
Service-oriented Leadership – Scale Development and Validation



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To successfully offer services, organizations have to recognize the relevance of their service employees and enable them to demonstrate a service-oriented behavior towards their customers. Service-oriented leadership specifically addresses this aspect and is conceptualized and operationalized in this paper. Further, hypotheses are established and empirically tested by means of structural equation modeling and hierarchical regression analysis. The analysis reveals that the construct affects both employee and customer satisfaction and provides additional explanation for the variance of the two variables beyond that explained by other leadership concepts. Utilizing the developed scale, service organizations are able to evaluate and develop the behavior of current leaders and assess the potential of leader candidates.



Um erfolgreich Services anzubieten, gilt es für Unternehmen die Relevanz ihrer Servicemitarbeiter zu erkennen und diese darin zu fördern, ein serviceorientiertes Verhalten gegenüber den Kunden zu demonstrieren. Serviceorientierte Führung greift dies gezielt auf und wird im Rahmen dieses Beitrags konzeptualisiert und operationalisiert. Darüber hinaus werden Hypothesen aufgestellt und mittels

Strukturgleichungsmodellierung und hierarchischer Regressionsanalyse empirisch überprüft. Die Analyse zeigt, dass serviceorientierte Führung sowohl die Mitarbeiter- als auch die Kundenzufriedenheit beeinflusst und – über andere Führungskonzepte hinaus – einen zusätzlichen Erklärungsbeitrag für die beiden Variablen liefert. Anhand der entwickelten Skala sind Serviceunternehmen in der Lage, das Verhalten aktueller Führungskräfte zu bewerten und entwickeln und das Potenzial von zukünftigen Führungskräften einzuschätzen.

Leadership, Service orientation, Scale development, Service employee, behavior

Führung, Serviceorientierung, Skalenentwicklung, Servicemitarbeiter, Verhalten

1. Introduction

In recent years, more and more organizations aimed to differentiate themselves by adding services to existing products or starting to sell the services their products are providing rather than the products themselves (*Kindström* 2010). Along with this development, organizations need to recognize the difference between offering a service and a physical product, since for services the process and hence the delivery of the service demonstrates the product that creates value for the customer. The interaction between the customer and the organization, respectively the employee providing the service, is thus a valuable char-

acteristic of the service context (Meffert et al. 2018). Therefore, it is important for the organizations to understand the relevance of the employees providing the service and enable them to demonstrate a service-oriented behavior towards customers in order to safeguard organizational long-term success (Wirtz/Jerger 2016). As one effective organizational practice to influence employees' attitude and their behavior, the leadership demonstrated within an organization was already identified (Lytle et al. 1998; Popli/Rizvi 2015, 2017; Benkenstein et al. 2017; Chen/Wu 2017). Leadership may therefore be understood as the root of the service-profit chain (Schneider et al. 2005; Benkenstein et al. 2017), linking employees' attitudes and behaviors to organizational success (Heskett et al. 1994). However, to align employees' attitudes and behavior with the service orientation of the organization, the leadership itself has to be service-oriented (Popli/Rizvi 2015).

Therefore, organizations have a strong interest in understanding the behavioral characteristics of successful leadership in the service context, i.e. service-oriented leadership (SOL). Even though researchers already started to develop leadership scales for the service context (e.g. Borucki/Burke 1999; Schneider et al. 1998), additional research that further explores and elaborates on an effective service-oriented leadership style (Chen/Wu 2017) and comprehensively conceptualizes and consistently operationalizes the construct (Nerdinger/Pundt 2018) is required.

Addressing this research gap, this study develops a comprehensive measurement scale for SOL behaviors and differs from previous research in several ways:

Building upon the construct of managerial practice (Schneider et al. 1998; Schneider 2002) or service leadership (Schneider et al. 2005) that focuses on service quality and is primarily concerned with the customers (Hong et al. 2013), SOL focuses on service employees' capabilities and their service-oriented behavior towards customers. Further, instead of analyzing the influence of leadership on organization's service climate (Schneider et al. 1998, 2005, 2017; Bowen/Schneider 2014), and therewith attributing a central role to the service climate (Benkenstein et al. 2017; Nerdinger/Pundt 2018), the direct effect of SOL on both employee- and customer satisfaction is examined in order to further validate the construct. With regards to those variables it is further examined, if SOL provides additional explanation beyond other general forms of leadership (e.g. transformational). Lastly, as research suggests that the manifestation of the leadership may not be identical in every situation (Horwitz/Neville 1996; Yukl 1999), service- and leadership-specific situational characteristics and their effect on the manifestations of SOL are examined.

2. Conceptualization

In order to theoretically derive SOL behavior, services and their characteristics serve as an underlying concept to identify the requirements leadership in a service context has to address.

Generally, the provision of services describes the combination of organizational and customer factors to create added value for the customer. Organizations in the service context therefore need to ensure the *capability* of the organization and its members to deliver the service, the integration and involvement of the customer in the service *process* and the benefit of the *outcome* of the service (Meffert et al. 2018). As an organizational practice, relevant requirements for the SOL derive from this:

First, since the service employees and their skills often constitute the main *capabilities* of the organization to provide the service, leadership needs to focus on fostering the employ-

ees' capabilities to develop a service-oriented attitude and demonstrate a service-oriented behavior towards customers (Schneider/Bowen 1985). For this purpose, leaders may act as role models when interacting with both customers and employees (Lytle et al. 1998; Salvaggio et al. 2007), allowing the employees to learn from and imitate their behavior (Heskett et al. 1994; Horwitz/Neville 1996; Jiang et al. 2015). Further, by sharing relevant information (Schneider/Bowen 1985; Lytle et al. 1998) leaders are able to educate the employees for example when providing them with knowledge about specific types of customers (Bettencourt et al. 2001).

Additionally, the integration and involvement of customers during the service process asks for employees' continuous engagement and authority to act autonomously during the service provision. Especially since leaders intervention in the service process might negatively effect customers' perception of the interaction (Büttgen/Österle 2017), leaders have to enable the employees to make decisions independently and react to the customers' individual requirements autonomously when performing a service (Berry/Parasuraman 1992; Bowen/Lawler 1992; Lytle et al. 1998; Salvaggio et al. 2007). Furthermore, to safeguard the employees' continuous engagement, leaders have to ensure the employees' well-being (Schneider/Bowen 1993) by paying attention to their individual needs and demonstrating kindness and compassion (Burke et al. 1992; Jiang et al. 2015). Besides that, in order to motivate the employees to continuously improve their performance, leadership needs to challenge the employees and their behavior to further develop the quality of the service delivery process.

Finally, customers' perception of the quality of the outcome of a service is predominantly based on the employees and the behavior they demonstrate during the service provision (Bitner et al. 1990). Further, customers' satisfaction with the service provided by the employee might also affect the employees (Zablah et al. 2016). Consequently, SOL must address the skills of the employees and their behavior before and during the service process and interaction with the customers in order to positively influence both employees and customers and thus contribute to the success of the service process and subsequently the company (e.g. Heskett et al. 1994; Church 1995; Hong et al. 2013).

Hence, SOL manifests itself in several correlated behavioral characteristics, each of which fulfill a specific function in leading employees in the service context (MacKenzie et al. 2011). Therefore, a multidimensional second-order conceptualization is proposed.

3. Scale Development Process

3.1 Study 1

To explore the SOL behaviors, a qualitative study with service employees was initially conducted. Based on an interview guide, semi-structured interviews were taken place, providing the interviewee with the flexibility to add additional questions that might arise during the conversation. To begin with, the interviewees were asked to describe their understanding of SOL, followed by a question on which behavioral characteristics in their opinion determine SOL. Both questions intended to broaden the understanding of the construct. Further questions asked interviewees to think about both positive and negative experiences with their current leader and describe how, in their opinion, a service-oriented leader would have behaved in these situations. These questions aimed to gain further information uncovering the interviewees' situational expectations of SOL. Interviews lasted

approximately 30 minutes and were transcribed afterwards. A content analysis of the data was then conducted using MAXQDA. The content was analyzed in an iterative process, consisting of open and axial coding steps (*Glaser/Strauss* 1967).

Interviewees in relevant customer contact positions were recruited within the circle of acquaintances aiming to generate a diverse sample. The sample consisted of service employees predominantly serving external customers who differed in regards to both the characteristics of the service they are performing (intensity of customer contact and involvement) as well as the leadership situation they find themselves in (relationship between them and their leader, the structure of the task they are performing during the service delivery as well as their leader's position power). 54 interviews were conducted, with interviewees (50% female) between the age of 19 and 64, and between half a year and 45 years of work experience.

Subsequent to the exploratory qualitative study, the knowledge on SOL behavior generated during the interviews was combined with the results of an extensive literature review on leadership in a service context. Following the approach of *DeVellis* (2017), a set of 76 items was generated that comprehensively covered SOL behaviors comprising of already existing scales (e.g. *Schneider/Bowen* (1993) managerial behavior scale, *Schneider et al.*'s (1998) managerial practice scale) and content from the qualitative study.

This set of items was assessed by 11 experts (five service employees, three professors and three Ph.D. students specialized in the area of service and/or leadership research), who expressed the relevance (high, moderate and low) of each item for the construct within a template form. Further, the experts provided written feedback on the comprehensibility of the items and were asked to add behaviors that they perceived to be missing in the current set of items. The experts suggested reformulating and further specifying some of the items with regard to the service context and the interaction between the leader and both employees and customers. Consequently, the initial set was edited according to the recommendations. However, no items were deleted, since no more than three experts evaluated an item as low in relevance.

3.2 Study 2

A subsequent quantitative study aimed to reduce the revised set of items and determine the dimensionality of the SOL scale. For that purpose, a second sample comprising of 283 service employees were obtained. Participants (57% female) differed in regards to their age (19 to 72 years) and work experience (0.5 to 48 years) and interacted with either internal (33%) or external customers (67%), performing standardized (30%) or customized (67%) tasks.

At the beginning of the questionnaire, the participants were provided with the definition of SOL and were then asked to think about a leader that they would refer to as service-oriented, when answering the questionnaire. Adapted from the initial scale of *Schneider et al.* (1998), items were measured with a five-point intensity scale ranging from 1 (to no extend) to 5 (to a great extend).

All 76 items were included in an exploratory factor analysis (EFA) using the principal component method and an oblique rotation (*DeVellis* 2017). In an iterative process, items with weak factor loadings on one (<.4) and high cross loadings (>.4) on any other factors were removed. A seven factor solution emerged, whereby no further elimination could be conducted based on the above mentioned criteria. However, two of the seven factors were

judged as problematic and excluded from further analysis. Factor 6 was non-interpretable, as two content-wise discriminant items loaded on it, and solely one single item loaded on factor 7. Following the approach of *Liden et al.* (2008) the four highest-loading items for each of the remaining five factors were selected in order to develop an efficient and reliable 20 item scale. The five factor solution was then confirmed by a last EFA (eigenvalue > 1; explained variance 72.06%). Cronbach’s alpha for each factor was calculated, meeting *Nunnally’s* (1978) criterion of values above .7, ensuring internal consistency and reliability

Items	Mean	SD	α
<i>Social employee-orientation</i>			
The leader demonstrates humanity in dealing with employees and customers.	4.11	.923	.826
The leader cultivates a good relationship with employees.	4.07	.899	
Personal matters are discussed in a confidential communication between leader and employee.	4.05	1.018	
The leader ensures that employees do not lose face in front of their colleagues or customers.	4.27	.890	
<i>Service-oriented empowerment</i>			
The leader delegates the responsibility for the service performance with the customer to the employees.	4.22	.862	.881
The leader enables employees to act independently when performing the service with the customer.	4.20	.818	
Enabling them to act autonomously during the service encounter, the leader transfers the responsibilities to the employees.	4.11	.889	
The leader grants employees the necessary scope to interact with the customers in a service-oriented manner.	3.99	.895	
<i>Functional employee-orientation</i>			
The leader coaches employees on the professional handling of customers in difficult service encounters.	3.73	1.154	.852
The leader provides employees with clear feedback on their service performance with the customer.	3.87	1.044	
The leader praises employees after a high quality service performance.	3.87	.998	
The leader frequently provides employees with feedback on their service performance with the customer.	3.70	1.071	
<i>Service Role Modeling</i>			
The leader himself is dedicated to achieve a high quality service performance towards the customers.	4.39	.872	.881
The leader sets an example by demonstrating the service orientation that he/she expects from his/her employees.	4.34	.901	
The leader provides excellent service to the customer.	4.24	.906	
Customers’ desires and wishes are realized by the leader in the best possible way.	4.24	.854	
<i>Service-oriented motivation</i>			
The leader builds employees’ awareness that customers and their desires are first priority.	4.14	.881	.858
The leader tries to continuously improve the level of service quality performed by the employees.	4.11	.851	
Employees are continuously encourage to act in the best interest of the customer.	4.06	.911	
The leader is very committed to improve the quality of employees’ service performance with the customer.	4.14	.801	

Table 1: Results of exploratory factor analysis

(Table 1). Further, the corrected-item-to-total correlations ranged between .608 and .802, exceeding the required value of above .5, proving the adequacy of each of the items for their respective factor (Shimp/Sharma 1987).

Setting the identified behavioral characteristics of SOL in relation to the requirements for leadership in a service context, it becomes apparent that the identified dimensions address the theoretically derived requirements. Both functional employee-orientation and service role modeling address the necessity to ensure the *capabilities* of the organization, whereas the social employee-orientation as well as the service-oriented motivation and empowerment address the need to safeguard the successful integration and involvement of the customer during the service *process*.

3.3 Study 3

Study 3 aimed to confirm the dimensionality of the second-order structure and ensure the validity of the SOL scale. In order to generate a large sample size of service employees, data was collected via a panel provider. Based on random sampling, the provider sent out a personalized link to the online survey to panel members employed in service-related industries. Further, an initial screening took place, by asking respondents whether or not they are in direct customer interaction during their daily work. Only those participants confirming their direct customer contact were allowed to continue the survey.

648 online questionnaires were completed, of whom 89 unengaged participants had to be neglected, due to their inconsistent answers in regards to reverse coded items, an included instructional manipulation check as well as their completion time (<2 minutes). The resulting sample consisted of 559 participants (52% female, average age: 42 years, average work experiences: 19 years) working in a wide range of service industries (e.g. banking, consulting, gastronomy and insurance).

All participants were asked to evaluate the behavior of their direct leader according to the developed item set, along a five-point intensity scale ranging from 1 (to no extend) to 5 (to a great extend).

First, an EFA confirmed the five factor solution of the scale. A subsequently conducted confirmatory factor analysis (CFA) identified that all items significantly loaded on the expected construct (>.7) and the average variance extracted (AVE) per construct exceeded the minimum value of .5 (Fornell/Larcker 1981), proving convergent validity for each of the five first-order constructs. The AVE of each first-order construct further exceeded the shared variance between the examined and each of the other constructs, confirming discriminant validity (Fornell/Larcker 1981).

The reliability of the second-order factor was then proven by means of the composite reliability value (.914), which exceeded the minimum criterion of .6 (Bagozzi/Yi 1988). The SOL construct strongly loaded on all five first-order constructs, suggesting a relationship between the second- and all first-order constructs (Figure 1). Further, the AVE proved convergent validity of the set of all five first-order constructs as reflective indicators of SOL.

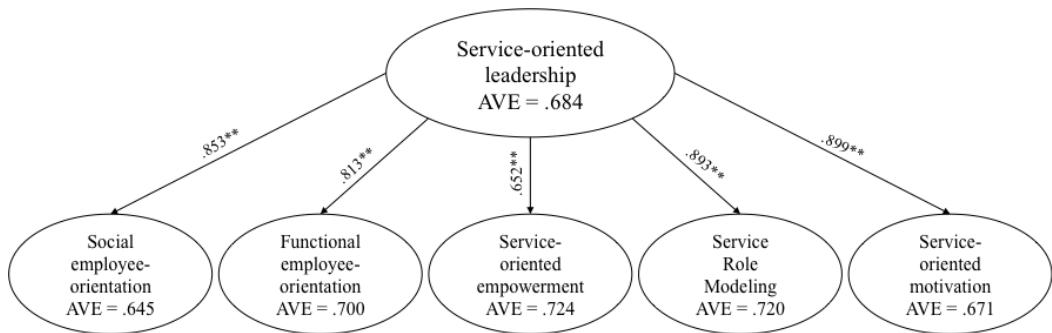


Figure 1: SOL construct

Additionally, the measurement model was compared to a one factor, a five factor correlated and a five factor uncorrelated model. Yet, according to the chi-square difference test, the proposed structure demonstrated a significantly better fit (CFI=.969; RMSEA=.054) than the alternative models, proving the second-order structure of SOL.

4. Construct Validation

Besides the convergent validity, both nomological and discriminant validity of the construct were tested in order to prove the constructs validity (Peter 1981). Hypotheses are therefore developed to examine if the construct has a significant effect on dependent variables (i.e. nomological validity) and distinguishes itself from other related but different constructs (i.e. discriminant validity). Further, hypotheses on the moderating effects of situational characteristics on the relationship between the second- and first-order constructs were generated to assess the robustness of the construct.

4.1 Hypotheses Development

Various researchers already identified the influence of leadership on different employee-, customer- and organization-related outcome variables (e.g. Schneider et al. 2005). However, past research with concepts similar to SOL, primarily investigated the direct effect on organizations' service climate, which mediates the influence on employee- and customer-related outcomes (Hong et al. 2013; Bowen/Schneider 2014). Yet, as SOL can be understood as the root of the service-profit chain, a direct positive influence on employee satisfaction is expected (Heskett et al. 1994):

H1: SOL positively influences employee satisfaction.

Besides this direct effect on the employees, the behavior demonstrated by the leader directly impacts customers' perception of the service when the leader is present during the service interaction or is himself serving a customer (Schneider et al. 2005). Further, in some instances the ways the leaders treat their employees are visible to the customers, which in turn also directly affects customers' service experience and satisfaction with the service (Bowen/Schneider 1985). It is thus proposed that:

H2: SOL positively influences customer satisfaction.

Other general leadership styles examined in a service context are servant and transformational leadership (e.g. *Liden et al.* 2014; *Chen et al.* 2015). Servant leaders are characterized by a role model behavior, who help and serve others and prioritize the needs and requirements of followers to their own (*Ehrhart* 2004). Therewith, the leaders inspire their followers to copy their behavior, collaborate and support each other (*Graham* 1991; *Liden et al.* 2014). Further, the leaders form relationships and interpersonal bonds with others and empower them in order to grow and develop (*Ehrhart* 2004; *Hu/Liden* 2011). Transformational leaders seek to internalize the organizational goals on the employee-side (*Bass* 1985) by communicating a clear organizational vision and motivating, encouraging and enabling employees to carry out the activities required to reach the objective (*Bass* 1985; *Rafferty/Griffin* 2004). The leaders pay attention to employees' personal requirements (*Avolio et al.* 1991) and establish a pleasant work environment (*Rafferty/Griffin* 2004).

Concluding, even though overlaps between the leadership styles can be identified, the conceptual differences between the SOL, servant, and transformational leadership exist due to their foci: The servant leadership focuses on serving others, the transformational leadership focuses on achieving organizational objectives (*Ehrhart* 2004; *Gregory Stone et al.* 2004), and the SOL focuses on fostering employees' capabilities and their service-oriented behavior towards customers. Consequently, it is assumed that:

H3: *SOL significantly differs from servant and transformational leadership.*

Due to the specific focus on employees' capabilities and their service-oriented behavior towards customers, SOL distinguishes itself from the other forms of leadership. The meta-analysis by *Hong et al.* (2013) also showed that service-specific leadership has a stronger impact on service climate than general forms of leadership (e.g. transformational). Taking up these findings it is argued that since the behavior of service-oriented leaders is demonstrated towards employees and customers:

H4: *SOL explains additional variance on both (a) employee and (b) customer satisfaction, beyond that explained by servant and transformational leadership.*

Both service- and leadership-specific characteristics determine different types of situations, in which SOL is occurring. Service situations can be distinguished according to the *Customer Contact*, referring to the degree of interaction that takes place between employee and customer (e.g. *Susskind et al.* 2003), the *Customer Involvement* describing the degree to which the customer actively participates in the performance (e.g. *Bowen/Schneider* 1988) and the *intangibility* differentiating services in terms of the tangibility of the service process and/or its outcome (e.g. *Bowen/Schneider* 2014). According to *Fiedler* (1967) leadership situations can be distinguished by the *leader-employee relation* describing the relationship between the leader and his/her employee (good/poor relationship), the *task structure* referring to the degree of structure in the job performed by the employee (highly structured task demonstrating a rather standardized and routine service/unstructured task referring to a rather customized and non-routine service) and the *position power* of the leader describing the influence inherent to the leader's position, specifically his or her authority and ability to reward or punish subordinates (*Yukl* 1989). As research suggests that the manifestation of leadership may not be identical in every situation (e.g. *Horwitzl*

Neville 1996; Yukl 1999), effects of the service- and leadership-specific situational characteristics on the manifestations of SOL are expected:

H5: The relationship between SOL and its manifestations in behavioral dimension is affected by (a) service- and (b) leadership-specific situational characteristics.

4.2 Measures

To test the hypotheses, the questionnaire used for Study 3 contained additional questions to not only measure the developed SOL behavior but also further validate the construct and its robustness. Therefore, besides the developed SOL scale, the behavior of participants' direct leader was assessed using Rafferty/Griffins' (2004) transformational and Ebrhart's (2004) servant leadership scale. Further, participants' employee satisfaction was assessed through one item of Hackman/Oldham (1975) ("Generally speaking, I'm very satisfied with my job"), one item of Homburg/Stock (2005) ("I like my job") and one item of Jun et al. (2006) ("I would recommend this company to a friend if he/she were looking for a job"). Participants also stated, how they perceive their customers' satisfaction. For this purpose, the customer satisfaction scale by Homburg/Stock (2005) was reformulated to fit the employee's perspective ("From my point of view as an employee ..."). Lastly, six items were included to assess the service- (Customer Contact, Customer Involvement, Intangibility) and leadership-specific (leader-employee relation, task structure, position power) employment situation of participants (e.g. "In my daily work, I intensively involve customers in the creation of the service."). The order of items was randomized within the different measurement scales and scaled from 1 (to no extend) to 5 (to a great extend).

4.3 Results and Discussion

To test if SOL demonstrates an effect on employee and customer satisfaction, a structural equation model was run. Prior to the analysis, the data was tested for common method bias. Harman's single-factor test unveiled that all items loaded on more than one factor, whereby one factor accounted for less than the majority (46.06%) of the covariance between the examined variables (Podsakoff et al. 2003). Further, a CFA with a one factor measurement model yielded a significantly poorer model fit (CFI=.664; RMSEA=.145) compared to the analyzed multifactor model ($\Delta\chi^2_{(8)}=3367.094$, $p<.01$). Thus, it was assumed that common method bias did not affect the results of the analysis. The then analyzed nomological network demonstrated good fit statistics (CFI=.957; RMSEA=.052) and revealed that SOL significantly ($p<.01$) influences employee ($\gamma=.735$; $R^2=.540$) and customer satisfaction ($\gamma=.585$; $R^2=.342$), supporting H1 and H2 and verifying the nomological validity of the construct.

To contrast SOL with both servant ($\alpha=.950$; CR=.953; AVE=.593) and transformational leadership ($\alpha=.950$; CR=.927; AVE=.864), initially both constructs were tested for reliability and validity. Correlations between all three leaderships were below 1 (Servant-Transformational=.988; Transformational-SOL=.947; SOL-Servant=.883), demonstrating a necessary condition for discriminant validity (MacKenzie et al. 2011). Pairwise chi-square difference tests between the constructs then unveiled significant differences for each pair, demonstrating that SOL distinguishes itself from both transformational ($\Delta\chi^2_{(1)}=24.611$, $p<.01$) and servant leadership ($\Delta\chi^2_{(1)}=233.221$, $p<.01$) (Bagozzi/Phillips 1982). Lastly, testing discriminant validity using the Fornell/Larcker (1981) criterion, the AVE of each

leadership did not exceed the squared correlation between the constructs. Thus, H3 and discriminant validity could not be proven.

However, to examine if SOL provides additional explanation for the variance of employee and customer satisfaction beyond that explained by servant and transformational leadership, a stepwise hierarchical regression analysis was conducted (Table 2). Three models were tested for each outcome variable, whereby first one single score for servant and second, transformational leadership was added as predictors before finally one score for each of the five first-order constructs of SOL were added to the model. The results proved that SOL makes a unique contribution to both employee and customer satisfaction (supporting H4a and H4b), and thus does not simply reflect servant or transformational leadership (Ong/van Dulmen 2007). In regards to employees' satisfaction it became apparent that SOL's service-oriented motivation represents a relevant and unique dimension that provides additional contribution to employees' satisfaction. Regarding customer satisfaction, specifically SOL's service-oriented role modeling and motivation as well as the service-oriented empowerment of employees unveiled an additional impact.

Variable	Employee satisfaction			Customer satisfaction		
	1	2	3	1	2	3
Intercept	1.468**	1.265**	.715**	2.917**	2.783**	1.873**
Servant Leadership	.641**	.250**	.188*	.364**	.036 ^{n.s.}	-.076 ^{n.s.}
Transformational Leadership		.430**	.217*		.361**	.034 ^{n.s.}
<i>Service-oriented leadership</i>						
Social employee-orientation			.106*			.020 ^{n.s.}
Service-oriented empowerment			.085*			.235**
Functional employee-orientation			.049 ^{n.s.}			-.001 ^{n.s.}
Service Role Modeling			.023 ^{n.s.}			.214**
Service-oriented motivation			.135**			.210**
Corrected-R ²	.409	.441	.473	.131	.152	.293
Δ Corrected-R ²		.032	.032		.021	.141

Note: *p < .05; **p < .01

Table 2: Results of stepwise hierarchical regression

To examine the effect of situational characteristics, median splits were initially used to categorize the participants according to the characteristics of their employment situation. All categories were then tested for measurement invariance. Good fit statistics for all freely estimated category comparisons as well as significant factor loadings (p<.01) above .6 for their respective construct, proved configural invariance (Steenkamp/Baumgartner 1998). Further, the predominantly non-significant chi-square differences between the unconstrained and the invariance model and the small differences in ΔCFI (≤.010), ΔTLI (≤.050) and ΔRMSEA (≤.015) indicated metric invariance (Cheung/Rensvold 2002; Chen 2007). Consequently, the robustness of the scale across different service and leadership situations was validated.

Several multigroup factor analyses were then conducted (Table 3), unveiling that all three service-specific situational characteristics influence the relationship between SOL

and its manifestation in service-oriented empowerment. The analysis depicted that in situations with a low degree of customer contact or involvement or a low degree of intangibility, SOL manifests in increased delegation of responsibility to the employees. Further, the intensity of customer involvement was identified as moderating the effect on social employee-orientation, with SOL expressing itself through a more intensive social employee-orientation in situations with low customer involvement. Consequently, H5a was supported. With regards to leadership-specific situational characteristics, the analysis revealed a moderating effect of the leader-employee relation on both social and functional employee-orientation, unveiling an increased employee-orientation in situations characterized by a poor relationship between a leader and an employee. Thus, H5b was partly confirmed since neither the task structure nor the position power of the leader revealed any moderating effects.

Behavioral dimensions	Service-specific situational characteristics						Leadership-specific situational characteristics	
	Customer contact	$\Delta\chi^2$ p-value	Customer involvement	$\Delta\chi^2$ p-value	Intangibility	$\Delta\chi^2$ p-value	Leader-employee relation	$\Delta\chi^2$ p-value
Social employee-orientation	$\gamma_{low} = .879$ $\gamma_{high} = .837$	.089	$\gamma_{low} = .904$ $\gamma_{high} = .800$	.034	$\gamma_{low} = .837$ $\gamma_{high} = .860$	.164	$\gamma_{poor} = .856$ $\gamma_{good} = .702$	.000
Service-oriented empowerment	$\gamma_{low} = .758$ $\gamma_{high} = .570$	.014	$\gamma_{low} = .665$ $\gamma_{high} = .558$	.004	$\gamma_{low} = .662$ $\gamma_{high} = .618$	.016	$\gamma_{poor} = .549$ $\gamma_{good} = .605$	.166
Functional employee-orientation	$\gamma_{low} = .833$ $\gamma_{high} = .808$	.727	$\gamma_{low} = .764$ $\gamma_{high} = .826$	.749	$\gamma_{low} = .794$ $\gamma_{high} = .832$	.714	$\gamma_{poor} = .783$ $\gamma_{good} = .733$	.044
Configural invariance	CFI = .967 TLI = .961 RMSEA = .039		CFI = .960 TLI = .952 RMSEA = .043		CFI = .968 TLI = .962 RMSEA = .039		CFI = .962 TLI = .955 RMSEA = .038	
Metric invariance	$\Delta\chi^2_{(20)} = 30.640$ p = .062 $\Delta CFI = -.001$ $\Delta TLI = -.001$ $\Delta RMSEA = .000$		$\Delta\chi^2_{(20)} = 36.597$ p = .013 $\Delta CFI = -.002$ $\Delta TLI = -.001$ $\Delta RMSEA = .001$		$\Delta\chi^2_{(20)} = 29.087$ p = .086 $\Delta CFI = -.001$ $\Delta TLI = -.001$ $\Delta RMSEA = .000$		$\Delta\chi^2_{(20)} = 53.566$ p = .000 $\Delta CFI = -.005$ $\Delta TLI = -.003$ $\Delta RMSEA = .001$	

Note: Solely those dimensions and categories where moderating effects were identified are illustrated

Table 3: Results of multigroup analysis

5. General Discussion

In this paper, SOL was conceptualized and operationalized. Starting with a literature review, a scale development process was conducted comprising of one qualitative and two quantitative studies. By means of this process a reliable second-order construct was developed that proved to be valid across different service and leadership situations. The construct manifests itself in five behavioral dimensions that foster the employees' capabilities and their service-oriented behavior towards customers. In order to ensure the employees' capabilities, the leaders are *role modeling* a service-oriented behavior towards both employees and customers and further educate their employees on how to overcome difficult customer situations and providing them with feedback on their service performance, which is reflected in a *functional employee-orientation*. Additionally, the leaders safeguard the successful integration and involvement of the customer during the service process by enabling employees to act autonomously within a predetermined scope of action and dele-

gate responsibility demonstrated by *service-oriented empowerment*. Furthermore, through the leaders' *social employee-orientation*, the employees' well-being is ensured and along with *service-oriented motivation* encourages employees to continuously strengthen their service-oriented behavior towards customers.

The analysis further revealed that SOL influences both employee and customer satisfaction and explains additional variance that goes even beyond that explained by transformational and servant leadership.

Consequently, this paper paints a comprehensive picture of the SOL behaviors and provides additional information on the consequences of implementing such leadership in a service organization.

5.1 Managerial Implications

The developed SOL measurement scale can be used to assess behavioral characteristics and thus enable organizations to assess the potential of leader candidates or evaluate and develop the behavior of current leaders.

When assessing leader candidates, it is for example suggested that organizations explore the behavior demonstrated by the applicant towards customers (i.e. service role modeling) or examine whether or not the applicant behaves respectfully and caring towards colleagues, (i.e. social employee-orientation). Service-oriented empowerment, however, since it is difficult to assess beforehand, needs to be closely examined once the leader takes up the position. Examining leader candidates' behavior previous to hiring new or promoting existing employees may protect both the future leaders and their future subordinates from frustration and dissatisfaction and is thus beneficial for organizations.

With current leaders, the developed scale may be used to monitor to what extent they exhibit the five behavioral characteristics, enabling firms to address specific behaviors in case deficits are identified. E.g. leaders demonstrating minor functional employee-orientation may be offered support or additional training on how to provide constructive feedback. Regular follow up measurements of the behavioral characteristics are then suggested, to track and ensure continuous progress of leaders' behavior.

5.2 Limitations and Further Research Agenda

Even though this study was carefully conducted, some limitations need to be addressed.

First, both employee and customer satisfaction were evaluated from an employees' perspective. As a result, social desirability may have caused the employees to overestimate their performance and thus their assessment of customers' satisfaction (*Liao/Chuang* 2004; *Yukl* 2012). Future research should therefore obtain data from multiple direct sources in order to overcome this limitation.

Second, as SOL fosters employees to perform a service-oriented behavior, it seems advisable to further examine the effect on other variables, e.g. employees' service performance (*Yukl* 2012; *Bowen/Schneider* 2014). Additionally, it is suggested to include the service climate variable in future research models (*Schneider et al.* 2005) in order to assess its relevance when SOL is present.

Third, when examining the effect of SOL on employee-related outcomes, it would be necessary to further include human resource practices (*Nerdinger/Pundt* 2018), such as payment and incentives (*Hallowell et al.* 1996), into the research model. It could then be

determined how the practices are optimally utilized or combined in order to successfully influence the behavior of service employees (Nerdinger/Pundt 2018).

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