



## The Merger of Medical Universities in Iran: Challenges and Obstacles

Ali Mohammad Mosadeghrad<sup>1</sup>, Reza Majdzadeh<sup>2</sup>, Mohammad Arab<sup>1</sup>, Amjad Mohamadi-Bolbanabad<sup>3\*</sup>

<sup>1</sup> Department of Health Management and Economics, School of Public Health, Tehran University of Medical Sciences, Tehran, Iran

<sup>2</sup> Department of Epidemiology and Biostatistics, School of Public Health, and Knowledge Utilization Research Center, Tehran University of Medical Sciences, Tehran, Iran

<sup>3</sup> Social Determinants of Health Research Center, Kurdistan University of Medical Sciences, Sanandaj, Iran

### ARTICLE INFO

#### Article History:

**Received:** 23 Oct 2018

**Revised:** 24 Dec 2018

**Accepted:** 15 Mar 2019

#### \*Corresponding Author:

Amjad Mohamadi-Bolbanabad  
School of Medicine, -Kurdistan  
University of Medical Sciences,  
Pasdaran Ave, Sanandaj, Iran.

#### Email:

Amohammadi1364@gmail.com

#### Tel:

+98-9189815049

### ABSTRACT

**Background:** Three big medical universities were merged in Iran in 2010, but they separated again after 2.5 years. The purpose of this study was to identify the most important challenges of this merger.

**Methods:** This qualitative study was conducted using semi-structured interviews with 63 participants from April to September 2015. The data were analyzed via conventional content analysis method using MAXQDA<sub>10</sub> software.

**Results:** The merger of universities faced strategic, procedural, structural, contextual, and human resources' challenges. Factors such as the merger's vision, goals, and motives, the stakeholders' involvement, the merger announcement and time, interruption in service delivery, information systems, power balance, organizational structure, geographical distance, organizational culture, employees' reaction, and education influenced the failure of this merger.

**Conclusion:** Merger and acquisition require a well-designed plan for the effective and efficient use of resources to achieve the desired outcomes. Therefore, policymakers should involve universities' managers and employees in decision-making process to achieve the best results.

**Keywords:** Merger, Medical universities, Challenges, Iran

### Citation

This paper should be cited as: Mosadeghrad AM, Majdzadeh R, Arab M, Mohamadi-Bolbanabad A. **The Merger of Medical Universities in Iran: Challenges and Obstacles.** Evidence Based Health Policy, Management & Economics. 2019; 3(1): 32-40.



## Introduction

Universities and higher education institutes are facing tremendous internal and external challenges. A cut in university funding is inevitable during the economic recession and public expenditure reduction (1). Organizations (including higher education) use a variety of approaches for growth, reposition and expansion such as horizontal and vertical integration, downsizing, merger and acquisitions (M&A), market development, and expansion to gain an advantage over the competitors. The reasons for a merger in higher education include increasing students' enrolments, responding to the changing social interests and needs, as well as meeting the new challenges and opportunities including technologies, research, and training (2).

The outcomes of mergers in higher education are quite diverse. Merger and acquisition diversify the academic profiles, widen the access to higher education services, diversify source funding, increase the cohesion and standardisation of curricula, and strengthen the link between teaching and research. They also increase the academic collaboration, enhance knowledge production, increase student enrolments and graduates, decrease the financial dependence on the government, reduce the administrative costs, increase the effectiveness and efficiency, respond to the changing societal needs, and serve better national economic and social goals (3, 4).

However, in practice, organizations face difficulties in their M & A attempts. The negative consequences of M & A includes increased student fees, disparate organizational cultures, staffs' alienation, lack of cohesion due to potential lack of trust and commitment, decreased quality of teaching and research, increased workloads, and unhealthy competition (5-8).

Since 1985, public Universities of Medical Sciences (UMSs) in Iran have been under the supervision of the Ministry of Health and Medical Education (MOHME). The healthcare services and medical education in Tehran provided by three large UMSs including Tehran University of Medical Sciences (TUMS), Iran University of

Medical Sciences (IUMS), and Shahid Beheshti Medical University (SBMU). In October 2010, MOHME merged IUMS with TUMS and SBMU. So, some part of IUMS merged with TUMS and Other parts of IUMS integrated with SBMU (9). Table 1 shows the profile of these universities before and after the merger.

The next minister of health ordered to split off TUMS and SBMU and announced the rebirth of IUMS in March 2013. Accordingly, all parts of IUMS merged with TUMS and SBMU were restructured as IUMS. The merger, its consequences both intended and non-intended, and finally the split off raised questions for policy makers, managers, employees, and students. This study aimed to shed some light on the challenges and obstacles of such a merger.

## Materials and Methods

A qualitative method was employed for conducting this study. Semi-structured interviews were conducted for data collection. An interview question and guide was designed based on the colleagues' opinion, pilot interviews, and literature review.

Semi-structured interviews were conducted with key informants from April to November 2015. Overall, 63 participants, 7 policy makers, 23 managers, 23 staff and 10 students from the three studied universities, were interviewed in the study. Participants selected based of purposeful and maximum variation method from all of levels and vic chancelleries including ministry of health (7 people), vice chancellery for education (24 people), vice chancellery for research (7 people), vice chancellery for curative affairs (7 people), vice chancellery for health (8 people), vice chancellery for management and resources development (6 people) and vice chancellery for student and cultural affairs (4 people). Interviews were recorded with the consent of interviewees. The average interview length was 40 minutes. Data collection was continued until data saturation.

Conventional content analysis was used for data analysis via MAXQDA10 software (10). The

recorded interviews were transcribed verbatim and the codes were extracted from them by reading word by word. Then, the categories and subcategories were obtained using systematic comparison. The researcher prolonged the engagement with data and participants for six months. Member checks and peer reviews were also used to enhance the trustworthiness of the data. More details about participant and analysis are available in Mohamadi Bolbanabad et al (9).

Written informed consent was also obtained from the interviewees. All participants had the right to withdraw from the research at any time and their information was kept confidential. The study was approved by the Ethics Committee of Tehran University of Medical Sciences (TUMS) with the file No. 9121532009.

## Results

The challenges of the merger of TUMS, IUMS, and SBMU derived from the interviews were grouped into five main categories: Strategic, structural, cultural, procedural, and human resource challenges. Table 2 illustrates the 5 categories and 14 subcategories in this regard.

### Strategic challenges

Strategic challenges are those pressures that exert a decisive influence on the merger's likelihood of future success.

### Merger justification

The merger of three UMSs was mainly passive, involuntary, and influenced by the political reasons. The main aim was to establish a world class university. The dean of an IUMS school said that "the main goal of the merger was to have a high rank university in Iran. Therefore, those IUMS departments and units, which could improve TUMS rank were merged with TUMS and the rest of them were given to SBMU" (P.21).

Most interviewees believed that there was no evidence based rationale for the merger. They could not find any obvious policy for the merger, liquidation, and establishment of a university in Iran. The dean of a school said that the structure, content, and rules of the merger were not clearly determined. Although the government merged a

couple of ministries, it determined no policy for universities (P.13)

### Merger vision and goals

The goals and objectives of the merger should be well established and communicated well to the key stakeholders. Top executives of the participating institutions in M&A should specify the goals of M&A, articulate its possible advantages, and be committed to it. The participants indicated no clear goals and vision for the merger of TUMS, IUMS, and SBMU. For instance, the education deputy dean of a faculty said: "what they were looking for in the merger, was not clear. Should we enhance our postgraduate programs and run new fellowship courses? As the goals and the plans were not specified, we did not know what to do in practice (P.13)."

Although the top decision makers at the health ministry level had a vision for the merger of the universities, it was not well communicated to the lower level managers of the participating universities. Some participants even thought that no vision existed for such a merger: "we implemented the merger first and then defined a vision for that (P.5, Dean of a school).

### Stakeholders' involvement

The merger process was "top-down". The universities' top managers and staffs were not involved in the merger decisions. "Some of the top managers of those merged universities did not even know about the merger until the day that it was announced publicly." (P. 5 in TUMS) A vice chancellor of TUMS has also confirmed these statements (P. 43). A senior manager of TUMS also said that "as far as I know, none of vice chancellors of TUMS knew about the merger. I, as a vice chancellor, did not know it. I learned about it from the news and it caused resistance for both sides" (P.46). However, in implementing the merger plan, a committee was established and the opinions and suggestions of managers and staffs were elicited.

### Structural challenge

Structural challenges are those related to the structure of the institutions involved in the



merger. Concepts such as the complexity of departments, task allocation, and coordination are involved in the structure of an organization.

### **Organizational structure**

Merger requires fundamental changes in the structures of the involved entities. Sometimes, more complex interventions should be applied to integrate the organizational structures of the institutions with different structures. In this merger, the main structure of TUMS did not change, but similar schools, departments, and programs of TUMS and IUMS were combined. The same happened in the health and treatment departments of IUMS and SBMU, but the current structures of TUMS did not change. One participant commented: "Merger is a dramatic change. However, it was assumed to be executed with some few small changes. They wanted to keep the old structures and processes. After the merger, for instance, the number of our faculties increased from 19 to 30 persons. This [new] department could be a school itself. If new structures were added to the university, the power would be distributed better (P.9). Lack of structural changes introduced some challenges as some front line managers lost their power and benefits.

### **Power balance**

Power balance between the two pre-merger institutions and establishing a sense of fairness among managers and staffs was a challenge for the executives of the new merged institution. Most participants acknowledged that the host university system was dominant, so that the head, the vice chancelleries, and the school deans of IUMS were dismissed or used as consultants. The most intense fight for power was seen in the appointment of high-level managers. One of the managers said that: "the important managerial positions were not handed to IUMS staff. We felt that we were dealt as the second class citizens." (P.26) "All senior managers such as the chancellor of the university, all vice chancellors except one [the vice chancellor for logistics], and all school deans were chosen from TUMS." (P. 21).

### **Procedural challenge**

The way through which the merger is executed can cause problems to achieve success.

### **Announcement**

Implementation of the merger strategy needs to be carefully planned and priorities, responsibilities, and time schedules should be appropriately identified in this regard. The merger of TUMS and IUMS happened suddenly. Even top and middle managers did not know about it until the minister announced it. One interviewee described: "it happened all of a sudden. I did not know about it. I heard about it through the media" (P.3). A middle manager at the health department of IUMS said: "I found it out from a SMS I received from a friend" (P.34).

The merger was announced suddenly to reduce the resistance. A policy maker said: "We knew that there would be some resistant against the merger. We feared that its execution was not possible afterwards. Thus, we announced it suddenly. A limited number of people, about 15, who were members of a committee, knew about it." (P.45)

### **Timing of merger**

Public universities are dependent to the government budget. The timing of the merger was not good. As IUMS was announced liquidated, its funds were blocked and could not be transferred to TUMS and BSMU. It took about two months to solve the problem. Besides, its occurrence during the academic term caused some irregularities in organizing the classes for students. One of the professors stated that "we were in a shock. We did not know about the assertiveness of this decision. Some thought it may be reversed. So, there were some problems in running the classes regularly". (P.15)

### **Interruption in service delivery**

All merged organizations and departments experienced delays in service provision, which is mainly due to the delays in appointing middle managers of the new TUMS. In the first 2-3 months of the merger, most activities and programs of the educational and health departments stopped due to the lack of enough

budget, increased workload, and middle managers' turnover. One interviewee said that "health indicators fell down in the first 3 months of the merger" (P.34).

Students also faced challenges, such as unclear future plans, increased number of students in the classes, decreased interaction of the professors with students, unclear situation of training and practical courses in the hospitals, as well as concerns about the process of finishing theses and dissertations. One professor said: "As the number of students increased, we had less time for students" (P.6).

### **Contextual challenge**

The organizational context includes the circumstances that form the setting for an organization.

### **Geographical distances**

Geographical distances increased the administrative costs and caused some social, cultural, and academic tensions among those involved in the merger of TUMS and IUMS. One participant highlighted that "It was not feasible to merge some schools. Thus, they remained as campus 1 (Hemmat) and campus 2 (Poursina). This was the start of a conflict, because we were in campus Hemmat and they were in campus Poursina" (P.45). In addition, an employee said that "As these two universities were far away from each other, it caused some resistant from the staffs, since they had to move their homes and change their children's schools" (P.12).

### **Organizational culture**

Organizational culture defines the behavior of staffs in an organization and influences the performance of the organization. Therefore, the integration and collaboration between staffs in a post-merger organization are strongly dependent on the configuration of their internal values and cultures. Although all three universities involved in the merger, were public and affiliated to the MOHME, they had different organizational cultures in terms of policies, values, procedures, and application of technologies. Participants believed: "The system of TUMS was more formal

and based on tough rules and regulations. It was hard for us at the beginning to match up with it" (P.4). A staff of TUMS also added: "They did not respect the administrative regulation. For instance, the regulation says that employees cannot reserve more than 15 days of their allocated leaves. They did not want to act based on that" (P.14).

### **Human resources' challenge**

Employees' resistance can be a serious challenge to the M&A. The negative attitudes felt by employees resulting from clashes between the organizational cultures of the merging institutes influenced the M&A negatively.

### **Employees' reaction**

Merger can be stressful and demoralizing for employees. It also can result in employees' anxiety and lower satisfaction due to their commitment to the previous institution, job stress, unclear duties, and loss of their jobs or managerial posts caused by the downsizing. Employees worried about their status, salary, and benefits. The reaction was a bit tough in the education department as the academic staffs of the schools felt a sense of seniority. A senior manager at TUMS said: "some professors of IUMS did not like to work under the supervision of other academics from another university in some [academic] departments" (P.11).

The lack of employees' commitment may result in tensions, staff turnover, and even resignations in the merged institutions. An interviewee stated: "I know some professors who did not use TUMS affiliation in their published papers. They used IUMS as their affiliation even at the time of merger. They did not accept TUMS. Professors said: "we wanted to be academic members of IUMS. They had organizational commitment to IUMS." (P.2)

### **Employees' education and training**

Education and training should be provided for managers and employees on systems, technologies, and work procedures during the post-merger. A manager at TUMS stated that "employees who entered the post-merger



institution were like the new staffs. They should get acquainted with our regulations and working procedures. Unfortunately, we did not have a specific standard protocol for it. Some departments provided education for the newly

joined staffs and some did not". (P.44) A SBMU staff also indicated that "It took time for them [new staffs] to get familiar with our methods of performing jobs. (P.33)

**Table 1.** Profile of three merged universities (2010)

	Before merger			After merger	
	TUMS	IUMS	SBMU	TUMS	SBMU
Schools	10	6	11	11	11
Research centers	55	26	40	81	40
Students	11150	6200	13000	17350	13000
Academicians	1312	750	1153	2062	1153
Educational hospital	16	10	12	26	12
Non-educational hospital	-	7	6	-	13
Health networks & health center	3	7	10	3	17

**Table 2.** Main categories and their subcategories

<b>Strategic challenges</b> <ul style="list-style-type: none"> <li>• Vision and goals</li> <li>• Merger justification (Motives)</li> <li>• Stakeholders' involvement</li> </ul> <b>Structural challenges</b> <ul style="list-style-type: none"> <li>• Organizational structure</li> <li>• Power balance</li> </ul> <b>Procedural challenges</b> <ul style="list-style-type: none"> <li>• Merger announcement</li> <li>• Timing of merger</li> <li>• Interruption in service delivery</li> </ul>	<b>Contextual challenges</b> <ul style="list-style-type: none"> <li>• Geographical distance</li> <li>• Organizational culture</li> </ul> <b>Human resources challenges</b> <ul style="list-style-type: none"> <li>• Employees reaction</li> <li>• Education and training</li> </ul>
---	---

## Discussion

In this study the merger process of three large universities in Iran were described and their challenges during the integration and post-merger periods were identified. The determined challenges were grouped into five categories including strategic, contextual, structural, human resources, and procedural challenges.

A lack of justification was found as a main blocker to the merger of TUMS, IUMS, and SBMU. Due to a variety of reasons, such as the increase of access to higher education services, quality improvement of services, national and international development of higher education institutions' productivity and competitiveness (4, 11, 12). Hinfelaar (2012) classified the merger driving forces into push and pull factors. Higher education institutions may consider the merger as an opportunity for better position in the education market to gain competitive advantages. As a result,

they may use strategies and tactics such as economy of scale and scope as well as vertical and horizontal integration to use their resources and facilities efficiently. Therefore, higher education institutions spend less money per students (13).

The case of TUMS, IUMS, and SBMU merger was politically driven and the decision was made by the MOHME to push the post-merger universities to compete internationally. The key stakeholders of these universities were not involved in the decision. A challenging question is about the advanced notification of managers and employees with regard to the upcoming M&A. Top authorities in ministry of health of Iran did not announce the merger in advance to prevent from the possible resistance. The idea was to announce it all of a sudden and the stakeholders did not have any choice to adapt with it. Thus, the surprise M&A was associated with the protection of M&A.

Planning is an important phase of the merger process. Top managers of the participating institutions in M&A should create clear vision, mission, goals, objectives, values, and policies of the new institution and inform the faculty members and staffs about them (14). Top executives should also predict and control the inevitable hostilities in planning the merger (15). A shared vision provides a rationale for the change, clarifies the direction of the new organization, unifies people from different institutions and departments, and generates shared values about the purpose of new organization (16). This vision should retain the strengths of the merging universities and be responsive to the external pressures (12).

The key stakeholders should be involved in important decisions such as governance, as well as program and curriculums' integration. Managers and employees' participation in the early phases of the merger process attracts their support for the change. A top-down approach was applied in implementing the merger strategy at TUMS. The faculty members and staffs were not engaged in the merger decision-making process. Similarly, Skodvin (1999) highlighted that the top-down approach of merger led to high conflicts (17). Furthermore, involvement of more managers and staffs generates a momentum to identify the challenging areas prior to incidence (18).

Organizational culture is an essential element in the success of merger (19-21). A major reason for the merger failures is the ignoring or misunderstanding of the organizational culture (22, 23). Cultural incompatibility and culture clashes results in many post-merger problems. Cultural patterns, values, beliefs, and behaviors inside the organizations may act as obstacles to bring different organizations together (24). Greater differences between the two merging institutions lead to greater success of the merger (17). Therefore, university top executives should be sensitive to the cultural values of the merging institutions and manage the merger process to integrate the divergent cultures harmoniously.

Geographical distances between the institutions may also act as a deterrent for the merger and pose

obstacles to attaining the merger's goals. Geographical distance affects the quality of communication and increases the cultural, social, and academic tensions as well as conflicts among the managers and staffs (25, 26). It also affects their co-operation in teaching and research activities. In this case, universities try to rely on ICT infrastructures to overcome some shortcomings and improve the relationship between the campuses. Closer institutions have greater chance for successful merger (16, 17).

The TUMS, IUMS, and SBMU merger involved fast and intensive structural, managerial, and operational changes that occurred immediately after the M&A. The changes should take place over a longer period of time to learn about its new institution's structures and subcultures (27).

The comparability of TUMS and IUMS in size and capacity made power balance difficult for the top managers. The most intense fight for power was observed in the appointment of high-level administrators. The top managers were selected from TUMS and this caused some resistance from the IUMS managers and staffs. Wan & Peterson (2007) reported a case of integration of two large universities in China ("Sichuan University and Chengdu University of Science and Technology"). They reported that instead of selecting the best candidate for a certain position, they decided to balance the two sides. For instance, if the president of the new institution was from CUST, the vice president must be from CUST. This rigid arrangement appeared to be fair to both sides, but at the cost of administrative effectiveness (28).

Successful M&A relies on the motivated and committed employees. Employees usually respond negatively to mergers (29). They may express their opposition in post-merger, which may result in a drop in productivity (30). merger success is strongly related to their organizational commitment of employees to the merged organizations (31). So, top and middle managers should control the employees' perceptions about the merger, realize the employees' responses, and participated them in the process of merger.



## Conclusion

Quick and sudden announcement of the merger, lack of involving the main stakeholders in the decision making process, power imbalance, cultural differences, and loss of organizational identity were the main challenges of failure in merging IUMS with TUMS and SBMU. This created other problems that finally contributed to the failure of the merger. Therefore, policy makers should define the vision, clarify the goals and objectives, and involve the senior managers in the merger decisions. In universities and higher education institutes, academics should be involved in the decisions due to their power.

## References

1. Miller HD. The Management of Change in Universities: Universities, State and Economy in Australia, Canada and the United Kingdom: ERIC; 1995.
2. Mapesela M, Hay H. Through the magnifying glass: A descriptive theoretical analysis of the possible impact of the South African higher education policies on academic staff and their job satisfaction. *Higher Education*. 2005; 50(1): 111-28.
3. Barton L. On the Cutting Edge: Rethinking Governance in Inter-Institutional Cooperation Arrangements in Higher Education. *College Quarterly*. 2005; 8(1):n1.
4. Cheong Cheng Y, Mao Y-Q, Mao Y-q, Du Y, Liu J-j. The effects of university mergers in China since 1990s: From the perspective of knowledge production. *International Journal of Educational Management*. 2009; 23(1): 19-33.
5. Goldman GA. Exploring academics' experiences of a merger in higher education: The reflective experience of mergers (REM)-framework. *African Journal of Business Management*. 2012; 6(14): 4862.
6. Lang DW. There Are Mergers, and There Are Mergers. *Higher Education Management and Policy*. 2002; 14(1): 11-50.
7. Mildred G. Launching the unified national system: What happened in South Australia. *Higher Education*. 2002; 44(1): 29-51.
8. Wood F, Meek L. Over-reviewed and underfunded? The evolving policy context of Australian higher education research and development. *Journal of Higher Education Policy and Management*. 2002; 24(1): 7-25.
9. Bolbanabad AM, Mosadeghrad AM, Arab M, Majdzadeh R. Impact of Merger and Acquisition on University Performance. *Archives of Iranian medicine*. 2017; 20(8): 518.
10. Hsieh H-F, Shannon SE. Three approaches to qualitative content analysis. *Qualitative health research*. 2005; 15(9): 1277-88.
11. Harman K, Meek VL. Introduction to special issue: "Merger revisited: international perspectives on mergers in higher education". *Higher Education*. 2002; 44(1): 1-4.
12. Ursin J, Aittola H, Henderson C, Välimaa J. Is education getting lost in university mergers? *Tertiary Education and Management*. 2010; 16(4): 327-40.
13. Patterson G. Findings on economies of scale in higher education: Implications for strategies of merger and alliance. *Tertiary Education and Management*. 2000; 6(4): 259-69.



14. Paulson E. Inside Cisco: The real story of sustained M&A growth: John Wiley & Sons; 2002.
15. Martin J. Merging Colleges for Mutual Growth. A New Strategy for Academic Managers: ERIC; 1994.
16. Clark DM. Student perceptions of organizational cultures and identities in a university merger: A case study of New York University and Polytechnic University of New York. 2009.
17. Skodvin O-J. Mergers in Higher Education--Success or Failure? Tertiary Education and Management. 1999; 5(1): 63-78.
18. Nguyen H, Kleiner BH. The effective management of mergers. Leadership & Organization Development Journal. 2003; 24(8): 447-54.
19. Hartog V. The impact of perceived uncertainty on culture differences in the post-acquisition process to strategy realization. Mergers and Acquisitions Creating Integrative Knowledge. 2004: 212-31.
20. Carleton JR, Lineberry C. Achieving post-merger success: A stakeholder's guide to cultural due diligence, assessment, and integration: John Wiley & Sons; 2004.
21. Davies HT, Nutley SM, Mannion R. Organisational culture and quality of health care. Quality in Health Care. 2000; 9(2): 111-9.
22. Grossman RJ. Irreconcilable Differences: Addressing cultural issues can help two companies live happily ever after as one. HR MAGAZINE. 1999; 44:42-9.
23. Sherer JL. Corporate cultures. Turning" us versus them" into" we". Hospitals & health networks/AHA. 1994; 68(9): 20-2, 4, 6-7.
24. Denis JL, Lamothe L, Langley A. The struggle to implement teaching-hospital mergers. Canadian Public Administration. 1999; 42(3): 285-311.
25. Kyvik S. The merger of non-university colleges in Norway. Higher Education. 2002; 44(1): 53-72.
26. Ahmadvand A, Heidari K, Hosseini H, Majdzadeh R. Challenges and success factors in university mergers and academic integrations. Archives of Iranian medicine. 2012; 15(12): 736.
27. Quah P, Young S. Post-acquisition Management:: A Phases Approach for Cross-border M&As. European Management Journal. 2005; 23(1): 65-75.
28. Wan Y, Peterson MW. A case study of a merger in Chinese higher education: The motives, processes, and outcomes. International Journal of educational development. 2007; 27(6): 683-96.
29. Hay D, Fourie M. Preparing the way for mergers in South African higher and further education institutions: An investigation into staff perceptions. Higher Education. 2002; 44(1): 115-31.
30. Miller VD, Medved CE. Managing after the merger: The challenges of employee feedback and performance appraisals. Management Communication Quarterly: McQ. 2000; 13(4): 659.
31. Arnolds CA, Stofile RN, Lillah R. Assessing the outcomes of the higher education mergers in South Africa: Implications for strategic management. Acta Commercii. 2013; 13(1): 1-11.