

SYED HAIDER KHALIL
SHER ALI KHAN
ZIA UL ISLAM
FATIMA SHUJA

Leading for sustainability: how human capital sustainability leadership shapes commitment, engagement, and employee service quality?

Abstract

Research background and purpose: Despite the significance of human capital sustainability leadership (HCSL) discussed in recent studies, our understanding of its consequences is limited. We examined the intervening role of organisational commitment, engagement, and employee conscientiousness in the HCSL-employee service quality relationship. The current study builds on the social exchange theory to critically examine the interplay between HCSL, organisational commitment, engagement, and employee service quality.

Design/methodology/approach: A questionnaire-based survey was conducted among 373 respondents, i.e. supervisor-employee dyads, working in the hotels of Pakistan for testing a moderated mediation model using structural equation modelling.

Findings: Findings reveal that the HCSL, organisational commitment, and organisational engagement positively correlate with employee service quality. The relationship between HCSL and employee service quality is positively mediated by organisational commitment and organisational engagement, where these mediated relationships were stronger among highly conscientious employees.

Value added and limitations: This study advances understanding of HCSL as a catalyst for workplace sustainability by fostering committed, engaged, and conscientious employees triggering sustained service excellence. The current study holds practical implications in designing sustainability-driven policies and leadership style that strengthen sustainable human capital and performance. The current study is one of the first to unpack the interplay of HCSL-employee service quality relationship and provide insights into how sustainability-oriented leadership translates into sustainable workforce and organisational outcomes.

Keywords: *human capital sustainability leadership, employee conscientiousness, organisational engagement, organisational commitment, employee service quality*

JEL

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1 Introduction

HCSL is a contemporary leadership style that emphasises key leadership dimensions' embeddedness for sustaining organisational human capital (Peiró et al., 2023). HCSL is further classified into four core sub-categories, which integrate the traditional perspective of sustainability leadership (Xin et al., 2025) with ethical leadership (Anastasiou, 2025), mindful leadership (Di Fabio & Peiró, 2018), and servant leadership (El Reqib & Tariq, 2025). The key significance of HCSL lies in the understanding of sustaining employees by adopting these facets of leadership that can further enhance the work environment and outcomes within organisations (Xin et al., 2025). HCSL, a leadership style emphasising employee sustainability, is geared towards enhancing employee wellbeing, efficiency, emotions, and attitudes (Di Fabio & Peiró, 2018; Khalil et al., 2021). A higher level of employee service quality, a desired employee behaviour, that entails the ability of employees to address varying customer demands (El Reqib & Tariq, 2025) becomes highly significant. It can be defined as an employee's congruence with the firm's customer service delivery requirements (Dong & Hon, 2025; Liu et al., 2020). Employee service quality is among the dominant parameters evaluating employee performance on the job in service organisations, as it considerably influences customer satisfaction (Dong & Hon, 2025). Inspired by social exchange theory, which refers to social behaviour that evolves from interaction triggering reciprocity where actors aim to maximise benefits and minimise costs (Cropanzano & Mitchell, 2005), we argue human capital sustainable leaders offer valuable resources such as support, training, opportunities, and a nurturing environment (seen as initial exchange) for employees to thrive thus resulting in enhanced ESQ (reciprocity).

The current study considers organisational commitment (OC) and organisational engagement (OE) as two important boundary conditions necessary for enhancing employee service quality at workplace. Meeting customer expectations requires employees to be highly committed and engaged at work. OE is defined as "the harnessing of organisation members' selves to their work roles; in engagement, people employ and express themselves physically, cognitively, and emotionally during role performances" (Kahn, 1990, p. 694). On the other hand, OC is the degree of employee willingness to exert efforts for the well-being and development of the firm, as well as the degree of fit between an individual's values and that of the firm (Mowday et al., 1979). Social exchange theory suggests that relationships are established through a personal assessment of costs and benefits, along with the evaluation of alternatives (Cropanzano & Mitchell, 2005). When leaders adopt HCSL style aimed at sustaining human capital, employees often view these efforts as advantageous and valuable. We thus contend that a positive view of leadership prompts a reciprocal reaction from the employees, leading them to 'return the favour' to the organisation by demonstrating

heightened dedication, commitment, and engagement. A positive employee perception of HCSL (support and kindness), can enhance employees OC and OE (i.e. individual, and collaborative effort of employees) draws highly desired reciprocating behaviours (i.e. employee service quality). Individual's beliefs, behaviours and attitudes vary; thus, it is possible to assume that the indirect effect of OC and OE in the HCSL and employee service quality relationship may vary considering the varying levels of employee conscientiousness. In other words, the level of reciprocity may vary among employees with low and high level of conscientiousness, a personality trait, which refers to specific factors in an individual's overall personality, including responsibility, self-control, determination, success orientation, systematism, and ambition (Javed et al., 2024). The level of conscientiousness varies among individuals and reacts differently to the situations (i.e. tasks, duties, leader support, obligations, etc.) encountered at the workplace. Considering the significance of these behaviours and traits, one may ask if they are interconnected and with what consequences.

In the current study, we advance knowledge and attempt to bridge theoretical gaps, which has received limited attention from academia. HCSL is known to influence job satisfaction (Khalil et al., 2021) and sustainable development and healthy organisations (Di Fabio & Peiró, 2018). The current study provides the earliest empirical evidence on how HCSL predicts employee service quality at service organisations. Although investigating the influence of HCSL on employee service quality is highly desired, examining boundary conditions that foster this relationship can provide better explanation of the situations and condition necessary for promoting employee service quality at hotels. A prior study recommended further investigation of HCSL, its influence on interactions, behaviours, attitudes, and employee outcomes at workplace (Peiró et al., 2023). We thus respond to these calls by examining the role of intervening variables (i.e. OC and OE) and the interaction of conscientiousness to explain the processes of enhancing employee service quality at workplace. Examining the hypothesised relationships via social exchange theory, we aim to provide the earliest evidence for advancing our understanding of the nexus between HCSL with different employee behaviours such as employees' service quality, OE, and OC and with personality traits (conscientiousness). Furthermore, we chose Pakistan's hospitality sector because it is a fast-growing sector with its implication spanning from tourism, economic growth, and employment (Khalil et al., 2023). Recently, Pakistan's hospitality sector has experienced significant growth, drawing academics to examine the significance of hospitality sector in Pakistan (Durrani et al., 2025). However, there has been a lack of attention given to comprehending the experiences of those who work in this industry (Khalil et al., 2021). We deemed it appropriate to collect data from hotel employees to investigate HCSL and its consequences for employees working in hotels of Pakistan.

2 Literature review and hypothesis

2.1. Human capital sustainability leadership and employee service quality

HCSL aims to promote an effective and thriving workplace environment characterised by sustainable long-term performance and well-being (Peiró et al., 2023). Di Fabio and Peiró (2018) argued that HCSL manifests through key leadership concepts vital to developing, motivating, and sustaining employees. The infusion of key leadership traits is crucial for the sustainability and efficiency of human resources within organisations (Khalil et al., 2021). Four leadership styles manifest the HCSL style. First, the prevalent literature on ethical leadership advocates transparency and fairness (Anastasiou, 2025). Ethical leaders facilitate and promote a culture of kindness, empathy, and compassion within a workplace environment. Furthermore, ethical leaders facilitate achieving consistency in actions that promote ethical values and transform employee behaviour to advocate ethical standards, promote fairness in decisions and ensure maximum transparency in the rewards structure (Anastasiou, 2025). Second, mindful leadership is concerned with exploring prevailing situations to identify employees' feelings and emotions and provide means of channelling these emotions, especially under stress-oriented conditions. Mindfulness in this sense refers to the knowledge about one's existence at a specific moment which may potentially affect others (Di Fabio & Peiró, 2018). Third, servant leadership considers an individual's interests and supports the growth of subordinates and their interests, whereas leaders emphasise trust and authority rather than power (El Reqib & Tariq, 2025; Khalil et al., 2021). Fourth, leaders with sustainability leadership qualities emphasise using careful decision-making processes, i.e., making expert decisions to retain what is necessary and leave out what is redundant at the workplace. Furthermore, sustainability leadership focuses on developing and sustaining human resources by providing a conducive learning environment to help employees with personal and career growth (Xin et al., 2025). Di Fabio and Peiró (2018) further argued that sustainability leadership emphasises the long-term perspective by focusing on integrating additional aspects that are highly significant for optimal performance and the prosperity of the workforce. The sustainability leadership, which can be seen as highly similar to HCSL, differs from HCSL considering their scope, focus, application and implementation. The scope and focus of sustainability leadership takes a broader stance to include both employees and organisations goals (i.e., social, economic, and environmental) whereas HCSL primarily focuses on establishing a work environment that nurtures employees' success, resilience, and long-term employee welfare. Another distinction of HCSL from sustainability leadership lies in its application and implementation. As opposed to sustainability leadership, HCSL is primarily inward-looking, concentrating on the internal practices, and policies that have a direct impact on employees. We further

contend that HCSL is distinct from transformational leadership as HCSL involves leadership traits like ethical leadership, mindful leadership, and servant leadership. These traits, taken holistically, are all directed towards establishing a positive internal atmosphere for the organisation's human capital while transformational leadership primarily aims at inspiring employees, prompting change and attaining optimal performance (Agazu et al., 2025). Although it can beneficially influence internal culture, its core focus is outward-directed, centring on how leaders can motivate their teams to innovate and adapt to the fast-evolving external landscape. HCSL thus extends our understanding of leadership theory by encompassing relevant aspects of leadership necessary for developing and managing long-lasting human resource capital in the workplace.

Social exchange theory focuses on the transfer of resources during personal interactions (Cropanzano & Mitchell, 2005). This theory underlines the importance of reciprocity in human connections (Khalil et al., 2021). A prior study presented four key principles to social exchange theory (Lambe et al., 2001). Firstly, social interactions lead to improved social and economic benefits. Secondly, these interactions and their value are consistently measured against other options to establish trust and worth. Thirdly, effective communication enhances commitment and trust levels. Lastly, these interactions establish norms for relational exchanges. Furthermore, social science often argues about the attitudes and behaviours involving negotiated norms and reciprocity (Javed et al., 2024). We argue that the leader-member interactions can be seen as initial exchanges where employees, using their cognition, assess and create a positive perception of HCSL as it offers necessary support for performing daily work. Recognising the trust and support that employees receive, they respond with reciprocating behaviour by displaying enhanced services to the customer. Therefore, employees' exposure to enhanced levels of HCSL, fosters higher levels of service quality. Consequently, it satisfies employees highly at work, making them thrive and prosper (Peiró et al., 2023). We hypothesise:

H1. There is a positive relationship between perceived HCSL and employee service quality.

2.2. The mediating role of organisational commitment and organisational engagement

OE, concerning job attitudes, is assumed to be linked with 'vigour, dedication, and absorption' (Schaufeli et al., 2006), 'sense of energy' (Macey & Schneider, 2008), 'the motivation to act' (Montenegro et al., 2022), and 'discretionary effort' (Boccoli et al., 2023). We operationalise OE as an employee's voluntary display of vigour, dedication, and absorption to perform their job. On the other hand, OC, a psychological condition, encompasses three distinct components: (a) affective commitment, which is a desire

to remain with an organisation, (b) continuance commitment, reflecting a need to stay due to various factors, and (c) normative commitment, representing a sense of obligation to continue employment within the organisation (Meyer & Allen, 1991). We operationalised OC as the emotional bond and allegiance an employee has towards their employer and includes the extent to which a person feels a part of and is actively engaged in their organisation. We consider OE and OC as two significant boundary conditions necessary for enhancing employee service quality. From a social exchange perspective, we argue that committed and engaged employees tend to be more passionate, energetic, and dedicated to their tasks. The reciprocal relationships encouraged by leadership that prioritizes human capital sustainability can boost employee commitment and engagement, making them feel appreciated and supported. This increased level of commitment and engagement (initial reciprocity) is important as it directly influences employees' performance and the quality of service they provide. In this sense a strong perception of HCSL (i.e. value assigned to the leader-member interaction) at workplace can trigger sequential reciprocities.

OC plays a crucial role in understanding employees' behaviour on the job and its influence on overall performance and reduces turnover costs (Rai & Koodamara, 2025). We argue that HCSL, OC, and OE would positively contribute towards improved employee service quality within the firm for various reasons. First, OC and OE can reduce employees' anxiety levels associated with jobs and helps relieve job-related stress, thus facilitating employees to achieve additional intrinsically energetic resources and allowing them to relocate these resources to the workplace (Zhou & Shi, 2025). Secondly, HCSL assists in healing the emotional sufferings of the followers by demonstrating traits like compassion and empathy (Di Fabio & Peiró, 2018), along with providing mental relief by lowering anxiety, stress and depression. Thus, HCSL plays a vital role in identifying and constructing job environments that help workers to grow and develop by experiencing constructive emotional health and happiness; as a result, it helps sustain employees for longer periods (Xin et al., 2025). Therefore, HCSL can aid employees in achieving these personal resources by providing necessary empowerment to develop, perform different tasks and take decisions autonomously while constructing a desired social support system (Khalil et al., 2021). Leader's support is highly significant as it involves providing necessary guidance to the workers, facilitating, and managing customers' demands, and assisting in fulfilling other job responsibilities effectively, thus enhancing employee's self-efficacy and self-esteem (Chen & Scannapieco, 2010). Pallotti et al. (2023) contended that employees respond to new situations (in our case, HCSL) differently, which can be further reflected in various behaviours. When exposed to the HCSL (Khalil et al., 2021), an employee's OC and OE can be highly significant since it increases worker's motivation and assists in coping with job-related stress (Soundararajan et al., 2025) and eventually triggers a higher level of employee service quality. We hypothesise the following:

H2a. The HCSL positively predicts organisational commitment.

H2b. There is a positive relationship between organisational commitment and employee service quality.

H2c. Organisational commitment mediates the relationship between HCSL and employee service quality.

H3a. The HCSL positively predicts organisational engagement.

H3b. There is a positive relationship between organisational engagement and employee service quality.

H3c. The link between HCSL and employee service quality is mediated by organisational engagement.

2.3. The moderating role of conscientiousness

Prior studies have indicated how varying level of employee conscientiousness can influence their performance at work (Xu & Cheng, 2025). Traits, such as discipline, ambition, methodology, and exacting, are reflected in the behaviours of employees with higher levels of conscientiousness. In comparison, employees with lower conscientiousness levels are termed lazy, disorganised, imprecise and adopt impetuous approaches (Weng et al., 2025).

Social exchange theory suggests that social behaviour stems from an exchange process aimed at maximizing benefits and minimizing costs (Cropanzano & Mitchell, 2005). Within an organisational setting, employees partake in social exchanges with their employer, weighing the balance between what they contribute to the job (such as effort, skills, commitment) and what they get in return (e.g., salary, benefits, recognition). An employee's level of conscientiousness can influence how they participate in social exchanges. Those with high conscientiousness may develop more positive views of the HCSL, thereby boosting their commitment and involvement. On the other hand, the indirect effect of OC and OE tends to be weak among employees with low conscientiousness considering the relatively lower value they assign to such interactions. Thus, examining employee conscientiousness, we may observe varying levels of reciprocities when exposed to HCSL. Employee conscientiousness is associated with positive job outcomes (Weng et al., 2021) and creativity (Xu & Cheng, 2025). It can also be associated with coping mechanisms, such as problem-focused, engagement-focused, and task-focused (Khalil et al., 2023). Employees with higher conscientiousness are highly motivated to embrace a new situation (HCSL), as it holds value for employees (Khalil et al., 2021). Higher levels of conscientiousness among employees are highly motivated when exposed to leader's support, in our case HCSL, as workers observe it as an essential ingredient of goal-achievement (Weng et al., 2025), hence, triggering superior employee service quality. We hypothesise that:

- H4. Human capital sustainability leadership and organisational commitment association are moderated by conscientiousness, where the relationship will be stronger for highly conscientious employees.*
- H5. Human capital sustainability leadership and organisational engagement association are moderated by conscientiousness, where the relationship will be stronger for highly conscientious employees.*

Figure 1 encapsulates the key variables of the current study and their hypothesised relationships. To summarise, the current study investigates the direct effect of HCSL on employee service quality and the mediating roles of OC and OE in the HCSL and employee service quality relationship. Furthermore, we attempt to investigate the interaction of conscientiousness in these mediated relationships.

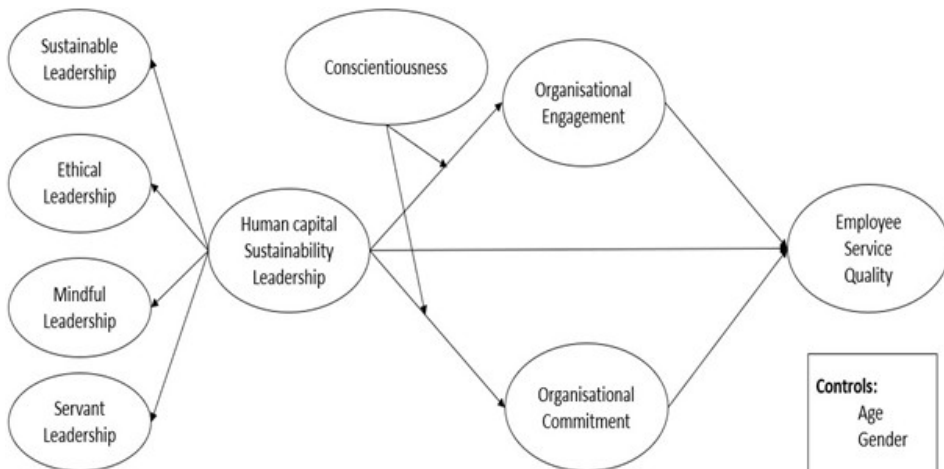


Figure 1. **Hypothesised model**

Source: own study

3. Materials and methods

3.1. Participants and procedure

In recent years, we have witnessed a boom in the hospitality industry of Pakistan (Khalil et al., 2023); however, little is known about employee experiences within the hospitality industry. We thus chose Pakistani hotels (i.e., 3 star and above) as the context of our

study with the contention that sustainability concerns and sustainable leadership will be more visible in larger organisations. A questionnaire survey was conducted from in 24 3-star and above rated hotels in Pakistan. Prior to participation, it was required of the respondents to read and provide a written consent form and indicate their agreement before participating in the survey. The study's objectives were explained to the respondents, and we ensured anonymity via the consent form.

For identifying the minimum sample size, especially when dealing with latent constructs and structural equation models, it is recommended to adopt a sampling procedure that considers the manifest items as a direct measure of the latent construct (Hair Jr et al., 2021; Nunnally, 1978) to produce robust results. Identifying the minimum sample size, considering the manifest items, is important in structural equation modelling analysis that enhances the robustness of the measurement and structural model, improve model fit, and helps in estimation accuracy (Kline, 2011; Nunnally, 1978). The Nunnally's (1978) sample size criterion argues about the 1:10 ratio of manifest items. In other words, 10 cases are selected for each manifest item used in our model. Our model has 37 manifest items nested in 7 latent constructs. The current study thus required a minimum sample size of 370 (37×10). To account for the sample needed, outliers, missing information, and unreturned questionnaires, and considering the dyads of supervisor-employee, we anticipated a response rate of 80%; thus, we obtained data from a sample of 465 employees working in various Pakistani hotels. We reached out to the employees using our institutional and personal networks. It is important to note that hotels selected for the current study were primarily located in city centres, which were busier than normal and allowed us to further tests employees' patience, engagement, commitment, and quality of services in a challenging environment.

Data was gathered in two phases with a temporal separation of six weeks. Employees who agreed to participate in the study were informed about the aim of the study. In the first round of questionnaires, respondents were asked to provide demographic data and assess supervisors' HCSL behaviours, OC, OE, and employee conscientiousness. Employees were also asked to provide email address of their supervisor during survey. We emailed relevant supervisors in the second wave to brief supervisors about the current study. We invited supervisors to assess their subordinate's service quality (i.e., employees that participated in the first wave) at the workplace by filling out a research questionnaire. To avoid matching issues, the name of subordinate was mentioned in the questionnaire designed for the supervisors. Of the 465 supervisors we contacted, 384 replied to our invitation. We thus removed employee responses from our analysis who did not receive supervisor ratings. A total of 373 cases (response rate = 80.21%) were used in our study. The response rate was relatively higher primarily because we met the respondents and supervisors in person to encourage participation. By gathering data from two sources with a temporal separation of six weeks between two waves of data

collection, we adhered to the procedural solution proposed by Podsakoff et al. (2012) to address the problem of common method bias. Furthermore, we adopted Kock's (2015) recommendations for PLS-SEM as a statistical approach to eliminate common method variance. Our research shows that the dataset lacks common method variance since the manifest variable variance inflation factor (VIF) values were less than 3.3 (Kock, 2015).

3.2. Measures

The manifest items of all constructs were measured with a five-point Likert scale response format ranging from 1 (totally disagree) to 5 (totally agree). We measured HCSL with its four facets (i.e., sustainable leadership, ethical leadership, mindful leadership, and servant leadership) adapted from Di Fabio and Peiró (2018). For measuring ethical leadership, we used a four-item scale. An example question for ethical leadership is, "my supervisor's decisions are ethical". We employed a four-item scale to measure sustainability leadership. One of the example questions for sustainability leadership is, "my supervisor takes an interest in my personal development". To measure mindful leadership, we used a four-item scale. An example question for mindful leadership is, "my supervisor knows about my strengths and limitations". A four-item scale was adapted for measuring servant leadership. An example question for servant leadership is, "my supervisor offers help when I face difficulty at work".

We measured OC with a six-item scale based on Rhoades et al. (2001). An example item is "I feel great to be associated with my organisation". OE was measured with six-item scale based on (Saks, 2006). An example item is 'My workplace is very captivating'. A five-item scale based on Ling et al. (2016) was adapted for measuring employee service quality, and a sample item is, "helping customers is always a priority for her/him". The supervisors were asked to rate their employees using the employee service quality scale. The employees rated all other variables about their perceptions of the relevant constructs. Employee service quality may vary across gender, experience, and age when exposed to HCSL (Khalil et al., 2021). Having the potential to influence the hypothesised relationships of the current study, we controlled for gender and age during our analyses. Still, we did not control for experience since it was highly correlated with age. Age was coded as a continuous variable while gender was coded with 0=male and 1=female.

3.3. Analysis procedure

The current study adopted structural equation modelling (SEM), which is highly useful for assessing complex models simultaneously and better handles latent variables (Hair et al., 2019). We used partial least squares SEM method for the analysis via SmartPLS

software (Hair et al., 2019; Ringle et al., 2022). The use of higher-order constructs (HOCs) allows the researchers to frame research models and their constructs in an overarching theme (HOC) and their more concrete sub-dimensions, commonly known as lower-order constructs (LOCs) (Sarstedt et al., 2022).

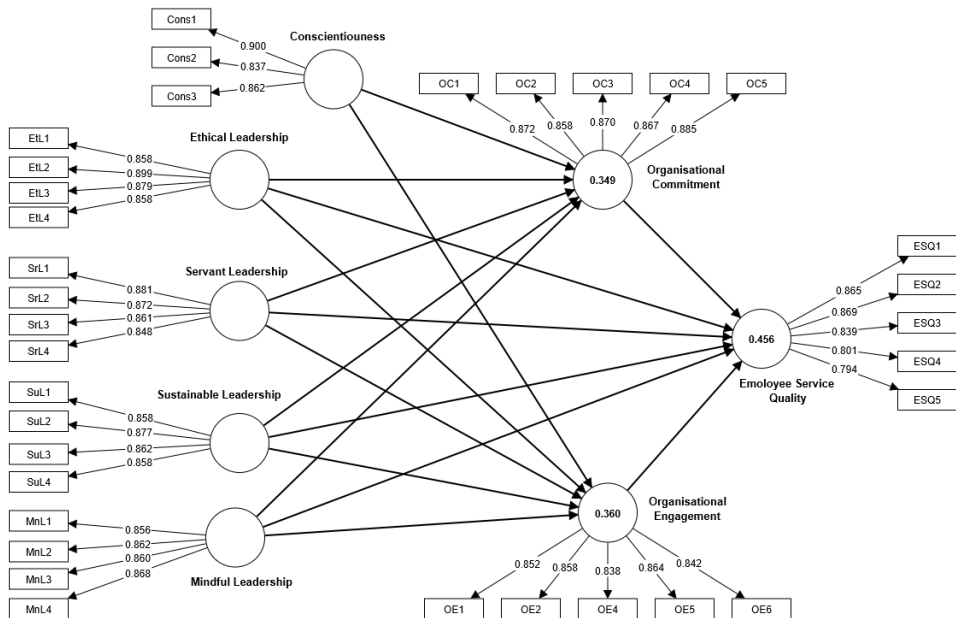


Figure 2. Measurement model analysis – lower order

Source: own study

The four LOCs (i.e., ethical, sustainable, mindful, and servant leadership) are measured reflectively, which forms the HCSL construct (reflective HOC); thus, it becomes a reflective-reflective model. OC, OE, employee service quality and conscientiousness were modelled as reflective LOCs. We used the two-stage (disjoint) method for analysing our model. In stage one, we ran the measurement model based on the LOCs. The LOCs of the HOC were linked directly to all other constructs theoretically related to the HOC (Figure 2). The scores for LOCs were saved to the dataset to be used as manifest variables in further analysis (i.e. HOC measurement model analysis and structural model analysis).

In the second phase of measurement model analysis, we ran measurement tests for HOC (HCSL) using the extracted latent variable scores of LOCs, which was recommended in a recent study (Sarstedt et al., 2022). The higher-order model was then used for path analysis to test our hypothesis.

4. Results

4.1. Descriptives

Our descriptive analysis showed that our respondents' average age was 29 years (SD=7.49); the female participants' percentage stood at 12.1%. The respondents had 5.26 years of experience on average (SD=4.51). The current study questionnaire was divided into three sections that included (a) covering letter of our study, (b) demographic information and (c) item questions related to hypothesised constructs. Table 1 presents mean, standard deviations, and correlations of the main variables used in the current study.

Table 1. **Descriptives**

Variables	Mean	SD	1	2	3	4	5
1. Conscientiousness	3.461	0.926					
2. Employee Service Quality	3.957	0.885	-0.130				
3. HCSL	3.723	0.886	-0.159	0.556			
4. Organisational Engagement	3.906	1.073	-0.145	0.597	0.590		
5. Organisational Commitment	3.791	0.974	-0.094	0.601	0.590	0.772	

Source: own study

4.2. Measurement model validation - lower level

Our measurement model assessment followed the recommended reliability and validity tests to measure our lower-order reflective model (Hair et al., 2019). Table 2 illustrates the key findings concerning lower-level measurement model. Our stage-one analysis achieved an acceptable level of item loadings ($>.708$) (Hair et al., 2019), except for OC6 (Loading=0.341), OE3 (Loading=0.271), and Cons4 (Loading=0.556), which were removed from our final measurement model. The measurement model analysis also produced acceptable values for establishing internal consistency (through Composite

Reliability, Cronbach's alpha, and rho_A) and convergent validity by looking into Average Variance Extracted (AVE) values (Hair et al., 2019).

Table 2. **Loadings, Reliability, and validity statistics of LOCs**

Constructs	Items	Loadings	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted
Ethical Leadership	EtL1	0.858	0.897	0.903	0.928	0.763
	EtL2	0.899				
	EtL3	0.879				
	EtL4	0.858				
Sustainable Leadership	SuL1	0.858	0.887	0.889	0.922	0.746
	SuL2	0.877				
	SuL3	0.862				
	SuL4	0.858				
Mindful Leadership	MnL1	0.856	0.884	0.885	0.920	0.742
	MnL2	0.862				
	MnL3	0.860				
	MnL4	0.868				
Servant Leadership	SrL1	0.881	0.888	0.893	0.923	0.749
	SrL2	0.872				
	SrL3	0.861				
	SrL4	0.848				
Organisational Commitment	OC1	0.872	0.920	0.923	0.940	0.758
	OC2	0.858				
	OC3	0.870				
	OC4	0.867				
	OC5	0.885				

Organisational Engagement	OE1	0.852	0.905	0.906	0.929	0.724
	OE2	0.858				
	OE4	0.838				
	OE5	0.864				
	OE6	0.842				
Employee Service Quality	ESQ1	0.865	0.891	0.896	0.920	0.696
	ESQ2	0.869				
	ESQ3	0.839				
	ESQ4	0.801				
	ESQ5	0.794				
Conscientiousness	Cons1	0.900	0.834	0.837	0.900	0.751
	Cons2	0.837				
	Cons3	0.862				

Note: Items OC6 (Loading=0.341), OE3 (Loading=0.271), and Cons4 (Loading=0.556) were deleted due to low loadings

Source: own study

To establish discriminant validity, we used the heterotrait–monotrait (HTMT) ratio recommended in prior studies (Henseler et al., 2015). A conservative value of less than 0.85 establish discriminant validity (Kline, 2011). Table 3 shows support for our construct’s discriminant validity as the HTMT values for all LOCs are well below the conservative threshold of HTMT0.85 (Henseler et al., 2015).

Table 3. HTMT analysis

	1	2	3	4	5	6	7	8
1. Conscientiousness								
2. Employee Service Quality	0.147							
3. Ethical Leadership	0.190	0.573						
4. Mindful Leadership	0.111	0.489	0.599					

5. Organisational Commitment	0.106	0.655	0.538	0.525				
6. Organisational Engagement	0.167	0.657	0.567	0.474	0.844			
7. Servant Leadership	0.138	0.508	0.598	0.638	0.526	0.568		
8. Sustainable Leadership	0.156	0.481	0.699	0.660	0.547	0.549	0.693	

Source: own study

4.3. Measurement model validation - higher level

Consistent with the process used for measuring first-order reflective variables, we achieved acceptable results for the HCSL variable (Table 4). The factor loadings for all first-order constructs fall within the recommended range, thus establishing indicator reliability (Hair Jr et al., 2021).

Table 4. HOC - Measurement Model Statistics

Higher-order construct	Lower-order constructs	Loadings	Cronbach's alpha	(Rho_a)	(Rho_c)	AVE
HCSL	Ethical leadership	0.823	0.844	0.846	0.895	0.682
	Servant leadership	0.822				
	Mindful leadership	0.803				
	Sustainability leadership	0.854				

Source: own study

The HCSL constructs also produced acceptable CR and AVE values (see Table 4) recommended for establishing reliability and convergent validity for latent variables (Hair et al., 2019). Furthermore, we also check for discriminant validity of HCSL. The HTMT values at the higher-level model also meet the conservative cut-off value of <0.85, which confirms that higher-order constructs were discriminant against each other.

4.4. Hypothesis testing

We bootstrapped the stage two (hypothesised) model to test our hypothesis (Figure 3). The indicator VIF<3 suggests that the constructs were free from collinearity issues (Hair et al., 2019).

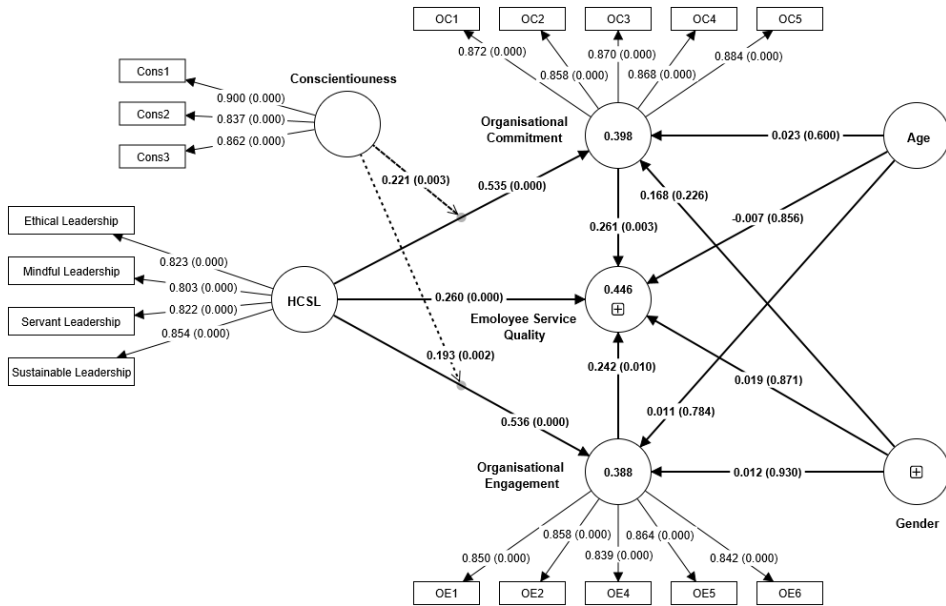


Figure 3. Structural model analysis

Source: own study

Table 5. Summary of direct effects

Relationship	Estimate	Std. Dev	T statistics	P values	f2	2.5%	97.5%
H1. HCSSL -> Employee Service Quality	0.260	0.058	4.520*	0.000	0.074	0.147	0.374
H2a. HCSSL -> Organisational Commitment	0.535	0.061	8.768*	0.000	0.437	0.406	0.643
H2b. Organisational Commitment -> Employee Service Quality	0.261	0.088	2.970*	0.003	0.046	0.080	0.427
H3a. HCSSL -> Organisational Engagement	0.536	0.059	9.100*	0.000	0.431	0.409	0.640
H3b. Organisational Engagement -> Employee Service Quality	0.242	0.094	2.578*	0.010	0.040	0.051	0.419
Age -> Employee Service Quality†	-0.007	0.040	0.182	0.856	0.000	-0.088	0.071
Age -> Organisational Engagement†	0.011	0.039	0.274	0.784	0.000	-0.066	0.088

Age -> Organisational Commitment†	0.023	0.043	0.524	0.600	0.001	-0.061	0.108
Gender -> Employee Service Quality†	0.019	0.115	0.162	0.871	0.000	-0.206	0.250
Gender -> Organisational Engagement†	0.012	0.135	0.088	0.930	0.000	-0.264	0.267
Gender -> Organisational Commitment†	0.168	0.139	1.211	0.226	0.004	-0.108	0.441

*p<0.01 (two-tailed), † control variables

Source: own study

We then examined explanatory power (R^2), effect size (f^2), and predictive power via PLS Predict (see Table 5). The variance explained (R^2) for employee service quality, OC and OE were 44.6%, 39.8%, and 38.8%, respectively, suggesting a moderate to strong explanatory power (Hair et al., 2019). The influence of HCSL, OC and OE on employee service quality also have a medium to large effect size (f^2). We also assessed the construct's prediction power, and our results confirm that the predictive power is moderate to strong (Hair et al., 2019).

4.5. Mediation analysis

The current study investigated the mediation effect of OC and OE in the HCSL-employee service quality association. By bootstrapping with 10,000 subsamples, we investigated the specific indirect effects.

Table 6. Summary of mediation analysis – indirect effects

Relationships	Estimate	Std. Dev	T statistics	P values	2.5%	97.5%
H2c. HCSL -> Organisational Commitment -> Employee Service Quality	0.139	0.046	3.018**	0.003	0.043	0.228
H3c. HCSL -> Organisational Engagement -> Employee Service Quality	0.130	0.051	2.559*	0.011	0.028	0.227

*p<0.05 (two-tailed), **p<0.01

Source: own study

The mediation hypothesis H2c and H3c were significant ($p < 0.05$) and had no zero value in the lower and upper confidence intervals (see Table 6) (Nitzl et al., 2016). It became evident that OC and OE partially mediate the HCSL-employee service quality relationship due to significant direct and indirect associations (Hayes & Preacher, 2014).

4.6. Moderation analysis

Table 7 presents the two interactions and their results, as we proposed earlier in this study. Our results reveal that conscientiousness moderates the relationship between HCSL and OC, such that the relationship was stronger for highly conscientious employees.

Table 7. **Moderation analysis**

Relationships	Estimate	Std. Error	t-value	P value	2.5%	97.5%
H4. HCSL*CONS -> Organisational Commitment	0.193	0.064	3.040*	0.002	0.077	0.323
H5. HCSL*CONS -> Organisational Engagement	0.221	0.074	2.968*	0.003	0.082	0.371

* $p < 0.01$ (two-tailed)

Source: own study

Similarly, conscientiousness was hypothesised to moderate the HCSL-OE association. The result was statistically significant where the relationship was stronger for high conscientious employees (Figure 4).

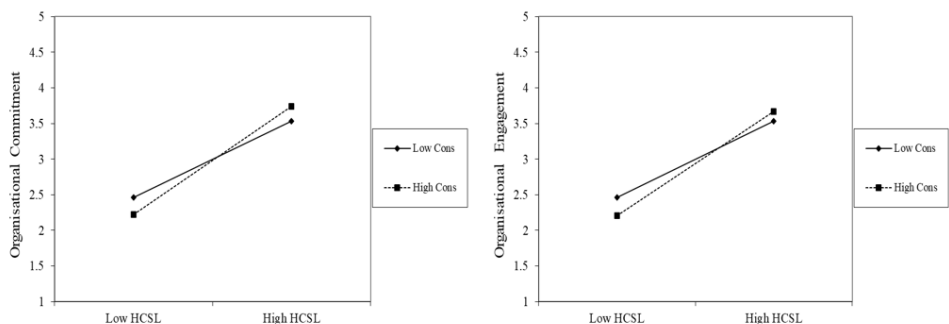


Figure 4. **Moderation Plots**

Source: own study

It is recommended to check the moderation index (i.e. conditional mediation) (Hayes, 2018), that is necessary for establishing the moderating role of conscientiousness on the indirect effects of OC and OE in HCSL and employee service quality relationship. We used Process in SmartPLS 4 to examine the conditional mediation effect (Table 8). The index of conditional mediation confirm the moderating role of OC ($\beta = 0.069$, $SD = 0.034$, $p \text{ value} = 0.020$) and OE ($\beta = 0.057$, $SD = 0.032$, $p \text{ value} = 0.036$) where the mediation effects of OC and OE positively depends on moderator (conscientiousness) such that both mediation effects are more pronounced among employees with high conscientiousness (+1 SD) than for employees with low conscientiousness (-1 SD).

Table 8. Conditional mediation effect results

Relationship	Conditional mediated effect	Std Beta	CI LL	CI HL	SE	P values
Conscientiousness x HCSL -> Organisational Commitment -> Employee Service Quality	Index of Conditional Mediation	0.069	0.021	0.130	0.034	0.020
	Conscientiousness at +1 SD	0.239	0.104	0.362	0.079	0.001
	Conscientiousness at Mean	0.169	0.073	0.260	0.057	0.001
	Conscientiousness at -1 SD	0.100	0.023	0.184	0.049	0.021
Conscientiousness x HCSL -> Organisational Engagement -> Employee Service Quality	Index of Conditional Mediation	0.057	0.014	0.117	0.032	0.036
	Conscientiousness at +1 SD	0.214	0.071	0.353	0.085	0.006
	Conscientiousness at Mean	0.100	0.052	0.258	0.049	0.020
	Conscientiousness at -1 SD	0.157	0.022	0.181	0.062	0.006

Source: own study

5. Discussion

The current study investigated the key relationship between HCSL and employee service quality. We investigated this relationship from two distinct perspectives. First, we hypothesised that OC and OE would mediate the relationship between HCSL and employee service quality. Second, the current study examined whether conscientiousness moderates the mediating effects of OC and OE between HCSL and employee service quality. Our assumption here was that these mediation effects would be more pronounced for highly conscientious employees.

According to social exchange theory (Cropanzano & Mitchell, 2005), the interactions between leaders and employees within the context of HCSL, OC, and OE can be interpreted as a reciprocal exchange process. Social exchange theory suggests that

relationships gradually evolve into trusted, loyal, and mutually committed associations based on the reciprocity of giving and receiving (Javed et al., 2024). In service-oriented organisations, such as hotels, this theory helps explain how HCSL initiates a beneficial cycle of exchange. Leaders who demonstrate strong commitment and support, as is typical in HCSL, start a 'giving' process (i.e., hold value) by empowering employees, acknowledging their efforts, and catering to their individual needs (Khalil et al., 2021). This kind of leadership, in turn, prompts employees to 'give back' (reciprocity) by showing greater commitment and engagement in their roles. The theory also suggests that conscientious employees, due to their inherent qualities such as diligence and a strong sense of duty (Weng et al., 2025), are likely to respond more intensely to indirect effects of OC and OE in HCSL and employee service quality relationships. They are inclined to reciprocate with improved service quality, indicative of a deeper involvement in their organisational roles. Employees with high conscientiousness tend to perform better than low conscientious employees when we consider the reaction to HCSL with regards to their commitment and engagement at work. Our finding aligns with Parker and Griffin's (2011) study by suggesting that when motivation is high, the response behaviour may vary among employees due to the varying personality traits (i.e., low vs high conscientiousness). In other words, employees with a high level of conscientiousness were more enthused by the leader's support (i.e. HCSL), thus resulting in a higher level of OC and OE and subsequently offering better customer services. Social exchange theory thus provides a comprehensive framework to understand the complex interplay among leadership, employee characteristics, commitment, engagement, and service quality, underlining the cyclic and reciprocal nature of these organisational interactions.

The human resource capital of any organisation plays a key role in the success of an organisation. In service-oriented organisations, such as hospitality, the role of customer service officers or any other employee interactions with customers becomes highly significant. As a leader, monitoring these employees becomes difficult, as in most cases, these employees interact with customers unaccompanied by other colleagues or managers. Furthermore, the customers served by employees are not homogenous and often demand varying services. Customers' unpredictable and uncertain behaviour adds to the fear, anxiety, and stress at work. To cope with the customers' heterogeneous needs, the customer services staff needs to master the essential job skills for performing respective tasks effectively. Prior studies suggest leaders can boost employee commitment and engagement by empowering and supporting subordinates (Boccoli et al., 2023; Rai & Koodamara, 2025). Leaders through HCSL can be seen as role models to reshape workers' behaviours and elicit employees' belief in personal competency and capabilities for performing assigned work more effectively. In this sense, leaders use and promote sustainable practices, for instance, verbal persuasion to convince

about the good work employees perform at the workplace, and to motivate workers to complete difficult work, therefore creating sustainable human capital and enhancing OC and OE behaviours. Consequently, employees can become confident, capable, highly committed, and engaged at work when leaders display traits that emphasise employee wellbeing. Reacting to the support and encouragement employees receive from leaders, employees demonstrate readiness and willingness to help customers with varying needs and requirements.

5.1. Theoretical implications

The theoretical implications of our study lie in the under-explored attributes, actions, and reactions to the HCSL. First, HCSL presents a more holistic view for sustaining employees at workplace (Di Fabio & Peiró, 2018); however, it warrants further investigation of its relationship and significance with key work outcomes (El Reqib & Tariq, 2025; Khalil et al., 2021). The current study provides the earliest empirical evidence on how HCSL predicts employee service quality at service organisations, which can be a highly significant outcome for service organisations, such as hotels.

Second, our study extends knowledge on HCSL by examining the moderating role of conscientiousness (a boundary condition) that can provide better explanation of the situations and condition necessary for promoting employee service quality at hotels. We also investigated the mediating role of OC and OE in the relationship between HCSL and employee service quality to illustrate how service quality of employees can be enhanced via these mechanisms in the Pakistani hospitality industry. The current study aligns with prior studies and indicates that highly committed and engaged workers can increase customer service quality through improved social capital and individual assets, which are associated with HCSL traits (Aboramadan et al., 2022).

Third, the current study provides the earliest evidence on how conscientiousness can play a key role in the relationship between OC and OE with HCSL. We showed that employees with a high level of conscientiousness are more receptive to positive leadership, which enables a higher level of motivation that translates into enhanced OC and OE at work and improves the service quality of such employees. In other words, the indirect effect of OC and OE in HCSL and employee service quality is more pronounced among highly conscientious employees.

Finally, examining these relationships via the underlying social exchange theory, we provide the earliest evidence for advancing our understanding of the nexus between HCSL with different employee behaviours such as employees' service quality, OE, and OC and with personality traits (conscientiousness).

5.2. Practical implications

The current study highlights several practical implications for hotels and organisations with similar service-oriented structures. Our research explicitly highlights the significance of positive individual traits (such as OC and OE) and positive institutions (HCSL) for improving well-being and performance at work (employee service quality). Policymakers, managers, and supervisors working in hotels can find this useful in enhancing employee behaviours and attitudes that are necessary for providing optimal level of service quality to their customers. Examining and understanding the processes through which HCSL influences OE, OC, and employee service quality, hotel management is advised to focus on building leaders' HCSL behaviours through training, to foster employee commitment, engagement and ultimately service quality.

In the age of global competition, a dedicated team of workers for boosting organisational competitiveness becomes highly significant. The effect is more pronounced for service-oriented sectors, such as hotels, where managing work pressures and meeting customer expectations is becoming more challenging, which leads to employee burnout and turnover (Wang et al., 2025). Leaders wishing to enhance employee performance may need to promote a climate of OC and OE through a HCSL style manifested by ethical, mindful, servant and sustainability leadership traits (Di Fabio & Peiró, 2018). Thus, we argue that employee well-being and sustainability-oriented leadership can enhance employee service quality by adopting processes and promoting the conditions we discussed earlier.

Employees with a higher level of conscientiousness should be recruited, encouraged, and rewarded as they are more likely to react positively to the HCSL, which motivates them to display OC and OE behaviours and offer a higher level of service to the customers.

6. Conclusion

The current study extends our understanding of leadership theory by highlighting the key role of HCSL as a mechanism for creating a sustainable workforce. To support our argument, we relied on social exchange theory to analyse a multi-source study in Pakistani hotels. HCSL positively affects OC and OE at the workplace, mediating the HCSL-employee service quality relationships. Furthermore, we took conscientiousness as a standpoint of individual personality to demonstrate that highly conscientious employees positively react to the positive perception of HCSL and engage in enhanced level of OC OE and offer superior services to their customers. From a managerial implication perspective, the current study draws our attention to employees' perception

of the HCSSL. For managers, the implications of our research can be significant for building a highly dedicated, motivated, and sustainable human resource team that can further sustain commitment and engagement and enhance the service quality of employees.

Despite the significance of our study, it also had several limitations. The key emphasis of the current research lies in the employee's sustainability, well-being, commitment, and performance at the workplace. The direction we took in this study is employee-centred human resource management practices instead of organisation-centred practices (Bashir et al., 2025). Human resource management practices, at times, can also adversely affect the well-being of employees (Ojochona et al., 2022). Future studies in organisational and management research can examine human resource management practices that may affect outcomes such as turnover intention, satisfaction, and performance.

We collected data for employee service quality with a temporal separation from its predicting variables to examine (a) whether OC and OE mediate the HCSSL and employee service quality relationship and (b) whether these mediated relationships are moderated by employees' level of conscientiousness. Alternatively, a future study can use experimental designs or cross-lagged panel analysis.

The current study has generalisability constraints as it was primarily focused on data from a single sector and country. Therefore, we recommend expanding and validating the findings from varying sectors and countries. A cross-level analysis of countries and industries can further our understanding of multilevel HCSSL and its implications for employees and organisations.

We found support for partial mediation effects during our analysis, suggesting that there may be other conditions and processes that were not accounted for. A potential avenue of future research in leadership and organisational research may be exploring alternative intervening mechanisms; for instance, employee resilience, psychological empowerment and psychological capital can be hypothesised as mediating variables.

Authors' contribution

S.H.K.: theoretical content of the article, research methods applied, conducting the research, analysis and interpretation of results, draft manuscript preparation. **S.A.K.:** article conception. **Z.U.I.:** data collection. **F.S.:** conducting the research, draft manuscript preparation.

Declaration of Generative AI and AI-assisted technologies in the writing process

During the preparation of this work the authors did not use Generative AI and AI-assisted technologies in the writing process.

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