

Job satisfaction as a mediator of the relationship between service quality and organisational commitment in higher education. An empirical study of faculty and administration staff

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This paper aims to provide a deeper understanding of the individual attitudes and service quality association. It examines the influence of job satisfaction (JS) on the relationship between the quality of services in higher education (HE) and organisational commitment, in the context of a quality reform at a Higher Education Institution in Greece. Drawing upon a sample of 134 faculty and administration members, partial least squared analysis was conducted to test the proposed model. Findings confirm the full mediating role of JS in the relationship between HE service quality and affective commitment, for both faculty members and administration staff. Management implications, recommendations for future research and limitations are also discussed.

Keywords: service quality; higher education; organisational commitment; job satisfaction

1. Introduction

Building on the premise that education, science and human resources may become the foundations for economic growth and social progress, quality assurance in higher education (HE) has emerged as one of the most important priorities of educational institutes in the European Union. Moreover, the quality management movement, being at a more mature stage, can be approached as a management innovation view fostering organisational effectiveness (Dahlgaard-Park, Chen, Jang, & Dahlgaard, 2013).

A new legal framework was introduced in Greek Higher Education Institutions (HEIs) in 2007, aiming at the adoption of metrics and processes that will assure and improve the quality of the provided services. The economic crisis in Greece has led to the current unprecedented cutbacks and downsizing of the public sector, thus affecting the state-owned HEIs. The resource scarcity resulted in the deterioration of HEIs' organisational effectiveness and the emergence of various institutional dysfunctions, which has led to low morale, dissatisfaction, lack of innovation, rigidity, conflict and reduced quality.

Organisational commitment (OC), as well as job satisfaction (JS), has been the focus of much empirical and theoretical effort in the field of human resource management (HRM). This is mainly attributed to the view that committed and satisfied employees are, in general, highly productive and believe in organisational values and goals, thus leading to enhanced organisational effectiveness and customer satisfaction (Ali, Mahat, & Zairi, 2010; Malhotra & Mukherjee, 2004; Tsai & Wu, 2011; Yee, Yeung, & Cheng, 2008, 2010). In particular, JS has been found to influence both employee perceptions

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and customer ratings of service quality (Brown & Lam, 2008; Snipes, Oswald, La Tour, & Armenakis, 2005). This rationale is based on the service-profit chain theory, proposed by Heskett, Jones, Loveman, Sasser, & Schlesinger, (1994). According to this theory, organisational performance is closely linked with customer satisfaction resulting from employee performance, which in turn, emanates from employee satisfaction.

However, the association between service quality, JS and OC has been characterised by complexity. For example, OC serves as a mediator between internal marketing and service quality (Tsai & Wu, 2011), JS mediates the relationship between stressors and affective commitment (Yousef, 2002a, 2002b), while both affective commitment and JS proved to mediate the impact of management commitment to service quality on service recovery performance (Babakus, Yavas, Karatepe, & Avci, 2003).

Moreover, most researchers in HE consider students as ‘customers’ and focus on assessing their level of satisfaction with the educational curricula (Comm & Mathaisel, 2000), ignoring both the academicians’ and administrators’ satisfaction. Despite the fact that several JS studies have been conducted, few have been focused on academics (Sloane & Ward, 2001). Furthermore, given that empirical evidence converges towards the conclusion that employee satisfaction is as crucial as customer or student satisfaction (Chen, Yang, Shiau, & Wang, 2006), research on HE quality has recognised the necessity of shifting its attention towards academicians’ satisfaction (Comm & Mathaisel, 2003; Quinn, Lemay, Larsen, & Johnson, 2009).

This paper aims to investigate the complex associations among HE service quality, JS and OC of faculty and administration staff in the case of the Technological Educational Institute (TEI) of Thessaly, which has been recently involved in the implementation of a Quality Assurance System.

2. Theoretical background

2.1. Service quality and work outcomes (JS and OC)

Despite the ongoing debate on quality definitions and the different perceptions of quality, there is some consensus that quality has to be determined by stakeholders (Quinn et al., 2009). However, the majority of studies on service quality in HE have focused on the student’s view of quality, while little attention has been paid on the academic and administration staff perspective. Moreover, several scholars confirmed that employees’ satisfaction is associated with customer-perceived service quality, providing supporting evidence to the definition of service quality as a perceived judgement (Brown & Lam, 2008; Slatten, Svensson, & Sværi, 2011; Snipes et al., 2005). Following this rationale, we adopt the view of employees’ perceived judgement as reflected by their personal perceptions of the provided service quality.

Previous research has proposed that loyal employees are more eager to, and more capable of, delivering a higher level of service quality (Silvestro & Cross, 2000). The employees’ willingness to perform a service in conformance with the requirements set can lead to the provision of better services. Their eagerness to put ‘discretionary effort’ reflects their attempt to be more involved in their organisations and more dedicated to deliver services of high quality. Hence, the service quality provided is influenced by the employees’ zeal to espouse institutional values, support organisational goals and to be engaged in behaviours facilitating their achievement (Unzicker, Clow, & Babakus, 2000).

A wealth of researchers have reported a positive relationship between the affective component of commitment and service quality (Boshoff & Tait, 1996), service recovery performance (Boshoff & Allen, 2000) and capacity to satisfy customers (Sergeant &

Frenkel, 2000). In a similar pattern, satisfied employees are more inclined to deliver higher level of service quality, thus leading to increased customer satisfaction. For example, Malhotra and Mukherjee (2004) found that in a major UK bank setting, JS and affective commitment of customer-contact employees have a significant impact on service quality. Thus, the following hypotheses are proposed:

H1: The higher the level of service quality (teaching and administration), the higher the level of OC.

H2: The higher the level of service quality (teaching and administration), the higher the level of JS.

2.2. Job satisfaction and organisational commitment

JS and OC have stimulated considerable research interest, mainly because it is argued that institutions can only excel by building on the views, attitudes and perceptions of their human resources (Ali et al., 2010; Al-Zoubi, 2012). Employees' satisfaction can be defined as a set of cognitive and affective reactions that 'results from the perception that one's job fulfils or allows the fulfilment of one's important job values, providing that and to the degree that those values are congruent with one's needs' (Locke, 1976, p. 1307). On the other hand, OC represents the binding force that inspires individuals to participate in a course of actions relevant to both the organisation and the individual. Committed individuals are expected to accept, and believe in, organisational goals and values, with the desire to remain within their organisations and struggle on their behalf (Bou & Beltran, 2005).

Although most of the research in this field has been focused on profit-making industrial and services organisations, there has been a growing interest in employee satisfaction in HE, especially when related with quality management. The reason for this increasing interest is that since HEIs belong to a 'labour intensive' sector with a vast amount of resources allocated to employees, they aim to attain effectiveness mainly based on the human factor. Across this line of reasoning, employee satisfaction and commitment in HEIs have been considered as very important determinants of accountability and quality (Kusku, 2003; Trivellas & Dargenidou, 2009a, 2009b). Moreover, empirical evidence indicating that university professors enjoy the lowest JS level among various industrial and occupational sectors (Al-Zoubi, 2012) highlights the crucial role of this association for faculty members.

The goal congruence view proposed by Porter, Steers, Mowday, and Boullian (1974) operationalised OC as a unidimensional construct, while Allen and Meyer (1990) put forth a three-dimensional OC measure comprising the *affective*, *continuance* and *normative* components. Affective commitment, which reflects the employee's emotional attachment to, identification with and involvement in the organisation, dominates in the relevant literature and converges with the concept of OC of Mowday, Porter, and Steers (2006). Given that distinguishing commitment components is not an objective of this study, it was opted to employ only the affective dimension.

The dominant view in literature investigating the relationship between JS and OC propels the view that there is a positive association between the two constructs (Fu, Bolander, & Jones, 2009). Despite the fact that there is ambivalence about the causal direction of this association, it is assumed that satisfaction is an antecedent of commitment. This approach implies that employee orientations towards a specific job necessarily lead up to orientations towards the whole organisation. Following this argument, a latent assumption emerges that JS varies more directly with shifting working conditions when compared to OC (Mowday, Porter, & Steers, 1982). Nevertheless, empirical research has not always

verified this causal ordering, and scholars have advanced alternative arguments. Other researchers have concluded that JS is a consequence of OC (Vandenberg & Lance, 1992). Moreover, a reciprocal relationship between satisfaction and commitment has been also proposed (Mathieu, 1991). Based on the lack of establishing any relationship between satisfaction and commitment, other studies have put forth the notion that their relationship may be spurious due to their multiple common causes (Curry, Wakefield, Price, & Mueller, 1986). A meta-analytic review by Brown and Peterson (1993), based on 59 empirical studies, concluded that ‘organizational commitment is primarily a consequence, rather than an antecedent, of job satisfaction’. Thus, the following hypothesis is developed:

H3: The higher the level of JS, the higher the level of OC.

2.3. JS as a mediator

The rationale behind the associations among employee satisfaction, OC and service quality is grounded on the theory of equity in social exchange which involves a series of interactions to generate bidirectional obligations (Yee et al., 2008). This exchange also has the potential to produce high-quality relationships among the stakeholders involved (Cropanzano & Mitchell, 2005).

According to Cropanzano, Rupp, and Byrne (2003) equity in social exchanges is based on the premise that most people expect social justice or equity to prevail in interpersonal transactions so that positive reciprocal relationships can be developed. Then, they may evolve over time into mutual trusting and loyal commitments. In the context of social exchange theory, the provision of good working conditions and benefits that make employees satisfied, will induce them to be committed and put extra effort towards their performance as a means of reciprocity for their employer (Flynn, 2005), thus leading to improved service quality (Yee et al., 2008, 2010).

Extending the aforementioned reasoning, this study explores the mediating role of JS in the association between service quality and OC for faculty and administration members. The roots of this mediation hypothesis lies on the assumption that teachers’ and administrators’ perception of service quality contributes to their evaluation of their work and their working conditions, as expressed by JS, which in turn affects their bond with the organisation, as represented by OC. Following this rationale, JS was proved to serve as a mediator of the relationship between stressors and affective commitment (Yousef, 2002a, 2002b). Similarly, Babakus et al. (2003) revealed that both frontline employees’ affective commitment and JS mediated the impact of management commitment to service quality on service recovery performance.

The causal order between JS and OC has been in dispute, and contradictory findings have been reported (Bluedorn, 1982; Johnston, Charles, Pasuranaman, & Sager 1988; Meyer, 1997). Nevertheless, the majority of the existing HRM literature converges to the casual precedence of JS over OC (Reichers, 1985). Thus, the following hypothesis is proposed:

H4: JS mediates the relationship between Service Quality (teaching and administration) and OC.

3. Research methodology

3.1. Sample and questionnaire design

The field research was conducted at the TEI of Thessaly (equivalent to Technical Universities), Greece. The sample comprised 66 faculty and 68 administration members, while the response rate was 85%. The research instrument was a structured questionnaire

based on a seven-point Likert-type scale, which was developed to measure OC, JS and quality of teaching and internal processes. Gender, age, level of education and institutional tenure served as control variables. HE service quality was operationalised by adopting the teaching quality dimensions proposed by Owlia and Aspinwall (1996) and Waugh's (2001) measures of administration quality. Owlia and Aspinwall's (1996) framework of teaching quality comprises the academic resources, competence, attitude and content dimensions. Waugh's (2001) model of administrative and supportive services quality consists of the tangibles, reliability and responsiveness, assurance and empathy dimensions.

OC was measured by adopting the six-item affective component proposed by Allen and Meyer (1990). The JS construct was built upon Warr, Cook, and Wall (1979) recommendations. This scale consists of 15 items, reflecting the satisfaction level of the respondents with both extrovert and introvert dimensions (sample items: task variety, skills and competences employed, rewards, promotion opportunities, security). Both instruments' validity has been confirmed in different contexts (Trivellas & Dargenidou, 2009a, 2009b).

3.2. Statistical analysis and results

3.2.1. Principal component analysis

Principal component analysis (PCA) was conducted to identify latent factors within service quality, OC and JS. The Kaiser criterion and normalised varimax rotation were applied to bring about a simple and interpretable structure. Four distinct principal components were identified for teaching quality (academic resources, competence, attitude and content). Regarding the administration quality, three principal components were extracted (tangibles, reliability and responsiveness, and assurance and empathy). Similarly, four factors emerged for the JS scale (job enrichment, management style, rewards – recognition and promotion opportunities, and working conditions and security). Moreover, the unidimensionality of the OC scale was confirmed. Preceding PCA, the Bartlett sphericity testing and the Kaiser–Meyer–Olkin (KMO) index verified the appropriateness of the sample. Cronbach's coefficient alpha was calculated for each scale to verify internal consistency, whose values ranged between 0.706 and 0.957 (Table 1), which is over the minimum acceptable level of 0.7.

All factors exhibited average variance explained (AVE) indices greater than 0.50 and therefore, following Fornell and Larcker's (1981) recommendations, they met the proposed criteria for convergent validity. Furthermore, since no individual bivariate correlations were found to be higher than the respective Cronbach's alpha values (Table 2), discriminant validity is present (Gaski & Nevin, 1985; O'Cass, 2002).

3.2.2. Path analysis

The partial least squares (PLS) multivariate technique was adopted to test the research model. Figure 1 presents the conceptual framework of our study for faculty members and administrators. PLS is a variance-based modelling technique for the estimation of path models, involving latent constructs indirectly measured by multiple indicators. This technique is considered to be useful in investigating descriptive and predictive relationships, particularly in cases where the sample is small. A strong advantage of the PLS approach, when compared to covariance-based structural equation modelling, is its ability to deal with situations with minimal demands regarding the distribution of the latent variables (LV) and the sample size (Fornell & Cha, 1994). More specifically, a

Table 1. Descriptive statistics and internal reliability analysis of all scales.

	Mean	Std. dev.	Items	Cronbach alpha:	KMO*
<i>Higher education service quality</i>					
Quality of teaching ^a					0.888
Academic resources	3.92	1.385	5	0.854	
Competence	4.41	1.340	4	0.928	
Attitude	4.11	1.427	3	0.939	
Content	4.18	1.336	7	0.960	
Quality of administration ^b					0.834
Tangibles	4.33	1.191	4	0.814	
Reliability and responsiveness	4.13	1.288	9	0.957	
Assurance and empathy	4.21	1.362	8	0.951	
<i>Job satisfaction^c</i>					
Management style	5.03	1.382	4	0.868	0.836
Rewards, recognition and promotion opportunities	4.17	1.481	4	0.830	
Job enrichment	4.86	1.375	3	0.799	
Working environment and security	5.60	1.205	3	0.706	
<i>Organisational commitment^c</i>					
Affective	4.70	1.087	6	0.776	0.756

*Minimum acceptable KMO level is 0.5. Bartlett's test of sphericity is significant at $p < 0.001$ for all scales.

^aValid $N = 66$ (faculty).

^bValid $N = 68$ (administration staff).

^cValid $N = 134$ (no significant variations of reliability indices between faculty and administration staff).

minimum sample size, which is at least 10 times the largest number of structural paths directed at a particular construct in the inner path model, is recommended (Barclay, Higgins, & Thompson, 1995). Thus, the sample of our study meets the minimum requirements of PLS. The software used was Smart PLS software (Ringle, Wende, & Will, 2005).

In our research model, all first-order factors are constructs specified with reflective indicators, while quality of teaching, quality of administration and JS were represented as second-order factors (Chin, 1998b; Chin & Gopal, 1995).

Table 2. Discriminant validity of constructs.

	1	2	3	4	5	6	7	8	9
1. Management style	0.868								
2. Rewards, recognition and promotion opportunities	.654 ^b	0.830							
3. Job enrichment	.707 ^b	.669 ^b	0.799						
4. Working environment and security	.511 ^b	.519 ^b	.595 ^b	0.706					
5. Academic resources	.680 ^b	.494 ^b	.520 ^b	.371 ^b	0.854				
6. Competence	.701 ^b	.443 ^b	.560 ^b	.299 ^a	.705 ^b	0.928			
7. Attitude	.553 ^b	.398 ^b	.426 ^b	.136	.433 ^b	.667 ^b	0.939		
8. Content	.632 ^b	.338 ^b	.549 ^b	.176	.642 ^b	.698 ^b	.680 ^b	0.960	
9. Affective commitment	.655 ^b	.569 ^b	.585 ^b	.511 ^b	.503 ^b	.483 ^b	.228	.364 ^b	0.776

Notes: Bold numbers on the diagonal show Cronbach's alpha coefficients; numbers below the diagonal are the bivariate correlations. No significant differences were identified regarding discriminant validity of the scales for administrators.

^aCorrelation is significant at the 0.05 level.

^bCorrelation is significant at the 0.01 level.

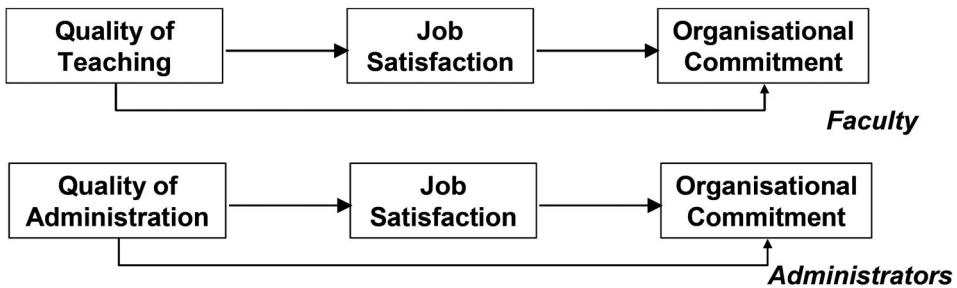


Figure 1. Hypothesised relationships.

Henseler, Ringle, and Sinkovics (2009) suggested that a PLS model should be developed in two stages: the measurement model and the structural model. The measurement model examines the relations between manifest variables and LV and assesses the validity and reliability of the model constructs. Composite reliability (CR) and Cronbach's alpha were calculated to assess the reliability of scales. All constructs exhibited CR and Cronbach's alpha greater than the minimum acceptable level of 0.70 (Fornell & Larcker, 1981; Nunnally & Bernstein, 1994), as illustrated in Tables 3(b) and 4(b).

The scales' convergent validity was confirmed, since all constructs met Fornell's and Larcker's (1981) AVE criterion, as given in Table 3. Moreover, high loadings of items on their respective factors and lower loadings on unrelated constructs designates convergent validity. Barclay et al. (1995) proposed that item loadings of 0.70 or higher provide evidence for convergent validity. In our study, the loadings of all items on their respective constructs are greater than 0.75 ($p < 0.01$), while their loadings on unrelated constructs are less than 0.4.

Discriminant validity of the measurement model was examined by utilising Fornell's and Larcker's (1981) AVE test and correlations criterion. Thus, considering that the square roots of each construct's AVE (diagonal elements) exceeds the correlations between the factors comprising each pair in the corresponding rows and columns (off-diagonal elements), as given in Table 3, our research model demonstrates adequate discriminant validity.

The bootstrapping procedure was conducted to evaluate the structural model and particularly, the statistical significance of all parameter estimates. The PLS structural model is mainly evaluated by the R^2 of endogenous LV (Chin, 1998a), the goodness-of-fit (GoF) index (Tenenhaus, Esposito Vinzi, Chatelin, & Lauro, 2005), and the Stone–Geisser Q^2 test for predictive relevance (Geisser, 1975; Stone, 1974). Following Chin's (1998a) suggestions, the results confirmed moderate to substantial R^2 values for all organisational aspects, as given in Tables 3 and 4. The GoF index is 0.55 for faculty members and 0.58 for administrators, meaning that the proposed model is able to take into account 55% and 58%, respectively of the achievable fit, which, given the complexity of the model, is considered more than adequate. In addition, positive Q^2 statistics score mean that the model has predictive relevance (Fornell & Cha, 1994). Two kinds of Q^2 statistics were estimated, namely: (a) cross-validated communality (H2j) and (b) cross-validated redundancy (F2j). As presented in Tables 3(b) and 4(b), all values indicate adequate predictive relevance of the relevant LV. Figures 2 and 3 illustrate the variance explained (R^2) by the relevant constructs and the standardised path coefficients (b) of the model.

Table 3. Results of internal reliability, convergent and discriminant validity analysis of all scales (faculty).

	AVE	Affective commitment	Job satisfaction	Quality of teaching			
(a)							
Affective commitment	0.576	0.759					
Job satisfaction	0.716	0.689	0.846				
Quality of teaching	0.754	0.472	0.656	0.869			
	CR	Cronbach's alpha	Communality	Redundancy	R^2	CV-communality	CV-redundancy
(b)							
Affective commitment	0.800	0.754	0.576	0.143	0.484	0.199	0.256
Job satisfaction	0.909	0.868	0.716	0.293	0.431	0.527	0.267
Quality of teaching	0.924	0.891	0.754			0.472	

Notes: Valid $N = 66$ (faculty). Bold diagonal elements are the square roots of the AVEs, off-diagonal elements are correlation coefficients among variables.

Table 4. Results of internal reliability, convergent and discriminant validity analysis of all scales (administrators).

	AVE	Affective commitment	Job satisfaction	Quality of administration			
(a)							
Affective commitment	0.572	0.756					
Job satisfaction	0.647	0.485	0.805				
Quality of administration	0.783	0.338	0.722	0.885			
	CR	Cronbach's alpha	Communality	Redundancy	R^2	CV-communality	CV-redundancy
(b)							
Affective commitment	0.803	0.773	0.572	0.210	0.524	0.168	0.280
Job satisfaction	0.879	0.813	0.647	0.3351	0.521	0.421	0.316
Quality of administration	0.915	0.857	0.783			0.551	

Notes: Valid $N = 68$ (administration staff). Bold diagonal elements are the square roots of the AVEs, off-diagonal elements are correlation coefficients among variables.

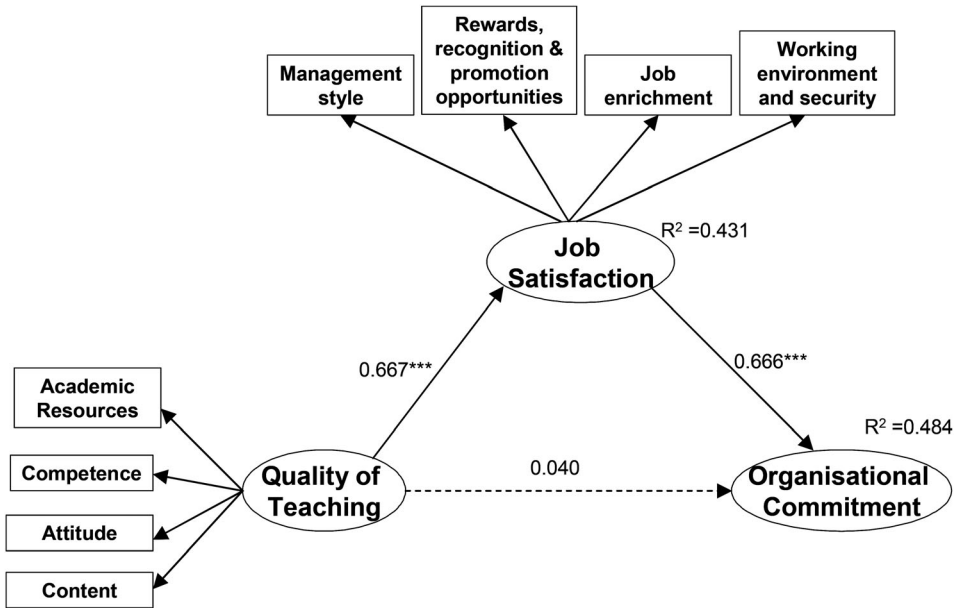


Figure 2. Structural model for faculty members (dotted lines indicate non-significant paths, estimates are significant at $p < 0.05$, *** standardised coefficients significant at $p < 0.001$).

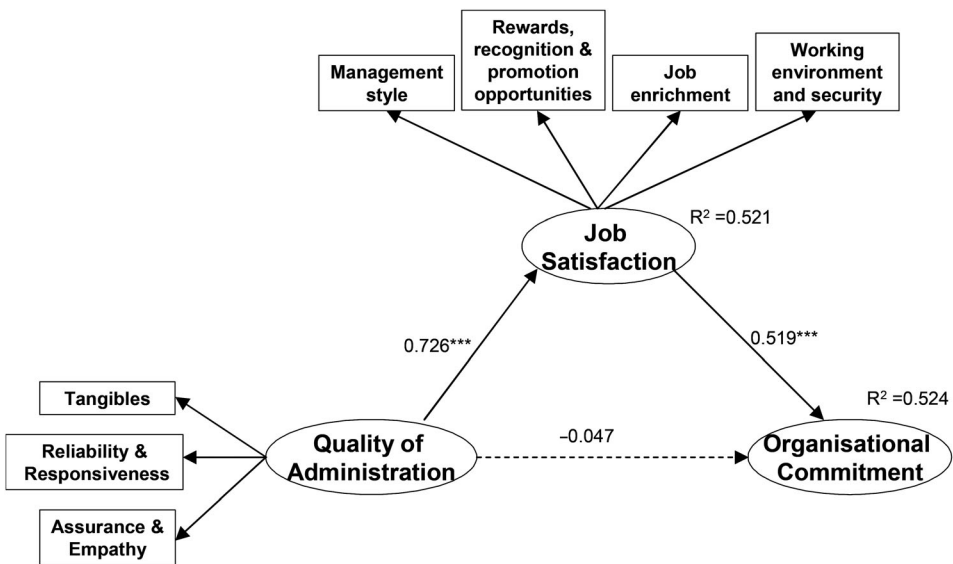


Figure 3. Structural model for administration staff (dotted lines indicate non-significant paths, estimates are significant at $p < 0.05$, *** standardised coefficients significant at $p < 0.001$).

No serious problems of multicollinearity exist between the independent variables as the variance inflation factors of all items ranged between 1.140 and 2.887, which are far below the common cut-off threshold range of 5–10 (Kleinbaum, Kupper, & Muller, 1988).

Hypothesis *H2* was supported as the quality of both teaching and administration exert a significant positive influence on JS of faculty (std. beta = 0.667, $p < 0.001$) and administration members (std. beta = 0.726, $p < 0.001$), respectively. The results also support hypothesis *H3*, which puts forward the strong link between JS and affective commitment for both samples of educators (std. beta = 0.666, $p < 0.001$) and administrators (std. beta = 0.519, $p < 0.001$). Finally, the results confirmed the full mediation role of JS on the relationship between service quality and affective commitment for both samples, as prescribed by hypothesis *H4*, since no significant direct effects were found between service quality and affective commitment (*H1* was rejected).

4. Discussion

This study investigates the mediating role of JS on the link between quality of teaching and administration and OC, drawing upon a sample of faculty and administration staff of a HEI in Greece.

Several studies have stressed the important contribution of academic and non-academic staff to teaching and administration quality. More specifically, a number of researchers have recognised the importance of faculty and administrators as internal customers and stakeholders (Chatterjee, Ghoshb, & Bandyopadhyayc, 2009; Dahlgard, Kristensen, & Kanji, 1995; Quinn et al., 2009; Soria-García & Martínez-Lorente, 2012). Moreover, process improvement, internal customer satisfaction, people management and teamwork have been identified as very important critical success factors (CSFs) for the implementation of Total Quality Management (TQM) in HE (Grant, Mergen, & Widrick, 2004). In the HE context, Ali et al. (2010) stressed the importance of human resources related CSFs, such as teamwork spirit, competent staff, customer-focus orientation and visionary leadership, in TQM implementation. Furthermore, students' feedback reports pointed out the role of teaching quality in supporting teaching improvement (Chatterjee et al., 2009). Moreover, Widrick, Mergen, and Grant (2002) highlighted the importance of employees' internal commitment and satisfaction on the development of quality management.

The results have also shown that JS is strongly related to affective commitment. Therefore, employees satisfied with their rewards, recognition and promotion opportunities tend to develop strong psychological attachment and loyalty to their HEI, a finding which is in line with studies in other sectors (Kipkebut, 2010; Malhotra, Budhwar, & Prowse, 2007). However, the fact that academic promotion depends on teaching, research and publications combined with the financial constraints set by the Greek government, leads to long, stressful and cumbersome promotional procedures.

Our results clearly confirm empirically the mediating effect of JS on the relationship between both teaching and administrative quality and affective commitment. To our knowledge, this is the first study providing empirical evidence of this complex association. Consistent with the social exchange theory, administrators and academics with a high level of perceived service quality are satisfied with rewards, recognition and promotion opportunities. They perform their jobs with the understanding that the HEI will reciprocate by providing compensation and other positive considerations commensurate with their performance (Chew & Chan, 2008). In alignment with this reasoning, Babakus et al. (2003) found that both frontline employees' affective commitment and satisfaction mediated the impact of management commitment to service quality on service recovery performance. Similarly, Tsai and Wu (2011) reported that OC acts as a mediator between internal marketing and service quality. According to the social exchange

theory if a HEI provides good working conditions, adequate resources and employee benefits that keep employees satisfied, they will be induced to be committed and make 'discretionary effort' to enhance their performance as a means of reciprocity towards their employer, thus delivering services of a high quality level (Yee et al., 2008).

Similarly, building on the service-profit chain view of Heskett et al. (1994), Yee et al. (2010) empirically proved that employees' loyalty in high-contact service industries is significantly related to service quality, which in turn impacts customer satisfaction and customer loyalty, ultimately leading to firm profitability. Moreover, Yee et al. (2008) found that employee satisfaction is significantly related to service quality and customer satisfaction, while the latter in turn influences firm profitability.

5. Conclusions

This study aims to shed light on the impact of JS on the link between service quality and affective commitment in the HE sector, contributing to the relevant literature in multiple ways. First, unlike the majority of previous studies that ignore the multidimensional nature of satisfaction and service quality, we adopt multi-component constructs (Joiner & Bakalis, 2006; Snipes et al., 2005). Second, the proposed conceptual framework incorporates indirect effects among the variables under investigation; thus, in comparison to previous research, this is a more accurate and in-depth study. Third, most researchers in HE ignore the crucial role of both academicians' and administrators' satisfaction. Given that growing empirical evidence indicates that employee satisfaction is vital for student satisfaction (Chen et al., 2006), research on service quality should shift its attention to academics' and administrators' satisfaction (Comm & Mathaisel, 2003; Quinn et al., 2009).

Managers of HEIs should employ HRM practices in order to improve the JS of academics and administrators. This in turn will indirectly foster institutional commitment and subsequently increase the level of students' satisfaction. The necessity of enhancing service quality and customer satisfaction becomes of paramount importance in the competitive HE environment, which during an era of financial crisis is characterised by 'quality' reforms, coupled with budget cut down. Academics and administrators are currently suffering from restructuring and downsizing as a result of the view that HEIs must graduate individuals prepared for their respective careers and roles within the new global economy by doing more with less. However, organisations excelling in TQM should involve and empower their staff in a way that builds commitment, so as to utilise their skills and knowledge for the benefit of the institute (Calvo-mora, Leal, & Roldán, 2005).

Nevertheless, the present study's field research was restricted to HE and examined only a single case study institution. While in relevant literature this has been an established methodological approach to test a model in a given context (Yeo & Li, 2014), which served well this study's purpose, the external validity of the findings is compromised. Future research should focus on system thinking in education under a holistic approach in order to manage the paradox of apparently conflicting demands, such as resource inadequacy, incentives, social accountability, quality culture, innovativeness fostering organisational effectiveness and meeting learning objectives (Trivellas & Dargenidou, 2009a, 2009b). Moreover, a longitudinal study exploring such a holistic model could shed more light on the underlying mechanisms of association, while a cross-sectional study based on a more representative sample of different industrial sectors and working environments could provide the basis for generalisable results.

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