
Research

SERVICE QUALITY AND ORGANIZATIONAL CULTURE AS PREDICTORS OF FACULTY JOB SATISFACTION

Faisal Khurshid¹ and Muhammad Usman Awan²

Abstract

The objective of this study is to examine the impact of perceived internal service quality and organizational culture on faculty's job satisfaction. A survey questionnaire was operationalized based on the dimensions proposed by Owlia and Aspinwall, Cameron and Freeman and Spector to the data collect from 348 medical faculty members employed by 12 medical schools of Pakistan. Our findings suggest that hierarchal culture is the strongest contributor of faculty job satisfaction lacking behind the other culture types. "Assurance and empathy" contributes more to job satisfaction than any other dimension of service quality. And, as a whole, service quality has emerged as a stronger predictor of job satisfaction than organizational culture. This paper has both practical and theoretical contributions to improve the overall quality of higher education.

Keywords: Job satisfaction, Service Quality, Organizational Culture

JEL Classification: Z100

1-University of Health Sciences, Lahore, Pakistan

2-Institute of Quality and Technology Management, University of the Punjab, Lahore, Pakistan

Introduction

There is a consistent battle in the developing nations whether to concentrate on the quantity or the quality of education. The scarcity of resources and the huge size of populace backers the quantity. To keep up equalization and ceaselessly enhance the quality through roused, inspired and satisfied faculty members, exceptional efforts are essential. The quality of academic staff is acknowledged as the most fundamental part of the overall quality of higher education. In non-wage compensation, job satisfaction is of paramount importance. Faculty members are the internal customers of higher education institutions (HEIs) as they assess the quality of the results generated by the process (Pears, 2010). Most analysts of higher education have explored only the student's outlook of service quality, ignoring the employee's perspective. The unbalanced emphasis on external customers and paying no attention to the internal customers result in negative perception and thoughts in the minds of the internal customers.

In developing countries employees are faced with displeasure, apprehension, and destructive behaviour because of low wages, inadequate infrastructure and many other factors (Javalgi et al 2005). The workforce have increased depressing thoughts towards their colleagues, supervisors and working conditions, and resultantly are less dedicated to their work, and has a desire to leave work. In case of a labour-intensive organization that is dealing with imperative areas like higher education, this topic is of great importance to study. The Higher education quality is in challenging phase in the developing countries, there is a need to have a clear mission, well-designed academic programs, adequate resources, well-prepared and committed students, and most importantly, highly qualified faculty that will guarantee the quality of higher education.

Experts have shown the impact of culture in about all the features of consumer behaviour, satisfaction, and service quality (Donthu and Yoo, 1998). On the other hand, regardless of the expanding centrality in cultural differences in consumer behaviour, deliberate research work on this theme is still in its start. There is a need to investigate the relationship between employee satisfaction,

perceived service quality and organizational culture. Theories and empirical work available on this subject, is amassed in developed countries and a little work can be found in developing countries (Küskü, 2003), this study is an attempt to reduce the gap between the developed and the developing countries. There is a growing need for theoretical and managerial significance of employee satisfaction, perceived service quality, and organizational culture in developing countries. From the perspective of the practitioner, it is an equally important area because it allows service providers the competitive advantage (Laroche et al., 2005). This research can be used to increase internal customer's (faculty) satisfaction that can result in uplifting the quality of medical education institutions. In essence, HEIs must proffer a superior level of service quality to faculty. Individuals and groups of people contribute in organizational culture, the improvements in service quality escort to favourable organizational culture and vice versa. We can postulate that better level of service quality perception provisions better organizational culture (Cho et al., 2013).

No study can be found in Pakistan that has investigated the impact of perceived service quality and organizational culture on job satisfaction, especially in medical education settings. The study will also reduce this gap between the developed and the developing countries. After critically reviewing the related literature, the research methodology is explained followed by the data analysis and in the end conclusions and managerial implications are elucidated

Literature Review

Service Quality

The quality of services and products is gradually being recognized as a strategic variable in the performance, productivity and effectiveness of business procedure (Zeithaml, 2000). Quality of education is defined as achievement with which an organization provides educational environments that make the students able to successfully attain positive educational outcomes and proper academic values. Providing "quality" education is an important component of the mission statements of institutions of higher education and has become a key measure of higher education institutions (HEIs) accomplishments and preserves great impact on

the repute of divisions, faculties, and institution (Pears,2010). Literature available on service quality proposed the significance for HEIs to examine the service quality and make efforts to continuously improve it. Becket and Brookes (2006) described that there is a significant open debate on the ideal approach regarding the definition service quality in HEIs. Regardless of the different quality prospective coming to the surface, there is agreement that stakeholders should determine the quality, especially in the service sector. Students, employees, employers and government are the main customers and stakeholders of higher education institution .Most analysts of higher education have explored only the student's outlook of service quality, ignoring the employees' point of views.

Parasuraman et al. (1988) conceptualized the service quality in a five-dimensional construct comprising of tangibles, empathy, reliability, responsiveness, and assurance. The final SERVQUAL scale contained 22 items to measure the level of the consumer expected level of service from the specific industry (expectations) and other 22 items to measure the (actual) level of services received from the specific industry (Perceptions).

$$SQ = (P - E)$$

Where

SQ = Service Quality

P = Perception of Services Received

E = Expectation of services to be Received

Cronin & Taylor (1992) initially identified the problem in measuring the expectations and perception levels and proposed a scale SERVPERF containing only perception part.

$$SQ = P$$

Service organizations must obtain the maximum standard in service delivery. As service quality is the foundation of organizational success is in the hands of committed employees. To provide quality services to the customers, organizations must satisfy and motivate its employees. Since there was, no model of quality dimensions specific to the higher education sector Owliaand Aspinwall, (1996) proposed dimensions mentioned below• *AcademicResources*: Physical infrastructure such as building equipments

- *Content*: The extent of relevance of teaching material to needs
- *Competence*: The skills and knowledge of teachers
- *Attitude*: How the academic needs of students are addressed
- *Delivery*: On time delivery of services to customers
- *Reliability*: The extend the customer rely on your services

In order to measure the academic staff perceptions of administrative quality provided by their educational institution Waugh (2002) proposed a model with two dimensions

- *Reliability and Responsiveness*: Secure and trustworthy administrative suggestion and in advance information of change or alteration of plans are available.
- *Assurance and Empathy*: Politeness and assurance while interacting, individualized and sympathetic interaction, and compassionate and safe contact.
- Employees are customers of HEIs and they have to participate in assessing the quality of the results generated by the process (Pears, 2010). The performance of teachers, as educators, researchers and administrators, decides the student's perception of quality in higher education so the employees of higher education institutions are a key asset. Most of the organizations exert great effort and recourses to satisfy the external customer and ignore the internal customers.

The unbalanced emphasis on external customers and paying no attention to the internal customers will result negative perception and thoughts in the minds of the second. Snipes et al (2005) reported that employees who are satisfied with their jobs provide better level of services to their customers increasing productivity. In this respect, several researchers have confirmed the link between quality of service perceived by the customer and employee satisfaction. In other words, better level of perceived internal service quality results in better level of job satisfaction (Brown and Lam, 2008).

Organizational Culture

Organizational culture's study has become one of the strategic areas of organizational research. Smart and John (1996) pointed out that education researchers are now working to comprehend the formation of the prevailing culture in HEIs. Since culture is an essential

component of long-term relevance of the organization, it is essential to measure what are the main dimensions of organizational culture (OC), and make a strategy for its development. One of the major reasons of neglecting the OC in the past was due to the thought that culture cannot be changed and it was assumed as for granted element for the performance of organizations. The researchers analyzed the organizations, institutions, and organizational units as unique and distinct cultures with special sets of functions, rituals, and traditions. A framework for organizational culture provides administrators the ability to better eloquent and addresses the vital institution to improve performance (Tierney, 1988).

Harman (1989) points out an effective research of OC will assist to clarify the educational culture and principles that would be essential to see how an organization operates academics and how it should be administered. It discriminates constantly assess OC of the HEIs specified the causes stated before and also to determine if a cultural alteration conducive to HEIs can be loaded to allow managers and employees to effectively organize their academic atmosphere. OC also results exceptionally vital for higher education institutions in particular new efforts to change management to occur. Higher education institutions are in a good situation to improve their cultural practices for change management programs in the light of changes in the dynamic environment (Ramachandran et al 2011).

The authors have introduced an array of sizes and qualities of OC in the last two decades. Organizational culture is vast and comprehensive large degree extension, which is why so many dimensions have been proposed. In order to identify and encourage change in the OC, it is proposed to use the competing values framework. It has been accurately deduced and was found to have legitimacy both in term of the face and the observation. It also allows integrating different dimensions operationalized by diverse authors. There is a high level of harmony in the Competing Values Framework of the well recognized and well acknowledged, Organizational Culture Assessment Instrument (OCAI) proposed by Cameron and Freeman (1991) having six dimensions that was developed to diagnose four different types of the organization's culture.

1. The Clan Culture
2. The Adhocracy Culture

3. The Market Culture
4. The Hierarchy Culture

The Clan Culture

The real aim of the organization is to develop a positive work environment for employees, encourage their contribution, dependability, and dedication. This culture is embodied by a pleasant workplace in which individuals feel friendly attitudes and gestures as they show in their family.

The Adhocracy Culture

The real goal of adhocracy is to promote flexibility; adaptability and inventiveness where vulnerability, ambiguity and information load are typical.

*Figure: 1 –
Competing Values Framework*



The A

Source: Adapted from Cameron and Freeman (1991)

In this organization culture type the center of attention is external environment rather than internal affairs. In this culture type it is assumed that customer choices are constantly changing and in order to be competitive in market all focus must be on external changing environment to gain benefits.

The Hierarchy Culture

Hierarchy or bureaucracy leads to productive, stable, articles and deeply predictable services. In this culture with this perfect structure is described by a formalized and organized workplace. Employees assess their work based on dynamics they consider paramount to them. We can hypothesize that the employees' group satisfaction leads to a specific organizational culture. Previous research has shown a confirmation to maintain the association among job satisfaction and organizational culture (Tsai2011, and Imranat el, 2014).

Job Satisfaction

Employee motivation is important for the well-being of the institution and performance on the job. Capacity and effort are additive in the creation of job performance. People with less natural talent and professional expertise can sometimes surpass their more talented colleagues(Machado at el, 2011).Job satisfaction is linked to the characteristics of the job and employees assess their job satisfaction level in relationship to what they perceive as important and significant to them (Roodt at el2002).Chenat el (2006) concluded that fair wages and promotion systems are important for employees of higher education. The work atmosphere is an imperative factor in the development of employee job satisfaction. Clark and Oswald (1996) stated that the job satisfaction level decreases as the level of education increases. On the other hand, employee satisfaction can enhance gains, shrink intensions to leave and improve creativeness and loyalty. Therefore, job satisfaction should not be overlooked, however many organizations did so (Munhurrun et al., 2009).

A large amount of research work can be found on the subject of an employee's job satisfaction working in manufacturing and industrial sector, but comparatively lesser studies are available in human services organizations. Spector,(1985) proposed Job Satisfaction Scale (JSS) specifically designed to measure the level of job satisfaction in human service organizations. There are nine dimensions in this scale **namely** pay, chances of promotion, competence of supervisor, other rewards and benefits, recognition,

rules and regulations of organization relationship with co-workers, work itself and the level of communication within the organizations. Single item per dimension are used in this study.

Both service quality and organizational culture have positive impact on job satisfaction level of employees but major work can be found in developed countries and a very little exploration is available in developing countries (Küskü ,2003). In case of local context, no such study can be found in case of Pakistan, especially in the medical education sector of the Punjab. This study will reduce this gap between developed, and developing countries as well.

Objectives

The objectives of this study are;

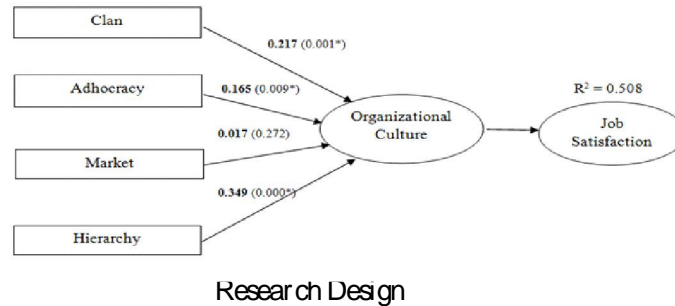
1. To find the association between organizational culture and job satisfaction.
2. To see whether there is a connection between service quality and job satisfaction.
3. To find the combined impact of organizational culture and service quality on job satisfaction.

Research Methodology

The research questions for this study are:

1. Is there any association between organizational culture and job satisfaction?
2. Does a connection between service quality and job satisfaction exist?
3. What is the combined impact of organizational culture and service quality on job satisfaction?

Figure: 2
Theoretical Framework Diagram



This study is conducted in the Punjab- the most populous province of Pakistan. Convenient sampling was used in this study. The population under study was the faculty members of medical area. A survey questionnaire based on the quality dimensions proposed by Owlia and Aspinwall (1996) and Waugh, (2002) was modified to measure the service quality dimensions. An adjusted manifestation of “The Organizational Culture Assessment Instrument” by Cameron & Freeman (1991) was operationalized to gauge organizational culture encircling four culture types, Clan, Adhocracy, Market, and Hierarchy. Whereas job satisfaction level was measured utilizing Job Satisfaction Survey, by Spector (1985) encompassing nine dimensions, Pay, Promotion, Supervisor, Benefits, Recognition, Rules and procedures, Co-workers, Work, and Communications.

Scale

The research questionnaire having three parts was simplified and contextualized to achieve the objectives of this study. Some items were deleted because of their irrelevance in the local context; word selection was made according to the convenience of the respondents. Some items were merged to avoid duplication then first draft was presented to three experts in the field who were faculty members of

reputed medical schools, who were requested to review the items and further refine the items.

In addition, a pilot study was conducted and the data of nearly 20 respondents was collected. The instrument was reviewed again to ensure the general understanding of the respondents and to improve the content, text, format, length, clarity, and its general appearance, instrument's relevance in local context was also checked and those items that were irrelevant in local context were excluded from final instrument, used in this study. In this way we established face and content validity of the final research instrument. Reliability Statistics of final research instrument used in this study show that the value of Cronbach's Alpha is 0.960 that shows the internal consistency of the questionnaire.

The field exploration of this study was carried out in May-June 2014. A five point Likert scale was utilized ranging 1 (Strongly Disagree) to 5 (Strongly Agree), Respondents were the academic staff members of the medical schools of the Punjab. A total of 480 members from 12 distinctive medical schools responded to the survey, 348 usable questionnaires were used to distinguish the influence of independent variables on job satisfaction by performing a linear regression.

Findings

Descriptive statistics summarized in "Table 1" shows that academic staff members rate competence (mean= 3.61 \pm 0.84) at highest level while responding to service quality related **item smean while** "Reliability and Responsiveness" (Mean=3.39 \pm 0.83),"Assurance and Empathy" (Mean=3.39 \pm 0.79) are at lowest ebb. Regarding Organizational Culture market culture (Mean=3.62 \pm 0.67) is at upper edge, adhocracy (Mean=3.31 \pm 0.67) is at lowest point. About the dimensions of job satisfaction faculty members rate "relationship with colleagues" (Mean=3.93 \pm 0.91) at highest position while communication effectiveness" (Mean=3.36 \pm 0.95) is at lowest edge. Details of descriptive statics are given in Table 1

Linear Regression Analysis

Tables

Table 1: Descriptive Statistics and validity of scale

		Mean	Std. Deviation	Number of Items	Cronbach's Alpha
Service Quality	Tangibility	3.53	0.81	3	0.917
	Competence	3.61	0.84	3	
	Content	3.51	0.76	3	
	Reliability and Responsiveness	3.39	0.83	4	
	Assurance and Empathy	3.39	0.79	4	
Organizational Culture	Clan	3.44	0.79	4	0.912
	Adhocracy	3.31	0.75	4	
	Market	3.52	0.67	4	
	Hierarchy	3.51	0.73	4	
Job Satisfaction	Relationship with Colleagues	3.93	0.91	1	0.883
	Work it self	3.78	0.99	1	
	Relationship with Supervisor	3.68	1.04	1	
	Promotion	3.52	1.07	1	
	Rules and procedures	3.49	1.07	1	
	Benefits	3.48	1.06	1	
	Pay	3.42	1.09	1	
	Recognition	3.37	1.14	1	
	Communication effectiveness	3.36	0.95	1	

Impact of organizational culture on job satisfaction: Regression analysis result shows 50.8% of the variance in job satisfaction dependent on organizational culture ($R^2=0.508$). The hierarchy culture (Std. $b=0.349$) contributes more to the job satisfaction level than any other type of culture namely clan (Std. $b=0.217$), adhocracy (Std. $b=0.165$) these three cultural types statistically significant ($p<0.005$) whereas market culture is statistically insignificant ($p>0.05$).

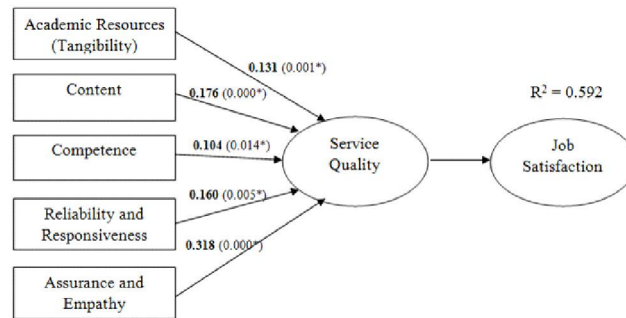
Table 2:**Impact of Organizational Culture on Job Satisfaction**

Model		Coefficients ^a			T	P-Value
		Un-standardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta		
1	(Constant)	0.792	0.16		4.937	0
	Clan	0.217	0.067	0.229	3.265	0.001*
	Adhocracy	0.165	0.063	0.166	2.642	0.009*
	Market	0.071	0.065	0.064	1.101	0.272
	Hierarchy	0.349	0.058	0.343	6.028	0.000*

a. Dependent Variable: Job Satisfaction

Regression equation is $Job\ Satisfaction = 0.792 + 0.217 * Clan + 0.165 * Adhocracy + 0.349 * Hierarchy$

Figure: 3-
Impact of Organizational Culture on Job Satisfaction



Impact of service quality on job satisfaction: All the five dimensions of service quality have statistically significant contribution to job satisfaction ($p < 0.005$). 59.2% of the variance in job satisfaction is due to the service quality ($R^2 = 0.592$). Assurance & Empathy (Std. b = 0.318) has emerged as a strongest contributor to faculty's job satisfaction.

Table 3:
Impact of Service Quality on Job Satisfaction

Model	Coefficients ^a			T	P-Value
	Un-standardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta		
1 (Constant)	0.519	0.146		3.548	0
Tangibility	0.121	0.037	0.131	3.222	0.001*
Competence	0.104	0.042	0.117	2.464	0.014*
Content	0.176	0.049	0.18	3.57	0.000*
Reliability and Responsiveness	0.16	0.057	0.178	2.825	0.005*
Assurance and Empathy	0.318	0.056	0.337	5.712	0.000*

a. Dependent Variable: Job Satisfaction

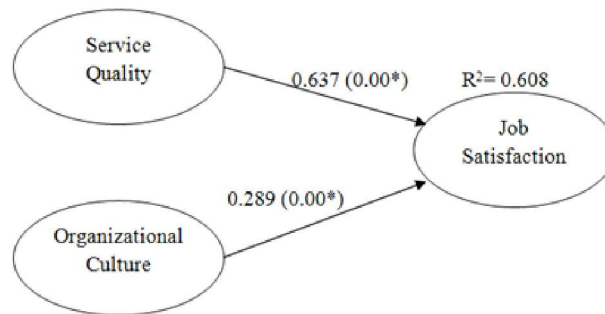
Academic Resources
(Tangibility)

Regression equation is

$$\text{Job Satisfaction} = 0.519 + 0.121 * \text{Tangibility} + 0.104 * \text{Competence} + 0.176 * \text{Content} + 0.16 * \text{Reliability \& Responsiveness} + 0.318 * \text{Assurance \& Empathy}$$

Figure: 4-

Impact of Service Quality on Job Satisfaction



Combined impact of organizational culture and service quality on job satisfaction:

60.8% of the variance in job satisfaction is owing to organizational culture and service quality ($R^2=0.608$). Service quality (Std. $b=0.637$) adds more to job satisfaction than the organizational culture (Std. $b=0.289$) and make statistically significant contribution ($p<0.05$).

Table 4:

Combined impact of Service Quality and Organizational Culture on Job Satisfaction

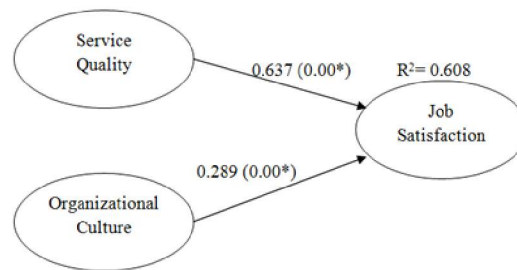
Model		Un standardized Coefficients		Standardized Coefficients		T	P-Value
		B	Std. Error	Beta	B		
1	(Constant)	.358	.140			2.550	.011
	Average of OC without Market	.289	.062	.263		4.662	.000
	Average Service Quality	.637	.065	.552		9.770	.000

aDependent Variable: Average of Job Satisfaction

Regression equation is
$$\text{Job Satisfaction} = 0.358 + 0.637^* \text{ service quality} + 0.289^* \text{ organizational culture}$$

Figure: 5-

Combined impact of Service Quality and Organizational Culture on Job Satisfaction



Summarizing the results of regression analysis it is observed that R^2 values are more than 50 % which is significantly acceptable result as per Pallant (2005) for determining the impact of predictors on dependant variables.

Conclusion and Discussion

In this study the empirical evidences demonstrate that hierarchal culture is the strongest predictor of job satisfaction whereas market culture is statistically insignificant as predictor of job satisfaction. But previous studies show that flexible culture (clan and adhocracy) leads to employee's job satisfaction (Zammuto and Krakower, 1991). Silverthorne, (2004) observed that employees are more interested in working for those organizations that have supportive and flexible culture, than innovative culture and finally the hierarchal culture. In Pakistan especially in medical schools settings faculty members are enjoying more powers and upper ranks in organizational hierarchy so an increase in their job satisfaction level under hierarchy culture type is quite natural; our findings are similar to the work of Trivellas, and Dargenidou (2009).

Results indicate that the five dimensions of service quality are statistically significant and contribute to job satisfaction. But in terms of ranking and the impact, it was observed that faculty members evaluate “*assurance and empathy*” higher in their perception of job satisfaction than any other dimension of service quality.

There was no study in Pakistan that had investigated the impact of perceived service quality and organizational culture on job satisfaction, especially in medical education settings. The study provides empirical evidence to the literature focused on developing countries.

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References

- Becket, N. and Brookes, M. (2006), "Evaluating quality management in university departments", *Quality Assurance in Education*, Vol. 14 No. 2, pp. 123-42.
- Brown, St.P. & Lam, S.K. (2008). "A Meta-Analysis of Relationships Linking Employee Satisfaction to Customer Responses". *Journal of Retailing*, Vol.84, No.3, pp.243–255.
- Cameron, K.S. and Freeman, S.J. (1991), "Cultural congruence, strength, and type: relationships to effectiveness", *Research in Organizational Change and Development*, No. 5, pp. 23-58.
- Chen, S.H., Yang, C.C., Shiau, J.Y. and Wang, H.H. (2006), "The development of an employee satisfaction model for higher education", *The TQM Magazine*, Vol. 18 No. 5, pp. 484-500
- Cho, I., Kim, J. K., Park, H., & Cho, N. H. (2013). "The relationship between organisational culture and service quality through organisational learning framework". *Total Quality Management & Business Excellence*, 24(7-8), 753-768.
- Clark, A. E., & Oswald, A. J. (1996). "Satisfaction and comparison income." *Journal of public economics*, 61(3), 359-381.
- Cronin Jr, J. J., & Taylor, S. A. (1992). "Measuring service quality: a reexamination and extension". *The journal of marketing*, 55-68.
- Donthu, N., & Yoo, B. (1998). "Cultural influences on service quality expectations". *Journal of Service Research*, 1(2), 178-186.
- Harman, K.M. (1989), "Culture and conflict in academic organizations: symbolic aspects of university worlds", *Journal of Educational Administration*, Vol. 27, pp. 51-67.
- Imran, H., Arif, I., Cheema, S., & Azeem, M. (2014). "Relationship between Job Satisfaction, Job Performance, Attitude towards Work, and Organizational Commitment". *Entrepreneurship and Innovation Management Journal*, 2(2), 135-144.
- Javalgi, R. R. G., Whipple, T. W., Ghosh, A. K., & Young, R. B. (2005). "Market orientation, strategic flexibility, and performance: implications for services providers". *Journal of Services Marketing*, 19(4), 212-221.
- Ku"sku", F. (2003), "Employee satisfaction in higher education: the case of academic and administrative staff in Turkey", *Career Development International*, Vol. 8 No. 7, pp. 347-56.

- Laroche, M., Papadopoulos, N., Heslop, L. A., & Mourali, M. (2005). "The influence of country image structure on consumer evaluations of foreign products". *International Marketing Review*, 22(1), 96-115.
- Machado, M. D. L., Soares, V. M., Brites, R., Ferreira, J. B., & Gouveia, O. M. R. (2011). "A look to academics job satisfaction and motivation in Portuguese higher education institutions". *Procedia-Social and Behavioral Sciences*, 29, 1715-1724.
- Munhurrin, P.R., Naidoo, P. and Bhiwajee, S.D.L. (2009), "Employee perceptions of service quality in a call centre", *Managing Service Quality*, Vol. 19 No. 5, pp. 541-57.
- Owlia, M. S., & Aspinwall, E. M. (1996). "A framework for the dimensions of quality in higher education". *Quality Assurance in Education*, 4(2), 12-20.
- Pallant, J. (2005). "SPSS Survival Manual." New York. Open University Press.
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). "SERVQUAL: A Multiple-Item Scale For Measuring Consumer Perception." *Journal of Retailing*, 64(1), 12.
- Pears, A. N. (2010). "Does quality assurance enhance the quality of computing education?" In *Proceedings of the Twelfth Australasian Conference on Computing Education-Volume 103* (pp. 9-14). Australian Computer Society, Inc..
- Ramachandran, S. D., Chong, S. C., & Ismail, H. (2011). "Organisational culture: An exploratory study comparing faculties' perspectives within public and private universities in Malaysia". *International Journal of Educational Management*, 25(6), 615-634.
- Roodt, G., Rieger, H. S., & Sempene, M. E. (2002). "Job satisfaction in relation to organisational culture." *SA Journal of Industrial Psychology*, 28(2), 23-30.
- Silverthorne, C. (2004). "The impact of organizational culture and person-organization fit on organizational commitment and job satisfaction in Taiwan." *Leadership & Organization Development Journal*, 25(7), 592-599.
- Smart, J.C. and St John, E.P. (1996), "Organizational culture and effectiveness in higher education: a test of the "culture type" and "strong culture" hypotheses", *Educational Evaluation and Policy Analysis*, Vol. 18 No. 3, pp. 219-41.

- Snipes, R. L., Oswald, S. L., LaTour, M., & Armenakis, A. A. (2005). The effects of specific job satisfaction facets on customer perceptions of service quality: an employee-level analysis. *Journal of Business Research*, 58(10), 1330-1339.
- Spector, P. E. (1985). "Measurement of human service staff satisfaction: Development of the Job Satisfaction Survey". *American journal of community psychology*, 13(6), 693-713.
- Tierney, W. G. (1988). "Organizational culture in higher education: Defining the essentials." *The Journal of Higher Education*, 2-21.
- Trivellas, P., & Dargenidou, D. (2009). "Organisational culture, job satisfaction and higher education service quality: The case of Technological Educational Institute of Larissa." *The TQM Journal*, 21(4), 382-399.
- Tsai, Y. (2011). "Relationship between organizational culture, leadership behavior and job satisfaction". *BMC health services research*, 11(1), 98.
- Waugh, R. F. (2002). "Academic staff perceptions of administrative quality at universities." *Journal of Educational Administration*, 40(2), 172-188.
- Zeithaml, V. A. (2000). "Service quality, profitability, and the economic worth of customers: what we know and what we need to learn". *Journal of the Academy of Marketing Science*, 28(1), 67-85.