, or create the conditions for altering one into the other."

3. Method

3.1 Introduction

The purpose of this study is to investigate how Chinese customers talk about Chinese customers' reactions to self-service technologies. It needs to probe customers' thinking of adopting SST. Which is complexity and hard to explore. For this reason, qualitative research is adopted in this study. It seeks to understand and interpret more local meanings (Braun & Clarke, 2013). In this section, laddering theory method are discussed and followed by the study design for sampling, data collection and analysis.

3.2 Laddering theory method

"Laddering refers to an in-depth, one-on-one interviewing technique used to develop an understanding of how consumers translate the attributes of products into meaningful associations with respect to self, following means-end theory" (Reynolds & Gutman, 1988). Laddering interview technique mostly perform a series of directed probes, for example, "Why is that important to you?" question, the goal is to find out the linkages between the main perceptual elements across the range of attributes (A), consequences (C) and values (V). A-C-Vs is higher-order knowledge structures that can figure out and solve problems like why customers buy product A not product B, what is real value that customers pay attention to and what to do to evoke customers' motivation to buy. To analysis of Laddering data can use standard content-analysis procedures to level the abstraction and conceptualize A-C-V. Then a summary table can be constructed with the number of connections between the elements. The connections can be graphically stand for a tree diagram, termed a hierarchical value map (HVM). This can

be thought of as an aggregate cognitive structure map. This map has both nodes and lines. The nodes represent the most important conceptual meaning derived from data and analysis. The line segments connecting these nodes represent the associations between these concepts.

3.3 Observation

Observation involves: the systematic observation, recording, description, analysis and interpretation of people's behavior.(Saunders, Thornhill, & Lewis, 2009) This study is focuses on exploring how people react and talk about SSTs in real world situations. This means observation is a useful method to collect this kind of data. Observation can be classified into four types: complete participant, complete observer, participant as observer and observer as participant. The first two types conceal purpose of research. Others type the purpose is revealed. Different advantages in each type, researchers need to find which type is suit for their research.

In this research, we will use participant as observer.

- Complete participant: researcher participate in the group and observer how subjects's real behavior.
- Complete observer: researcher locates near subjects' activities area, in an unobtrusive way.
- Participant as observer: researcher need to get trust from the group. Both researcher and subjects are aware of the fact that it is a fieldwork relationship.
- Observer as participant: Researcher can attend to observe without taking part in the activities. Researcher is like a spectator.

3.4 Research design

This study integrates two main methods (See Figure3)

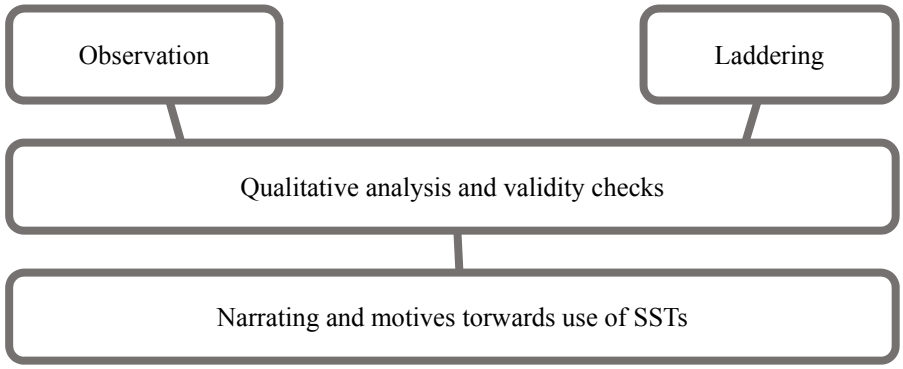

Figure3 Research design

3.5 Observation and short conversation

Observation is a good way to see how people actual behave. It is more efficient than only use questionnaire. But to know people's actual behavior is not enough. It is essential to know how people perception. It makes it necessary to have conversation with respondent. Observer as participant is adopted in this research. Observe how machine have been use and also have short conversation with the people around there.

3.6 Laddering interview

In this method, respondents are selected for whom have seen SSTs machine before but have not yet use it. (at least an machine) To make interview go smooth the SSTs's pictures are use in the interview. Laddering theory method use directed probe to dig in deeper for the concepts that have given by respondents from conversation, continue with why question. Finally, find out linkages between the main perceptual elements across the range of attributes (A), consequences (C) and values (V). Use implication Matrix as a "blueprint" for drawing up the hierarchical value map (HVM). The HVM provides a meaningful way of representing subjective data and acts as a tool to facilitate decision-making and problem solving.

4. Research result

4.1 Observation and short conversation

In this research, we chose engine oil machine to be our observation object. In order to know more about this machine, in this research have an opportunity to visit Oilbuy company and have a nice interview with the chairman and associate. They say they star this new business at the end of 2014 after two years of R&D. They think the most important things for them are to place more machines to more places. They try to set at self-car washing place since the people there is keen to do it themselves. But they find out that isn't a good idea let people change their engine oil under water. They put machines into the campus since they thought students' transportation is motorcycles but it do not turn out what they expect. Because student have summer and winter vacation, they will not be in campus all the time. They find out the age between 24~45 is the biggest group to use this machine. Since this age period is out of school, get into the career and need to raise family. They also find out this target customers often go to hyper market. This is the reason they place most of their machine in hyper market. They set the goal for 30 times per machine a day. Now it does not achieve the goal yet. They only reach 50% ~60% of the goal. But they are surprise for machine have been acceptable for not only male but also female. They also pretty satisfied for reuse rate.

The machine that had been observed is located in Changhua city's Carrefour. There is only one Carrefour in Changhua city. It located at the corner of Jin-ma road and Dong-gu road. Beside the Carrefour is a big pet shop; cross the road is a petrol station and nearby there have several automotive exhibition centers and bicycle shops. This Carrefour has one front entrance, two side entrances and two separate entrances for cars. The machine is placed in the corner of motorcycle's parking lot. This is also the corner of Jin-ma road and Dong-gu road. In the motorcycle's parking lot it also have an electric scooter's batteries switch station and a motorcycles service center that operated by Carrefour.

Observer waits in the motorcycle's parking lot to observe how people behave in the parking lot. Two hours per day for a week. In this observation find out that no one use engine oil machine neither close to it and have a look. Every customer comes to Carrefour by motorcycle are mostly in a rush. They park their motorcycle and find the closest entrance to get in, come out with a bag of stuff and then leave. It is hard to stop their steps, in this observe activities; it gets the chance to have short conversation with ten people. Ten people state they didn't know what machine is over there. They say they will not use it after they know the machine. Some people say they are used to let motorcycle shop do the service for them. Some people say they don't want to dirty their hands. Some people say they worry about security.

4.2 Laddering interview

In this research have 20 respondents received laddering interview. It shows in interview that respondents have both negative side (Yin) and positive (Yang) side reaction toward self-service technologies. In order to stay focus on the core, in this research, implication matrix cut off the number under three. The HVM map has four attributes, five consequences and three values. (See Figure4)

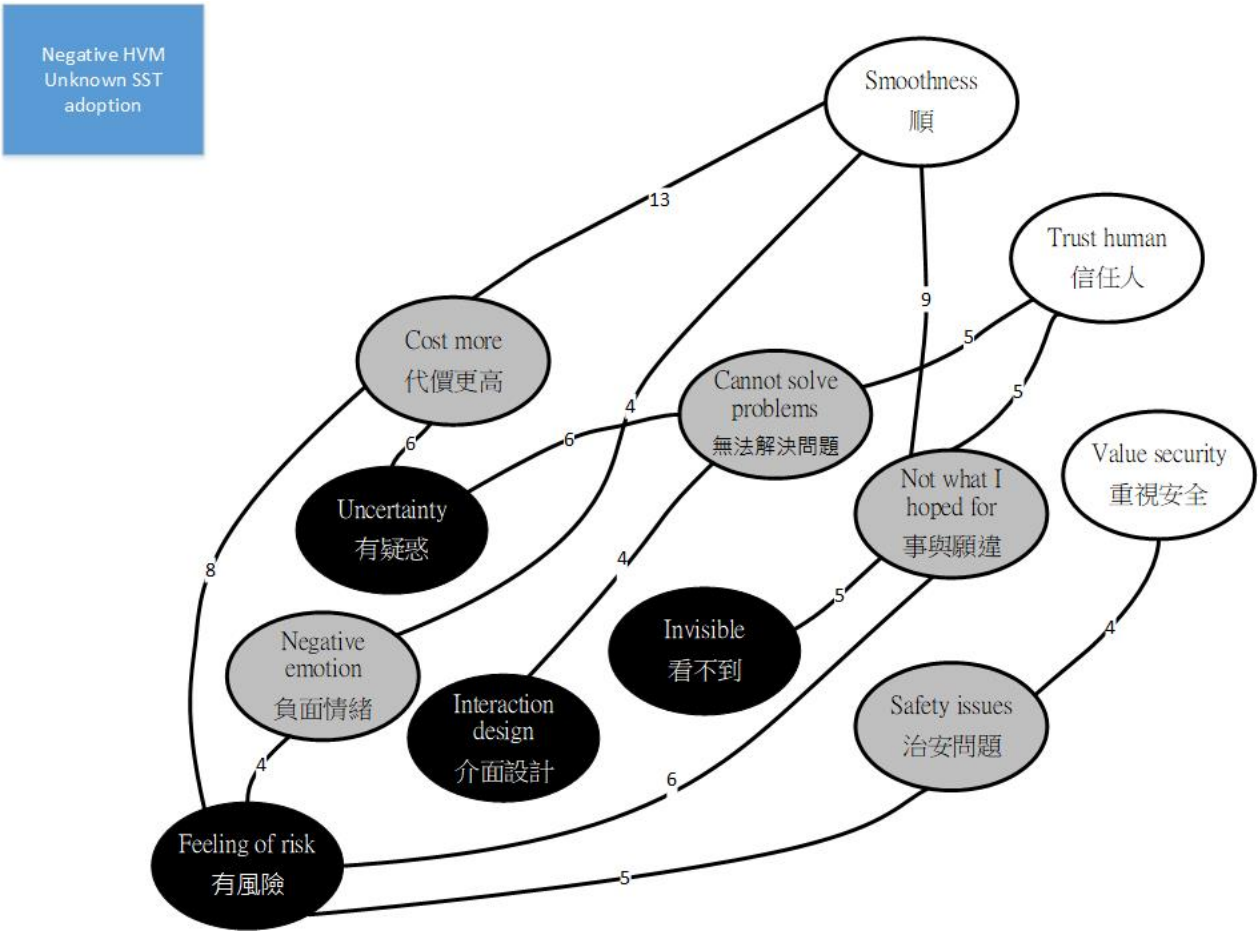

Figure4 Negative HVM map

Attributes connect consequences:

- Interaction design: Respondents state that the interaction design of machine is not clear enough it is also hard for them to read the instruction. Some machines interaction have count down design it makes respondents feel nervous and avoid using it.
- Uncertainty: Respondents state that they don't know how to use machines or don't know how to use it successfully. They think it will cost them more time to figure out how to use machines. It will also waste money if use improper.
- Feeling of risk: Respondents avoid using self- service technologies because they think it will have risk. For example, using self-refueling machines. They are afraid the oil will spill out and dirty their hands. Not only that, it might also have safety issues. They also worry how to deal with if delivery man sent the wrong items to express delivery lockers. If these kinds of things happen it will cost them more time and money. Self-service technologies machines developed for save users' time and money. Respondents say because the potential risk it had it might not able to meet the expectation it suppose had.
- Invisible: Respondents avoid using self-service technologies that they cannot see. For example, hot meal vending machine and self-service library. They worry about the meal come out of machines look different against pictures on the machine. They worry about they borrow the wrong book for just read the spine. It will make them feel dissatisfy and contrary their wishes.

Consequences connect values

- Cannot solve problem: Respondents state they feel dissatisfied about their unsolved problem.

  They trust human can provide flexible service. Respondents state they are willing to go to personnel service for

unsolved problem.

- Cost more: Respondents state they feel dissatisfied if they need spend more money and time using self-service technologies. They wish the things go smoothly.
- Negative emotion: Negative emotions that self-service technologies users may have are nervous, anxious, troublesome and unhappy all these will lead to dissatisfy. Respondent they seek for everything go smoothly.
- Safety issues: Self-service technologies are a way of service provide by non-professional users. Respondents value security for they avoid using any machines that might have safety issues.
- Not what I hope for: Respondents state they feel dissatisfied if the machines do not get what they hope for. They feel more confident to use personnel service rather than machines.

In this research, positive reactions are less than negative reactions, so the implication matrix we cut off the number under two. Positive HVM map has four attributes, six consequences and two values. (See Figure5)

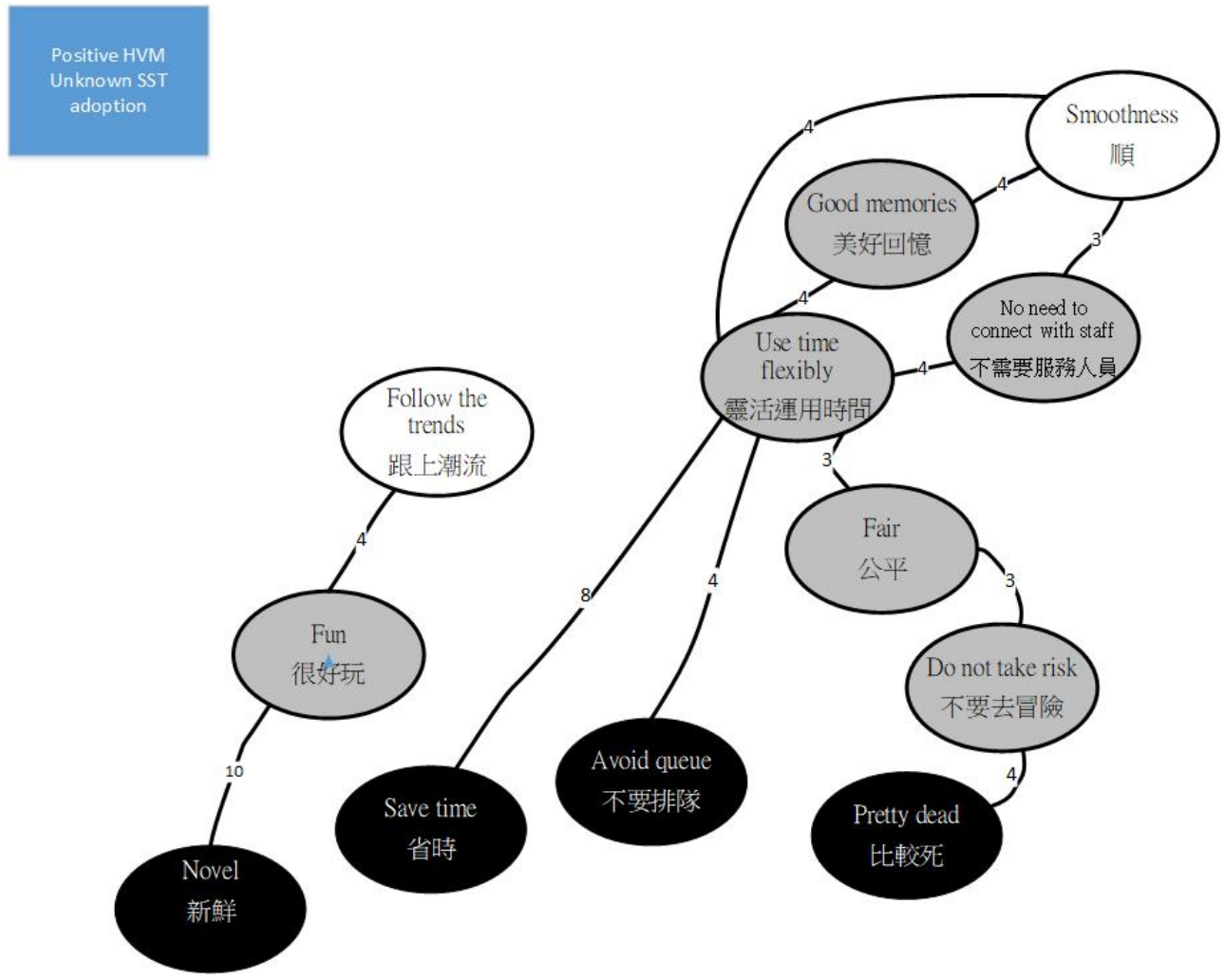

Figure5 Positive HVM map

Attributes connect consequences:

- Novel: Respondents state they feel novel to use new machines. They think it is fun.
- Save time: Respondents state they feel using SSTs machines can help them save time. Saving time allow them can use time more flexibly. This can let them create more good memories. They also don't need to connect with staff.
- Avoid queue: Respondents state they feel using SSTs can avoid waiting in long queue. They can use time more freely , have good memories and no need to connect with personnel staff.

- Pretty dead: Respondents state they feel machine is a machine. It is pretty dead. But it can avoid many risks like they do not need to worry about if they will miss the business hour. They will get fair treatment from machines all the time.

  They do not need to have any chance of risk to get bad service from the staff that is in bad mood.

Consequences connect values

- Fun: Respondents state they feel fun to use new SSTs machines. They also feel they follow the trends when they are using new SSTSs machines.

Direct influences to smoothness are good memories use time flexibly and no need to connect with staff.

- Good memories: Respondents state they feel good memories can let them feel satisfy. They seek to have good memories.
- Use time flexibly: Respondents state use time flexibly can let them feel everything under control. They seek everything go smoothly.
- No need to connect with staff: Respondents state they feel smoothness for no need to connect with staff. For they do not need to interact with sales. They can buy things they want and avoid others advise or persuade.

5. Discussion

This research gives contribution on new ideas in self-service technologies adoption. It finds out that SSTs adoption in Chinese is quite different against that in Western. In Western, people more focus on their own benefit. For example, like saving time, does not need to queue. They care about what advantage they can get.

In this research, negative and positive side of reaction toward self-service technologies has great disparity. We find out Chinese way of thinking (Holistic thinking) in the interview. Chinese think more on negative sides than positive side. It confirmed Elliott and his colleague[3] state "Chinese consumers exhibit higher levels of discomfort and insecurity, and lower levels of optimism and innovativeness with regard to using new technology." Negative side of reaction shows that Chinese worry about what might happen while using machines and worry about it will go not what they hope for. They also worry SSTs machines will cost them more. They seek trust on human and wish the things go smoothly and safely. Positive side of reaction shows that Chinese like how self-service technologies attributes on save time, do not need to queue and novel. They seek the things go smoothly and follow the trends.

It is important to teach Chinese users what the real risks it has, how to avoid the risks. Do not let them imagine the risks. For example, when use self-refueling machines need to avoid using cellphone and smoking. People think is same with engine oil machines, but it is not actually. It is safe even cigarette drop into engine oil. It is also a good way to have real person demonstration to promote the usage of SSTs.

6. Limitations and further research

Due to the limitation of time and resource we only collect data from 20 respondents. It will be better to have more interviewee involve. In this study attributes are from general self-service technologies machines. Further research could examine what important attributes in different machines. It will be easier and will have specific way to promote each type of machines.

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