

Chapter 5

Item Generation

Introduction

In Chapter 2, the conceptual definition of each construct was clearly defined. Again, SERVTRUST has been proposed as a multi-dimensional construct with 13 distinct components. This chapter will present the transformation of those conceptual definitions into operational definitions which is known as a “deductive” approach (Hinkin, 1995, p.969). This approach to the conceptual definitions is used as guide for development of items (Schwab, 1980). A large pool of potential items for the final scale will be generated (DeVellis, 2003). At least one operational definition is needed for each construct, the more specific the better (Moschis). All measurement of constructs were treated as multi-item measures to achieve reliability, validity and to reduce errors (Churchill, 1979; Rauyruen, 2005). The generated items are based on the review of literature (Selltitz, Lawrence, and Stuart, 1976) and discussions with a marketing professor and Ph.D. students (Churchill, 1979; Hinkin, 1995).

Generating Sample of Items

In generating the sample of items, the conceptualized definitions of each domain as stated in chapter 2, have been employed. The domain of constructs includes benevolence, confidentiality, contractual, credibility, experience, expertise, friendship, information sharing, integrity, power, reliability, signal, timeliness, communication, problem solving, quality of the service, satisfaction, commitment, and loyalty. Churchill (1979) suggested that the researcher could generate the item pool from a literature review and that these items should be screened for validity by persons in marketing research. Following this suggestion, the study generated the items for each domain of constructs from a literature review and discussion with a marketing professor and doctoral students. In the sub-sections that follow, the pre-

finalized items of each variable will be presented based on the previous conceptual definitions. They had also been considered by a marketing academic.

Items of SERVTRUST

“Benevolence” was operationalized using the six items scale developed by Ganesan (1994), and Kumar et al. (1995). The first four items were adapted from Ganesan (1994), and the other two were adapted from Kumar et al. (1995). The six items scale asked questions about sacrifice, caring, and understanding of the service provider. The following are the proposed items of benevolence.

- My service provider has made sacrifices for me in the past.
- My service provider cares for my welfare.
- My service provider is like a friend.
- I feel my service provider has been on my side.
- When I share my problems with my service provider, I know that it will respond with understanding.
- In the future, I can count on my service provider to consider how its decision and actions will affect me.

“Confidentiality” was measured by using the two items scale of Moorman (1993). These two items were about the disclosure of personal information. In addition, another two new items were added in order to capture the domain as specified (Churchill, 1979). The first two items were adapted from Moorman (1993), and the other two were the newly added items.

- My service provider doesn’t disclose my personal information to others without my permission.
- I would not deal with service provider who doesn’t keep my personal information confidential.
- I prefer to provide my personal information on a confidential basis.

- Some personal information that I gave to my service provider is incorrect.

“Contractual” was employed in the study as indicated by Cross and Smith (1996), and Jochen and Doreen (2004). Contractual trust is mostly presented in the form of a service guarantee. However, there are no suggested items from the literature. So, the following five items that were formed on the conceptual definitions are part of the new scale.

- I believe in my service provider’s promise.
- My decision to do business is based on the service provider’s guarantee.
- I expect certain outcomes from a guaranteed service.
- If my service provider can deliver as promised, I will certainly continue to deal with them.
- The guarantee shows a high quality of service.

“Credibility” was well defined in both a business-to-business and business-to-consumer context. In this study, credibility was measured by six items, the first five of which were adapted from Ganesan (1994). These five items covered the frank dealings and knowledge of the service provider. Only one new item was added at the end to ask the consumer about the level of the service provider’s credentials.

- My service provider has been frank in dealing with me.
- Promises made by my service provider are reliable.
- My service provider is knowledgeable about the product.
- My service provider does not make false claims.
- My service provider is not open in dealing with me.
- My service provider has strong credentials.

“Experience” was operationalized using a five-item scale adapted from Gounaris and Venetis (2002), and Kwon and Suh (2004). However, new items were

also added to capture the construct's definitions. For the following statement, the first three were the newly developed statements. The fourth item was adapted from Gounaris and Venetis (2002), and the last item was modified from the scale of Kwon and Suh (2004). Overall, the five items measured the consumer's trust in their service provider based on their experience, the relationship which he/she had, and the propensity to stay with that service provider.

- I can predict the outcome of the service because of my experience with this service provider.
- I decided to deal with this service provider because of a long relationship I have had with them.
- I will not rely on a service provider with whom I have never dealt before.
- I would continue my relationship with this service provider for a similar service.
- I am very pleased when dealing with my service provider.

“Expertise” was assessed using a six-item scale, three of which were based on the research article of Doney and Cannon (1997) and the other three were new items. The first three items were adapted to fit this study context. The last three items were developed based on the previous definitions. They measured the service provider's authority and expertise level.

- My service provider is very knowledgeable.
- My service provider knows his/her service very well.
- My service provider is not an expert in his/her area.
- My service provider has enough authority to serve me.
- I have faith in my service provider's recommendation.
- I would listen to my service provider because of his/her expertise.

“Friendship” was employed in the study because the service providers would be trusted if they provide a friendly approach to their customers (Anna, 2001).

In order to measure friendship, four items scales were employed because there was no such scale provided in the literature.

- I prefer to do business with this service provider because they are like my friend.
- It would trust this service provider if I knew them personally.
- I prefer doing business with this service provider if I had friends working for them.
- I believe that if this service provider is or act like a friend, they would do me favors.

“Information sharing” was assessed using a five-item scale. The previous scale of Kwon and Shu (2004) was adapted for the first two items. The other three items were the newly developed scale, which asked about using the information provided by service providers as a decision making tool. They also asked about whether or not the customer received the required information in a timely fashion.

- My service provider shares common information to help me.
- Information sharing on important issues has become a critical element to my relationship with a service provider.
- I make decisions based on the information that I have received from my service provider.
- My service provider shares confidential information with me.
- The service provider promptly provides any kind of information that I want.

“Integrity” was measured using the scale developed by Moorman et al. (1993). They provided only two items which asked the respondent about the level of integrity and working standard of the service provider. This study established three more items to capture the conceptual definitions of the construct. These three items were used to measure the degree of the service provider’s honesty and moral principles.

- My service provider does not have a great deal of integrity.

- My service provider brings high standards to his/her work.
- My service provider is honest.
- I prefer to deal with the service provider who has high integrity.
- The service provider has high moral principles.

“Power” was operationalized as a four-item scale used for the first time. However, these items were based on the theoretical definitions as stated in chapter 3. The four items asked about the degree of the service provider’s influence on its company’s resources and customer’s decisions.

- My service provider has enough control over his/her company’s resources to fulfill my needs.
- I perceive that my service provider can influence my decisions.
- I tend to follow the service provider’s recommendations.
- I have never depended on my service provider.

“Reliability” has been well researched in the service marketing context by Parasuraman et al. (1985; 1988; 1990; 2005). In this study, the construct was assessed using a six-item scale. Five of these were adapted from Coulter and Coulter (2002), Swan et al. (1988) and only one was a new item. The six items covered the questions about promising services, and dependability of the service provider.

- My service provider performs a promised service.
- My service provider is dependable.
- My service provider would let me spend more than was necessary, if it would benefit him/her.
- My service provider will tell me the truth if a competitor’s service is better.
- My service provider puts my interests ahead of his/her own.
- I feel that the service provider is reliable.

“Signal” was operationalized as a four-item scale adapted from the previous works of Kwon and Suh (2004), and Ganesan (1994; 1997). These four items evaluated the degree of the service provider’s reputation in the market.

- My service provider has a reputation for being dishonest.
- My service provider has a bad reputation in the market.
- My service provider has the reputation for being fair.
- My service provider has the reputation for being concerned about his/her customers.

“Timeliness”, which was proposed as the last dimension of trust in the study, was evaluated using five items. The first three items were borrowed from the research of Moorman et al. (1993), and the other two items were new. They questioned the respondent about the service provider’s ability in providing the service on time and to meet deadlines.

- My service provider always accommodates my last minute requests.
- My service provider is punctual in meeting deadlines.
- My service provider returns my calls promptly.
- I always get the information I ask from my service provider in a timely fashion.
- My service provider responds to my requests immediately.

Items of SERVTRUST’s Antecedent Variables

“Communication” was indicated as the important antecedent of trust in business-to-business service marketing (Morgan and Hunt, 1994), and business-to-consumer as well (Spake et al., 2003). This study measured communication using a five-item scale which was adapted from Morgan and Hunt (1994), Dwayne (2004), and Anderson (1990).

- In our relationship, my service provider keeps me informed of new information.

- My service provider provides me with clear and transparent information.
- My service provider keeps me constantly informed of new services that could be of interest to me.
- My service provider lets me know as soon as possible of any unexpected problems with his/her services.
- My service provider communicates well.

“Problem solving” was the consumer’s evaluation of the service provider’s ability to resolve the problems during and after the service encounter. It was assessed using a five items scale which was borrowed from Sirdeshmukh et al. (2002). These five items were used to evaluate the consumer’s perception of a service provider’s willingness to deal with the problems of their services.

- My service provider does not hesitate to take care of any problems I might have with using the service.
- My service provider goes out of his/her way to solve my problems.
- My service provider is willing to bend his/her company policies to help address my needs.
- My service provider has practices that make service recovery quick and easy.
- My service provider shows much concern for me.

“Quality of the service” was suggested with five dimensions for measurement (Parasuraman et al., 1988). However, this study measured this construct with a six-item scale suggested by Chiou (2002). This scale evaluated the quality of service based on modern-looking equipment, appealing physical facilities, giving prompt service, business hours, answering questions, and consistency.

- My service provider has modern-looking equipment.
- My service provider’s physical facilities are visually appealing.
- My service provider has business hours convenient for me.

- My service provider gives me prompt service.
- My service provider is consistently courteous.
- My service provider can answer my questions.

“Satisfaction” is the last proposed antecedent of SERVTRUST in the study. It was defined as a pleasurable level of consumption-related fulfillment (Oliver, 1996; Chiou et al., 2002). Satisfaction has been well operationalized in much research. In this study, it was measured using the five items which were modified from Henning-Thurau et al. (2002) and Chiou et al. (2002). The first four items were from Henning-Thurau et al. (2002). The last one was adapted from Chiou et al. (2002).

- My choice to do a business with my service provider was a wise one.
- I am always delighted with my service provider.
- Overall, I am satisfied with my service provider.
- I think I did the right thing when I decided to do business with my service provider.
- I am happy about my decision to choose my service provider.

Items of SERVTRUST’s Consequent Variables

“Commitment” was indicated as an important part of continuing and maintaining a relationship created by trust (Arjun and Morris, 2001; Chaudhuri and Holbrook, 2002). Thus, it was employed as the first consequence of SERVTRUST. It was operationalized as an important part of the service from a provider to consumer, and the intention of consumer to maintain the relationship. The five items were employed to assess the level of commitment. The first three items were used to assess the intention to maintain the relationship. They were adapted from Morgan and Hunt (1994). The last two items evaluated the consumer’s perception of the importance of the service provider and the relationship. They were adapted from Henning-Thurau et al. (2002).

- The relationship that I have with my service provider is something I am very committed to.
- The relationship that I have with my service provider is something I intend to maintain indefinitely.
- The relationship that I have with my service provider deserves my maximum effort to maintain.
- My relationship to my service provider is very important to me.
- My relationship to my service provider is something I really care about.

“Loyalty” was the other important consequence variable of trust in business-to-consumer service marketing (Arjun and Morris, 2001). It was evaluated using a seven-item scale which was revised from the research of Henning-Thurau (2002), Bettencourt (1997), Chiou et al. (2002), and Hozier and Stem (1985). These seven items showed the degree of consumer’s loyalty toward the service provider.

- I consider my service provider my first choice to do business with.
- I say positive things about my service provider to others.
- I encourage friends and relative to do business with my service provider.
- I will do more business with my service provider in the next few months.
- I make and effort to do business with my service provider for all of my needs.
- I have a very strong relationship with my service provider.
- I am loyal to my service provider.

Pre-testing the Proposed Items

As stated earlier, the presented item pool was considered by a marketing professor for its validity. However, before refining the proposed items and developing the questionnaire, pre-testing a real sample was needed. In the first pre-testing, the 13

dimensions of SERVTRUST (benevolence, confidentiality, contractual, credibility, experience, expertise, friendship, information sharing, integrity, power, reliability, signal, and timeliness) were added. Each dimension was measured by a rating scale to statements about each service industry, respondent is expected to indicate whether each of the statement applied a lot; somewhat; not at all or don't know. Although this study employed the items which were mostly simulated by previous research, the assessment of the psychometric properties of the scale was not required. However, a small pre-testing to evaluate the reliability was needed (Bharadwaj and Matsuno, 2006). The questionnaire was therefore pre-tested with 30 respondents. Table 5.1 shows the respondent's demographic data at pre-testing. Table 5.2 shows the reliability pre-testing of each dimension of trust.

Table 5.1
Demographics of Pre-test Group

Characteristics	Detail	Frequency	Percentage
Gender	Male	9	30.0
	Female	21	70.0
Age	<30	25	83.3
	>30	5	16.7
Education level	Less than high school graduation	0	0.0
	High school graduation or equivalent	1	3.3
	Some college	1	3.3
	Bachelor's degree or equivalent	13	43.3
	Graduate degree or equivalent	11	36.7
	Post graduate qualification	4	13.3
Working status	Employed	24	80.0
	Unemployed	6	20.0
Average income per month (Thai baht)	Less than 10,000	3	10.0
	10,000 - 19,999	15	50.0
	20,000 - 29,999	5	16.7
	30,000 or more	7	23.3

Table 5.2
Pre-testing Reliability Analysis

Dimension	Cronbach's alpha	
	Health care	Banking
Benevolence	0.855	0.869
Confidentiality	*	*
Contractual	*	*
Credibility	0.785	0.893
Experience	*	*
Expertise	0.828	0.882
Friendship	*	*
Information sharing	0.772	*
Integrity	0.809	0.810
Power	*	*
Reliability	*	0.834
Signal	*	0.845
Timeliness	0.821	0.841

* Cronbach's alpha was less than 0.70, so items were reassigned to other dimensions.

For pre-testing reliability, the data was re-coded to be 1 for a lot, 2 for somewhat, and 0 for not at all and don't know. The coded data was analyzed separately for both service industries (health care and banking services respectively). Each dimension was analyzed one by one to check Cronbach's alpha, the acceptable level of which is 0.70 (Nunnally, 1978; Hair et al., 2006a). If the dimension had a reliability value less than the cutoff point, some items would be eliminated depending on the item-total correlation and the suggested alpha if the item were deleted. The unreliable items would be reassigned to the most appropriate dimension if there was a significant correlation with the item-total correlation of that dimension.

From the pre-testing, some respondents offered valuable suggestions such as:

1. Brighter text shading was needed.
2. Examples were necessary to explain some confusing terms.
3. Some wording needed to be better translated.

4. Leading statements were indicated.
5. Some items were too long.

From the pre-testing results and respondent's comments, a new questionnaire was developed. Based on the data analysis of pre-testing data, the author tried to re-code the pre-testing data into many different ways to increase the scale's reliability. It was found that coding the data as 1 for a lot, 2 for somewhat, and 0 for not at all and don't know, gave the highest cronbach's alpha. Thus, the scale's categories and anchors were changed. Respondents were asked to indicate the extent to which each statement applied to both types of service provider (health care and banking services respectively), with the possible responses: applies a lot; applies a little; or don't know. It was distributed to 500 respondents. Unfortunately, the results showed that there was low or no correlation among the items. Only 45 of 500 respondents did not answer "don't know", so the data could not be analyzed further. As a result, this version of the questionnaire seemed to be unusable and further revision was needed. Hence, all items were re-considered and revised based on the two previous data sets.

Hence, a seven-point Likert scale was employed for the new questionnaire because it is easier to answer than the previous rating scale (Abe, 2004) and it is also the best for a self-administered research design (Hair et al., 2006b). Respondents were asked to show the extent to which they agreed with statements, with the possible responses: strongly disagree; disagree; somewhat disagree; neither agree nor disagree; somewhat agree; agree; and strongly agree. The reverse-worded statements were not used because it may reduce a scale's internal consistency, item-total correlations and obscuring its dimensionality (Wong, Rindfleisch, and Burroughs, 2003). The revised items are shown in the following section.

Items Refinement

As suggested by Churchill (1979), next stage following item generation should be item editing. He also suggested that each item needed a careful re-consideration. The statements should not be double barreled, include negative

wording, and have socially desirable sentences. In addition, there should be careful consideration of redundancy, number of items, reading difficulty level, exceptionally lengthy items, and ambiguous pronoun references (DeVellis, 2003). In order to avoid the previous mistakes, and based on the pre-testing, the previous items were re-worded and re-translated. Moreover, some new items were added to capture the domain more clearly than before. The following table, Table 5.3, shows the item pool which featured in the final questionnaire.

Table 5.3
The Revised Items Pool

Variable	Items	Source
Benevolence	My service provider has made sacrifices for me in the past.	Ganesan (1994)
	My service provider cares for my welfare.	
	My service provider is like a friend.	
	I feel my service provider has been on my side.	Kumar et al. (1995)
	When I share my problems with my service provider, I know that he/she responds with understanding.	
	In the future, I can count on my service provider to consider how his/her decision and actions will affect me.	
Confidentiality	My service provider acts as if I am always right.	Sirdeshmukh (2002)
	My service provider treats me with respect.	
	I prefer to provide my personal information on confidential basis.	New scale
	I always give the correct personal information to my service provider.	
	My personal information is safe with my service provider.	Moorman (1993)
	My service provider keeps my personal information in secret.	
Contractual	I would deal with a service provider who keeps my personal information confidential.	New scale
	My decision to do business is based on the service provider's guarantee.	
	The service provider's guarantee shows his/her high quality of service.	
	I believe in my service provider's guarantee.	
	I expect a certain outcomes from a guaranteed service.	
	If my service provider can deliver as guaranteed, I will certainly continue to deal with him/her.	

Table 5.3 (Continued)

Variable	Items	Source
Credibility	My service provider has been frank in dealing with me. Promises made by my service provider are reliable. My service provider does not make false claims. My service provider is open in dealing with me.	Ganesan (1994)
	My service provider has strong credentials.	New scale
Experience	I will rely on a service provider with whom I have dealt before. I can predict what my service provider will do because of my experience with him/her. I continue to deal with this service provider because of the long relationship I have had with him.	New scale
	I would continue my relationship with this service provider for similar services.	Gounaris and Venetis (2002)
	I am very pleased with my dealings with this service provider.	Kwon and Suh (2004)
Expertise	My service provider is very knowledgeable. My service provider knows his/her service very well. My service provider is an expert in his/her area.	Doney and Cannon (1997)
	My service provider has enough authority to serve me. I have faith in my service provider's recommendation. I would listen to my service provider because of his/her expertise.	New scale

Table 5.3 (Continued)

Variable	Items	Source
Friendship	I prefer to do business with this service provider because he/she is like a friend to me. I believe that if this service provider is or acts like a friend, he/she would do me favors. I prefer doing business with this service provider if I have friends working for him or her. I would trust this service provider if I knew him/her personally.	New scale
	I am familiar with this service provider. I have developed a friendship with this service provider.	Henning-Thurau (2002)
Information sharing	Information sharing on important issues has become a critical element to any partnership. My service provider gives me all kinds of the information to help me. My service provider shares his/her confidential information with me.	Kwon and Suh (2004)
	My service provider promptly provides all kinds of information that I want. I make decisions based on the information that I receive from my service provider.	New scale
	I share proprietary information with my service provider.	Mohr and Sohi (1995)
Integrity	My service provider has a great deal of integrity. My service provider brings high standards to his/her work.	Moorman et al. (1993)
	My service provider is honest. My service provider has high moral principles. I prefer to deal with a service provider who has high integrity.	New scale

Table 5.3 (Continued)

Variable	Items	Source
Power	My service provider has enough control over his/her company's resources to fulfill my needs. I think that my service provider can influence my decisions on options I have. I tend to follow my service provider's recommendations.	New scale
	My service provider has a right to expect me to go along with his/her recommendations. I feel that by going along with my service provider's recommendations, I would have received very good treatment from him/her. By going along with my service provider's recommendations, I avoided some of the problems other customers face.	Brown et al. (1995)
Reliability	My service provider performs services as promised.	Coulter and Coulter (2002)
	My service provider provides his/her services at the time he/she promises to do so. My service provider provides the service right the first time. My service provider has services available when I want it. My service provider has insisted on error-free transaction and records.	Dabholkar et al. (1996)
	I can rely on my service provider.	Christian (2005)

Table 5.3 (Continued)

Variable	Items	Source
Signal	My service provider has a good reputation for his/her services.	Kwon and Suh (2004)
	My service provider has a good reputation in the market.	
	My service provider has a reputation for being fair.	Ganesan (1994)
	My service provider has a reputation for being concerned about his/her customers.	
	My service provider invests in advertising and promotion.	Martin and Carmen (2005)
	My service provider belongs to a national or international chain.	
	The building facilities of the service provider show how good his/her services are.	New scale
Timeliness	My service provider always accommodates my last minute request.	Moorman et al. (1993)
	My service provider is punctual in meeting deadlines.	
	My service provider returns my calls promptly.	
	My service provider responds to my requests immediately.	New scale
	I always get the information I ask from my service provider in a timely fashion.	
Commitment	The relationship that I have with my service provider is something I am very committed to.	Morgan and Hunt (1994)
	The relationship that I have with my service provider is something I intend to maintain indefinitely.	
	The relationship that I have with my service provider deserves my maximum effort to maintain.	

Table 5.3 (Continued)

Variable	Items	Source
Commitment	My relationship to my service provider is very important to me.	Henning-Thurau et al. (2002)
	My relationship to my service provider is something I really care about.	
Loyalty	I consider my service provider to be my first choice to do business with.	Chiou et al. (2002)
	I will do more business with my service provider in the next few months.	
	I say positive things about my service provider to others.	Bettencourt (1997)
	I encourage friends and relative to do business with my service provider.	
	I make an effort to do business with my service provider for all of my needs.	
	I have a very strong relationship with my service provider.	Henning-Thurau et al. (2002)
Communication	I am loyal to my service provider.	Hozier (1985)
	In our relationship, my service provider keeps me informed of the new information.	Morgan and Hunt (1994)
	My service provider communicates well.	
	My service provider provides me with clear and transparent information.	Dwayne (2004)
	My service provider keeps me constantly informed of new services that could be of interest to me.	
	My service provider lets me know as soon as possible of any unexpected problems with his/her services.	Anderson (1990)

Table 5.3 (Continued)

Variable	Items	Source
Problem solving	<p>My service provider does not hesitate to take care of any problems I might have with using their service.</p> <p>My service provider goes out of his/her way to solve my problems.</p> <p>My service provider is willing to bend his/her company policies to help address my needs.</p> <p>My service provider has practices that make service recovery quick and easy.</p> <p>My service provider shows much concern for me.</p>	Sirdeshmukh et al. (2002)
Quality of service	<p>My service provider has modern-looking equipment.</p> <p>My service provider's physical facilities are visually appealing.</p> <p>My service provider has business hours convenient to me.</p> <p>My service provider gives me prompt service.</p> <p>My service provider is consistently courteous.</p> <p>My service provider can answer my questions.</p>	Chiou et al. (2002)
Satisfaction	<p>My choice to do business with my service provider was a wise one.</p> <p>I think I did the right thing when I decided to do a business with my service provider.</p> <p>I am always delighted with my service provider.</p> <p>Overall, I am satisfied with my service provider.</p>	Henning-Thurau et al. (2002)
	<p>I am happy about my decision to choose my service provider.</p>	Chiou et al. (2002)

Conclusion

This chapter described the procedure of item generation to assess the 13 dimensions of SERVTRUST, four antecedents, and two consequences. All measurement of constructs was treated as multi-item measures. In the beginning, the literature review was used to generate the item pool together with the consideration of an academic in marketing. From 98 items generated, only 66 items were pre-tested. From the pre-testing, some items were reallocated to other constructs in order to increase the reliability of the scale, which was presented in the form of Cronbach's alpha.

The questionnaire was then revised and re-distributed to 500 respondents. Unfortunately, the result showed that this questionnaire contained some errors which needed to be corrected before further analyses. Hence, the items and questionnaire were revised again. As a result, the new item pool contained 108 items. The new questionnaire used a seven-point Likert scale to evaluate the degree to which respondents agreed with the statements provided.

After this questionnaire with 108 items was developed, it was distributed to collect the data from 400 target respondents. The data was then coded into SPSS statistical software. The descriptive statistics were obtained and exploratory factor analysis was conducted. The confirmatory factor analysis and structural equation model were analyzed using the LISREL. The details and results of the analyses will be presented in the next two chapters.