

The relationships among leadership, goal orientation, and service quality in high-contact service industries: An empirical study

Abstract

High-contact service industries are characterized by close interaction between service employees and customers, and diverse customer needs. Such characteristics pose a great challenge to the delivery of services of superior quality. In this research we conceptually explore and empirically examine several attitudinal and motivational factors of customer-contact employees, and the management style of managers as antecedents to service quality in high-contact service sectors. Based on dyadic data collected from 230 service firms in Hong Kong, we examine the relationships among transformational leadership, transactional leadership, affective organizational commitment, learning goal orientation, performance goal orientation, and service quality. We find that learning goal orientation is more effective than performance goal orientation in fostering quality service in the high-contact service context. We also observe that transformational leadership tends to be more effective than transactional leadership in influencing employee attitude in high-contact service firms. This research pioneers theory-driven examination of service quality in high-contact service firms using data collected from service employees and shop managers for hypothesis testing.

Key words: transformational leadership; transactional leadership; learning goal orientation; performance goal orientation; service quality

1. Introduction

Maglio and Spohrer (2008) define service science as the study of service systems, which are dynamic value co-creation configurations of resources including people, technology, organizations, and shared information. They also contend that understanding a service system requires relevant knowledge from different academic disciplines, including operations management (OM) and organizational behaviours (OB). Researchers of OM, statistics, and service marketing have contributed to the development of service science by investigating how the use of technology and information sharing benefit services in different environments (e.g., Tsung *et al.*, 2007; Kleijnen *et al.*, 2009; Buell *et al.*, 2010). Yet how organizational theories concerning people and OB could account for service performance is a relatively unexplored area. Despite the fact that service research is commonly accepted as an interdisciplinary area of study (e.g., Spohrer and Maglio, 2008), Pilkington and Chai (2008) comment that much work needs to be done on service research to make it truly interdisciplinary. We conduct this study with a view to advancing service science research by identifying and examining relevant organizational theories that account for service performance.

Organizational theories are relevant to service science in part because they help explain the attitudes and behaviours of service employees when interacting with customers in the service creation process. This implies that organizational theories would be much more relevant to services where a high level of employee-customer contact occurs in the service creation process. For example, check processing in banks entails a low level of customer contact. Under such circumstances, service creation becomes a repetitive process and quantitative OM techniques would be effective in improving the efficiency of the process (e.g., Frei *et al.*, 1999; Soteriou and Chase, 2000). On the contrary, high-contact services are characterized by close interaction between service employees and customers, and diverse customer needs (Chase, 1981; Kellogg and Chase, 1995; Yee *et al.*, 2008). Such characteristics may render quantitative

techniques ineffective. Thus, organizational theories, which provide insights into service employees' attitudes and behaviours, could provide more helpful guidance on managing high-contact services. Since we intend to explore the linkage between organizational theories and service performance, high contact service firms are an appropriate context for our study. High-contact services are ubiquitous in service industries such as hospitality, agency services, and health and beauty cares.

When interacting with customers with diverse needs, the attitude of the service employee is likely to be an important determinant affecting service performance (Heskett *et al.*, 1994). We argue that a service employee's attitude is in part dependent on the employee's type of goal orientation. Referring to individuals' characteristics capturing their preference for different types of goals and the associated patterns of behaviours (Dweck, 1986), goal orientation offers a motivational framework to explain how individuals perceive, interpret, and respond to tasks in their jobs (Kanfer *et al.*, 2008). In this study we identify service employee's learning goal orientation and performance goal orientation as key factors that influence service performance. While goal orientation is considered as a personality trait, it may be influenced by certain contextual factors (Dweck and Leggett, 1988; VandeWalle *et al.*, 1999). As goal orientation is a concept related to individuals' sources of motivation, service employee's goal orientation is likely to be related to how employees are motivated by their managers (Bettencourt, 2004). Thus, we further argue that a service employee's goal orientation could be influenced by their manager's leadership style. In this study we identify manager's transformational leadership and transactional leadership as important factors that influence service employee's goal orientation. In addition, prior literature suggests that affective organizational commitment is an important factor that motivates employees to perform well in service contexts (e.g., Vandenberghe *et al.*, 2007) and that it is related to how employees adopt the attitudes and behaviours expected by management (Becker and Gerhart, 1996). This implies

that affective organizational commitment is a factor that could affect how service employees align their behaviours and attitudes with their managers' expectations. In this study we consider service employee's affective organizational commitment as a mediating factor between manager's leadership style and service employee's goal orientation. Following the service management literature, we use a single representative measure, namely service quality, to assess service performance by adapting the framework of SERVQUAL (Parasuraman *et al.*, 1988; Zhou Ruiqi, 2009).

While service science is commonly accepted as an interdisciplinary area of study, the current literature provides little concrete idea and empirical evidence on the application of organizational theories to achieve performance gain in service. We fill this research gap by conceptually exploring and empirically testing how manager's transformational leadership and transactional leadership influence service employee's learning goal orientation and performance goal orientation, and how these two types of goal orientation influence service quality. In addition, we examine how employee's affective organizational commitment acts as a mediator between leadership style and goal orientation. We conduct an empirical study of high-contact service industries in Hong Kong. We successfully invited 230 service firms to participate in this study. We collected dyadic data from 1,840 individual participants, including 1,150 customers and 690 service employees of these service firms, to test our hypotheses. We contribute to the service science literature by empirically demonstrating the application value of organizational theories in service management. We also provide insights to practitioners in high-contact service industries by offering strategic guidelines on managing service employees and enhancing quality performance. In sum, we pioneer theory-driven research on service science using data from multiple respondents for hypothesis testing.

2. Theoretical background and hypothesis development

2.1 Theoretical background

Service firms are increasingly seeking ways to offer quick and reliable services (e.g., Soteriou and Chase, 2000), considering the heterogeneity of customer needs (Homburg *et al.*, 2009) and the difficulty in managing service encounters (e.g., Hartline and Ferrell, 1996). A growing stream of OM research stresses the importance of employees in service operations. Researchers have highlighted the need for minimizing human errors in the service delivery process. Stewart and Chase (1999) empirically investigate the impact of various human errors on service deliveries. They reveal that skill-based and rule-based errors of employees induce most service failures, suggesting service quality can be improved through error detection and correction. Van Raaij and Pruyn (1999) propose a control model to improve service quality through ensuring the validity and reliability of the services delivered. However, given that human factors might be the most critical element in the service industry, it seems that not enough emphasis has been placed on the importance of employee motivation and attitudes in service deliveries. In fact, service quality perception is likely to rely heavily on such service delivery behaviours as courtesy, personal attentiveness, responsiveness, and keeping promises (Bowen and Schneider, 1985).

One of the key challenges in service management is to motivate service employees to deliver high-quality services during service encounters. Popular concepts such as the “service-profit chain” suggest that there are links between employee attitudes, service quality, and ultimately, organization profit (Heskett *et al.*, 1994). Empirical research supports this conceptual framework. For example, Hays and Hill (2001) find that employees’ motivation and vision have significant positive effects on service quality in a multi-national hotel chain. There is compelling evidence on employee attitudes significantly influencing service quality. Nevertheless, researchers have provided no concrete evidence on the exact nature of employee

attitudes that would have a direct impact on service quality. In recent years, frontline employees' commitment and goal orientation have been widely regarded as critical successful factors in service industries (Hartline and Ferrell, 1996; Ashill *et al.*, 2006).

Finally, employees' attitudes and commitment are largely backed up by leadership. It is widely recognized in the quality management literature that top leadership is an important driver of employees' work motivation through the development of a quality culture (e.g., Yeung *et al.*, 2005; Jun *et al.*, 2006). To create a quality culture, leadership establishes quality goals for the organization and develops a compelling vision that guides activities towards achieving the quality goals; in turn, leadership downwards gradually can bring about changes in quality culture, which affects employees' attitudes and commitment towards their work. Different leadership styles, such as transformational leadership and transactional leadership, provide various conditions that are necessary to foster employee motivational attitudes and commitment (e.g., Bettencourt, 2004). For this reason, different leadership styles yield various mechanisms for influencing employees' work attitudes. For example, Bettencourt (2004) finds that transformational leadership has a direct impact on employee commitment; however, transactional leadership has an indirect influence on commitment through leader-member exchange. Noting that researchers have so far focused heavily on one particular leadership style, i.e., transformational leadership, we see a need to conduct more research to examine the correlations between different leadership styles in general, and transformational leadership and transactional leadership in particular, to employee attitudes and commitment, which in turn would affect operational performance. Such research findings will advance the knowledge frontier of service science.

2.2 Hypothesis development

Transformational leadership, learning goal orientation, and service quality

Transformational leadership influences followers by elevating their individual values, goals, and aspirations beyond in-role job expectations so that they accord a higher priority to organization's goals (Bass, 1985). Transformational leadership displays a class of behaviours enacted by a leader spanning four dimensions: idealized influence - the leader causes followers to trust, admire, and identify with them; inspirational motivation - the leader articulates a compelling vision of the future that inspires followers; intellectual stimulation - the leader encourages followers to take risks; and individualized consideration - the leader tends to employees' individual needs (Bass, 1985). A learning goal orientation reflects the desire to develop oneself by acquiring new skills, mastering new situations, and learning from new experience (Dweck, 1986). As such, learning-oriented individuals tend to improve the proficiency of their work activities (Motowidlo and Van Scottera, 1994). In addition, individuals with a learning orientation have a preference for challenging tasks because they provide opportunities to learn (Ames and Archera, 1988). Under such circumstances, they actively seek challenging jobs and willingly expend effort on dealing with those jobs (Dweck, 2000). There is empirical evidence that learning goal orientation is positively related to employee's job performance (Janssen and Van Yperen, 2004).

A learning goal orientation provides intrinsic work motivation to employees to develop personal competence (Dweck, 1986, 2000). So transformational leadership stands out as an important means to elevate employee's aspirations beyond in-role job expectations and self-interests to organizational goals through learning goal orientation. There is no detailed investigation of the relationship between transformational leadership and learning goal orientation, except Coad and Berry's (1998) exploratory study, which shows that these constructs are positively correlated in the accounting setting.

In the service context, we expect that transformational leadership may lead to learning goal orientation. Transformational managers are proactive in delivering superior service quality

and, through *idealized influence*, serve as role models for their employees. Employees are likely to learn from such managers to improve their own proficiency in service deliveries. Because transformational managers are *inspirational*, they are devoted to enhancing employees' ability to develop new skills and master various situations of service encounters. Transformational managers who use *intellectual stimulation* to encourage employees to take challenges and seek new ways to deal with unpredictable customer needs in different service environments may motivate employees to take up challenging jobs and make extra effort to deal with those jobs. Through *individualized consideration*, transformational managers show support and concern for employees, which would help them overcome the fear of facing and handling challenges. As research has shown that the four dimensions of transformational leadership are highly correlated (e.g., Avolio and Bass, 1999), we suggest that all of these dimensions work as a whole to impact employee's learning goal orientation. Therefore, we hypothesize that

Hypothesis 1: Transformational leadership has a positive influence on learning goal orientation.

Learning goal orientation is expected to be an important motivational source for service quality. To ensure service quality, an organization may specify employees' in-role job requirements that would be mandated, appraised, and rewarded. Such in-role job requirements make employees' work behaviours predictable. As a result, the basic organizational tasks can be coordinated and controlled in order to achieve organizational goals. Due to learning-oriented service employees' tendency to improve proficiency, they would meet or even exceed their in-role job requirements and the organization's standards in service deliveries, leading to enhanced service quality. Furthermore, learning-oriented employees consider service deliveries a challenging task, which encompasses a broad scope and unpredictability of customer needs (Bowen and Schneider, 1988). They are likely to effectively cope with the

challenges of service deliveries by devoting substantial effort to fulfilling customers' individual needs, leading to higher service quality. Hence we suggest the following hypothesis:

Hypothesis 2: Learning goal orientation has a positive influence on service quality.

Transactional leadership, performance goal orientation, and service quality

Transactional leadership is grounded on the idea that leader-follower relationships are based on contingent-reward-based exchanges, in which followers receive certain valued outcomes on the condition that they act according to their leaders' expectations (Burns, 1978). Transactional leadership comprises two components that capture the nature of contingent-reward-based exchanges: contingent reward - the leader articulates the expected performance for the followers' and offers organizational rewards to them when they achieve the performance level; and management by exception - the leader monitors followers' performance and takes corrective actions to keep followers on task (e.g., Bass, 1985). A performance goal orientation reflects the desire to demonstrate one's competence superior to others by attempting to gain favourable judgments and/or avoid negative judgments of one's competence (Dweck, 1986). Thus, employees with a performance orientation are likely to perceive in-role job requirements as competitive standards that motivate them to exert effort in order to outperform others and to obtain favourable competence judgments from their organization's appraisal and reward systems.

A performance goal orientation offers extrinsic work motivation to employees in the sense that they tend to define success on the job in terms of outperforming others and demonstrating superiority (Janssen and Van Yperen, 2004). Given the focus on contingent-reward-based exchanges between the manager and their subordinates, transactional leadership stands out as an essential means to focus employees' effort on completing tasks that help them

to obtain rewards from their organization. Empirical findings have shown that performance goal orientation is positively correlated with in-role performance (Janssen and Van Yperen, 2004).

In the service environment, transactional leadership may lead to performance goal orientation. Through *contingent reward* behaviours, transactional managers specify the expected standards of service deliveries for employees and reward them when employees deliver services that can meet the expected standards. Employees are likely to perceive the explicit job requirements of service delivery as competitive standards and accord a higher priority to rewards. As such, they are motivated to demonstrate their competence in service deliveries in order to acquire rewards. Furthermore, transactional managers by engaging in *management-by-exception* behaviours make close monitoring of employees' performance. This can ensure that employees behave correctly in service deliveries within the given performance standards expected by managers. Thus, employees are prone to have favourable judgments from the organizational appraisal and reward systems. Thus, we propose that

Hypothesis 3: Transactional leadership has a positive influence on performance goal orientation.

Performance goal orientation is also expected to affect service quality. With a clear understanding of the organization's job requirements, performance-oriented service employees would expend considerable efforts on service deliveries so as to outperform others, leading to superior service quality. Moreover, if their performance does not meet the organization's job requirements, they would adhere to managers' guidelines to correct their work behaviours. Hence, we hypothesize that

Hypothesis 4: Performance goal orientation has a positive influence on service quality.

Transformational leadership, transactional leadership, and affective organizational commitment

Affective organizational commitment refers to the psychological attachment of an employee to their employer (Mowday *et al.*, 1982). Affective committed individuals tend to adopt attitudes and behaviours expected by their organization (Becker *et al.*, 1996). They readily accept the goals and values of their organization, and are willing to put extra efforts in achieving these organizational goals (Porter *et al.*, 1974). Empirical studies have shown that transformational leadership is associated with organizational commitment (Bettencourt, 2004; Whittington *et al.*, 2004). However, there is no investigation of the relationship between transactional leadership and organizational commitment.

We expect transformational leadership to have an effect on affective organizational commitment. Transformational managers elevate employees' self-interests to organizational goals of achieving superior service quality through acting as role models, offering intellectual stimulation, inspiring, and providing individual support to employees. Under such circumstances, employees are likely to identify with their employing organization. They tend to adopt the organizational goals. Consequently, they are prone to be committed to providing services that meet the organizational goal of delivering superior quality. Hence, we suggest that

Hypothesis 5: Transformational leadership has a positive influence on affective organizational commitment.

Transactional leadership is also expected to have an influence on affective organizational commitment. Transactional managers, through their contingent reward

behaviours, clearly spell out the performance expectations and rewards for employees and, through their management-by-exception behaviours, help employees to perform properly according to the performance requirements of the organization. Under such circumstances, employees tend to accept and internalize organizational expectations as their goals, thereby putting substantial effort in pursuing the goals for their employing organization. Therefore, we propose that

Hypothesis 6: Transactional leadership has a positive influence on affective organizational commitment.

Affective organizational commitment, learning goal orientation, and performance goal orientation

We argue that organizational commitment also cultivates learning goal orientation and performance goal orientation. The stronger employees are committed to adopting organizational goals, the more intrinsic motivation they possess. Consequently, they are more willing to exert extra effort to perform their tasks and seek challenges. In addition, affective commitment is likely to be more consistently associated with constructive attitudes and behaviours, which should include the learning orientation. Affectively committed employees have a strong belief in the organization's goals and values. Thus, they are more ready to develop personal competence, acquire new skills, and constructively respond to challenging situations in service encounters, leading to increased learning goal orientation. Meanwhile, they are also ready to demonstrate their competence, work according to job requirements, and exert efforts to achieve the requirements, leading to enhanced performance goal orientation. Based on the above arguments, we suggest the following hypotheses:

Hypothesis 7: Affective organizational commitment has a positive influence on learning goal orientation.

Hypothesis 8: Affective organizational commitment has a positive influence on performance goal orientation.

3. Methodology

3.1 Sample

To test our hypotheses, we conduct a large-scale, quantitative study of high-contact service industries in Hong Kong. We identify the main shopping areas in Hong Kong and randomly select three to five shopping centres or malls from each area to collect our data. We control firm size by choosing relatively small service firms with three to eight customer-contact, boundary-spanning service employees whose major responsibility is serving customers or selling products in shops. Being small organizations, their employee satisfaction level tends to be more consistent (George and Bettenhausen, 1990) and easier to capture. We intend to cover different types of service shops (except for those with low customer contacts, such as convenient stores) to strengthen the generalizability of our study. Table 1 shows the major service sectors covered in our study.

3.2 Data collection procedures

We conducted a pilot study in seven different types of service shops, through which we examine the relevance of individual indicators to their corresponding constructs in different service firms (refer to the next section “Instrument Development”). We adopt the multiple informant method to collect data from employees and customers. We develop survey packets, which include three “service employee” questionnaires and five “customer” questionnaires for each shop. Customer-contact service employees are the most relevant informants on

transformational leadership, transactional leadership, learning goal orientation, performance goal orientation and affective organizational commitment. Customers are responsible for answering questions on service quality as they have actual perception and direct experience of the services offered by the firm.

We deployed a research team consisting one of the authors as the leader and 15 student helpers to solicit the participation of service firms in our study. The research team made an on-site visit to each shop to show our sincerity and clearly explain our requirements to all of the potential respondents in person. To enhance the response rate and reduce the non-respondent bias, we rewarded each respondent in the shop a cash coupon of HK\$50 (around US\$6.5) and each customer HK\$20 (around US\$2.5). The team distributed the questionnaires in person to three service employees at each shop. We allowed them to complete the questionnaires at different times and places (e.g., work vs. home) at their convenience. This helped mitigate the problem of transient mood state and common stimulus cues - a source of common method bias (Podsakoff and Organ, 1986). All the respondents were assured of confidentiality that nobody from the shop would have access to their individual response. The research team collected the questionnaire from each respondent individually in person. We also re-visited individual participants that had not returned the questionnaire by the due date to re-invite them to participate. Re-visiting indeed helped increase the response rate.

We collected data on service quality from five randomly chosen customers after we acquired the required employee data from the service firm. We interviewed individual customers after they had patronized the shop. We obtained data from customers at different time slots in at least two different days. The objective is to ensure that customers were interviewed randomly at different times. We matched employee and customer data by using research-assigned identification numbers.

We visited a total of 350 service firms over a period of two years, 263 of which initially agreed to participate in this research. However, 30 firms dropped out in a later stage. Respondents in another three firms provided incomplete data and were not willing to take follow-up actions. Finally, we obtained complete sets of usable questionnaires from 1,840 individual participants, including 1,150 customers and 690 service employees from 230 firms. Table 1 shows the distribution of the sampled firms.

(----- Table 1 about here -----)

3.3 Instrument development

The measures used in this study are drawn from well-established instruments in OM, OB, and marketing. The following measures consist of items that respondents were asked to rate each on a seven-point Likert-type scale, anchored at 1 = “totally disagree” and 7 = “totally agree”.

Transformational leadership: We measure transformational leadership using items from Multifactor Leadership Questionnaire (Bass, 1985, 1998) modified by Vera and Crossan (2004). Transformational leadership contains four dimensions, namely charismatic leadership, inspirational motivation, intellectual stimulation, and individualized consideration. Following similar research (e.g., Vera and Crossan, 2004), we assess three items from each of the four dimensions.

Transactional leadership: We assess transactional leadership using items from Multifactor Leadership Questionnaire (Bass, 1985, 1998) modified by Vera and Crossan (2004). Transactional leadership includes two dimensions, namely contingent reward and management by exception. Like Vera and Crossan (2004), we measure three items from each of the two dimensions.

Learning goal orientation: We measure service employees' learning goal orientation using the 9-item instrument developed by Ames and Archera (1988) and modified by Sujan *et al.* (1994). Through discussion with service employees in the pilot studies, we extract the four most relevant items out of the nine items. The extracted items emphasize assessing employees' willingness to make effort or take action to learn, rather than their perceived importance of learning.

Performance goal orientation: We assess employees' performance goal orientation using the 6-item instrument developed by Ames and Archera (1988) and modified by Sujan *et al.* (1994). However, our interviews with employees during the pilot studies generally suggested that employee performance, rather than their ability to deliver performance or the standard of performance, better reflect employees' performance goal orientation. Accordingly, we refine the instrument by selecting the four most relevant items related to employee performance (e.g., outperforming other employees).

Affective organizational commitment: We measure employee's affective organizational commitment to the company using four of the eight items from the scale developed by Mowday *et al.* (1979) for this construct. We exclude four items from the original scale because these items appear to be less relevant in a local service context after the pilot studies.

Service quality: We adopt the SERVQUAL instrument developed by Parasuraman *et al.* (1988) to assess customer perception of service quality. SERVQUAL consists of five dimensions of perceived service quality, namely tangibles, reliability, responsiveness, assurance, and empathy. We seek to assess the quality of the services delivered by service employees. Therefore, consistent with previous research on service quality (e.g., De Jong *et al.*, 2005; Yee *et al.*, 2011), we choose an item from each of the five dimensions that typically reflect service employee-related aspects of service quality, instead of using all the 22 items in SERVQUAL.

3.4 Data aggregation

In this study we aggregate the data on transformational leadership, transactional leadership, learning goal orientation, performance goal orientation, affective organizational commitment, and service quality to the shop level. This aggregation reflects our conceptualization of the constructs as a shop characteristic, rather than an individual characteristic. We statistically justify aggregation by examining within-shop agreement and reliability and between-shop differences. We estimate within-shop inter-rater agreement following the suggestions in Psychology (James *et al.*, 1984; Lindell and Brandt, 1999). The within-shop agreement statistics ($r_{wg(j)}$) for the constructs of transformational leadership, transactional leadership, learning goal orientation, performance goal orientation, affective organizational commitment, and service quality range from 0.866 to 0.921. These values all far exceed 0.7, the lowest appropriate criterion for aggregation of individual-level measures to unit level (James *et al.*, 1993; Klein and Kozlowski, 2000), suggesting within-shop agreement among employees or customers is sufficient to aggregate the data to the shop level for further analysis.

To further justify aggregation to the shop level, we use intra-class correlation statistics, namely ICC(1) and ICC(2), to assess inter-rater reliability (Bartko, 1976; Shrout and Fleiss, 1979) within shops. ICC(1) compares the variance between units of analysis (shops) to the variance within units of analysis using the individual ratings of each respondent. ICC(2) assesses the relative status of between and within variability using the average ratings of respondents within each unit (Bartko, 1976; Schneider *et al.*, 1998). Based on a one-way analysis of variance (ANOVA) (Bliese, 2000), the ICC(1) values of transformational leadership, transactional leadership, learning goal orientation, performance goal orientation, affective organizational commitment, and service quality range between 0.436 and 0.650. These ICC(1) values are much greater than the cutoff point of 0.12 recommended by James (1982), indicating a sufficient inter-shop variability ratio. The ICC(2) values range from 0.607 for learning goal

orientation to 0.788 for performance goal orientation. All the ICC(2) values exceed the value commonly considered the lowest acceptable, 0.6 (Glick, 1985), rendering sufficient inter-rater reliability within shops for further analysis at the shop level. Taken together, the $r_{wg(j)}$, ICC(1), and ICC(2) values justify aggregation of the data on transformational leadership, transactional leadership, learning goal orientation, performance goal orientation, affective organizational commitment, and service quality to the shop level.

3.5 Common method variance

When two or more variables are collected from the same respondents and an attempt is made to interpret their correlation, a problem of common method variance could happen (Podsakoff and Organ, 1986). In our study, the relations among transformational leadership, transactional leadership, learning goal orientation, performance goal orientation, and affective organizational commitment might be affected by this problem. One proactive approach to avoid common method variance is to separate the measurement items within the questionnaire, which we adopt in this research. We also conduct Harman's one-factor test to assess the influence of common method variance (Podsakoff and Organ, 1986) in our collected data. We conduct the test on items for transformational leadership, transactional leadership, learning goal orientation, performance goal orientation, and affective organizational commitment. The results of this test show that five factors are clearly produced, suggesting that common method bias is not serious in our study. Table 2 shows the results of the Harman's one-factor test.

(----- Table 2 about here -----)

4. Data Analysis and Results

We apply structural equation modeling (SEM) to examine the proposed model, using Analysis of Moment Structures (AMOS). [Following similar studies \(Fynes *et al.*, 2005; Skerlavaj *et al.*,](#)

2007; Koufteros *et al.*, 2009), we adopt the two-step approach that a measurement model is tested prior to estimating the structural model (Anderson and Gerbing, 1988). In what follows, we present the results of measurement models analysis, structural model analysis, hypotheses testing, and comparison of competing models.

4.1 Measurement models results

To check the measures' convergent and discriminant validity of the scales, we conduct a number of confirmatory factor analyses. Convergent validity can be assessed by construct reliability (Bagozzi and Yi, 1988) and average variance extracted (AVE) (Fornell and Larcker, 1981). As shown in the Appendix, all the measures of our instrument are found to be highly reliable with construct reliability greater than 0.8 (Nunnally, 1978), showing that the indicators sufficiently represent their corresponding constructs. The values of construct reliability range from 0.875 for learning goal orientation to 0.971 for transformational leadership. The AVE values are all above the suggested criterion of 0.5 cutoff (Fornell and Larcker, 1981), with a range from 0.593 for service quality to 0.893 for transformational leadership, demonstrating that more variance is captured by the construct relative to the amount of variance due to measurement error.

Discriminant validity can be evaluated by fixing the correlation between any pair of related constructs at 1.0, prior to re-estimating the modified model (Segars and Grover, 1993; Chau, 1997). A significant difference in the chi-square statistics between the fixed and unconstrained models indicates high discriminant validity. By fixing the correlation between any pair of related constructs in the measurement models to the perfect correlation of 1.0, the chi-square values increase by at least 181.269. With an increase in one degree of freedom, these chi-square values were highly significant at $p = 0.01$ ($\Delta\chi^2 \geq 6.635$). In addition, discriminant validity exists if the AVEs of two constructs are greater than their squared correlation (Fornell and Larcker, 1981; Chau, 1997). For example, the AVEs for transformational leadership,

transactional leadership, affective organizational commitment, learning goal orientation, performance goal orientation, and service quality are 0.893, 0.830, 0.827, 0.638, 0.703, and 0.593, respectively, while the highest value of the squared correlation between any pair of those constructs is only 0.388.

Table 3 shows the results of the analysis of the individual measurement models (Chau, 1997) of the five constructs. The values of absolute fit measures for transformational leadership, transactional leadership, learning goal orientation, performance goal orientation, affective organizational commitment, and service quality are above their corresponding acceptable criteria, suggesting the measurement models are capable of predicting the observed covariance or correlation matrix. The values of comparative fit measures are also above the acceptable criteria, providing evidence against the hypothesis of a null model. All the results of absolute fit measures and comparative fit measures support the belief that the measurement models achieve satisfactory fit and are ready to be used in the analysis of structural models.

(----- Table 3 about here -----)

4.2 Structural model results and hypotheses testing

After confirming the well-fitting measurement models, we examine the hypothesized model (Model H). Table 4 shows the goodness of fit statistics for Model H. The hypothesized model fits the data well: $\chi^2 = 241.663$; $\chi^2/df = 1.093$; GFI = 0.918, RMSEA = 0.020; NFI = 0.949; NNFI = 0.995; CFI = 0.995; AGFI = 0.898. All the hypothetical relationships are supported, except the relations between transactional leadership and performance goal orientation, affective organizational commitment and performance goal orientation, as well as performance goal orientation and service quality. The estimate of the standardized path coefficient (P) indicates that transformational leadership has significant and direct impact on learning goal orientation, supporting Hypothesis 1 ($P = 0.261, t = 2.781, p < 0.01$). Hypothesis 2 is supported

because learning goal orientation has a significant effect on service quality at $p = 0.001$ ($P = 0.266, t = 3.510, p < 0.001$). However, contradicting Hypothesis 3, transactional leadership does not influence performance goal orientation. Hypothesis 4 does not support because performance goal orientation does not affect service quality. Transformational leadership has a significant influence on affective organizational commitment, supporting Hypothesis 5 ($P = 0.625, t = 8.484, p < 0.001$). Transactional leadership is associated with affective organizational commitment, supporting Hypothesis 6 ($P = 0.178, t = 2.528, p < 0.05$). The linkage between affective organizational commitment and learning goal orientation is highly significant ($P = 0.403, t = 4.180, p < 0.001$). Hypothesis 7 is thus supported. Contradicting Hypothesis 8, affective organizational commitment does not affect performance goal orientation. The hypothesized model and its path estimates are shown in Figure 1.

(----- Figure 1 about here -----)

4.3 Comparison of competing models

Following Kelloway's (1996) recommendations for good practice of SEM, we compare the hypothesized model against two theoretically plausible alternatives as displayed in Figure 2. We report in Table 4 the goodness of fit indices of these competing structural models. Based on the results of the hypothesized model, we develop our first model (Model A₁) that predicts the effect of affective organizational commitment on service quality. The fit of this model is almost identical to that of the hypothesized model. With a decrease in one degree of freedom, the χ^2 value only increases by 0.488 ($\Delta\chi^2 = 241.663 - 241.175$), which is insignificant at $p = 0.05$ ($\Delta\chi^2 > 3.841$). Thus, Model A₁ is rejected, providing evidence against the alternative hypothesis that affective organizational commitment does not have a direct impact on service quality. We make the second comparison between the hypothesized model and the model in which performance goal orientation influences learning goal orientation (Model A₂). Compared with the hypothesized model ($\chi^2 = 241.663$), Model A₂ ($\chi^2 = 241.481$) has an insignificant χ^2

value of 0.182 ($\Delta\chi^2 = 241.663 - 241.481$) at $p = 0.05$ level ($\Delta\chi^2 > 3.841$) with a decrease in one degree of freedom. Thus, Model A₂ is rejected, confirming that performance goal orientation has no influence on learning goal orientation.

All the statistical indices displayed in Table 4 suggest that Model H is the best fit structural model among the competing models. Consequently, we select the hypothesized model (Model H) because it best represents the “true model”. Figure 2 shows the alternative models and their path estimates.

(----- Table 4 about here -----)

(----- Figure 2 about here -----)

5. Discussion and Conclusions

This study is a conceptual and empirical examination of the linkages between management leadership style, employee attitude with respect to goal orientation and organizational commitment, and quality performance within the context of high-contact service environments. Specifically, we develop and test hypotheses concerning how transformational leadership and transactional leadership of managers influence the learning goal orientation and performance goal orientation of employees, and how these two types of goal orientation influence customer-perceived service quality in service shops that require a high level of customer contact in the service creation process. In addition, we examine how employee affective organizational commitment acts as a mediator between the leadership and goal orientation constructs. In this study we pay special attention to the research methodology to ensure its rigour. For instance, the constructs relating to organizational concepts (i.e., leadership style and goal orientation etc.) and service performance (i.e., service quality) are rated by employees and customers, respectively. Multiple informants are employed in each unit of analysis in the measurement of employee attitudes and service quality, and related multi-rater measures are assessed before

aggregating data to form our dataset. Finally, by making on-site visit to each of the service shops in our data collection process, we can ensure that the firms we examined genuinely operate under a high-contact service environment. In sum, this study offers not only practically relevant insights on the management of high-contact services to managers, but also empirical evidence that advances the knowledge frontier of service science, organization theory, and quality management by using a rigorous research methodology.

In high-contact service firms, service employees often have to interact with customers directly in order to understand customer needs and work jointly with them to create and deliver services. They may experience stress due to their boundary-spanning roles (Crosno *et al.*, 2009). Stress arises when employees experience role conflict resulting from perceived obligations to fulfill inherently conflicting expectations from management and customers. Such stress may subsequently lead to burnout and poor job outcomes in the service employees (Singh *et al.*, 1994). These challenges are concerned with the emotions of service employees. They are unlikely to be addressed effectively by the recent advances in the knowledge of service science (e.g., information and networking technology). Our study attempts to shed new light on the service science literature by offering insights and empirical demonstration that such concepts as leadership style and goal orientation from the organization theory literature could help enhance the quality performance of high-contact service firms.

The analysis results of the four hypotheses concerning leadership (i.e., H1, H3, H5, and H6) suggest that transformational leadership enhances both affective organizational commitment and learning goal orientation, whereas transactional leadership has a positive impact on affective organizational commitment only. Furthermore, by comparing the standardized path coefficients between leadership style and affective organizational commitment, the results suggest that transformational leadership has a much stronger impact on affective organizational commitment than that of transactional leadership. So the results

imply that transformational leadership is more effective than transactional leadership in influencing service employee attitude concerning affective organizational commitment as well as the two types of goal orientation. These findings could be partly explained by the fact that customer requirements, the processes required in the service creation, and the resulting level of customer satisfaction tend to be unpredictable in a high-contact service environment. This may cause service employees to perceive that their efforts and the resulting customer satisfaction are not closely related. Thus, the major elements of transactional leadership such as contingent reward and performance monitoring tend to be ineffective in such a situation. On the contrary, since service employees may suffer from emotional problems such as stress and burnout, the guidelines, inspiration, stimulation, and personalized care offered by a transformational leader could be effective to mitigate such emotional problems, thereby enhancing employee performance in serving customers.

Indeed, such findings are consistent with the results of the meta-analysis of Judge and Piccolo (2004) in that both their results and the findings of this study imply that while both transformational and transactional leadership could impact followers positively, transformational leadership is relatively more effective in performance enhancement. However, although the literature is replete of studies on the effectiveness of transformational leadership, many of them focus primarily on its effectiveness among higher ranking executives or within top management teams (e.g., Colbert *et al.*, 2008; Jung *et al.*, 2008; Ling *et al.*, 2008a, 2008b; Peterson, 2009). The classic contingency leadership model (Fielder, 1967) and some recent work on transformational leadership (e.g., Shamir and Howell, 1999; Ling *et al.*, 2008a) also contend that the effectiveness of a leadership style is dependent on the context. Yet leadership studies focusing on contexts relating to operational level employees or high-contact service firms are limited. Through the use of data collected from operational employees who are

responsible for creating services in high-contact service firms, we offer new empirical evidence that enriches the literature pertaining to the effectiveness of leadership in different contexts.

In regard to the analysis results of the hypotheses concerning affective organizational commitment, the results of H5 and H6 suggest that employee affective organizational commitment is affected by both transformational and transactional leadership. One plausible reason for these results is that as long as a leader adopts a specific type of leadership style (e.g., transformational or transactional leadership), they would communicate with employees on the goals they need to achieve. Such an understanding on job goals is likely to facilitate employees to align what they do with the goals and achieve their goals more effectively. When service employees achieve their job goals constantly, they may develop positive attitudes such as perceived job security and commitment towards the organization. This finding is partly consistent with the results of Bettencourt (2004) and Whittington *et al.* (2004). In addition, the analysis results of H7 and H8 indicate that affective organizational commitment is related to learning goal orientation but not performance goal orientation. These results could be in part related to the situation that when a service employee is committed to their organization, they tend to consider what may lead to improvements in their job over a longer period of time. This employee is, therefore, more likely to adopt a learning goal orientation as the knowledge and skills resulting from this type of goal orientation should lead to a long-term effect on their job performance. In contrast, a performance goal orientation, which reflects the desire to obtain contingent reward or demonstrate one's competence, is relatively less consistent with the long-term perspective of a committed employee. Overall, these findings contribute to the literature by offering new insights that affective organizational commitment could be a valid mediator between a learning goal orientation in employees and two types of leadership style, namely transformational and transactional leaderships, in the high-contact service environment.

The analysis results of H2 suggest that learning goal orientation has a positive and direct impact on service quality. This finding lends credence to the prominence of learning goal orientation in high-contact service employees. As discussed earlier, service employees in a high customer-contact environment often have to deal with diverse and unpredictable customer requirements. It is not surprising that learning-oriented employees, who tend to be more competent and have a positive attitude towards challenging tasks (Dweck, 2000), could serve customers well in a high-contact service environment. Indeed, this finding is in part consistent with the results of Janssen and Van Yperen (2004). In addition, the results suggest that the learning goal orientation in service employees is influenced by transformational leadership and affective organizational commitment (i.e., the analysis results of H1 and H7). As discussed earlier, its relationship with affective organizational commitment is likely to be related to the underlying long-term perspective in both constructs. As for its relationship with transformational leadership, it may be due to the influence of such elements as inspirational motivation and intellectual stimulation of transformational leaders. In sum, the findings supplement similar studies in the literature (e.g., Coad and Berry, 1998) by indicating the importance of a learning goal orientation in high-contact service firms.

Counter to predictions, the analysis results of the hypotheses concerning performance goal orientation suggest that it is not associated with transactional leadership, affective organizational commitment, and service quality (see the results of H3, H8, and H4). One plausible reason for the lack of a relationship with service quality is that while a performance goal orientation represents the desire of employees to gain favourable judgments by their leaders or organizations' appraisal and reward systems, such a desire may not support the development of the necessary skill set for service employees to deal with diverse and unpredictable customer requirements. The lack of a relationship with affective organizational commitment may be due to the absence of a long-term perspective in the performance goal

orientation, as discussed earlier. The lack of a relationship between transactional leadership and performance goal orientation is counter-intuitive because both concepts place an emphasis on job outcomes and the related reward. Future research may use exploratory methods such as interviews or case studies to investigate the underlying reasons.

Managerial implications

This study provides managers of high-contact service firms with useful ideas to identify the leadership style and the type of goal orientation that are likely to be more effective in their environments. Our results indicate that a learning goal orientation should be more effective than a performance goal orientation for service employers. This result implies that the knowledge and skills resulting from a desire to learn are important for high-contact service employees to deal with challenging customer requirements. When selecting new employees, managers of high-contact service firms may have to use psychological personality tests to identify candidates who possess a stronger learning goal orientation. To manage existing employees, managers may spread the knowledge about the basic ideas and importance of a learning goal orientation through different training activities or communication methods.

Our findings indicate that transformational leadership tends to be more effective than transactional leadership in influencing employee attitudes in high-contact service firms. Specifically, this result imply that the idealized influence, inspiration, motivation, and personalized care offered by a transformational leader would be more effective than practices such as contingent rewards and management-by-exception employed by a transactional leader. Thus, the elements and languages of transformational leadership could be incorporated in the training of managers or supervisors of high contact service firms.

In addition, we find that while transformational leadership and learning goal orientation are important constructs conducive to superior service quality, they are mediated by affective

organizational commitment. A learning-oriented employee may have a strong desire to learn new knowledge constantly. Such an employee, however, may not learn the knowledge that could benefit the organization significantly. So it is important that on the one hand, there is a transformational leader who could communicate well with the employee on the job objectives. On the other hand, an organizational commitment has to be developed in the employee such that they will align the knowledge they learn with the job objectives assigned by the manager. Overall, managers of high-contact service firms have to be aware that when striving to improve quality performance, they may need to not only adopt transformational leadership, but also develop affective organizational commitment and a learning goal orientation in the service employees.

Limitations and future research directions

It should be noted that although this study contributes new insights to both practitioners and the literature, it has limitations and viable prospects for further research exist. Our data are collected from high-contact and labor-intensive service shops that are mostly small enterprises. Thus, our findings may not be generalized to low-contact service shops (e.g., convenient stores and fast-food restaurants), knowledge-intensive service sectors (e.g., accounting and law firms), or sizable service businesses (e.g., department stores and chain supermarkets). Another limitation is the fact that this study is based on cross-sectional survey data, which makes the assumed cause-effect relationship in the posited hypotheses questionable. Future research could use a longitudinal approach to collect data on management leadership, employee goal orientations, and service quality at different times in order to obtain evidence on the presumed cause-effect relationship in the hypotheses. In addition to leadership style, affective organizational commitment, and goal orientations, there are other relevant concepts that may influence service quality. For example, leader-member exchange and employee personality are potential constructs that may influence the performance of frontline employees. Future research

should explore such research directions. Also, future research may examine why transactional leadership is not associated with performance goal orientation and why it does not lead to better service quality performance. In-depth case studies could be conducted to solicit data to account for this unexpected finding.

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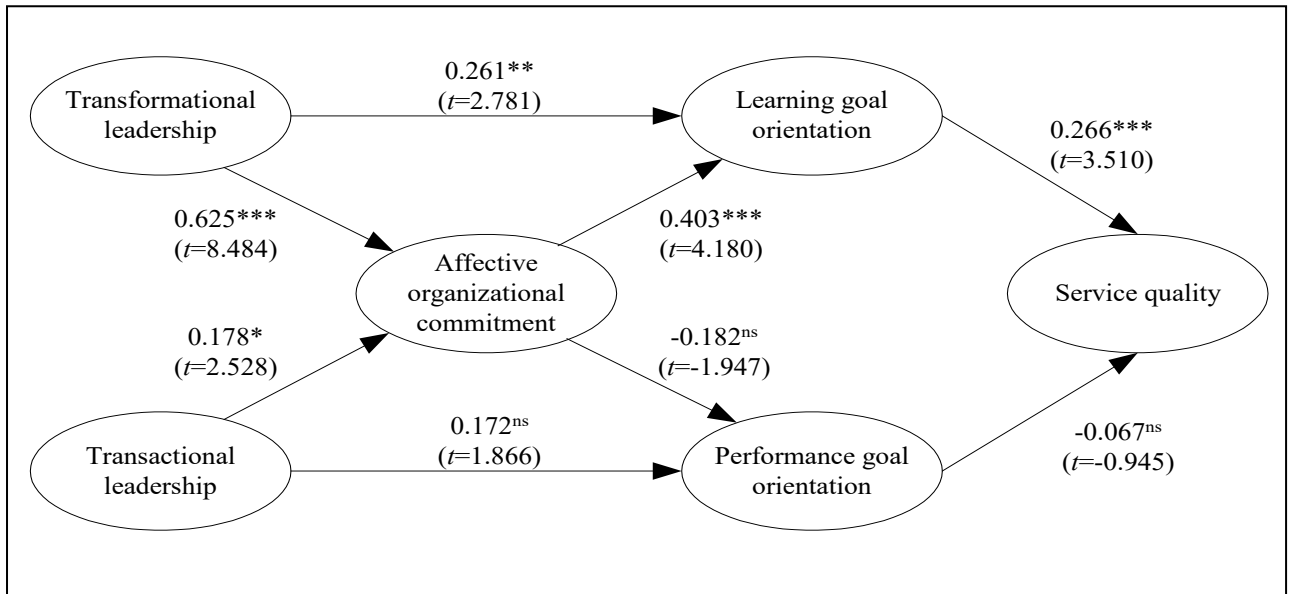
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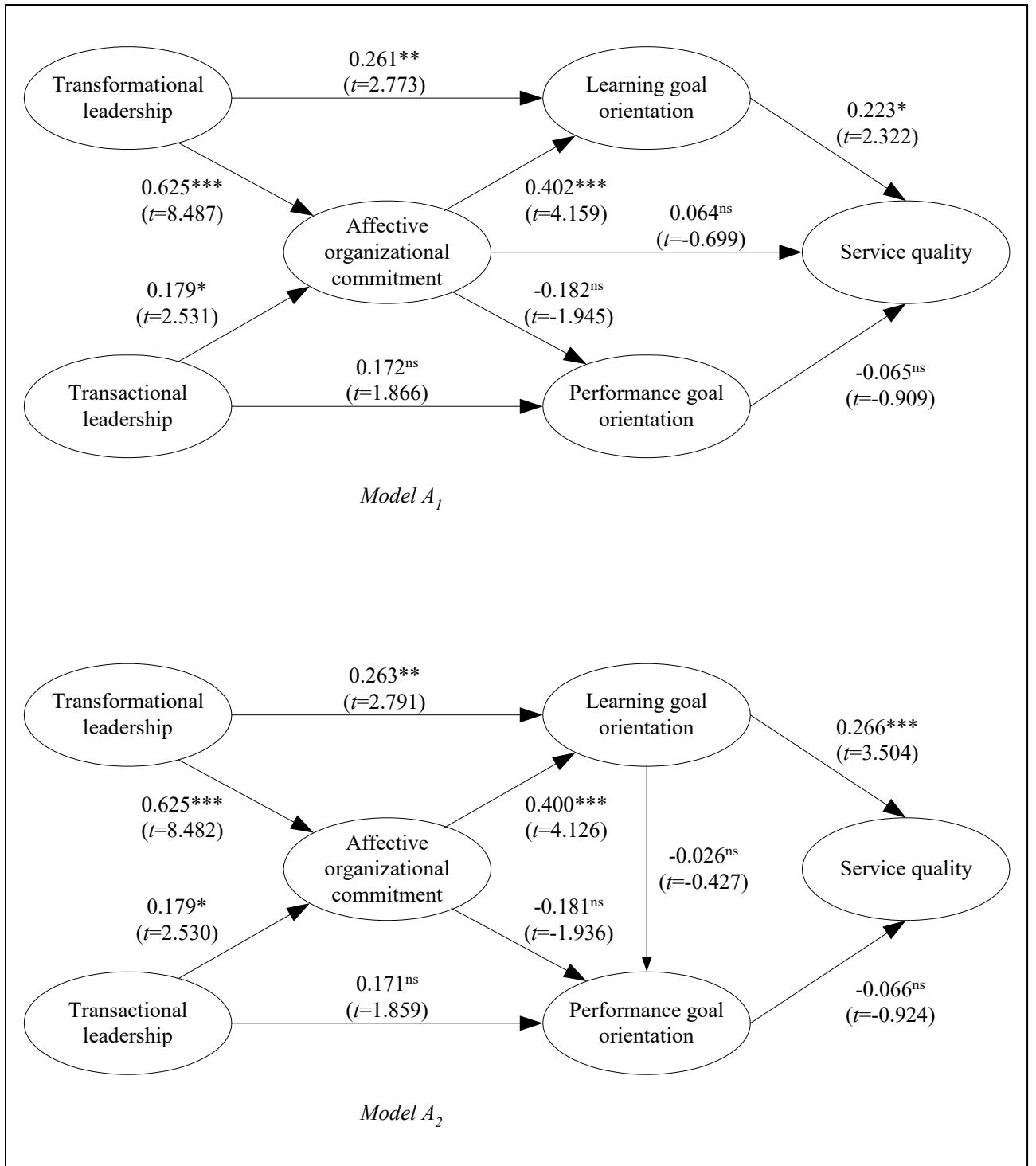
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Figures and Tables:



*** $p < .001$; ** $p < .01$; * $p < .05$

Figure 1 Hypothesized model (Model H) and its path estimates



*** $p < .001$; ** $p < .01$; * $p < .05$

Figure 2 Alternative models and their path estimates

Table 1 Distribution of sampled shops

Service Sector	Number of shops
Agency service (e.g., estate agencies and travel agencies)	17
Beauty care services (e.g., salons and beauty shops)	35
Catering (e.g., steakhouses)	74
Fashion retailing (e.g., dress shops and shoes shops)	39
Optical services (e.g., optometry shops and optical shops)	10
Retailing of instruments (e.g., musical instruments shops)	9
Retailing of health care products (e.g., cosmetic shops)	12
Retailing of valuable products (e.g., jewelry shops)	14
Others	20
Total	230

Table 2 Results of Harman's one factor test of transformational leadership, transactional leadership, learning goal orientation, performance goal orientation, and affective organizational commitment

	Factor 1 (Transformational leadership)	Factor 2 (Transactional leadership)	Factor 3 (Learning goal orientation)	Factor 4 (Performance goal orientation)	Factor 5 (Organizational commitment)
Make employee enthusiastic about assignments	0.757	0.306	0.241	0.009	0.266
Get employees' complete faith	0.753	0.320	0.194	-0.017	0.232
Encourage to express ideas	0.825	0.241	0.251	0.002	0.189
Have an inspiration	0.836	0.290	0.163	-0.062	0.230
Inspire loyalty to supervisor	0.832	0.300	0.176	-0.028	0.222
Inspire loyalty to company	0.814	0.287	0.148	-0.033	0.271
Force employees to re-think their ideas	0.811	0.245	0.249	-0.034	0.152
Enable to think in new ways	0.836	0.218	0.274	-0.001	0.117
Provide new ways of looking at things	0.845	0.206	0.254	-0.013	0.160
Give personal attention to employees	0.827	0.221	0.140	-0.003	0.247
Find out what employees want and tries to help	0.805	0.312	0.175	0.018	0.221
Express appreciation	0.769	0.303	0.225	0.004	0.219
Tell me what to do for getting reward	0.449	0.604	0.168	0.031	0.210
Have agreement for the effort put and the reward gotten	0.415	0.694	0.104	0.060	0.292
Allow employees to negotiate for what to get	0.385	0.743	0.075	0.036	0.207
Ask no more than of employee what is essential to get the work done	0.341	0.744	0.091	0.039	0.231
Do not encourage employees to take initiatives	0.284	0.852	0.118	0.060	0.038

Tell what employee has to know to do	0.249	0.817	0.102	0.039	0.054
Consider making mistakes as a part of learning process	0.262	0.081	0.731	0.003	0.194
Do not have a lot of new things to learn	0.252	0.042	0.649	-0.018	0.182
Spend time to learn	0.218	0.129	0.796	-0.054	0.125
Pay great effort to learn	0.255	0.162	0.764	-0.026	0.122
Be seen as a good employee	0.010	0.068	0.024	0.839	-0.054
Outperform other employees	0.010	0.074	0.015	0.854	-0.053
Communicate the accomplishments to supervisor	-0.051	0.004	-0.083	0.882	-0.073
Compare performance with other employees'	-0.028	0.004	-0.038	0.776	0.103
Take up the organization to friends	0.411	0.220	0.242	-0.068	0.728
Have similar value with the organization's	0.432	0.240	0.275	-0.007	0.713
Have inspiration of the best in the way of job performance from the organization	0.453	0.219	0.318	-0.009	0.709
Consider the organization as the best one to work	0.401	0.242	0.227	-0.050	0.735

Table 3 Goodness of fit indices for measurement models

Goodness of Fit Measure	Criteria	Transformational leadership and transactional leadership	Learning goal orientation	Performance goal orientation	Affective organizational commitment	Service quality
Sample Moments	-	21	10	10	10	15
Distinct Parameters	-	13	8	8	8	10
Chi-square (χ^2) of Estimated Model	-	22.690	2.858	3.660	4.609	8.834
Degree of Freedom (<i>df</i>)	-	8	2	2	2	5
<i>Absolute Fit Measures</i>						
Chi-square/Degree of Freedom (χ^2/df)	≤ 3.0	2.836	1.429	1.830	2.305	1.767
Goodness of Fit Index (GFI)	$\geq .90$	0.969	0.994	0.992	0.990	0.985
Root Mean Square Residual (RMSR)	$\leq .10$	0.090	0.043	0.060	0.075	0.058
<i>Comparative Fit Measures</i>						
Normed Fit Index (NFI)	$\geq .90$	0.987	0.994	0.994	0.995	0.985
Non-normed Fit Index (NNFI)	$\geq .90$	0.984	0.994	0.991	0.991	0.987
Comparative Fit Index (CFI)	$\geq .90$	0.991	0.998	0.997	0.997	0.993
Adjusted Goodness of Fit Index (AGFI)	$\geq .80$	0.920	0.969	0.961	0.948	0.956

Table 4 Goodness of fit indices for hypothesized and competing structural models

Goodness of Fit Measure	Criteria	Model H	Model A ₁	Model A ₂
<i>Absolute Fit Measures</i>				
Distinct Parameters	-	276	276	276
Chi-square (χ^2) of Estimated Model	-	241.663	241.175	241.481
Degree of Freedom (<i>df</i>)	-	221	220	220
Chi-square/Degree of Freedom (χ^2/df)	≤ 3.0	1.093	1.098	1.096
Goodness of Fit Index (GFI)	$\geq .90$	0.918	0.918	0.918
Root Mean Square Residual (RMSR)	$\leq .10$	0.020	0.021	0.021
<i>Comparative Fit Measures</i>				
Normed Fit Index (NFI)	$\geq .90$	0.949	0.949	0.949
Non-normed Fit Index (NNFI)	$\geq .90$	0.995	0.994	0.995
Comparative Fit Index (CFI)	$\geq .90$	0.995	0.995	0.995
Adjusted Goodness of Fit Index (AGFI)	$\geq .80$	0.898	0.897	0.898

Appendix: Questionnaires and their measurement properties

(a) Service employee questionnaire

Responses to the following questions range from 1 = “Totally disagree” to 7 = “Totally agree”.

Transformational leadership [Cronbach’s $\alpha = 0.981$, $r_{wg(j)} = 0.921$, ICC(1) = 0.479, ICC(2) = 0.648, AVE = 0.893, Construct reliability = 0.971]

- TFL1 My supervisor makes every service employee around him/her enthusiastic about assignments.
- TFL2 I have complete faith in my supervisor.
- TFL3 My supervisor encourages us to express my ideas and opinions.
- TFL4 My supervisor is an inspiration to me.
- TFL5 My supervisor inspires loyalty to him/her.
- TFL6 My supervisor inspires loyalty to my company.
- TFL7 My supervisor’s ideas have forced me to re-think some of my own ideas, which I had never questioned before.
- TFL8 Our supervisor enables us to think about old problems in new ways.
- TFL9 My supervisor has provided me with new ways of looking at things, which used to be a puzzle for us.
- TFL10 My supervisor gives personal attention to service employees who seem neglected.
- TFL11 My supervisor finds out what I want and tries to help us get it.
- TFL12 I can count on him/her to express our supervisor’s appreciation when I do a good job.

Transactional leadership [Cronbach’s $\alpha = 0.938$, $r_{wg(j)} = 0.921$, ICC(1) = 0.444, ICC(2) = 0.615, AVE = 0.830, Construct reliability = 0.907]

- TAL1 My supervisor tells me what to do if I want to be rewarded for my efforts.
- TAL2 There is a close agreement between what I am expected to put into the group effort and what I can get out of it.
- TAL3 Whenever I feel like it, I can negotiate with my supervisor about what I can get from what I accomplish.
- TAL4 My supervisor asks no more of me than what is absolutely essential to get the work done.
- TAL5 It is all right if I take initiatives but my supervisor does not encourage me to do so.
- TAL6 My supervisor only tells me what I have to know to do my job.

Learning goal orientation [Cronbach’s $\alpha = 0.874$, $r_{wg(j)} = 0.919$, ICC(1) = 0.436, ICC(2) = 0.607, AVE = 0.638, Construct reliability = 0.875]

- LO1 Making mistakes when serving is just part of the learning process.

- LO2 There really are not a lot of new things to learn about selling or service.
(reverse coding)
- LO3 It is worth spending a great deal of our time to learn new approaches for dealing
with customers.
- LO4 I put a great deal of effort sometimes in order to learn something new.

Performance goal orientation [Cronbach's $\alpha = 0.901$, $r_{wg(j)} = 0.866$, ICC(1) = 0.650, ICC(2) = 0.788, AVE = 0.703, Construct reliability = 0.904]

- PO1 It is very important to me that my supervisor sees me as a good service
employee.
- PO2 I feel very good when I know I have outperformed other service employees.
- PO3 I always try to communicate my accomplishments to my supervisor.
- PO4 I spend a lot of time thinking about how my performance compares with other
service employees'.

Affective organizational commitment [Cronbach's $\alpha = 0.948$, $r_{wg(j)} = 0.903$, ICC(1) = 0.476, ICC(2) = 0.645, AVE = 0.827, Construct reliability = 0.950]

- OC1 I take up this organization to our friends as a great organization to work for.
- OC2 My values and the organization's values are very similar.
- OC3 This organization really inspires the best in me in the way of job performance.
- OC4 For me, this is the best of all organizations for which to work.

(b) Customer questionnaire

Responses to the following questions range from 1 = "Totally disagree" to 7 = "Totally agree".

Service quality [Cronbach's $\alpha = 0.870$, $r_{wg(j)} = 0.912$, ICC(1) = 0.524, ICC(2) = 0.688, AVE = 0.593, Construct reliability = 0.878]

- SQ1 The service employees are neat and appropriate.
- SQ2 The service employees keep my records accurately.
- SQ3 The service employees provide prompt services to me.
- SQ4 The service employees get adequate support to do my jobs well.
- SQ5 The service employees do not give personal care to me. (reverse coding)