INTERNATIONAL JOURNAL
OF ADVANCED RESEARCH

RESEARCH ARTICLE

# NURSING STUDENT SATISFACTION AND ORGANIZATIONAL PERFORMANCE GAP

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| *Manuscript Info* | *Abstract* |
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| | **Aim:** To study nursing student satisfaction and organizational performance gap in regard to educational service.<br>**Background:** Educational service is the most important product of higher education that qualify different workforce of countries. It is the target of educational managerial board that needs to be continuous monitored. Student satisfaction and organizational performance gap are considered as major indicators to its quality achievement<br>**Methods:** Using Student Satisfaction Inventory (SSI), all senior nursing students (133) in third and fourth academic grades had been assessed for their satisfaction and importance of educational service issues through structured interview. The mean of paired differences between importance and satisfaction represented the organizational performance gap.<br>**Results:** Instructional Effectiveness scored the highest means of importance and student satisfaction of educational service issues with the least performance gap, compared to Academic Advising Effectiveness and Campus Life scored the highest. Statistically significant positive correlation was found between total importance and student satisfaction of educational service issues.<br>**Conclusion and implications:** Instructional Effectiveness issue is the most strength compared to Campus Service. Both are directly contributing to learning-teaching process effectiveness and good organizational performance regarding educational service administration. Both importance and student satisfaction are a necessity in higher education and could be improved by focusing more on Campus Climate, taking measures to improve weaknesses according to priorities. However, the present study results are not highly differed from international studies as expected but are coincidence with many of the international results. Further studies are recommended on different faculties and whole universities using SSI. |

## Introduction:-

Educational service is the most important product of higher education that qualify different workforce of nations and countries (NAQAAE, 2015; Alvesson and Benner, 2016). It is the target of educational managerial board that needs to be continuous monitored (OECD, 2015; Zajda and Rust, 2016). Student satisfaction and organizational performance gap are considered as major indicators to its quality achievement (Bers, 2012; Khosravi et al., 2013; Vaz et al., 2016). Educational service's benefits exceeds the developing of needed health and nursing workforce to upgrading their cognitive skills reaching them to the higher levels whether analysis to face work problems and solve them, or synthesis  Both of them work on creativity ability  in developing their profession and community with more effective and efficient way, and finally judgment that qualify them to take the right clinical decision  for better patients care and community welfare (Oermann and Gaberson, 2009; Nkhoma et al., 2016). So, the improvement of its issues will be a contributing factor to these benefits of educational service, and an indicator for organizational

performance regarding administrating it. Hence, that could be the guarantee for better educational service competing internationally for the best for all.

The improvement of educational service could be largely impacted by its consumers themselves who are usually late adolescents/young adult (American Academy of Child and Adolescent's Facts for Families, 2008; Coll, 2008; Coleman, 2011). They mainly constitute the larger numbers of undergraduates in higher education and represent a specific transition from adolescence to young adulthood (Coleman, 2011), the "key driver of economic productivity" (Viner, 2012 p. 3) as identified by World Bank (2007). Nevertheless, the educational service issues affect students' ability for learning and academic achievement (Steinberg, 2010; Hopland and Nyhus, 2016).

There are a group of educational service issues that are important to students. They may differ in their degree of importance from student to another and culture to others (Palmgren, 2016; Vaz et al., 2016; Xu et al., 2016).These issues are factors contributing to not only the educational environment as a whole but also to the learning in specific (Palmgren, 2016). They could represent both of maintenance and satisfied factors of students' satisfaction as in Herezberg theory for job satisfaction. They are contributing to students' motivation to learn and joining to educational system (OECD, 2015; Hopland and Nyhus, 2016). So, as a result of these issues' importance, they are basic components in higher education quality assurance and accreditation standards whether national (NAQAAE, 2009 & 2015) or international (WFME, 2007 & 2015).

These issues cover many areas such as factors contributing directly or indirectly to effectiveness of learning-teaching process (Palmgren, 2016) whether learner, teacher and/or curriculum (Roszkowski and Ricci, 2005; Chen and Lo, 2015; Xu et al., 2016); educational facilities resources including library, labs whether computers' or clinical (Gibbons et al., 2015); students' support services including financial, health, social in addition to academic ones; students activities; residence and food services (Khosravi et al., 2013; El-Said and Fathy, 2015). This is in addition to others directly related to educational service administration such as students' recruitment and registration, availability of information and its resources (Office of Planning and Research, 2009; Noel-Levitz, 2013; Gibbons et al., 2015). However, if importance of educational service issues is determinant factors in attracting students, student satisfaction regarding these issues is important too for keeping these students in educational system (Carter and Yeo, 2016; Hemsley-Brown and Oplatka, 2016). It is a needed for students retaining in educational process and the educational institution as a whole (Schreiner and Nelson, 2013; Negricea et al., 2014). Its necessity maximized more when looking forward to the marked shortage and high attrition rate of nursing graduates in health labor market (Missildine et al., 2013; Milton-Wildey et al., 2014; Clements et al., 2016).

Many/different tools had been used to study student satisfaction. One study's tool was geared to focus on factors directly related to learning-teaching process in addition to other contextual factor (Giraldo-O'Meara et al., 2014). Another focused mainly on learning-teaching process developing a new tool/instrument for students' satisfaction (Topala and Tomozii, 2014). Both studies try to reflect elements of job satisfaction on student academic satisfaction but with specification on learning-teaching process. Other measure students' satisfaction as an overall in regard to quality of different prospective of contributing to learning environment (Hanover Research, 2013) Whereas, another survey tool for the student satisfaction was geared to performance profile and accountability of the educational institution (Office of Planning and Research, 2009). However, the Student Satisfaction Inventory (SSI) exceeds the monitoring of educational service from the student satisfaction to the organizational performance gap. It is the gap between degree of importance of educational service issues and their level of satisfaction by students. It creates areas needing improvement in organizational performance regarding educational service administration ((Bers, 2012; Schreiner and Nelson, 2013; Ruffalo Noel Levitz, 2015).

Researches on educational services usually studied many of its issues related directly to learning-teaching process as components of educational/learning environment such as Helal et al. (2013), Alhajjar and Abu Daf (2013), Imanipour et al. (2015), Ahmed et al. (2016) and Williams et al. (2016), or exceeds as in Palmgren, (2016). Others studied them as basics/axes of student satisfaction such as Douglas et al. (2006), Khosravi et al. (2013), Chen and Lo (2015), Gibbons et al. (2015), and Poon and Brownlow (2015). Whereas, student satisfaction had been studied from many prospective; as a contributing factor to student persistence to be continued in the educational institution (Schreiner and Nelson, 2013), its relation to student retention (Chib, 2014) and academic performance (Strahan and Crede, 2015), achievement (El-Hilali et al., 2015), university image and its corporate reputation (Azoury et al., 2014), university choice (Gibbons et al., 2015), and quality of service (Petruzzellis et al., 2006; Ali et al., 2016).

Internationally, many surveys had been conducted at different universities and colleges to measure importance of educational services issues, student satisfaction, and organizational performance gap (The Office of Institutional Effectiveness and Accountability, 2008; The Office of Institutional Research, 2010; The Office of Institutional Research and Assessment, 2013). However, few focused on studying importance of educational services issues as a one of major variables as well as student satisfaction and the relation between both of them. One of them had been done based on statistics/results of previous published surveys conducted from1997/1998 to 2001/2002 using different versions of SSI (Roszkowski, 2003) or using different tool (Roszkowski and Ricci, 2005).

In nursing, most studies are geared to student satisfaction with clinical learning environments such as Cremonini et al. (2015), D'Souza et al. (2015) and Lovecchio et al. (2015) or its related aspect as clinical supervision (Löfmark et al., 2012; Kristofferzon et al., 2013). Other was geared to measure both students and clinical educators' satisfaction (Iglesias-Parra et al., 2015), whereas, few are geared to student satisfaction with educational program whether specifically for the program preparation to nursing work (Milton-Wildey et al., 2014) or for the program as a whole (Chen and Lo, 2015).

To summarize, all literatures review over the world, the scientific researches and the organizational surveys reports, higher education in general or specific to nursing whether focusing on student satisfaction or educational service issues, agree on the importance of student satisfaction regarding the educational service and its effectiveness. Also, how this is needed for managing student attrition and retention, academic performance and achievement in addition to university image and choice, making a key of competition and marketing of university. Besides, that there is no research studied importance of educational service issues, student satisfaction nor the relationship between them, and organizational performance gap regarding to these issues in nursing field or in Egypt. Hence, the present study had its research aim and objectives as follow:

The research aim was to: Study nursing student satisfaction and organizational performance gap in regard to educational service.

The research objectives were to:
- Identify most important issues of educational service for senior nursing students.
- Assess nursing student satisfaction in regard to educational service issues.
- Determine organizational performance gap in regard to educational service issues.
- Assess relationship between importance and student satisfaction of educational service issues.

## Methods:

### Design:
The study had a correlational descriptive design, and the data were collected at Faculty of Nursing, Port Said University in Egypt during the academic year 2011/2012.

### Sample:
All senior nursing students (133) in third and fourth academic batches with mean age 20.9 participated in the study. 60.9% of them were females, and 58.6% lived in dorms. Most of them were full time student, and 36 - 49 of them joining to students' activities in the university and faculty. Sample characteristics are presented in Table 1.

**Table 1:** Sample characteristics

| Characteristics of senior nursing students | No = 133 | % |
|---|---|---|
| **Academic year** | | |
| Third/Forth | 51/82 | 38.3/61.7 |
| **Age** | | |
| 19-21/21-23 | 41/92 | 30.8/69.2 |
| Mean/SD | 20.9/0.8 | |
| **Sex** | | |
| Male/Female | 52/81 | 39.1/60.9 |
| **Residence** | | |
| Outside/In dorms | 55/78 | 41.4/58.6 |
| **Employment** | | |
| Full time student | 115 | 86.5 |
| Part time | 18 | 13.5 |
| Nurse | 14/18 | 77.8 |
| **Educational target** | | |
| Personal desire to be a nurse | 83 | 62.4 |
| Be a university graduate/Have a good social condition | 90/73 | 72.6/58.9 |
| Chance to travel abroad/Make money | 92/80 | 74.2/64.5 |
| **Joining to students activities in the university/faculty** | 36/49 | 27.1/36.8 |

**Data collection:**
The data was collected from students along class's times during second term for four months. Structured interview was used after explaining the aim of the study and how to fulfill the Student Satisfaction Inventory (SSI). This was associated with all needed explanations.

**Questionnaire:**
The four-year college and university version of SSI was used to identify level of importance of educational service issues and assess level of student satisfaction beside to calculating organizational performance gap. It was developed by Schreiner and Juillerat (1994). Form B of SSI had been used in the present study. It is consisted of 45 items categorized along 9 scales: Academic Advising Effectiveness (AAE): 4 items; Campus Climate (CC): 8 items; Campus Life (CL): 5 items; Campus support Services (CS): 8 items; Instructional Effectiveness (IE):7 items; Recruitment and Financial Aid Effectiveness (RFAE): 5 items; Registration Effectiveness (RE): 4 items; Safety and Security (S&S): 4 items; Student Centeredness (SC): 4 items.  The students' responses were on seven-likert scale regarding level of importance (ranged from 1= not important at all to 7= very important) and student satisfaction (ranged from 1= not satisfied at all to 7= very satisfied). Validity of SSI was measured by the correlation between individual scales and overall satisfaction that were positive and significant at the 0.01 level, Whereas reliability of SSI was above 0.70 except two items that are less/extremely close to 0.70 (Noel Levitz, 2009; Noel Levitz, 2012). However, reliability in the present study was 0. 934 - 0.939 for items with total score 0. 937 regarding student satisfaction, and 0.942- 0.944 for items with total score 0.944 concerning importance.

**Ethical considerations:**
Permission for data collection had been obtained from the faculty dean. The importance of the study and the participation of students had been clarified followed by students' agreement. Besides, the anonymity of students and confidentiality of data that is only for research purpose had been assured.

**Data analysis:**
Using the Statistical Package for the Social Sciences (SPSS) version 16.0 (SPSS Inc., Chicago, IL, USA) the data were analyzed (FA). Descriptive statistics were used for sample characteristics and the studied variables. The midpoint of Importance of Educational Service Issues (IESI) and quartiles of Student Satisfaction (SS) had been calculated. They are for issues: midpoint of IESI = 5.61; upper quartile of SS = $\geq$ 3.99 and lower quartile of SS = $\leq$ 2.7, and midpoint of IESI = 5.67; upper quartile of SS = $\geq$ 4.18 and lower quartile of SS = $\leq$ 2.78 for issues' elements. Paired sample T test was used to compare means of important issues of educational service and student satisfaction. The mean of paired differences represented the organizational performance gap (Schreiner and Nelson, 2013; Stephens, 2014; Ruffalo Noel Levitz, 2015). When mean score of IESI above the mid-point and SS in the

upper quartile in addition to lower performance gap, this indicates to strength points in organizational performance. Whereas, when mean score of IESI above the mid-point and SS < the upper quartile in addition to the higher performance gap, this indicates to weakness points in organizational performance. When mean score of IESI below the mid-point and SS in the lower quartile, this indicates to low status for student's interest (Noel Levitz, 2010; Stephens, 2014; Ruffalo Noel Levitz, 2015). Pearson correlation was used to test the relationship between importance of educational service issues and student satisfaction. The 5% level of significance was set for significant difference and correlation between both variables. The reliability of SSI was measured using Cronbach's alpha.

## Results:
**Importance and student satisfaction of educational service issues and organizational performance gap:**
IE scored the highest means of importance and student satisfaction of educational service issues with the least performance gap, followed by SC, CC, RFAE, and CS. However, SC and CS scored a higher performance gap compared to AAE and CL scored the highest; see Table 2.

**Table 2:** Importance and student satisfaction of educational service issues and organizational performance gap

| Issues of educational service | Importance | Student satisfaction | Performance gap |
|---|---|---|---|
| | X/SD | X/SD | X/SD |
| Instructional Effectiveness (IE) | 5.96/1.17 | 4.12/1.48 | 1.85/1.50 |
| Student Centeredness (SC) | 5.83/1.30 | 3.65/1.32 | 2.17/1.61 |
| Campus Climate (CC) | 5.82/1.25 | 3.70/1.32 | 2.12/1.49 |
| Recruitment and Financial Aid Effectiveness (RFAE) | 5.79/1.25 | 3.79/1.37 | 1.99/1.48 |
| Campus Services (CS) | 5.63/1.23 | 3.49/1.27 | 2.15/1.58 |
| Campus Life (CL) | 5.49/1.56 | 3.05/1.28 | 2.43/1.70 |
| Academic Advising Effectiveness (AAE) | 5.47/1.69 | 3.15/1.73 | 2.31/1.94 |
| Registration Effectiveness (RE) | 5.13/1.56 | 3.05/1.30 | 2.09/1.77 |
| Safety and Security (S&S) | 4.75/1.72 | 2.67/1.23 | 2.09/1.78 |

**Elements of importance and student satisfaction of educational service issues and organizational performance gap:**
Concerning elements of IE, using variety of technology and media in the classroom, availability of sufficient courses within program in each term, and valuable content of courses within student's major scored the highest means of importance and student satisfaction with ones of the least performance gaps at all compared to highest performance gaps regarding fair and unbiased treatment of individual students by faculty in addition to excellence in quality of instruction in most of classes. In addition, caring and helpful of campus staff scored highest means of the studied variables with least performance gap as a SC issue. Besides, the strong commitment to diversity, and the freedom of students to express their ideas on campus scored higher means of the studied variables with least performance gaps as a CC issue. This is compared to a highest performance gap regarding students' feeling of welcome as a SC and CC.

For RFAE, the provision of personalized attention prior to enrollment by admissions staff scored highest means of the studied variables with least performance gap compared to a highest performance gap regarding provision of accurately portray of campus in recruiting practices by admissions counselors. Whereas, adequacy of library resources and services, and availability of ready tutoring services scored the highest means of the studied variables with the least performance gaps as CS issue.

As regard to CL, fairness of student disciplinary procedures scored highest means of the studied variables with a least performance gap followed by good use of student activity fees with one of the highest performance gaps at all. Whereas, receiving ongoing feedback about students' progress toward their academic goals scored the highest means of the studied variables with one of the least performance gaps at all followed by helping students set goals to work toward with least means of the studied variables with one of the highest performance gap at all as AAE issue.
Finally, the convenience of registration processes and procedures scored highest means of the studied variables with a least performance gap as a RE issue compared to registration for needed classes with few conflicts. Whereas, the safety and security of campus for all students, and rapid response of security staff to calls for assistance scored

highest means of the studied variables with least performance gaps as safety and security issue. All results are presented in Table 3.

**Table 3:** Elements of importance and student satisfaction of educational service issues and organizational performance gap

| Elements of educational service | Importance | student satisfaction | performance gap |
|---|---|---|---|
| | X/SD | X/SD | X/SD |
| **Instructional Effectiveness (IE)**<br>4. The content of the courses within my major is valuable. | 5.80/1.72 | 4.45/1.77 | 1.35/1.86 |
| 14. Faculty are fair and unbiased in their treatment of individual students. | 6.00/1.54 | 3.88/1.90 | 2.12/2.06 |
| 17. There are sufficient courses within my program of study available each term. | 5.97/1.69 | 4.20/2.11 | 1.77/2.33 |
| 29. Faculty use a variety of technology and media in the classroom. | 6.08/1.51 | 4.48/2.08 | 1.60/2.07 |
| 32. Faculty provide timely feedback about my academic progress. | 5.93/1.88 | 3.92/2.03 | 2.02/2.08 |
| 36. The quality of instruction I receive in most of my classes is excellent. | 6.05/1.64 | 3.95/2.13 | 2.10/2.31 |
| 40. Faculty are usually available to students outside of class (during office hours, by phone or by e-mail). | 5. 90/1.92 | 3.93/2.51 | 1.96/2.56 |
| **Student Centeredness (SC)**<br>1. The campus staff are caring and helpful. | 5.95/1.56 | 3.95/1.71 | 2.00/1.99 |
| 5. Administrators are available to hear students' concerns. | 5.62/1.90 | 3.61/1.85 | 2.02/2.54 |
| 31. Students are made to feel welcome here. | 5.93/1.93 | 3.49/2.24 | 2.44/2.33 |
| 35. I seldom get the "run-around" when seeking information on this campus. | 5.81/1.89 | 3.57/2.05 | 2.23/2.61 |
| **Campus Climate (CC)**<br>3. The campus is safe and secure for all students. | 5.96/1.47 | 4.15/1.82 | 1.80/2.06 |
| 5. Administrators are available to hear students' concerns. | 5.62/1.90 | 3.61/1.85 | 2.02/2.54 |
| 31. Students are made to feel welcome here. | 5.93/1.93 | 3.49/2.24 | 2.44/2.33 |
| 35. I seldom get the "run-around" when seeking information on this campus. | 5.81/1.89 | 3.57/2.05 | 2.23/2.61 |
| 37. There is a strong commitment to diversity on this campus. | 5.80/1.90 | 4.04/2.29 | 1.76/2.29 |
| 41. Tuition paid is a worthwhile investment. | 5.59/2.07 | 3.33/2.07 | 2.26/2.41 |
| 42. Students are free to express their ideas on this campus. | 5.89/1.68 | 3.89/1.93 | 2.00/2.11 |
| 44. On the whole, the campus is well-maintained. | 5.93/1.61 | 3.51/1.84 | 2.43/2.08 |
| **Recruitment and Financial Aid Effectiveness (RFAE)**<br>7. Admissions staff provide personalized attention prior to enrollment. | 5.86/1.67 | 4.10/1.81 | 1.76/2.33 |
| 8. Financial aid awards are announced in time to be helpful in college planning. | 5.93/1.64 | 3.91/2.12 | 2.02/2.31 |
| 11. Financial aid counseling is available if I need it. | 5.51/2.07 | 3.49/2.17 | 2.02/2.35 |
| 27. This institution helps me identify resources to finance my education. | 5.60/2.09 | 3.59/2.17 | 2.01/2.12 |
| 33. Admissions counselors accurately portray the campus in their recruiting practices. | 6.04/1.74 | 3.88/2.08 | 2.16/2.21 |
| **Campus Services (CS)**<br>9. Library resources and services are adequate. | 6.23/1.21 | 4.21/1.97 | 2.02/2.00 |

| | | | |
|---|---|---|---|
| 15. Computer labs are adequate and accessible. | 5.73/2.03 | 3.55/2.43 | 2.18/2.59 |
| 20. Tutoring services are readily available. | 5.93/1.82 | 4.23/2.07 | 1.70/2.21 |
| 22. This campus provides online access to services I need. | 5.65/2.13 | 3.11/2.60 | 2.54/3.21 |
| 24. I receive the help I need to apply my academic major to my career goals. | 5.67/2.05 | 3.56/1.10 | 2.11/2.42 |
| 26. Counseling services are available if I need them. | 5.74/2.01 | 3.88/2.04 | 1.86/2.11 |
| 34. There are adequate services to help me decide upon a career. | 4.35/2.99 | 2.00/2.34 | 2.35/2.95 |
| 43. Mentors are available to guide my life and career goals. | 5.78/1.90 | 3.36/1.99 | 2.41/2.14 |
| **Campus Life (CL)** <br>13. Living conditions in the residence halls are comfortable. | 5.41/2.36 | 3.08/1.95 | 2.32/2.37 |
| 19. Residence hall staff are concerned about me as an individual. | 5.56/2.22 | 3.13/2.15 | 2.43/2.36 |
| 30. There is an adequate selection of food available on campus. | 4.68/3.04 | 1.56/2.01 | 3.12/3.12 |
| 39. Student disciplinary procedures are fair. | 5.93/1.65 | 4.10/2.28 | 1.83/2.57 |
| 45. Student activity fees are put to good use. | 5.86/1.66 | 3.40/1.89 | 2.46/2.22 |
| **Academic Advising Effectiveness (AAED)** <br>10. My academic advisor helps me set goals to work toward. | 5.39/2.32 | 2.74/2.43 | 2.65/2.77 |
| 16. My academic advisor is available when I need help. | 5.32/2.41 | 2.76/2.46 | 2.56/2.83 |
| 21. My academic advisor is knowledgeable about requirements in my major. | 5.29/2.35 | 2.87/2.56 | 2.43/2.86 |
| 38. I receive ongoing feedback about progress toward my academic goals. | 5.86/1.78 | 4.25/2.11 | 1.61/2.26 |
| **Registration Effectiveness (RE)** <br>2. Registration processes and procedures are convenient. | 5.62/1.80 | 3.77/1.75 | 1.85/2.25 |
| 6. Billing policies are reasonable. | 5.34/2.02 | 3.29/2.03 | 2.05/2.57 |
| 23. I am able to register for classes I need with few conflicts. | 4.20/3.07 | 1.77/2.40 | 2.43/2.98 |
| 25. I am able to take care of college-related business at times that are convenient for me. | 5.35/2.23 | 3.36/2.11 | 1.99/2.36 |
| **Safety and Security (S&S)** <br>3. The campus is safe and secure for all students. | 5.96/1.47 | 4.15/1.82 | 1.80/2.06 |
| 12. The amount of student parking space on campus is adequate. | 3.57/3.18 | 1.17/1.99 | 2.40/3.22 |
| 18. Parking lots are well-lighted and secure. | 3.56/3.27 | 1.25/2.18 | 2.32/2.99 |
| 28. Security staff respond quickly to calls for assistance. | 5.91/1.63 | 4.10/2.14 | 1.81/2.26 |

**Relationship between importance and student satisfaction of educational service issues:**
Totally, statistically significant positive correlation was found between importance and student satisfaction of educational service issues. Besides, four issues of student satisfaction (IE, RFAE, CC, and CS) had the highest significant correlations with total importance of educational service issues. Also, four issues of importance of educational service issues (RE, AAE, CC, and SC) had the highest significant correlations with total student satisfaction. However, only CC, RFAE and IE issues were statically significant correlation within both; see Table 4.

**Table 4:** Relationship between importance and student satisfaction of educational service issues

| Educational service issues | AAE | CC | CL | CS | IE | RFAE | RE | SS | SC | Total satisfaction |
|---|---|---|---|---|---|---|---|---|---|---|
| AAE | 0.36** | 0.23** | 0.09 | 0.25** | 0.26** | 0.24** | 0.13 | 0.13 | 0.08 | 0.26** |
| CC | 0.05 | 0.32** | 0.19* | 0.19* | 0.34** | 0.28** | 0.01 | 0.09 | 0.22* | 0.24** |
| CL | -0.08 | 0.07 | 0.30** | 0.05 | 0.13 | 0.11 | -0.09 | 0.08 | -0.07 | 0.07 |
| CS | -0.05 | 0.11 | 0.05 | 0.21* | 0.17* | 0.18* | -0.04 | 0.06 | 0.04 | 0.10 |
| IE | 0.01 | 0.21* | 0.14 | 0.12 | 0.37** | 0.22* | -0.06 | 0.09 | 0.10 | 0.17* |
| RFAE | -0.01 | 0.21* | 0.12 | 0.18* | 0.28** | 0.36** | 0.00 | 0.11 | 0.11 | 0.19* |
| RE | -0.03 | 0.23** | 0.20* | 0.29** | 0.28** | 0.32** | 0.25** | 0.25** | 0.16 | 0.27** |
| SS | -0.08 | 0.03 | 0.09 | 0.10 | 0.12 | 0.09 | -0.11 | 0.30** | -0.05 | 0.06 |
| SC | -0.01 | 0.27** | 0.14 | 0.18* | 0.33** | 0.25** | -0.02 | 0.10 | 0.24** | 0.21* |
| Total Importance | 0.03 | 0.23** | 0.19* | 0.22* | 0.31** | 0.28** | 0.02 | 0.18* | 0.11 | 0.22* |

$*$ = P-value $<0.05$, $**$= P-value $<0.01$

## Discussion:

IE issue scored the highest means of importance and student satisfaction of educational service issues with the least performance gap, followed by SC, CC, RFAE and CS. According to Stephens (2014) and Ruffalo Noel Levitz (2015) these results indicate that IE represents a strength point in organizational performance in educational service administration that contributing to learning-teaching process effectiveness (that is the most important to students (Douglas et al., 2006) ), and RFAE issue could be, as it scored the second least performance gap. Whereas, AAE and CL scored the highest performance gaps at all, they are considered to be the highest weakness issues followed by SC, CS and CC that scored higher performance gaps. Hence, they require taking corrective measures for their improvement by faculty administration board urgently according to the priorities of these issues. The present study results agree with results of Noel Levitz (2008) and (2014) conducted on different universities and colleges in regard to IE that scored the highest means of the studied variables but with a higher performance gap followed by RE and AAE, compared to CS that had the least performance gap at all in contrast with present study result. This rank of issues may be differed from study to another as RE scored the highest means of the studied variables followed by IE and CC, and RFAE scored the lowest (The Office of Institutional Effectiveness and Accountability, 2008) compared by present study results. This may be as a result of the difference in students concern from culture to another. In addition, it should be put into consideration that students as undergraduate in higher education usually in late adolescence extended to first years of young adulthood so that present study results could be influenced by their stages of learner development ((Bastable and Dart, 2007), the cognitive and psychological (that its skills have pivotal role in academic success (Lipnevich et al., 2016)), and how the context affects adolescents development and their transition to young adulthood (Bastable and Dart, 2007; Coleman, 2011).

The highest performance gap of AAE issue may be referred to that three elements of its issue (academic advisor helps student set goals to work toward, is available when needed help and knowledgeable about requirements in student major) scored the highest performance gap at all. This is in agreement with Chapman's Institutional Research Office (2014) with one of least student satisfaction for helping student set goals to work toward by academic advisor. That is also in agreement with Noel Levitz (2013 and 2014), and supported by The Office of Institutional Research and Assessment (2013). These results of the present study may be as a result of non-adoption of credit hours system that academic advisor is the master of student's guidance in that educational system. However, the activities of academic advising are already done through teaching staff whether by clinical instructors at clinical field and labs in addition to during office hour system that give the chance to students to meet their faculty discussing different interests of them.

Nevertheless, receiving ongoing feedback about students' progress toward their academic goals scored one of the highest means of the studied variables with least performance gap. It represents the third strength element of the studied variables at all. This is different from Noel Levitz (2008) which showed that this element had lower scores for all studied variables. Totally, all issue's elements of academic advising is needed to be more applied in effective way following the roles of academic advisor strictly. AAE positively contributes to learning environment, enhances learning-teaching process, and hence student development and academic achievement (Coll, 2008; Turner et al., 2009; El-Hilali et al., 2015), as successful academic advisor put students' worldview and their psychological

development as late adolescent/young adult into consideration. Both are important to the student identity that is crucial in goal setting of career and life as a whole for this stage of human development (Sokol, 2009) in addition to his/her persistence in higher education (Coll, 2008; Schreiner and Nelson, 2013). In this regard, Clements et al. (2016) assured on students' professional identity as a basic for their commitment and retaining in nursing education.

Also, the highest performance gap of CL issue may be referred to that good use of student activity fees (as one of its issue' elements) scored one of the highest performance gap at all. This result agrees with Chapman's Institutional Research Office (2014) and may be referred to little knowledge about student activity and how its fees could be used as a result of real lower percentage of students' participation in student activity whether at the faculty or university level. But this could be improved by transparency regarding this issue with students through more orientation about students' activities and have the students suggestions regards. Besides, fairness of student disciplinary procedures scored a highest means of the studied variables with least performance gap. This agrees with Noel Levitz (2008) but with higher performance gap, and assures on that all students are treated as a one in the same university with same rights. Totally, CL issue's elements in addition to RFAE, RE and S&S issues' elements could represent maintenance factors of Herzberg theory as they are needed to maintain/keep students at faculty (Giraldo-O'Meara et al., 2014; Topala and Tomozii, 2014).

The higher performance gap of SC and CC may be because of students' feeling of welcome element that scored one of the highest performance gaps. It is a weakness point in contrast to Noel Levitz (2013) and The Office of Institutional Research and Assessment (2013) which indicate to it as a strength point.  However, it may be referred to the strict rules related to educating nursing courses which usually expedite most of student's efforts/work and time to achieve their intended learning outcomes. That may reflect on their feeling of welcome. This is supported by Mirzaei et al., (2012) who indicated to how nursing students need time for extra activities of curriculum, and how this workload is negatively correlated with academic satisfaction (Chraif, 2015). This is compared to one of SC issue' elements regarding campus staff are caring and helpful that scored a highest means of the studied variables with least performance gap. This is in agreement with Noel Levitz (2013 and 2014a), and may be because of the nature of student as a late adolescent/young adult and how supportiveness and warmth as a prenatal still has its significant impact on academic performance and sense of/actual achievement that still be needed and hence recommended to be practiced by faculty staff/administrators (Turner et al., 2009). In this regard, Kantek et al. (2015) indicated to good administrators/educator-student relations as determinant factor in positive learning environment and nursing students' school satisfaction. Other issue's element related to CC regarding students' freedom to express their ideas on campus scored a higher means of the studied variables with lower performance gap. It is in agreement with Noel Levitz (2008) and The Office of Institutional Research and Assessment (2013). In this regard Slanger et al. (2015) indicated to opinion tolerance and attitude toward educators as ones of motivation factors that could be contributing to academic success and student retention.

The higher performance gap related to CS issue may be referred to that availability of online access and adequate computer labs (as one of its issue' elements) scored one of the highest performance gap at all and hence it is a weakness point. This disagrees with The Office of Institutional Effectiveness and Accountability (2008) which indicated to it as strength point. But, it requires more attention to have needed measures to support and improve information technology unit activities. This is assured by Douglas et al. (2006) who indicated that  IT facilities was ranked as one of the most important education service by students, in addition to using technological tools are comfortable trend to adolescent learning (Bastable and Dart, 2007). However, availability of ready tutoring services, and adequacy of library resources and services were the fourth and fifth strengths of the studied variables with the least performance gap at all. Both strengths points are basically needed by faculty to satisfy, as both are full requirement in problem based learning and self-learning educational approaches that faculty adopts to facilitate student's learning (Teacher & Educational Development, 2002; Talaat, 2012).  Also, both are ranked by Douglas et al. (2006) as most of educational service to students. The present study results are in agreement with The Office of Institutional Research and Assessment (2013) who indicated to availability of ready tutoring services as one of strengths, in addition to Chapman's Institutional Research Office (2014) who indicated to adequacy of library resources and services as one of the highest satisfied for students and smallest performance gap. Those results are assured on by Noel Levitz (2014) for both and (2013) for library adequacy.

The highest strength of IE issue may be referred to three of its elements scored the highest means of the studied variables with the least performance gap at all: the content of the courses within student' major is valuable was as the results of The Office of Institutional Research and Assessment (2013); faculty use a variety of technology and media

in the classroom (that makes student be satisfied (Mercado et al., 2016) and  is more suitable with late adolescent learning (Bastable and Dart, 2007)) was as the results of Noel Levitz (2008). In addition to there is sufficient courses within program of study available each term that is supported by Noel Levitz (2013) and in contrast with The Office of Institutional Effectiveness and Accountability (2008) which indicates to it as a challenge and Noel Levitz (2008) that  indicating to its highest performance gap. But, there are two elements of IE issue scored a higher performance gaps: fair and unbiased treatment of individual students by faculty; excellence in quality of instruction in most of classes (that is one of the most significant factor in overall student satisfaction (Bell and Brooks, 2016)). The result of The Office of Institutional Research and Assessment (2013) and Noel Levitz (2014) is coincidence with the result of fair and unbiased treatment of individual students, but in contrast with the excellence in quality of instruction with The Office of Institutional Effectiveness and Accountability (2008). However, both are weaknesses that need to be urgently improved for more effective learning-teaching process. They should be closely monitored for faculty staff performance taking needed corrective actions whether training on effective clinical/class instruction and evaluation or establishing policies required for managing these situations.

In addition, RFAE issue could be a strength point as a result of its elements that have contributed to as the provision of personalized attention prior to enrollment by admissions staff which scored a highest means of the studied variables with least performance gap. It disagrees with results of Noel Levitz (2008) where it scored least means of the studied variables with a higher performance gap. But, the provision of accurately campus portray in recruiting practices by admissions counselors scored a higher performance gap. This result is coincidence with Noel Levitz (2014) but is not with The Office of Institutional Research and Assessment (2013) which indicate to it as lower status of students' interest.

Two issues, RE and S&S scored the least means of importance and student satisfaction with so lower performance gap. This is classified according to Ruffalo Noel Levitz (2015) as low of students' interest and lower status issues to be put into the consideration by faculty administration board but it is better to examine why they are like that. However, there is an element of RE which was the convenience of registration processes and procedures that could be one of the strengths related to RE, as it scored a highest means of the studied variables with least performance gaps. This is in agreement with Noel Levitz (2014). Compared to another RE result of registration for needed classes with less conflict which scored one of least means of the studied variables with one of the highest performance gaps at all agrees with Chapman's Institutional Research Office (2014) and Noel Levitz (2014) in which the registration scored the second highest performance gap with one of the least student satisfaction. This result is also supported by The Office of Institutional Research and Assessment (2013). It may be as a result of non-adoption of credit hours system that registration for needed classes is a basic requirement, but it is governed by strict schedule in conducting the educational program activities at the present study setting. In addition, the low status of S&S with students may be as a result of that half of its issues' elements that scored highest means of importance and student satisfaction within lowest performance gaps. The first element was the safety and security of campus for all students that agrees with Noel Levitz (2013) and The Office of Institutional Research and Assessment (2013) which is in contrast to the second element regarding rapid response of security staff to calls for assistance. Both elements assure on the safety and security status of setting. Besides, people are usually interest in safety and security when they were not found or achieved.

Totally, many of educational service issues' elements scored the highest/higher means of importance and student satisfaction with the least/lower performance gaps (6-18/45). This is compared by 10/58 (The Office of Institutional Effectiveness and Accountability, 2008) for the same form of SSI but without CL, 15/73 (Noel Levitz, 2013) and 16/73 (The Office of Institutional Research and Assessment, 2013) for the long form of SSI. This is in addition to Chapman's Institutional Research Office (2014) who indicated to 10/73 points for importance separately from 3/73 points of satisfaction. In the present study, these results indicates to good organizational performance regarding educational service administration, and also strengths points (or could be) directly contributing to learning-teaching process effectiveness related to IE, AAE and CS, or indirectly contributing to learning-teaching process effectiveness related to SC, CC, RE, RFAE, CL and S&S. However, the educational service issues' elements which scored the highest/higher performance gaps (4-9/45) compared to 8/58 (The Office of Institutional Effectiveness and Accountability, 2008), 7/73 (Noel Levitz, 2013) and 13/73 (The Office of Institutional Research and Assessment, 2013) generally are weaknesses points (or could be) and need to be urgently scheduled for taking corrective measures for their improvement by the faculty administration board. Besides, remain elements of the educational service issues' elements (18/45) which scored the least means of importance and student satisfaction compared to 3 points for importance separately from 4 points of satisfaction (Chapman's Institutional Research Office, 2014) are

lower status for students concern. However, it is needed to pay attention towards by the faculty administration board.

Regarding relationship between importance and student satisfaction of educational service issues, statistically significant positive correlation was found between total of both, that agrees with Roszkowski (2003) and means that the increasing in student satisfaction is associated with increasing in importance of educational service issues and hence each one of them may be contributing to and support each other. Besides, four issues of student satisfaction had the highest significant correlations with total importance of educational service issues and the same was found for total student satisfaction in addition to three issues (CC, IE and RFAE) that only had significant correlations with both. All these correlation results assure on the necessity of both importance and student satisfaction to each other contributing to needed excellent educational service and effective organizational performance in educational service administration (OECD, 2015). Besides, they mean that those issues may be determinants factors in increasing importance and student satisfaction of educational service issues. This could be used to increase/inspire importance of educational service issues in students using its determinants factors especially of learning-teaching process as IE and CS that facilitate knowledge, practices and attitudes acquirement needed for labor market. Also, student satisfaction could be improved by using its determinants factors. Besides, both could be more improved by taking improvement measures regarding CC, IE and RFAE. That will be contributing to the requirement of higher education reform (OECD, 2015; Zajda and Rust, 2016).

## Methodological considerations:

There are a group of educational service issues' elements that could be differed in the study setting context than the situation of home country of SSI-context as diversity, availability of adequate food selection, and parking matters on campus, beside to academic advising matters (have been rationalized within discussion part). This type of difference of some SSI items has been indicated to in Khosravi et al. (2013). However, the diversity in the study setting could be derived from that many of students are from varied governorates with so little culture difference compared to the original setting of SSI in which diversity derived from highly different original countries that their students comes from. But, there is a strong commitment to diversity on campus scoring higher means of the studied variables with one of the least performance gaps at all, which could be one of strengths in the present study. In addition, the availability of adequate food selection on campus represents a lower priority in the present study as the national results in home country of the SSI  and represent a challenge in the survey conducted in 2013 (The Office of Institutional Research and Assessment, 2013). Parking matters may be as a result of that most of undergraduates of governmental universities mainly had not cars for parking spaces or needed lights for it. But, availability of parking was one of the least important educational services in the present study and ranked the same in another study conducted on United Kingdom by Douglas et al. (2006) in addition to have its highest performance gap at all in Chapman's Institutional Research Office (2014) and Noel Levitz (2014) and the well-lighted and secure parking lots represent a challenge in results of Noel Levitz (2013). However, parking matters on campus represent low status of student's interest as availability of adequate food selection in present study according to Ruffalo Noel Levitz (2015) compared to Chapman's Institutional Research Office (2014) as both are ones of elements that had highest performance gaps in home country of the SSI.

## Conclusions and implications for higher education management:

Totally, IE issue is the most strength point compared to CS issue the most weakness one. However, the highest strengths issues' elements are three for IE, one for AAE and two for CS. They are: valuable content of courses within student's major; using variety of technology and media in the classroom; receiving ongoing feedback about students' progress toward their academic goals; availability of ready tutoring services; adequacy of library resources and services; availability of sufficient courses within program in each term. These highest strengths whether the issues or their elements that could be influenced by being late adolescents/young adult are mainly directly contributing to learning-teaching process effectiveness and good organizational performance regarding educational service administration. In addition, being of adolescents/young adult students as undergraduates in higher education could have its reflections on the present study results on all SSI scales except RFAE, CL, RE and S&S. This could be studied in more depth in a further study. Besides, both importance and student satisfaction of educational service issues are a necessity in higher education. So, supporting both is needed for excellent educational service and successful organizational performance in educational service administration using specially CC, IE and RFAE.

Faculty administration board should urgently take needed measures to improve weaknesses of educational service issues and their elements according to their priorities should be done especially regarding 6-18/45 elements that scored the highest/higher performance gaps at all related to all issues. Also, Faculty administration board should search for causes of low status of some issues and elements.

The present study results are not highly differed from international studies as expected, but they are coincidence with many of the international results conducted using mainly SSI in addition to some others. That is considered strength for the educational institution of present study. Also, it could mean that effectiveness of educational service and its administration in Egypt is not so less than internationals and it is not so difficult to cross matched with, by taking needed corrective measures in the light of present study results and further ones. So it is reasonable to reapply this study again on different faculties and whole universities using SSI.

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