Content validation of a Service Leadership Behavior Scale in Hong Kong

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Abstract

This paper reports the development of the 97-item Service Leadership Behavior Scale (i.e., SLB-LF-97) based on the Service Leadership framework proposed by Po Chung. To understand the content validity of the scale, the content validity of the developed items was examined. A panel of experts ($n = 3$) was formed to assess the content validity of the scale items in different domains (service provision, competence, character, caring, commitment to continuous improvement, and distributed leadership) in terms of relevance, clarity, and representativeness on each item. Results indicated that the SLB-LF-97 has an excellent content validity indexed by relevance, clarity, and representativeness for the whole scale and the different categories. The findings suggest the scale and subscales of the Service Leadership Behavior Scale possess excellent content validity.

Keywords: Service leadership, scale construction, content validation, leadership behavior

Introduction

Desirable leadership characteristics vary with the characteristics of different economic systems. The leadership qualities required by service economy are different from those required by manufacturing economy. Generally speaking, leadership in the manufacturing economy was regarded as inflexible, task-focused, and authority-based. In contrast, effective leadership in the service economy is characterized by people orientation, relationship orientation and service orientation (1). Hong Kong has a service-oriented economy where the service industries shared 92.2% of the Gross Domestic Product (GDP) in 2016 (2). With respect to the growth of service economy in the global context, Chung (3) proposed the notion of service leadership and developed the Service Leadership and Manage-

ment Model (SLAM). As defined by Chung (3), service leadership "is about satisfying needs by consistently providing quality personal service to everyone one comes into contact with, including one's self, others, groups, communities, systems, and environments." It is also believed that effective service leadership is a function of leadership competencies, character, and caring disposition (4).

Although the notion of service leadership is newly proposed, its related components are not brand-new. Compared with other mainstream leadership theories and approaches, service leadership shares some similar features, such as the emphasis on integrity (5). Nevertheless, the service leadership model has its distinctive features that are seldom mentioned in other theories. To begin with, not a single leadership theory emphasizes the importance of the service orientation, including servant leadership theory (6), authentic leadership theory (7), and ethical leadership theory (8). Besides, these theories primarily conceptualize leadership at the individual level, dealing with the leadership behaviors of self and/or others. For example, while authentic leadership is mostly dependent on leaders' behaviors in self-reflection, self-management, and self-improvement (7), service leadership theory adopts a more systematic multi-level perspective towards the service for self, others, as well as the ecological system (4).

Besides, some leadership theories argue that excellent leadership primarily relies on the competencies or certain personal qualities of the leaders. For example, managerial competencies are the core elements for top-down leadership theory (9), while a set of born characteristics is proposed to determine the success of a leader according to the trait approach to leadership (10). In contrast, the service leadership framework asserts that competencies and character are not enough for an effective leader in the modern service economy (3). The SLAM framework suggests three components that determine effective leadership, including moral character, leadership competencies, and caring disposition (for short, $E = MC^2$). This framework not only highlights the importance of service leaders' personal qualities and competencies, but also establishes a more comprehensive and systematic model to explain how these characteristics contribute to effective leadership (5).

Furthermore, although both service leadership and servant leadership focus on the development of followers through mentoring and teaching (11), servant leaders only focus on the followers rather than the leaders. Moreover, service leadership considers that everyone could be a leader and leadership requires life-long continuous improvement. Lastly, another new feature that service leadership goes beyond the other existing theories is that the SLAM framework incorporates Chinese cultural values and the philosophies of Buddhism, Confucianism, and Taoism (3). The incorporation helps to look at moral character from an integrated perspective. Overall speaking, service leadership theory is multidisciplinary in nature that it covers leadership in different domains (12).

As university students are the future leaders in the society, service leadership education is essential for youths (13). With the collaborative partnership of the Victor and William Fung Foundation, the Hong Kong Institute of Service Leadership & Management Limited (HKI-SLAM), and the eight universities funded by the University Grants Committee in Hong Kong, the Fung Service Leadership Initiative (SLI) was initiated in 2012 to promote service leadership education. The Hong Kong Polytechnic University (PolyU), among the eight universities, has developed and provided credit-bearing courses and non-credit-bearing programs/workshops on service leadership within the SLAM curriculum framework (14). Both qualitative and quantitative evaluation strategies have supported the positive influences on the leadership capacities of students who have participated in the courses or programs (15-17). In general, the service leadership education has obtained great achievement and recognition among university students.

Although some initiatives on service leadership education have been launched, there is little empirical research that assesses the qualities of service leaders. A survey of the literature shows that leadership behavior scales based on different leadership theories have been used, such as the Multifactor Leadership Questionnaire (MLQ) (18) that allows individuals to measure their own transformational, transactional, and passive-avoidant leadership behaviors. However, the MLQ has been criticized by researchers for having problematic construct validity issues as it focuses primarily on transformational leadership, rather than

the other two leadership styles (19). Other specific leadership behavior scales were largely developed with respect to its corresponding leadership theory, which has different conceptualizations from the Service Leadership theory. For example, the Transformational Leadership Inventory (20), the Authentic Leadership Inventory (ALI) (21), and the Servant Leadership Behavior Scale (22) were developed according to corresponding leadership theories. Therefore, there is an urgent need to develop a measurement specifically for the Service Leadership theory.

To fill this gap and to strengthen the assessment component of service leadership education, the Research Team at The Hong Kong Polytechnic University (PolyU) embarked on a research project entitled "Development and Validation of Measures Based on the Service Leadership Model." In this project, three scales on service leadership (knowledge, attitude, and behavior) were developed and validated. Previous studies have documented the processes of developing the Service Leadership Attitude Scale and Knowledge Scale (23, 24). Results of both studies showed that the items developed were perceived to be relevant, clear, and representative of the constructs of service leadership attitude and knowledge. In this paper, we reported the development of the 97-item Service Leadership Behavior Scale (SLB-LF-97) and its related content validation findings.

Generally speaking, three steps were involved in developing an assessment tool, including domain identification, item generation, and instrument formation (25). For the present study, the SLB-LF-97 was developed based on the groundwork of the HKI-SLAM curriculum framework (3), 7 core beliefs of service leadership (26), 12 dimensions of the personal quality of service leadership (5), 25 principles of service leaders (4), and the existing literature. Specifically, the developed scale attempted to cover the behavior of service leaders in the following key domains:

1. **Service provision** – According to the Service Leadership theory, it is essential for service leaders to satisfy the needs of self, others, and systems, which is elaborated in the Core Belief 1 of the SLAM framework (26). Also,

as advocated by The Principle of Service Mindset (1), service leaders must have genuine care for others' needs. However, unlike servant leadership theory or spiritual leadership theory which overemphasizes followers' needs and neglects leaders' needs (5), service leadership theory adopts a more balanced approach in looking at the needs of the followers and leaders.

2. **Competence** – The traditional leadership approaches emphasize management skills or expertise (9), which is more applicable to the manufacturing economy. In contrast, leadership competency in the service economy has a broader coverage focusing on the importance of intrapersonal and interpersonal competencies (3). Four types of intrapersonal competencies are concerned the most in the service leadership education (27). First, intelligence quotient (IQ) is closely related to job performance as well as leadership performance (28). The IQ of an effective service leader is manifested in good problem-solving, critical thinking, logical reasoning, and analytical abilities (27). The second intrapersonal competence is emotional quotient (EQ), which is one of the most recognized non-intellectual factors that contribute to our work and daily life (29). The ability to understand, recognize, and manage emotions of oneself and others will undoubtedly enhance the performance and leadership at work (30). The other two essential intrapersonal competencies for service leaders are adversity quotient (AQ) and spiritual quotient (SQ). AQ addresses the ability to accept and successfully bounce back from failure, misfortune, or other adversity situations (31), while SQ is regarded as the ability to use meaning, faith, and other spiritual resources to solve problems (32). A competent service leader possesses and utilizes intrapersonal competencies to serve oneself, others, and systems.

In addition, interpersonal competencies are also among the core personal attributes that service leaders should promote (33). Five task domains of interpersonal competence

were identified by Buhrmester, Furman, Wittenberg, and Reis (34), which included initiating relationships, self-disclosure, emotional support, conflict managing, and asserting personal thoughts and feelings. Besides, the SLB-LF-97 incorporates Chinese philosophy to enrich the model. As such, six components of interpersonal competencies are considered in the SLB-LF-97: passionate about people; positive social relationships; assertiveness; collaboration and cooperation with people; conflict resolution; and communication skills. Specifically, service leaders are supposed to be people-oriented (*"yi ren wei ben"*) and develop positive and healthy relationships with others. Meanwhile, an effective service leader shows great verbal and non-verbal communication skills, through which one could develop and maintain collaborative relationships with teammates and other people, as well as assert one's own rights when having conflicts. In short, service leaders with good interpersonal competencies can appreciate different opinions (*"he er bu tong"*) and create constructive ways to resolve interpersonal conflicts.

3. **Character** – Complying with the Principle of Competence, Character, and Care (4), and the Principle of Personal Ethics (4), leaders in the service economy are required to exhibit positive characters that are morally valued, which make followers more willing to work with them (35). In Western cultures, Park, Peterson, and Seligman (36) developed the VIA Classification and listed 24 virtues in action, such as integrity, gratitude, forgiveness, and bravery. However, Eastern cultural philosophies, particularly, Confucianism also uphold some traditional character strengths, such as benevolence (*"ren"*), affection (*"ai"*), and forgiveness (*"shu"*) (37). The SLB-LF-97 synthesizes the Eastern and Western cultures and highlights the service leadership virtues by integrity, fairness, humility, and acting as an ethical role model.

4. **Caring** – This category covers the quality of caring disposition of the service leaders. The Principle of Trust, Fairness, Respect, and Care implies that successful service experiences cannot exist without caring service leaders (4). A competent and moral service leader should also show concern for others and oneself (38). Two aspects of caring disposition are measured in the SLB-LF-97. On the one hand, good service leadership involves the qualities of concern, such as empathy and compassion. On the other hand, caring leaders provide care for others by loving, supporting, and developing others.

5. **Commitment to continuous improvement** – The need for continuous improvement is one of the key characteristics of the service leadership model (5). The HK-SLAM model emphasizes self-leadership and growth mindset, rather than the notion of "inborn" or "elite" leadership (26). Besides, only through continuous professional and personal improvement could one be well prepared to serve oneself as well as others. Therefore, effective service leaders should make efforts to promote self-leadership, self-reflection, and life-long learning.

6. **Distributed leadership** – In response to the core belief of service leadership that "every day, every human occupies a position of leadership and possesses the potential to improve his leadership quality and effectiveness" (Core Belief 2) (26), distributed leadership style in the service economy encourages and empowers every teammate to voice out and contribute their insights to the team decision-making. Meanwhile, distributed leaders would show trust and respect to followers by acknowledging and respecting their views and abilities.

A well-developed Service Leadership Behavior Scale is indispensable for educators and researchers to empirically investigate students' changes after taking service leadership education. Such a scale serves as an instrument for assessing one's qualities of service leadership, which enables researchers to further validate the theory and hypotheses proposed by the service leadership model, such as the principle $E = MC^2$. Based on the Service Leadership model, the

PolyU Research Team drafted a total of 97 items for the Service Leadership Behavior Scale. However, before formally utilizing the scale and interpreting scores with confidence, the validation process is a highly critical step in the test development (39). To obtain judgmental evidence on whether the scale and items could adequately represent the content of service leadership behavior, content validation procedure was conducted in the present study.

Content validation was defined as "the degree to which elements of an assessment instrument are relevant to and representative of the targeted construct for a particular assessment purpose" (40, p. 238), or "whether or not the items sampled for inclusion on the tool adequately represent the domain of content addressed by the instrument" (41, p. 155). One of the most frequently utilized approaches for content validation in previous research is the engagement of "content experts" (42), in which several knowledgeable people in a specialized area discuss and have consensus on the quality and representativeness of the instrument items. To minimize errors arising from subjective assessment and artificial consensus (43), content validity index (CVI) (44) was employed in the current study, which provides quantitative judgment evidence for the content validity of the test, including relevance, clarity, and representativeness (44). In the present study, a panel of experts was invited to evaluate the items of the SLB-LF-97. Based on the quantitative and qualitative content validation findings, revisions were made to improve the scale.

Methods

The present study documented the development of the SLB-LF-97 and evaluated its content validation. Based on a thorough examination of the tenets of the Service Leadership Model (3) and leadership literature (e.g., spiritual quotient, 32), an item pool on the behaviors and qualities of service leaders was established. The following six categories are included in the SLB-LF-97:

C1. Service provision (4 items). Items in this category assess respondents' tendency of having a sensitivity to individuals' needs and providing good service to others.

C2. Competence (38 items). This category addresses behaviors and qualities representing intrapersonal and interpersonal competencies within the framework of HKI-SLAM (27, 33). For the intrapersonal competencies, items measure individuals' IQ, EQ, AQ, and SQ. For the interpersonal competencies, items assess "passionate about people", "positive social relationship," "assertiveness", "collaboration and cooperation with people," "conflict resolution," and "communication skills." Basically, intrapersonal and interpersonal competencies are covered under this domain.

C3. Character (14 items). Items in this category measure a well-developed personal code of ethics as characterized by integrity, fairness, humanity, and whether a person is acting as an ethical role model.

C4. Caring (15 items). This category underlines caring disposition defined by the Service Leadership Model (3), including notions that deeply embedded in Chinese virtues, such as items assessing "guan xin" (concern) and "zhao gu" (providing care).

C5. Commitment to continuous improvement (13 items). This category involves the notion that effective service leaders put self-development efforts aiming at ethically improving their competencies, abilities, willingness, and resources to satisfy the needs of others. Based on the 25 principles of service leadership (4), items evaluating individuals' self-leadership, self-reflection, and life-long learning were constructed.

C6. Distributed leadership (13 items). Items in this category assess the three core characteristics of distributed service leadership, including shared decision-making, empowerment of teammates, and trust and respect.

Three experts familiar with the Service Leadership literature were invited to assess the extent to which the SLB-LF-97 measured what it was intended to measure. All experts had a doctoral degree and were involved in the curriculum development and/or the teaching of the subject "Service Leadership" and they have professional knowledge in Service Leadership, especially the framework of the HKI-SLAM.

Instrument

A self-administered questionnaire was distributed to the three experts. They evaluated the content validity for each item in the following aspects:

1. **Relevance**, the extent to which the item falls within the body of knowledge of the SLAM framework. Experts were asked to judge on a 4-point rating scale: 1=*Irrelevant*, 2=*Unable to assess the relevance without item revision* or *item is in need of revision or otherwise, would no longer be relevant*, 3=*Relevant but needs minor amendment*, 4=*Relevant.*
2. **Clarity**, the extent to which the item is concise, accurate, and direct. Experts were asked to judge on a 4-point rating scale: 1 = *Very unclear*, 2 = *Unclear*, 3 = *Clear*, 4 = *Very clear.*
3. **Representativeness**, the extent to which the item adequately represents and encompasses the corresponding concept. Experts were asked to judge on a 4-point rating scale: 1 = *Very unrepresentative*, 2 = *Unrepresentative*, 3 = *Representative*, 4 = *Very representative.*

Meanwhile, the experts were requested to give justifications or suggested modifications if they had negative ratings (option 1 or 2) on the items. After rating the individual items, the experts were also invited to judge the overall quality of the scale via the following questions:

1. Does this batch of items cover all the essential behaviors of qualities within the service leadership framework?
2. Are there any additional behavior(s) or qualities that you regard essential to service leader? If yes, please list the additional point(s) below.
3. Does this batch of items adequately represent the behavior(s) or qualities in service leadership?
4. Any other comments (open-ended question).

Experts' ratings were used to analyze the content validity of the scale, while their written feedbacks and suggestions would direct further revisions of the developed items.

Results

With reference to the previous studies, the I-CVI index for each item was computed as the number of experts giving a rating of 3 or 4, divided by the number of experts (i.e., 3) — that is, the proportion in agreement about relevance, clarity, or representativeness. Then, the S-CVI/ave for each category was an average score of the I-CVIs for all the items. As shown in Table 1, most of the items indicated good I-CVIs. Items that with an I-CVI value lower than 1.00 were modified according to the experts' comments. For example, the original item 24 "I have passion for people" was revised to "I show passion for other people's welfare" because one rater considered that the original expression was too subjective and abstract. For the whole scale, the S-CVIs have manifested excellent content validity (see Table 1). For each category, the S-CVI/aves for all subscales were also very good (see Table 2).

Table 1. The frequency of I-CVI and the S-CVI/ave for the whole scale

	Number of Items (Percentage)		
I-CVI	Relevance	Clarity	Representativeness
0.33	0 (0%)	1 (1.0%)	0 (0%)
0.67	5 (5.2%)	10 (10.3%)	3 (3.1%)
1.00	92 (94.8%)	86 (88.7%)	94 (96.9%)
S-CVI/ave	.98	.96	.99

Table 2. The S-CVI/ave for the subscales

No.	Domains	No. of Items	S-CVI/ave		
			Relevance	Clarity	Representativeness
1	Service provision	4	1.00	1.00	1.00
2	Competence	38	.98	.91	.99
3	Character	14	.93	.98	.95
4	Caring	15	1.00	.98	1.00
5	Commitment to continuous improvement	13	1.00	1.00	1.00
6	Distributed leadership	13	1.00	1.00	1.00

Discussion

The primary purpose of the present study was to develop the SLB-LF-97 as well as to ensure the measure is relevant to the framework, appropriate and clear, and could represent the concept of service leadership. The construction and validation of a Service Leadership Behavior Scale could help educators and researchers to assess the behaviors and related qualities in an effective service leader as outlined by the HK-SLAM framework (3) in a valid manner. The content validity index (CVI) method based on expert ratings has been widely used to quantify content validity (44). In the Hong Kong context, researchers also have used this approach to develop and validate scales (e.g., 45, 46). Both item-level content validity index (I-CVI) and average scale-level content validity index (S-CVI/ave) were calculated in the present study.

Results showed favorable results based on the views of three experts. First, all experts agreed that almost all items were relevant to the HK-SLAM framework and only 5 items needed minor revisions. Second, one item was rated as unclear, ten items were regarded as in need of revision, and the rest 86 items were rated as clear by all three experts. Third, all but 3 items were judged as representative of the framework by all the three raters. Based on the judges' suggestions, scale developers have carried out revisions of the wording. Therefore, according to the three experts' judgments, the developed items for the SLB-LF-97 could successfully measure what it was intended to measure. Some sample items for each category are presented in the Appendix.

Theoretically, the development of Service Leadership Behavior Scale is valuable for the leadership literature. A sound understanding of leader behavior and leadership effectiveness can hardly be achieved without research findings based on rigorous assessments. Thus, well-established instruments would help further validate the theoretical propositions and hypotheses of the service leadership model. Although past research has yielded a number of measurements on leader behavior, such as Servant Leadership Behavior Scale (22) and Leader Behavior Description Questionnaire (LBDQ) (47), there is a need to develop new Service Leadership measures because it is a new type of leadership theory. The present study helped with an initial check on the content validity of Service Leadership Behavior Scale and also highlighted the criteria of effective service leadership behaviors.

Practically, a validated measurement is indispensable for effective service leadership education. Although the eight universities in Hong Kong were involved in the Fung Service leadership initiative, no systematic effort has been made to develop appropriate assessment tools to assess service leadership behavior. With the development of the Service Leadership Behavior Scale, the effectiveness of leadership education could then be examined. A simple evaluation strategy would be to collect both pretest and posttest data before and after the training program.

It is noteworthy that there are several limitations of the present study. First, although the involvement of three raters fulfills the minimum requirement of numbers of experts proposed by Lynn (48), future studies could invite more parties to help increase its generalizability, such as scholars from other universities, management professionals who have been trained with service leadership qualities, or students who excellently finished the study of service leadership courses (40). Second, there is still a need for the continued refinement and validation of the scale. For example, psychometric properties of the scale including reliability and validity should be verified (49). Furthermore, theoretical and empirical relationships among service leadership behavior, attitude, and knowledge should also be explored. This process could also provide support for the construct validity of the measures. Despite the abovementioned limitations, the present study contributes to our understanding of the service leadership qualities. It also provides another valid measurement to evaluate service leadership education programs (23, 24).

Appendix: Sample items (with adaptation) of the Service Leadership Behavior Scale (SLB-LF-97)

Categories	Sample Items
C1. Service provision	I provide service to others according to their specific needs. Readiness to serve: A good leader serves others with a genuine heart.
C2. Competence	*IQ:* When there is any issue that is out of my expectation, I can quickly come up with a workable solution on the spot. *EQ:* I can manage my negative emotions well so that it will not negatively affect my work. *SQ:* I have faith to deal with challenges in my life. *AQ:* Adversity such as failure and setback usually makes me stronger rather than weaker. *Passionate about people:* I value the well-being of other people. *Positive social relationships:* I am able to create a positive rapport with other people. *Assertiveness:* I uphold my own principles and stand firm to reject tasks that I think inappropriate. *Collaboration and cooperation with people:* I am good at collaborating with other people. *Conflict resolution:* I negotiate with others when we have conflict. *Communication skills:* I am able to effectively convey my thoughts and ideas to others.
C3. Character	*Integrity:* I am honest with people. *Fairness:* I treat people around me equally without favoritism. *Humility:* I recognize my limitations. *Role model:* People regard me as a person with ethical behavior.
C4. Caring	*Concern:* I am able to feel what other people are experiencing. *Provide care:* I do good things for other people without expecting them to return the favor.
C5. Commitment to continuous improvement	*Self-leadership:* I constantly seek to improve my character. *Self-reflection:* I give time to closely examine my own thoughts and behavior. *Life-long learning:* I keep learning new skills.
C6. Distributed leadership	*Shared decision-making:* When making decisions, I welcome critiques from my teammates. *Empowerment of teammates:* I delegate my power and authority to my teammates to facilitate their work. *Trust and respect:* I trust my teammates to make good decisions.

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Ethical compliance

The authors have stated all possible conflicts of interest within this work. The authors have stated all sources of funding for this work. If this work involved human participants, informed consent was received from each individual. If this work involved human participants, it was conducted in accordance with the 1964 Declaration of Helsinki. If this work involved experiments with humans or animals, it was conducted in accordance with the related institutions' research ethics guidelines.

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