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# The Relationships Between Thinking Styles, Servant Leadership and Extra-role Service Behaviour: An Empirical Study in the Hotel Industry

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# Abstract

Drawing from thinking styles theories and servant leadership theories, this study investigates whether thinking styles are the predictors of extra-role service behaviour and which of them mediates the effects of servant leadership on extra-role service behaviours. Data collected from frontline hotel employees in Cappadocia were employed to reveal these relationships. The results from regression analysis and path model propose that employees with certain thinking styles display extra-role service performance and the presence of servant leadership fosters employees' extra-role service behaviours through thinking styles. In brief, there is support for the fully mediated model that servant leadership enhance extra-role service behaviours through type three thinking styles. Importance of thinking styles to the decision makers in the hotel industry and future researchers are debated.

Keywords: Hotel industry, Thinking styles, Servant leadership, Extra-role

### 1. Introduction

In today's competitive world, creating unique services is the most essential part of any strategic initiatives and their purposes. Because two prominent, inseparableness and emotional labor driven characteristics of services, the customer contact employees play a crucial role in creating and sustaining unique services (Zeithaml and Bitner, 1996). They are seen as one of the main determinants of service quality in service businesses (Tsaur and Lin, 2004; Morrison, 1996). Therefore organizations expect their employees to go the extra mile, to be service oriented, and show flexibility regardless of their prescribed role (Bakker and Schaufeli, 2008; Gonzalez and Garazo, 2006). This behaviour of employees is called as extra-role service behaviour and it attributes to arbitrary behaviour of frontline personnel that exceed beyond prescribed role requirements (Lee, Nam, Parka and Lee, 2006) and is substantial in customer satisfaction (Peccei and Rosenthal, 2001).

In the literature, extra-role service behaviour of employees are explained by many antecedent factors. Among the factors that have often been researched are job satisfaction (MacKenzie, Podsakoff and Ahearne, 1998), organizational commitment (Lee et al., 2006), employee engagement (Schaufeli, Taris, & Bakker, 2006), service rewards (Eren, Burke, Astakhova, Koyuncu, Kaygısız, 2014), and job standardization (Tsaur, Wang, Yen and Liu, 2014). A factor that has not usually been considered is the thinking style of employees. Thinking styles (TS) are defined as our primary method of using the abilities that we own (Zhang and Sternberg, 2005). Thinking styles distinguish the attitude and behaviour of individuals in their job orientation and may affect their job performance (Budijanto, 2013). Given the main service focus of frontline employees is to initiate unique and intangible service product, their thinking style may play an important role in shaping service encounter. As Cools (2010) indicated that, differences in thinking styles may have a larger impact on behavior than ability, as they refer to a person's typical rather than maximum performance. For example, a person could be creative or conservative depending on whether he/she works alone or in a team regarding the nature of the task (Zhang and Higgings, 2008). Although people can perform well in more than one thinking style, they can be more successful if they sufficiently pick the most suitable one for solving the problem (Orcik, Vrgovic and Tekic, 2014). Sternberg (1997) indicates that styles are relatively socialized, proposing that they can be shifted by the environment which people settle. Therefore, thinking styles are malleable (Zhang and Sternberg, 2006) and provide a substantial deal of promise for the future in assisting us to perceive some of the variation in job performance that cannot be explained by individual differences in abilities (Cools, 2010). Besides, it reflects various representation and process of information that takes shape within the frame that is surrounded by different situations and times (Balkis and Isiker, 2005). Hence, it is known that the people's attitude toward the organisational surroundings (e.g. organizational commitment) is mostly shaped by thinking style (Hou, Gao, Wang, Li and Yu, 2011). Putting servant leadership (SL) as an important environmental factor in effecting prosocial service behaviour of frontline employees (Raub and Robert, 2010), this study center upon organizational service implementations.

This study proposes that SL influences frontline employees' thinking styles, and that thinking style affects employees' extra-role service behaviour. Since thinking style is a composition of many different cognitive styles, it is of interest to determine which of them most arouse extra-role service behaviour. Because, theoretically, behavioral outcomes might be thought as the reflections of their different styles or favoured ways of dealing with information (Messick, 1984; Zhang and Sternberg, 2005). These relationships have not been adequately studied in the service industry. It is important to clarify that whether cognitive styles may play a substantial role in answering why some employee go extra-mile even when transferred between tasks while others perform just the routine when placed in different setting.

On the other hand, it has long been apparent that contrasts in cognitive style may essentially influence the nature of interpersonal relationships (Allinson, Armstrong and Hayes, 2001). However previous studies fall short in reflecting composite relationships between people and peripheral factors in context of cognitive styles (Armstrong, Cools and Sadler-Smith, 2012). Therefore, to get a better understanding on the laden significance of thinking styles viewpoint for business and management settings, this study aims to provide firstly, review the theoretical literature on SL, TS and extra-role service behaviour and second an empirical analysis based on the data collected from customer-contact employees working in hotel firms is presented. Path analyses and regression analysis were used to carry out concurrent handling of the casual relationships between the constructs. The paper ends by drawing its fundamental conclusion, its constraints and possible directions for succeeding research.

# 2. Theory and Hypothesis

The research model and hypotheses built are illustrated in Figure 1. The fundamental assumption of the model is that frontline employees perceiving servant leadership in their work adopt Type III thinking styles and therefore display extra-role service behaviours at eminent levels. In a technical manner, thinking styles fully mediates (indirect-only mediation) the effect of servant leadership on extra-role service performance.

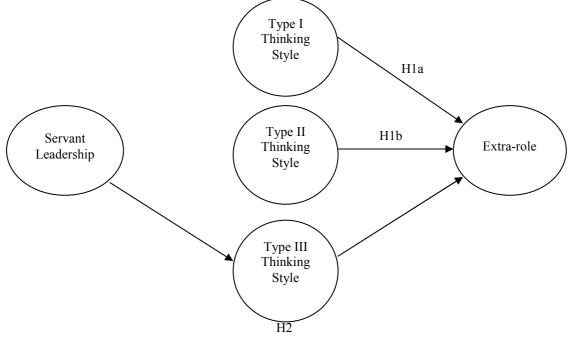


Figure 1. Research model

# 2.1. Thinking Styles

Processing and representing information depend on the preferred styles of people in running daily deals. These different ways of conducting or administering the activities are called "thinking styles" (Sternberg, 1988). It is the definition of way individuals prefer to use the cognitive abilities they hold, instead of the real contents of their thinking processes (Sternberg, 1997). Situations, tasks, education, work and travel experience, goals, political and social context and personalities cause variations in the thinking profile of people across these kind of contextual manners instead of their life (Tang, 2003; Sternberg 1997; Sofo, 2005; Zhang 1999, Zhang & Sachs 1997). Hence, concentration of thinking styles may differentiate, are not hierarchical and the relationship among them are not distinct (Sofo, 2005). The theory promises, and studies have distinctly explained that thinking style has effect on the way in which people choose to benefit their intelligence, aptitude, information and talents (Hayes and Allinson, 1994; Messick, 1984; Tullet, 1996). Sternberg's theory of mental self-government overcomes the handicaps encountered in personality, cognitive and learning-centered theories of thinking style since it presents evidence related to how they are preferences (Tang, 2003). Therefore, it places more emphasis on individual's intelligence instead of knowing how much intelligence individuals have.

In mental self-government theory, Sternberg, Wagner, and Zhang (2003) contended three different thinking

styles that incorporate 13 subdimensions: Type I, Type II and Type III. Type I thinking styles are prone to be more creativity-generating. Type II thinking styles propose a norm-favouring inclination. Type III styles may carry the characteristics of the styles from both Type I and Type II groups, depending on the adjective requirements of a specific task. The Type I thinking styles are the function of mental self-government, embodying legislative, judicial, global, hierarchical, and liberal styles. The Type II thinking style includes executive, analytic, monarchic, and conservative styles. As a mixture of these two former styles, the Type III thinking style includes anarchic, oligarchic, internal and, external styles. For the Type I, a person with legislative style have a tendency of solving problems in a creative manner; a person with judicial style concentrates on critique of results of other associate's activities; a person with global style prefers to focus on abstract ideas and whole picture of the facts; a person with hierarchical style puts the tasks in order of importance; a person with liberal style seeks for an opportunity to goes extra mile for novelty and ambiguity. With reference to the Type II, a person with executive style performs tasks according to clear instructions and rules; a person with analytic style is more concerned with performing tasks which are concrete and detailed; a person with monarchic style is focused mostly on only one thing at a time; a person with conservative style has a tendency to follow predetermined rules and avoid uncertainty. Finally for the Type III, a person with anarchic style is motivated with the task that allows him/her to flexibility of approaches and dislikes systems and guidelines; a person with oligarchic style shows tendency to deal with several tasks simultaneously; a person with internal style prefers tasks that allow him/her to work independently whereas a person with external style likes teamwork and focuses outward.

In investigating the applicability and utility of these constructs, experimental research has been carried in business context. For example, cognitive styles have been assumed as a useful guide of making reliable decisions related to from personnel selection and placement, internal communication and team composition to management style and training and development (Armstrong & Cools, 2009; Hayes and Allinson, 1994). For example, if an employee with the judicial style realizes relative importance of tasks they approach the effectiveness of the hierarchical stylist with regard to eliminating the adverse effects of role strain and contradictory standards of evaluation (Abraham, 1997). Allinson, Armstrong and Hayes (2001) showed that analytic leaders were more ascendant and less fostering than their intuitive associates, and that they were less wished and admired by intuitive members than intuitive leaders were by analytic members. King and Holtfreter (1993) found that employees with the low tolerance for detailed, routine work and, little respect for rules were less satisfied with the tasks that require highly repetitive tasks. Suazo, Turnley and Mai-Dalton (2008) found that cognitive similarity between the supervisor and subordinate has a negative effect on the perception of the psychological contract breach. On the other hand, Talbot (1989) indicates that capability of identifying, quantifying and understanding each employee's unique thinking types are all determinant in providing possibility to improve individual and team performance and productivity. This is called as "cognitive climate" which implies that employees around certain occupational workgroups are liable to adopt identical information processing regarding demands of their jobs (Hayes and Allinson, 1998). It is substantially beneficial to investigate each thinking styles' specific role in augmenting service encounter since thinking styles differ in various characteristics (Stenberg, 1997). Irrespective of the pros and cons, all thinking style profiles are functional and the question is to build and employ a thinking style profile that will serve best for an individual in coping with information and different settings (Sofo, 2005). In parallel with this, it is known that particular job types suit particular styles and styles can be employed to optimize the goodness of harmony between potential employments and job demands (Haves and Allinson, 1994).

#### 2.2. The relationship between constructs

According to Zhang (2005), the perception of work environments of employees were stronger than real ones in anticipating thinking styles of employees. Servant leadership is among the leading environmental variables. Greanleaf draws attention to the role model of servant leaders as a trust generator and one-to-one and humble communicator in understanding subordinates' skills, goals, hopes and potential (Liden, Wayne, Zhao, and Henderson, 2008). In a word, the responsibility of leaders to not only the organizational achievement but also to their followers, the clients and, other organisational shareholders constitutes the basic idea behind servant leadership (Greenleaf, 1977). A number of recent studies suggest that servant leadership behaviors of managers have positive effects on employees' psychological health, commitment, distributive justice, and knowledge sharing (Ehrhart, 2004; Schwepker, 2016; Tuan, 2016). Trust, empowerment, and a powerful keenness to tender perfect service to clients are the main foundation of a service climate in which the servant leader concentrates on tendering and placing the subordinates to be able to adapt their thinking strategies according to the challenge they confront and choose a thinking style that is a best match for the type of project they are working on (Orcik, Vrgovic and Tekic, 2014). To succeed their targets, individuals may adapt thinking style profile in accordance with the targets, the situation, the personalities and the political and social context (Sofo, 2005).

Chiniaria and Bentein (2016) found that the servant leaders' considerate focus on subordinates' growth satisfies the subordinates' needs of autonomy, competence and relatedness. Concordantly, individuals that are not provided empowerment or perceived sense of control over what they do was found negatively associated with legislative, judicial, hierarchic, global, and liberal thinking styles (Palut, 2008). Frontline employees with the high servant leadership perception will be stimulated, keen to learn and develop, and will make their best to serve clients thanks to the particular examples played by their leaders (Babakus et. al., 2010). The motivation, adequacy or opportunity is needed that enables an individual using different thinking style (Sofo, 2005). Therefore SL has a potential to provide this motivation based on its empowering characteristics.

Over the past decade, as previously mentioned, many researchers have investigated the organizational commitment, employee engagement, service rewards and job standardization as the antecedents of extra-role behavior. Extra-role behaviour is mostly about creativity (Demerouti, Bakker and Gevers, 2015). The cognitive styles are known to be effective on the creativity generation based on contextual factors (i.e., Zhang & Sternberg, 2009). Current studies propose that in generating creativity, a wide repertoire of thinking styles, particularly Type I thinking styles play a critical role (Zhang & Sternberg, 2009; Fan & Zhang, 2009). To satisfy unexpected needs of customers, frontline employees should be prepared and provide a quick and a creative solution by going extra-mile beyond his/her job boundaries. For example, McIntyre, Claxton, Anselmi and Wheatley (2000) found that decision-making by thinking rather than feeling was found to me more likely to practice adaptive selling which increased customer orientation. In their study, Kaufman (2002) and Sternberg (2006) indicate that divergent thinking is more like an antecedent of creative thinking and people having this kind of thinking are prone to be flexible in executing unstructured and ambiguous situations. Pounds and Bailey (2001) investigated that innovative people were not inclined to sustain analytical tasks since their style were more compatible with disregarding rules to be successful in their tasks while people with adaptive style was quite the opposite. Therefore the following hypotheses are developed:

# H1a: Type I thinking style will be positively related to extra-role service behaviour.

*H1b*: Type II thinking styles will be negatively related to extra-role service behaviour.

Since service product in hospitality industry in large part is labor-intensive, employees are expected to go extra-mile by performing several job demands beyond their job identifications. Depending on contextual circumstances, especially frontline employees should cast appropriate thinking style to be able to meet the highly unexpected customer needs. Based on an integration of the previous hypotheses and the preceding theoretical rationale, it is anticipated that servant leadership will perform as a motivator of the effects of thinking styles on the extra-role service behaviors. For example, an empirical research carried on hotel operations has reported that empowering leadership behaviors depicted direct positive relationship with extra-role behaviors mediated by psychological empowerment of leadership behaviors (Raub and Robert, 2010). Another research conducted with a sample of R&D employees shows that leader-member-exchange and employee cognitive style were related to employee creative performance (Tierney, Farmer and Graen, 1999). A study illustrates that subordinates in high quality exchanges with their leaders react to felt responsibilities by reciprocating through their extra-role behaviours (Gerstner and Day, 1997). On the contrary, organizational citizenship behaviour studies remark that when organizations motivate employees to work vigorously they rely more on in-role behaviors and avoid from expending effort on discretionary, extra-role performance (Beckett-Camarata, Camarata and Barker, 1998). The relevant literature includes various empirical studies that demonstrate that servant leadership boosts extra-role service behaviour. Chen, Zhu and Zhou, (2015) found a strong effect of servant leadership on frontline employees' prosocial service behaviour. In a laboratory study, Lapierre (2007) finds that the subordinates with the perception of supervisor benevolence had an influence on the willingness of subordinates to show extra-role efforts. According to the findings of a study guided with sample of hotel employees in Chine, servant leadership showed a positive relationship with extra-role service behaviour through the mediation role of leader-member exchange (Wu, Tse, Fu, Kwan and Liu, 2013).

The relationship between SL and TS has been probed superficially, but extant studies do provide some evidence related to a positive relationship between SL and subordinates' contextual and task performance (Neubert, Kacmar, Carlson, Chonko, and Roberts, 2008; Ehrhart, 2004), innovative behaviour (Scott and Bruce, 1994), creativity (Yoshida, Sendjaya, Hirst and Cooper, 2014) and, the effects of cognitive style on leadermember exchange (Allinson, Armstrong and Hayes, 2001; Tierney, Farmer and Graen, 1999) and leadership (Armstrong and Cools, 2009). Although research has proved servant leaders' relationships to these variables, studies have yet to reveal the intra-psychological processes seemingly thinking styles underlying some of these mechanisms and agreeably effecting extra-role related service performance of frontline employees. It is known that favorable work environment motivates the employees to think more creatively and use a large spectrum of thinking styles (Zhang, 2005).

Thus, the current research specifically relies on to intensify our understanding of the servant leadership model by investigating and purifying our understanding of the differential feature of this model: servant leaders' attention on empowering subordinates' needs as the inherent psychological system to improve individuals'

adaptiveness of different thinking styles to contextual service encounters. Zhu and Zhang (2011: 365) indicated that Type III styles are anticipated to regard environment as a substantial factor for creativity, since they are more context-dependent, and hence they would see environment as a key efficient factor for the creativity of individuals. Zhang (2005) points out that those individuals in more favorable work environment are more prone to take risks, be innovative and think more creatively and use different thinking styles.

However, to my best knowledge, there is no empirical evidence that thinking styles mediate the effect of servant leadership on extra-role service behavior. Therefore the following hypothesis was developed:

# *H2:* Type III thinking style will fully mediate the effect of servant leadership on extra-role service behaviour

# 3. Research Method

#### 3.1. Participants and procedure

Data for this study were collected from frontline employees (e.g., front desk officials, servers, bell staff and their directors) in the hotel industry in Turkey, specifically in the Cappadocia region, a culture-oriented destination. Hotel's human resources management was contacted to explain the purpose of the study and asked for permission for data collection. The self-completion questionnaires were then dropped to directors and collected later on.

The first part of the questionnaire covered the thinking styles and servant leadership scales, while the following part covered the extra-role service behaviour measure. The third part consisted of the items related to participants' demographic profile (e.g., age, gender).

# 3.2. Measures

Given the latent character of variables considered in this study, multi-item Likert-type scales of five points were used (1= "strongly disagree" and 5 = "strongly agree").

*Thinking styles.* Individual differences in cognitive styles were assessed using the TSI-R (Sternberg, Wagner, & Zhang, 2003). The TSI-R covers the presence of three thinking styles using 65 items divided among 13 subscales. Each subscale contains five items such as "I like situations where I can follow a set routine" (conservative), "I tend to pay little attention to details" (global). Previous version of the scale has been validated by Fer (2005) in Turkish context and the items in her study were reevaluated and adapted into working environment.

*Servant Leadership.* The SL scale developed by Dennis and Winston (2003) was used and it consists of 23 items that asked the participants to identify their perceptions of their immediate supervisor's servant leadership behaviors. It assesses three empowering leadership behaviours: empowerment, service and vision. Because subscales for the three leader behaviours are highly correlated, the subscales were combined as a single measure by the average score of the indicators. An example of an item is "my supervisor sets clear and realistic goals".

*Extra-role service behavior* Extra-role service behavior was measured with three items from Bettencourt and Brown's (1997) five-item extra-role customer service measure. Based on feedback from the pilot study, two items from the original scale were deleted. Sample item include "I willingly go out of my way to make a customer satisfied". After reverse scoring one negatively phrased item, high scores also pointed higher extra-role performance.

Because data were gathered in Turkish, the items in questionnaire were prepared based on the backtranslation method. That is, all items in questionnaires were originally prepared in English and translated into Turkish through the back-translation method (Parameswaran & Yaprak, 1987). The questionnaire was piloted on a sample of 10 frontline hotel employees checking for the comprehensibility of items. No modifications were demanded during the pilot study.

# 3.3. Data analysis

A two-level approach was carried to evaluate entire measurement congruity and test the hypothesized relationships. In the first level, the scales were put to confirmatory factor analysis for psychometric evaluation in respect of convergent and discriminant validity with internal consistency reliability. The next level covered the evaluation of the relationships in structural model using path model and simple regression analysis. In parallel with the suggestions made by Zhao, Lynch and Chen (2010), the fully mediated model was tested through path analysis with SEM. Therefore, since the hypothesized model (H2) was a fully mediated model, the direct relationship between the predictor variable (servant leadership) and the criterion variable (extra-role) was not tested (James, Mulaik and Brett, 2006). Measures of central tendency were computed for observed variables in the model to summarize central tendencies and correlations.

# 4. Analysis of data

# 4.1. Sample profile

650 questionnaires in total were dropped to the hotels. Four hundred forty five employees participated to the questionnaires, generating a response rate of 68%. Demographic profiles is as follows: In terms of gender of the sample, 315 (71%) respondents were male and 114 (26%) were female with 16 missing. Three hundred sixty three (81%) respondents were between the ages of 18-25. Forty five (10%) respondents were aged between 26-33 years. Twenty four (5%) respondents ranged in age between 34-41 years and the rest were older than 41. One hundred eighty five (42%) respondents had primary and secondary school education. Two hundred fifty three (57%) had college education and seven missing.

# 4.2. Factor structure and construct validity

Through confirmatory factor analysis, by means of successive estimations based on the modification indexes, the models for each constructs were chosen presenting the best fit. The results of models fit statistics are as on Table 1. Theoretically, a three-dimension model with 13 subdimensions with five items for each subdimensions of the TSI-R (Zhang & Stenberg, 2005, 2006) was appropriate, and fundamentally supported in this research sample by CFA. The 65-item scale was summed and computed as 13 items representing each three thinking styles before running CFA. Therefore a second order CFA is applied. The scale produced individual factor loadings which were similar to Fan and Zhang's (2009) suggested cutoff value of .25 for the majority of items. However, *local* thinking style scale was eliminated because of its high multicollinearity problem. Only Global style was lower than the cutoff value of .25 and it was not eliminated from the further analysis. Because, validating the TSI-R was not the elementary interest of the current research, but to illustrate the predictive validity of the thinking styles for extra-role service behaviour scale.

	Type I		Type II		Type III	
Legislative	.50					
Judicial	.36					
Liberal	.39					
Hierarchical	.98					
Global	.15					
Executive			.52			
Conservative			.58			
Monarchic			.26			
Oligarchic					.97	
Anarchic					.40	
External					.39	
Internal					.44	
	χ2 (df)	χ2/df	GFI	AGFI	CFI	RMSEA
Model Fit	180.675 (49)	3.687	.943	.909	.961	.078

Table 1. Factor loadings and overall good-of-fit indices for TSI-R model

Note: Regarding the completely standardized solution of the Global subscale, .15, it was only marginally significant at the .05 level, and needs to be further confirmed in future study.

On the other hand, three-factor model of SL, and unidimensional model of extra-role were proper and fundamentally supported in this study sample by pooled-CFA as well. Factor loadings of the three constructs and their model fits can be seen in Table 1 and Table 2.

Table 2. Factor loadings and overall good-of-fit indices for servant leadership and exra-role

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Factor Loadings		$\chi^2 (df)$	9.381 (9)
		$\chi 2/df$	1.042
.709	Model Fit	GFI	.993
.924		AGFI	.984
.972		CFI	1.000
		RMSEA	0.010
.987			
.522			
.928			
	Factor Loadings .709 .924 .972 .987 .522	Factor Loadings .709 Model Fit .924 .972 .987 .522	$\begin{array}{c} & \chi^{2/df} \\ \hline .709 & Model Fit & GFI \\ .924 & AGFI \\ .972 & CFI \\ RMSEA \\ \hline .987 \\ .522 \end{array}$

Following the validity of constructs, we affirmed the internal consistency of the variables. Reliability analyses of the scales of TSI-R, SL and extra-role showed that the Cronbach's alphas were .932, .959 and .813 singly. All composite reliabilities were also larger than the commonly accepted cutoff value of .60. Particularly, composite reliability for thinking styles, servant leadership, and extra-role was .81, .90, and .86 respectively.

Hence, we are also certain of the reliability of our measures (Bagozzi & Yi, 1988). The means, standard deviations, and correlations of observed variables are illustrated on Table 3. Table 3. Means, standard deviations, and correlations of study constructs.

Constructs	Mean	SD	1	2	3	4	5
1. Type I	4.04	.50	-				
2. Type II	3.51	.59	.144*	-			
3. Type III	4.04	.50	.723*	.179*	-		
4. Servant Leadership	3.26	.85	.033	.173*	.164*	-	
5. Extra-role service behaviour	3.96	.86	.314*	082	.293*	.018	-

**Notes:** \*p < 0.05

In the present study, because the fundamental goal was to assemble the cause-effect relationships between the different variables incorporated, regression analyses and path analysis were conducted according to the hypotheses. These techniques were used to reveal the relationships among them.

# 4.3. Analysis results and test of hypotheses

The *global* dimension of the Type I thinking style was not included in the regression model because of its low predictive power. The results of regression analysis pertaining to the direct effects of type one and type two thinking styles on extra-role service behaviour is demonstrated on Table 4. According to the table, Type I thinking style is significantly and positively related to extra-role service behaviour. Therefore, Hypotheses 1a and 1b are supported.

Table 4. Regression	results: Direct effects

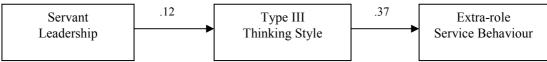
	Dependent variable and standardized regression weights		
	Extra-role behaviour		
Independent variables	β	t	
Туре І	.279*	6.081	
Type II	163*	-3.548	
F	22.14*		
$R^2$	0.091		
* < 01			

Through path analysis (Figure 2), the fully mediated model fit was determined to be adequate ( $\chi 2 = 105.562$ , df = 32;  $\chi 2 / df = 3,299$ ; CFI = 0.969; PNFI = 0.68; RMSEA = 0.072). As hypothesized, servant leadership was positively associated with Type III thinking style, which was, in turn, positively associated with extra-role service behaviour. Therefore, Hypothesis 2 is supported. These results clearly pointed to an indirect-only mediation and suggested that Type III thinking styles were a crucial factor translating servant leadership perception into better extra-role service behaviour (Zhao et. al., 2010).

# 5. Discussion

# 5.1. Evaluation of findings

Using thinking styles and servant leadership theories as the theoretical background, current research explores whether thinking styles act as predictors of the extra-role service behaviour and which of them take the role of mediator of the effects of servant leadership on extra-role service behaviour. Data gathered from customercontact hotel employees in Cappadocia are employed to evaluate these relationships. The findings reported in the current research demonstrate support for the predictor and mediator roles of thinking styles.



Model fit statistics:  $\chi 2 = 105.562$ , df = 32;  $\chi 2 / df = 3,299$ ; CFI = 0.969; PNFI = 0.68; RMSEA = 0.072). *Note.* Standardized path coefficients were significant (p < .05)

# Figure 2. Path model for standardized coefficients

Specifically, the findings illustrate that the presence of support emerging from supervisors fosters type three thinking styles. Customer-contact employees feel acclimatized with Type III thinking styles when they perceive servant leadership from their supervisors and are more inclined to go extra-miles. While the people with norm-favouring thinking styles (Type II) tend not to show the extra-role service behaviour, people with the creativity-generating thinking styles (Type I) head beyond their prescribed roles. As Zhu and Zhang (2011, p. 365) stated,

"Theoretically, individuals who score high on Type I styles are predicted to stress the importance of Thinking for creativity, Type II style individuals are norm-favouring and therefore stress more on structured knowledge; individuals score high on Type 3 styles are predicted to regard environment as an important factor for creativity, as they are more context-dependent, and therefore they would see environment as a key influencing factor for the creativity of persons." Sternberg (1997) indicates that styles are partially socialized, proposing that they can be shifted by the environment which people settle. People in a more favorable working environment are happier in general, hence they tend to think more creatively and use a wide repertoire of thinking styles (Zhang, 2005).

The results suggest that thinking styles are important predictors of extra-role service behaviour and servant leadership, as an important environmental variable, boosts employee's type three thinking styles. Going beyond the prescribed roles of their jobs, employee's contextual service performance to solve customer problems and demands is highly expected in customer-contact employees in the hotel industry. Employees with type one and type three seem to serve this purpose. Moreover, type three thinking styles functions as a full mediator of the effects of servant leadership on extra-role service behaviour.

This is consonant with the precepts of thinking styles theory that thinking styles is a backbone variable transferring on-the-job and off-the-job variables to employee job paybacks (Kaufman, 2002; Palut, 2008; Pounds and Bailey, 2001; Orcik, Vrgovic and Tekic, 2014).

#### 5.2. Limitations and future research

A salient limitation of the study is related to the employment of thinking styles scale in a work environment and in Turkish. Therefore, the conclusion drawn regarding TS should be considered preliminary. It was not the aim of the study to validate the scale but to show the predictive power of the scale for extra-role service behaviour. Therefore, future studies could rely more on this issue with different samples. Specifically, jobs requiring different thinking styles at different levels will also enhance our understanding about thinking styles as predictors of different job outcomes. Concordantly, there is a need to explain the antecedents of thinking styles with important variables such as personal resources (i.e., intrinsic motivation and self-efficacy). Since the data gathered were only from employees in one region, the findings may not be generalizable. Gathering data from different samples in different service organizations will procure a thorough understanding about the relationships evaluated in the model.

# 5.3. Management implications

There are two main implications that appear to be helpful for businesses in the hotel industry. First, given the important role played by customer-contact employees in creating positive service memory, hotel executives should provide a work atmosphere and establish organizational policies that support different thinking styles according to the job demands. More clearly, this knowledge would help managers to establish working atmosphere that are more advantageous to the establishment of the kinds of styles demanded for productively performing the work in a business. The results of the study reveal that what type of thinking styles need to be reinforced and cropped in order to uncover and breed extra-role service behaviour of the frontline employees. Type III thinking styles with the empowerment of servant leadership perceptions and type one thinking styles are useful in promoting extra-role service behaviour of employees. Hence, specifically, human resources executives can deploy thinking styles to job descriptions or job requirements and hire employees based on their thinking styles to create employee-job fit, to enrich areas of recruitment, selection, placement and training development. Second, in supporting employees with different thinking styles, motivating them with more of creativity generating thinking styles should not be the only goal. Moreover, employees' norm favouring thinking styles should also be welcomed and encouraged to serve with promised service standards. Because, delivering service standards, especially for international chain hotels, could also be a key motivator to breed extra-role service behaviours of employees. As Ergeneli, Ari and Metin (2007) points, if employees do not behave as foreseen when they are in charge of power and control, this may be owing to lack of awareness of the fact that they are empowered. On the other hand, for the employees, knowledge of thinking styles intensify the consciousness of their own styles in addition to the styles of their peers, make way for greater respect for the others' styles. Parallel with this, given the teamwork-intensive feature of hospitality industry, understanding that work approach linked to employees' mental preferences enable individuals to be better team members with others who think differently (Budijanto, 2013).

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