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Students' Satisfaction and Achievement and Absorption Capacity in Higher Education

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Abstract

This study examines the factors that influence students' satisfaction and their achievement and absorption capacity. The research focuses on 146 business diploma students in a Kuwaiti private college. The results indicate that, the college's image and reputation, the academic program and teaching methods influence students' satisfaction. Achievement and absorption capacity was influenced by students' participation, satisfaction, teaching methods and programs. The only service quality dimension which has a direct impact on students are tangibles. Moreover, students with high GPA have shown a higher level of achievements and satisfaction. Assessing students' satisfaction and achievement and absorption capacity are critical not only for the students and their institutions but also for the business industry who are potential recruiters of these students.

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1. Introduction

For any nation, the education sector is critical for its development. Brunat (2006) proved the existence of a relationship between education and economic growth. Worldwide, human capital is the strongest element that

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represents a nation's economic growth. Investing in the development of a country's human capital through education has a clear positive impact on the growth and wealth of any nation (Coleman 2005). With the increasing demand for education and the awareness about available alternatives, service users develop high expectations towards the educational services providers (Petruzzellis and Romanazzi 2010). From a research perspective, the education sector represents a very interesting discipline to examine. Not only because of its impact on the country's economy, but also because one would want to know about the quality of education being provided to students, their level of satisfaction and achievement and absorption capacity, as these people represent the nation's future. It is true that this very competitive industry is constantly challenged and changing as it tries to adapt to the world's realities while at the same time managing students' increasing expectations (Sohail and Shaikh 2004).

2. Literature Review

2.1 Achievement and absorption capacity

Achievement and absorption capacity are the outcomes that students accomplish, as a result, of their academic experience. Zeinabadi (2013) found that the interrelation structure between students in high schools and their teachers is similar to that of an organization where there are employees and leaders. The author argued that the more this relation is strong and provides quality exchanges, the more positive students' achievements will be. These attainments could be in the students' skills and knowledge (Rapert *et al.* 2004) and/or career advancement and preparation for the business world (DeShields *et al.* 2005). Applying Herzberg's (1967) theory, these latter authors discovered that faculty performance and classes (motivators and satisfiers at the same time) are positively related to the outcome of college experience (e.g. growth and achievement). In addition to faculty performance, advisory staff play essential functions in "achievement" because if these roles are not performed, students will be dissatisfied. Agreeing on the same, Letcher and Neves (2010) explained that several service quality traits have an effect on students' intellectual achievements as well as career enhancement. The authors referred to Rapert *et al.* (2004) who proposed quality notions, like process characteristics and outcome attributes to explain how teaching, advising, welcoming interactions between staff and students as well as programs positively influence the students' achievement and absorption capacity.

2.2 Factors affecting students' satisfaction

Consumers, such as students, usually make a purchase decision based on their own valuation of the marketing efforts. However, their satisfaction is based on their evaluation of the products or services utilized and whether or not their expectations or needs were met (Athanasopoulos *et al.* 2001). If the higher education sector knows about the factors that improve students' perception of satisfaction, it will be capable of providing better services as well as improving existing ones. To gain competitive advantage, Petruzzellis and Romanazzi (2010) recommend universities to highlight the strategic importance of social values gained by students when joining them. Moreover the authors argued that universities must demonstrate the means by which they provide support to their students' objectives achievement. Basically, this would affect the students' perception of satisfaction hence the university's competitiveness. Several factors influence students' level of satisfaction as well as their achievement and absorption capacity.

Many studies linked service quality to satisfaction. To outpace rival universities, institutions tend to work on improving their service quality through its five dimensions, namely reliability, assurance, empathy, responsiveness and tangibles (Zeithaml *et al.* 2009). Reliability means receiving the service as promised (Parasuraman *et al.* 1988). This dimension is critical in the education sector (Danish *et al.* (2010) where it could be a provision of a quick corrective action when mistakes occur in order to regain the trust and confidence of students. For their part Alexandris and James (2002) confirmed that this dimension is the most vital determinant in service quality. Assurance indicates the courtesy and knowledge of employees which leads to customers' trust and confidence (Parasuraman *et al.* 1988). Delivering the right knowledge and having proper education process standards are of significance to college students as argued by Alves and Raposo (2007). Empathy in the educational context will be looked at as giving an individualized attention to students. For them, empathy is important because they are looking

for a customized care to achieve their own goals. To be able to provide good services to students, educational institutions' staff should be willing to serve students and provide them with the required services promptly, while at the same time trying to solve any problem which may occur immediately; this is known as the responsiveness dimension of service quality (Zeithaml *et al.* 2009). These last three dimensions greatly depend on the personnel, especially frontline staff; therefore, the interpersonal skills and reactions towards customers' problems represent the basis of the perceived satisfaction of service quality (Danish *et al.* 2010).

In industries like education, customers are unable to judge a service prior to its utilization (Padma 2006), the tangibles dimension, however, can provide help by making that assessment. Hill and Epps (2010) argued that along with employees' skills and their appearance, physical facilities, equipment and materials surrounding them have a great impact on students' satisfaction. Expectedly, educational institutions spend a lot of money on improving facilities and upgrading classrooms' and labs' equipment. The more comfortable the chairs, lighting, desks and computer labs are, the more satisfied the students become.

Other factors affecting students' satisfaction and their achievement and absorption capacity include image, or brand equity. This dimension is as important as the organizations' services. Chapleo (2007 cited by Brown and Mazzarol, 2009) suggested that in the education industry, despite the trend towards becoming market oriented plus the commercial focus, the brand building within universities remains challenging. Kotler and Fox (1995 cited by Ivy 2001) explained that students of business schools consider the schools' image as a very important indicator rather than the quality of education provided by the school. Ivy (2001) agrees that when making a choice of college, most students take into account the school's image. As difficult as this function may be, teaching is the most important of all as it requires alteration of methodology according to the subject taught (Palmer 1993 cited by Douglas *et al.* 2008). To deliver knowledge with quality effectively, teaching methods by instructors, as well as the related supporting services, are two critical elements (Petruzzellis and Romanazzi, 2010). In order to cope with competition and the fast changing market, Kwek *et al.* (2010) highlighted that customer-oriented business schools should redesign their offerings and academic programs to benefit from emerging opportunities, maintain academic values and meet their stakeholders' expectations. Hagen and Jordan (2008 cited by Arif and Ilias, 2011) found that students' satisfaction is increased by the level of academic programs and advisory, which in their turn lead to improved career perspectives and enhanced students' efficiency and effectiveness. In addition to that, the ability of students to reach their colleges and universities with little hassle and finding available parking lots are necessary for having a satisfied student (Gibson 2010). This point highlights the access and convenience factors marked by Hoque's *et al.* (2013) study. Moreover, it was also argued by Worthington and Higgs (2004 cited by Petruzzellis and Romanazzi, 2010) that these factors have a critical role in the students' decision-making process while choosing a university, but would come after the influence of the university's academic attributes (Gibson 2010).

As most of the private business institutions are profit oriented (Gupta 2008), it is imperative to consider tuition's fees as an influential factor of students' satisfaction. Tang *et al.* (2004) demonstrated that although so many elements have a role in stating tuition fees, academic reputation ranking stands out. According to the same authors, reputation not only affects the decision of universities' management regarding the fees, but it also affects the students' parents' perception of quality in relation to the money paid. Fredrickson (2012) further explains that as universities' provided programs and delivered benefits exceed the charged fees, students would have a high sense of satisfaction. In addition to that, the more students participate in their classes and interact with each other and with the academic staff, the more they feel satisfied. Students' participation is referred to by Astin (1999) as the students' investment of both physical and psychological energy, both in terms of quality and quantity throughout their learning experience. The author believes that such an involvement would enhance the students' learning process; henceforth, the academic quality (Wiers-Jenssen *et al.*, 2002 cited by Sakthivel *et al.*, 2005). As students appreciate the educational quality they are provided with by their universities, they would work as a kind of advocate customers who recommend the institution to potential students (Petruzzellis and Romanazzi, 2010).

For students to absorb the knowledge they receive from their professors successfully, they need to be satisfied. We assume that factors like overall service, college's image, teaching methods, programs provided, access and convenience to facilities, tuitions fees, and the students' own participation and interaction with the university's staff, will all significantly impact on their level of satisfaction as well as their achievement and absorption capacity

3. Conceptual Model, Research Methodology and Data Collection

The research is an explanatory study with a quantitative methodology designed to understand the dimensions that affect service quality satisfaction among business students in a Higher Education College in Kuwait. It also aimed at examining the probable factors influencing their satisfaction and achievement and absorption capacity. These examined relationships are hypothesized and are depicted in the conceptual model (figure 1).

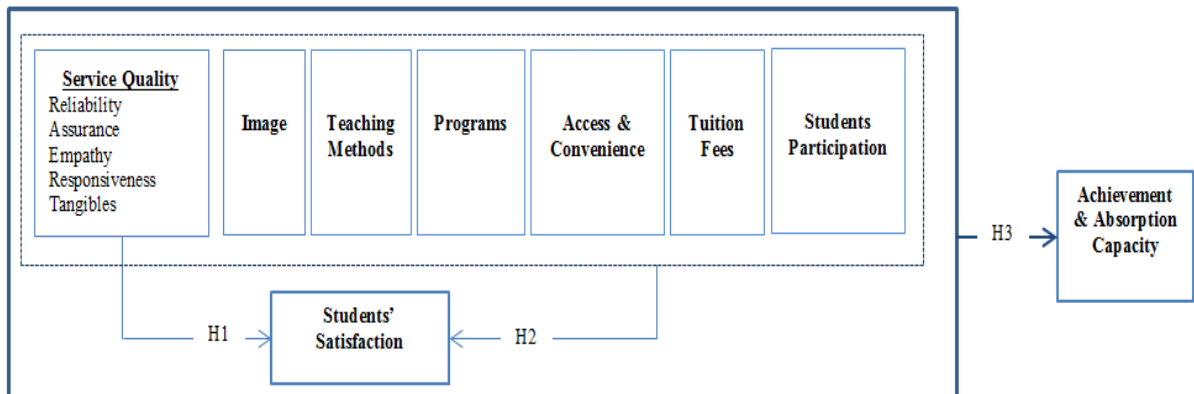


Figure 1 – The impact of perceived students' satisfaction and achievement & absorption capacity conceptual model

Source: Adapted from Athanassopoulos et al. (2001); Sohail and Shaikh (2004); Zeithaml et al. (2009) & Zeinabadi (2013)

A five-point Likert scale questionnaire, where 1= strongly disagree and 5= strongly agree, was distributed among 192 undergraduate senior business diploma students in a private college in Kuwait. The questionnaire consisted of 58 questions/statements considering the research model's variables. After taking permission from different class teachers, students were encouraged to participate in the survey completion in class. However, after collecting all the surveys, it was found that only 146 questionnaires were found to be valid for analysis. The sample is a fair representation of the actual population of students in higher education in Kuwait where 56% are males; 95% are between 18 to 29 years old and 73% are of Kuwaiti origin. With regards to their respective family income, 39% of the respondents stated that the monthly family income exceeds KD 2000 while 41% have an income ranging between KD 1000 and 2000. Students' distribution based on their GPA scores was: 42% earned a GPA of 3-4; 47% had a GPA of 2-3 and 11% of the respondents claim to have a GPA between 1-2.

4. Analysis and Results

The Cronbach's Alpha test conducted on the conceptual model 13 variables showed high adequacy of the sample. None of the variable had a result less than 0.920. Based on the descriptive analysis of the model's variables, students perceived their college services as appropriately handled and delivered as promised. Similarly, the respondents believe that the college staff is polite, friendly and professional who maintain students' privacy and confidentiality. Students also claim that they are actively interacting with the college staff when required. Regarding the dimension of access and convenience, most students answered positively about the college location and convenience of the lectures timings. With regards to the dimensions of responsiveness and empathy, the college programs adequacy and sufficiency, the institution's reputation and image and the students' overall satisfaction all received higher neutral responses (scoring 3 out of 5 on a five-point Likert scale). However, when it came to the college fees, most respondents disagreed with the survey's statements, and consequently perceived the fees as high. In spite of this, the majority of students found themselves achieving good academic results with high absorption capacity.

The strongest positive correlation results can be seen between reliability and assurance as well as between empathy and assurance where $r=0.744$, in both sets of variables. The second highest correlation is between assurance and teaching with $r= 0.676$. The weakest relationship, on the other hand, is between achievement &

absorption and access & convenience where $r= 0.307$. Overall all variables indicate good positive significant correlations between all of them and between satisfaction and achievement and absorption capacity as shown in Table 1.

Table 1: Pearson Correlation of the model variables

	Rel.	Ass.	Resp.	Emp.	Tang.	Stu. Part.	Prog	Tea. Meth.	Im. & Rep.	Acc. & Con.	Fees	Sat.	Ach. & Abs.
Reliability	1												
Assurance	.744**	1											
Responsiveness	.591**	.610**	1										
Empathy	.648**	.744**	.596**	1									
Tangibles	.511**	.520**	.427**	.507**	1								
Student Participation	.433**	.548**	.437**	.521**	.619**	1							
Program	.558**	.620**	.493**	.666**	.652**	.466**	1						
Teaching Methods	.581**	.676**	.498**	.600**	.627**	.524**	.639**	1					
Image & Reputation	.585**	.637**	.518**	.537**	.629**	.450**	.663**	.647**	1				
Access & Convenience	.339**	.368**	.351**	.378**	.487**	.379**	.343**	.435**	.445**	1			
Fees	.457**	.408**	.370**	.432**	.463**	.370**	.440**	.495**	.471**	.376**	1		
Satisfaction	.445**	.518**	.347**	.525**	.595**	.431**	.635**	.627**	.626**	.433**	.396**	1	
Achievement & Absorption	.362**	.482**	.404**	.422**	.542**	.645**	.470**	.481**	.462**	.307**	.327**	.433**	1

** Pearson Correlation is significant at the 0.01 level (2-tailed)

To test the hypothesized relations, regression analyses were performed. The results for the impact of service quality dimensions on the students' satisfaction with service quality (H1) indicate that all 5 dimensions (reliability, assurance, empathy, responsiveness and tangibles) can explain 45% of the variance leading to students' satisfaction with the delivered service quality. The beta coefficient of these predictors was at a significant level $p < 0.05$. However, only one dimension, i.e. tangibles, showed a significant contribution to the change in the level of students' service quality satisfaction with a beta coefficient $\beta = 0.400$.

Although all the tested factors positively correlated with students' overall satisfaction (H2), when performing the regression analysis, the function was found to significantly explain 55% of the variance, with only three factors having a direct significance on satisfaction: reputation with a contribution of $\beta = 0.236$, program with $\beta = 0.234$, and teaching methods with $\beta = 0.230$.

In addition to understanding the role of the tested variables on student's satisfaction, it is also the aim of this study to recognize the impact of all these variables, including satisfaction, on students' achievement and absorption capacity (H3). The results showed that the independent variables are able to explain a significant 48% of students' achievement and absorption capacity. However, the contribution to that change was exerted by students' participation ($\beta = 0.453$), satisfaction ($\beta = 0.448$), teaching methods ($\beta = 0.243$) and program ($\beta = 0.212$).

How significant are the individual characteristics of the participants in their perceptions of the model variables was also a question raised during the course of this research. This was looked at from the perspective of genders as well as nationalities. At the College, the study found no significant differences in the way male and female students

viewed the studied variables except for tuition fees. Analysis found that males have more positive responses about the fees than females. From a nationality perspective, statistics indicated that the non-Kuwaitis were more positive and with higher mean values when perceiving service quality, student participation, program, teaching methods, image and reputation, access and convenience and students' perception of satisfaction than Kuwaitis. Away from these demographic variables, results also indicated that GPA impact students' view of seven variables in the model, these are service quality, students' participation, program, teaching methods, image and reputation, satisfaction and achievement and absorption capacity. Students' with GPA scores between 3-4, tend to have positive opinions about these variables. The highest positive perception was associated with service quality with a mean value of "M"=70.13. Also, students with GPA of 3-4 have better participation (M=15.33), perceive the program as sufficient (M=14.31), believe their professors' teaching methods helpful (M=15.31), have a better perception of image and reputation (M=16.69), find the college's access and convenience suitable (M=14.18), are more satisfied (M=10.85), and lastly have better achievement and absorption capacity (M=16.95).

5. Discussion and Conclusions

The competition among higher education institutions in Kuwait has recently become fierce. Many institutions have been helpless in encouraging students to achieve high scores and increase their absorption capacity. Students' failure rates are increasing, henceforth, the rate of withdrawals and transfers is rising; the perception of new students is demeaning and attempts to attract new admissions are failing. Consequently, it was important to understand what factors lead to students' satisfaction and positive achievements and absorption capacity.

Findings demonstrate that out of the service quality dimensions, "tangibles" are the most significant dimension that influences students' perceived satisfaction. This result is not surprising; on the contrary, it is in congruence with Padma (2006), Hill and Epps (2010) and Hoque *et al.* (2013) arguments that the first impression generated from facilities and other physical environment features have a strong impact on students' satisfaction. Though visual, the physical environment influences the perception of individuals; the first impression could be created prior to that, through the institution's reputation and word of mouth. The college's image is what initiates students' interests and reinforces their self-image. Ivy's (2001), Chapleo's (2007 cited by Brown and Mazzarol 2009) and Moogan's (2011) all explained that the stronger the college's image, the more likely students will enroll and remain with the institution. This argument could also apply to the Kuwaiti environment, where image perception is critical in the decision making process.

Other factors that contribute to student's satisfaction significantly are the types of taught programs, teaching methods used, and the college's image and reputation. Having a variety of quality programs to choose from allows students to have options as well as the potential of succeeding in subjects they prefer. Therefore, programs' varieties do influence satisfaction shaping the academic quality and henceforth, maximizing the achievement and absorption capacity. This mirrors several researchers' opinions, like Kwek *et al.* (2010), Ming (2010) and Hagen and Jordan (2008 cited by Arif and Ilias 2011). Academic programs are not effective if there are not backed up by efficient teaching methods which would support students' comprehension, which in return will most likely lead to their satisfaction. The findings of this research confirm that, and underpinned other literature's findings, such as Palmer (1993 cited by Douglas *et al.* 2008) and Petruzzellis and Romanazzi (2010).

The study also provides us with significant direct effect factors on student achievement which are mainly contributed through students' participation, satisfaction, teaching methods and programs. Though examined from a different angle, these are results that are in line with Zeinabadi (2013) findings. If the institution is not well prepared to encourage students' participation through "high-quality exchanges," the students will not be able to absorb the knowledge provided, nor accomplish their learning objectives. The results also support DeShields *et al.* (2005) research on students' intention to be retained in their universities until completing their programs.

With a particular focus on the two key variables of the conceptual model, i.e. satisfaction and achievement and absorption capacity, the means comparison analysis, indicated that when comparing the GPA scores, the respondents did perceive both variables differently. This result can be interpreted by the fact that the higher the GPA score is, the better and higher the perception of satisfaction and achievement and absorption capacity will be. These students with high GPA are more likely to complete their educational learning process at the college and will most likely be aiming at better achievements. This is a finding which contradicts Chye *et al.* (2011) study, where the

authors argued that first, students with low GPA are more satisfied and second, the association between GPA and achievement and absorption capacity is not justified.

With reference to the same authors, they argued that there is no direct impact of satisfaction on achievement and absorption capacity. This is a result with contradicts our findings. This study did find a strong contribution of satisfaction on achievement and absorption capacity.

6. Study Contribution

The literature on factors enhancing students' achievement and absorption capacity is scarce and more specifically in this part of the world that is the Middle East. This research is one that newly covers such topic in this area. In countries like Kuwait, where the physical environment is perceived to reflect a person's standard of living, it is vital to put emphasis on tangibles as results have indicated. Therefore, educational institutions should work on enhancing their settings through state of the art technological aspects used in teaching, laboratories or even in daily college activities. This is a show-off factor that leads to their perceived service quality satisfaction. Although the tests on different service quality dimensions did not depict significance on satisfaction or achievement and absorption capacity, other factors did mirror quality of service of importance for both variables. Universities should differentiate themselves through the programs and teaching methods they provide and utilize. They also would benefit from processes that would encourage student's involvement in as well as out of class.

7. Limitations and Future Research

This study was carried on one college, which is considered a major limitation. A comparable investigation should be implemented in the various higher education institutions in Kuwait to be able to generalize the findings. Future studies should consider the social and psychological aspects that could influence students' capacity of learning and accomplishments. It is also recommended to examine the relationships of the model's variables in relation to students' intention to complete their chosen programs. Factors leading to students' lower achievements are to be investigated as well, and then try to work on demolishing them. The variables which were proven to have no direct impact on satisfaction and achievement and absorption capacity within this college context, and which contradict the literature, also require specific attention in future investigations.

References

- Afzal, H., Ali, I., Khan, M., & Hamid, K. (2010). A Study of University Students: Motivation and Its Relationship with Their Academic Performance. *International Journal of Business and Management*, 5(4), 80-88.
- Alexandris, K., & James, J. (2002). Measurement of Internal Service Quality: Application of SERVQUAL Battery to internal Service Quality. *Managing Service Quality*, 12(5), 278-291
- Alves, H., & Raposo, M. (2007) Conceptual Model of Student Satisfaction in Higher Education. *Total Quality Management*, Universidade de Beira Interior, Covilha, Portugal, 18(5), 571-588
- Arif, S., & Ilias, M. (2011). Leadership, empowerment and customer satisfaction in teaching institutions, *The TQM Journal*, 23(4), 388-402
- Astin, A. (1999). Student Involvement: A Developmental Theory for Higher Education. *Journal of College Student Development*, 40(5), 518-529
- Athanassopoulos, A., Gounaris, S., & Stathakopoulos, V. (2001). Behavioral Responses to Customer Satisfaction: an empirical study. *European Journal of Marketing*, 35(5-6), 687-707
- Brown, R., & Mazzarol, T. (2009). The Importance of Institutional Image to Student Satisfaction and Loyalty within Higher Education. *High Edu_Springer*, University of Western Australia, Crawley, WA, Australia, 58:81(95)
- Brunat, E.(2006). The importance of higher education to attract investment and contribute to sustain economic growth and competitiveness in Kaliningrad. *Baltic Rim Econmic*, Bimonthly Review, 3f 2006
- Chye, L., Rasli, A., and Tat, H. (2011). Student Satisfaction and Academic Performance: A Discrimina analysis approach, Malaysia. *Interdisciplinary Journal of Contemporary Research in Business*, 3(2)

- Coleman, S. (2005). The Impact of Human Capital Measures on Firm Performance: A Comparison by Gender, Race, and Ethnicity. *The Journal of Entrepreneurial Finance & Business Ventur*, 10(5), 38-56.
- Danish, R., Malik, M., & Usman, A. (2010). The Impact of Service Quality on Students' Satisfaction in Higher Education Institutes of Punjab. *Journal of Management Research*, 2(2)
- DeShields, O., Kara, A., & Kaynak, E. (2005). Determinants of business student satisfaction and retention in higher education: applying Herzberg's two-factor theory. *International Journal of Educational Management*, 19(2), 128-139.
- Douglas, J., McClelland, R., & Davies, J. (2008). The development of a conceptual model of student satisfaction with their experience in higher education. *Quality Assurance in Education*, 16(1), 19-35.
- Fredrickson, J.E. (2012). Linking Student Effort to Satisfaction: the Importance of Faculty Support in Creating a Gain-Loss Frame. *Academy of Educational Leadership Journal*, Vol. 16, Special Issue, 111-125.
- Gibson, A. (2010). Measuring business student satisfaction: a review and summary of the major predictors. *Journal of Higher Education Policy and Managements*, Seton Hall University, South Orange, USA, 32(3), 251-259.
- Gupta, A. (2008). International trends and private higher education in India Directorate of Hindi Medium Implementation. *International Journal of Educational Management*, University of Delhi, India, 22(6), 565-594
- Hill, M., & Epps, K. (2010). The Impact of Physical Classroom Environment on Student Satisfaction and Student Evaluation of Teaching In the University Environment. *Academy of Educational Leadership Journal*, Kennesaw State University, 14(4), 65-79
- Hoque, K., Abdul Razak, A., Othman, A., Mishra, P., & Samad, R. (2013). Quality Services as perceived by students of International and Public schools. *Life Science Journal*, University of Malaya, Kuala Lumpur, Malaysia.
- Ivy, J. (2001). Higher education institution image: A correspondence analysis approach. *The International Journal of Educational Management*; 15(6), 276-282
- Kwek, C., Lau, T., & Tan, H. (2010). Education Quality Process Model and Its Influence on Students' Perceived Service Quality. *International Journal of Business and Management*, 5(8)
- Letcher, D. & Neves, J. (2010). Determinants of undergraduate Business Student Satisfaction. *Research in Higher Education Journal*, The College of New Jersey, pp. 1-26
- Ming, J. (2010). Institutional Factors Influencing Student's college Choice Decision in Malaysia: A Conceptual Framework. *International Journal of Business and Social Science*, Vol.1:3, pp. 53-58
- Moogan, Y. (2011). Can a Higher Education Institution's Marketing Strategy Improve the Student-institution match? *The International Journal of Educational Management*, 25(6), 570-589
- Padma, K. (2006). Measuring Multidimensional Performance Attributes: Method and Application to Measurement of Service Quality of Local Telephone Companies. *UMI Dissertation Publishing*, The Ohio State University
- Parasuraman, A., Zeithaml, A., & Berry, L. (1988). SERVQUAL: Multiple-item scale for measuring consumer perceptions of service quality. *Journal of Retailing*, 64(1), 12- 40.
- Petrzellis, L., & Romanazzi, S. (2010). Educational value: how students choose university. *International Journal of Educational Management*. University of Bari Bari, Italy, 24(2), 139-158
- Rapert, M. I., Smith, S., Velliquette, A., & Garretson, J. A. (2004). The meaning of quality: Expectations of students in pursuit of an MBA. *Journal of Education for Business*, 80(1), 17-24.
- Sakthivel, P., Rajendran, G., & Raju, R. (2005). TQM implementation and students' satisfaction of academic performance. *The TQM magazine*, 17(6), 573-589
- Sohail, M., & Shaikh, N. (2004). Quest for excellence in business education: a study of student impressions of service quality. *International Journal of Educational Management*, 18(1), 58-65
- Tang, T.L., Tang, D.S., & Tang, C.S. (2004). College tuition and perceptions of Private University Quality. *International Journal of Educational Management*, 18(5), 304-316
- Zeinabadi, H. R. (2013). Principal-teacher high-quality exchange indicators and student achievement: testing a model. *Journal of Educational Administration*, 52(3), 404-420
- Zeithaml, V., Bitner, M., & Gremler, D. (2009). *Service Marketing: Integrating Customer Focus Across the Firm* (5th Ed.), McGraw Hill international, New York.