

Outsourcing in Health Facilities: Challenges in Medical University of Isfahan in Focus

Abstract

Introduction: Outsourcing is one of the major strategies for keeping competitive gain in today's highly varying markets, especially in health systems. This study endeavored to identify operational challenges of outsourcing health facilities affiliated to *Isfahan University of Medical Sciences* in the academic year 2019. **Methods:** This qualitative study was conducted with content analysis approach. To conduct the interview, key informants were from the managers of health facilities and decision makers of health deputy and managers from private sector were selected through purposive sampling. The saturation point was reached at 12 semi-structured interviewees; this way, data were collected through interviews with experts. A thematic analysis was employed to analyze the transcriptions by MAX QDA10. **Results:** According to the results of thematic analysis, seven major themes identified as operational challenges of outsourcing health services in health facilities with 40 sub-themes. **Conclusions:** Outsourcing health services in health facilities needs to be done more scientifically and logically. Decision makers must predict the challenges and apply solutions before outsourcing, supervise, and evaluate the impacts of outsourcing after at least 1 year.

Keywords: Challenges, health facilities, health services, outsourced services, qualitative research

Introduction

Nowadays, health organizations have found that presence in global markets requires maintaining and up to dating the main competency strategies (i.e., specialized skills and knowledge that create competitive advantages for an organization). Privatization can be considered as one of the four principles of "structural reforms" in economics.^[1] The Islamic Republic of Iran has paid special attention to privatization policies, especially in its third and fourth development plans. Based on the announcement of the Supreme Leader of the Islamic Revolution and regarding the general policies of developing non-governmental sectors and preventing the growth of the public sector, the emphasis has been on minimization through Article 44 of the Constitution,^[2] the Privatization of Organization; in tandem, the distribution of equity shares shows the policy makers' persistency the determination of policy makers in Iran. The word "outsourcing" denotes the "use of external resources." In the previous literature, there are several definitions of

outsourcing, although the definitions have commonalities and differences. Outsourcing is defined as an action to provide goods or services capitalizing on external resources.^[3,4] Outsourcing services can have several objectives such as increasing efficiency, productivity, firms' profitability, competition and service quality, improving income distribution, creating a self-interest incentive system, increasing employees' attachment, adjusting subsidies, reducing the loss of governmental corporations, and government intervention in the economy, eliminating the budget obtained from, the efficient use of existing expertise, and the liberation from bureaucracy.^[2] Among these major objectives of outsourcing services, it should be noted that doing this category in health systems and provision of health services has become more important. The state-of-the-art topic in political and macroeconomic debates in our country. To reduce ownership according to Articles 192 and 194 of the Fourth Development Plan of the country in the year 2003, The Ministry of Health in order based on the provision of a suitable platform for increasing community participation in decision-making, implementation and evaluation, has delegated activities or

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redemption.^[5] Using outsourcing, specialized organizations can better focus on activities that have more value added and increase the effectiveness of their activities.^[6] Studies have shown that privatization and outsourcing in various countries were useful experiences and valuable results have been obtained, but in many cases, this is not applicable in this regard.^[7] There are many reasons to outsource services, including reducing costs, increasing efficiency, focusing on core processes, improving skills, reducing service delivery time, and increasing competitive advantage.^[8]

Literature has shown that outsourcing, even logistic services, can lead to improvements in the quality of all logistic and health services. Outsourcing could affect being inputs of the healthcare delivery process, and so could result in improvements of the quality of these services.^[9] Research has indicated that one of the major reasons for the failure of outsourcing projects is adopting wrong decisions in applying the strategy. Many executives employ the outsourcing strategy as a solution without properly recognizing the status-quo, which ultimately undermines this process.^[10] Recently, considering the importance of outsourcing in healthcare and its role on financing, reducing costs, improving quality of health services, the health services as other sectors, have selected outsourcing as a major strategy.

In second phase of Transformation plan of health services in Iran, health deputies were required to develop more volume and diversity of Primary Health Care (PHC) services to the population. Whilst health system encountered scarce resources to provide these services, outsourcing health services mainly service purchasing selected as a main strategy. Accordingly, different units of PHC level (urban and rural health centers and health posts) outsourced some of the services from private companies and encountered some challenges.^[11]

In Isfahan, some PHC services were outsourced to private sectors. Thus, this study was conducted aimed to identify the challenges of outsourcing health services in affiliated health facilities of Isfahan University of Medical Sciences (MUI).

Methods

Study design

A qualitative study using Content Analysis Approach was employed to explore the challenges of outsourcing in health facilities (PHC level) affiliated MUI. This study was conducted in the academic year 2018.

Setting and sampling

The population includes all key informants related to the outsourced projects in MUI such as Health deputy managers and experts. To identify and select key informants, purposeful sampling technique with a maximum variation approach was used. The major inclusion criterion was

having at least experience in outsourcing in health facilities. Key informants were excluded for this study if they had an experience <3 years or cancelled the interview meeting more than three times.

Data collection

Data were collected using face-to-face semi-structured interviews with the participants. An interview guide was developed according to the research objectives and two in-depth interview with the key informants with more experience in this regard. To check the validity of the interview guide, initially the prompts of the interview were examined by the among research team and revised. One of the members of the research team had experience of working in health deputy as technical manager before and revised, accordingly. Later, the interview guide was tested on three non-participants to verify the number and order of the prompts in the study.

Interviews were conducted by one trained member of the team. The interviews continued until data saturation till no additional data collection was necessary. Finally, 12 face-to-face semi-structured interviews were carried out.

All the interviews were tape recorded by interviewee's permission (with participants' informed consent) and transcribed by the interviews lasted about 60–75 min, with an average of 65 min.

Data analysis

A thematic analysis was used to analyze the transcribed interviews through MAXQDA 10. The guide suggested by Braun and Clarke^[12] was employed to conduct thematic analysis. So, these steps were done: (1) Two of the researchers (MS, and NS) familiarized with data by immersing themselves in the data by listening to challenges of outsourcing in health facilities, and reading transcribed data; (2) the initial codes from the data were developed. The basic segment and repeated interesting patterns were identified and related to each code; (3) after all the data were coded, codes were combined to an inclusive theme. In this stage, sub-themes were identified; (4) The themes were reviewed and refined with the main members of the team; (5) Defining and naming of themes was done. Moreover, paraphrasing the themes, overlaps between themes and sub-themes and their relations to others were reviewed; (6) the report was produced and publication wrote-up.

To assess the quality of this study, the authors ensured four criteria proposed by Lincoln and Guba.^[13] Credibility was ensured with a prolonged engagement of the researchers (enough time was allocated for data collection and analysis data) and respondent validation (the researchers presented some transcribed interviews to the participants and asked them to ensure that there is correspondence between their findings and the participants' perspectives).

Transferability of the findings was enhanced through purposive sampling. Dependability of the study was done by auditing the coding process and of transcribed Interview by an external auditor. Enhance conformability, we did not allow our personal values and experiences to conduct the research and its findings. To enrich data, we analyzed the collected data according to the research objectives as well as served field notes to enrich data.

Ethical considerations

This study received the required ethics approval from MUI Research Ethics Committee with ethics code No. IR.MUI.REC1396.3.320. Moreover, participants' informed consent was acquired from all study participants and assured their anonymity and confidentiality of any information they might present. They were informed about the optional nature of the study.

Results

In Isfahan, there are 23 health networks in cities of Isfahan the health centers and health posts of those health networks listed in the Table 1 were outsourced through bidding in 14 cities (city, suburbs, and villages) according to a specific contract.

Among the interviewees, 40% (5 interviewees) were females and 60% (7 interviewees) were males. Ten were from public sectors (decision makers in health deputy and related deans of health facilities) and 2 person were from private sectors that contracted for delivery of PHC services in different health networks affiliated MUI. Other characteristics of interviewees are shown in Table 2.

In the conducted interviews, 75 codes were extracted that in the classifications, these codes are divided into seven main

themes and 41 sub-themes [Table 3]: financial challenges (6 sub-themes), technical challenge (9 sub-themes), human resource challenges (10 sub-themes), social and cultural challenge (5 sub-themes), challenges related special contract format (3 sub-themes), inter-sectoral and upstream challenge (5 sub-themes), physical and infrastructure challenges (3 sub-themes). Because of similarity some sub-themes were removed as well.

Financial challenges

Financial aspect was considered the major in outsourcing of health services in Isfahan, which in turn was a major reason of the emersion of other existing challenges.

Increasing the services that can be provided to the covered population on the one hand and the cost of these services for free on the other hand; in addition to considering short-term periods and requiring authorities to speed up the transfer of projects to the private sectors, the financial burden was imposed on the university. It has suddenly experienced the ascending trend and it reached a financial stalemate. These challenges have been exacerbated by delays in the payments and deductions by the ministry. In addition, during the outsourcing services, the financial burden and the overhead costs of outsourcing projects, including equipment, salaries, and benefits of personnel, the cost of water and electricity so on, have been up to University's Deputy for Health, and there has been no reduction in public costs.

The outlined policy for outsourcing has not considered the financial credit of Transformation plan until the end of it and only a credit is given at the beginning of the plan and not seen any institutionalized funding to continue.

Table 1: Information of outsourced Centers and posts

Total number of health centers and posts in Isfahan	The number of outsourced health posts	The number of health centers outsourced	The number of humans employed through outsourcing	Outsourced population in Isfahan
163	99	64	1447	1674471

Table 2: Characteristics of participants

Participant no.	Education	Organizational status	Job experience	Service location
1	Ph.d	Chief person	28 years	Public sector
2	Ph.d	Dean	27 years	Public sector
3	Ph.d	Dean	15 years	Public sector
4	Msc	Assistant (secretary)	19 years	Public sector
5	Msc	Assistant (secretary)	27 years	Public sector
6	Msc	Dean	22 years	Public sector
7	Msc	Dean	28 years	Public sector
8	Bsc	Assistant (secretary)	19 years	Public sector
9	Msc	Assistant (secretary)	15 years	Public sector
10	Msc	Dean	10 years	Public sector
11	Msc	Service provider	21 years	Private sector
12	Msc	Service provider	18 years	Private sector

Table 3: Summary of Analytical Study Results

The main theme	The sub-theme
Financial challenges	No change in the financial burden on the health deputy Lack of institutional funding for the Transformation Plan Free provision of health services according to transformation plan High rate of overhead costs Delay in payments and the existence of deductions financial burden due to infrastructure standardization
Technical challenge	Unclear degree and credit of private contracting companies Lack of proper mechanism for monitoring contracting companies Existence of duality in filing health records Problems in developing and delivering service packages The lack of private specialized health care providers in PHC level Problems in managing private companies The existence of technical problems for the supply of forces by private companies Problems due to the macro and ineffective definition of the marginal areas of the city Problems in communication between centers and referral system
Social and cultural challenge	Scaling up of the population expectations after implementation of transformation plan Lack of community acceptance of the facilities and infrastructure provided Outbreak of mental diseases in marginal areas Temporary residence of individuals specially in marginal areas Weak Coordination in providing services in marginal areas
Human resource challenges	Challenges related to supplying the project human resource and tests Lack of familiarity with the Transformation Plan and its implementation mechanisms Lack of human resources, especially in rural areas Disproportionate number of personnel employed in the Transformation Plan with population per capita Human resource moderation due to lack of credit Lack of human resources due to lack of credit Lack of sufficient incentive for human resources to serve with high quality, especially in rural areas Lack of some service human resources Lack of job security due to inappropriate deployment of transformation plan Problems with working hours of personnel employed in the project
Inter sectoral and upstream challenges	Differences between views of the Insurance Organization and the Ministry of Health Lack of inter-sectoral coordination Inflexible instructions Uncertainty in planning due to lack of credit Centralized planning and policy-making
Physical and infrastructure challenges	Lack of facilities and infrastructure Weak standardization of infrastructures through high cost Non-compliance with occupational health, environmental and public health standards
Contract challenges	Problems during the project implementation due to the lack of outsourcing history The lack of familiarity of private companies with the specific format of university contracts The high diversity and variety of contracts and the lack of flexibility

“The problem of financing the project is very serious, in addition to Isfahan, even the ministry faces the problem of financing and so that in 1395, as the plan and project progressed, not only the credit for continuing the project did not increase, but also this year’s credit (1396) was less than 50% of last year credit in Isfahan” (Interviewee No. 6).

“Last year, we found that the National Planning and Development Organization were unable to provide funding for the Health System Transformation Plan as in previous years, and about 50% of the resources and funding allocated to this plan have been reduced, which

is said to be the budget deficit for the coming years that this is the biggest challenge facing outsourcing of health services project to the private sector in Isfahan and other provinces” (Interviewee No. 2).

Technical challenges

According to the interviews, although lack of proper financing and weak institutional funding for the project has been very challenging, the foundation of the implementation challenges of health service outsourcing projects was technical and structural challenges in Isfahan

that there was no proper technical analysis, and there was no complete nobility at the macro-level of the ministry, nor at the universities.

“Focusing the macro planning of the project on the headquarters of the Ministry and management Organization and non-use of regional and provincial universities’ perspectives in the planning of the this project has caused the closure of universities and lack of flexibility in the project; this way actions can be beyond our control” (Interviewee No. 2).

“Another existing challenge in the project is the technical problem, so that in most centers, due to overcrowding, high workload and lack of opportunity, physicians merely provide health care while according to our primary goal physician is as manager and coordinator of health plans and followers and supervisors of health and preventive services and manage the manpower under their control, not being the mere copywriter, and keep in touch with the population under cover, which unfortunately, this has not yet been realized “(Interviewee No. 3).

Social and cultural challenges

Another challenge of the implementation of health service outsourcing in health facilities affiliated to MUI was related to the specific cultural and social characteristics of urban areas, suburbs, especially villages, that due to culture and the specific traditions and customs of these areas have caused numerous challenges and problems in the proper implementation of the plan. In fact, cultural factors, especially on the suburbs, have led to less use of the services provided.

“Due to the dispersion and diversity of individuals on the outskirts of town, it is challenging to work in such areas, because it is so difficult to coordinate the ideas and beliefs of the population under cover and to convince them to take advantage of the potential arose, especially in the serving scope, why that the serving literature in the health sector is very different from the treatment sector and the outpatient sector” (Interviewee No. 1)

Human resources challenges

Another challenge in implementing outsourcing in health facilities has been the difficulty in recruiting and retaining human resources, which has led to many other challenges and problems. Large number of job seekers graduated from medical universities and take part in the recruitment test had many difficulties for the health deputy of the MUI. In addition to the lack of human resources and their restraints because of insufficient budget, weak familiarity with the transformation plan and its implementation mechanisms, disproportionate number of personnel with population per capita, lack of job security due to inappropriate deployment of transformation plan, and problems with working hours of personnel employed were the human challenges.

Some of these are resulted due to financial barriers of health transformation plan and some of them are related to technical barriers.

“The problem of project staffing, project tests, and the large number of candidates for employment in the project and the large number of graduates and unemployed in various fields of medical science who were all expecting to be recruited into the project and we had faced with a broad assault of volunteers, as well as various health companies, to participate and work in the project at the time of launching it. While we were limited in the use of force and it was impossible to use all of these forces “(Interviewee No. 6.)

Inter-organizational and top-down challenges

Another major challenge of outsourcing of health services is related to inter-health organizations like policy makers and executive’s organization including the Ministry of Health, Treatment and Medical Education, insurance agencies and other similar institutions as well as legal and upstream documents. Many of the challenges in this sector can be due to the centralized policy making and planning and a lack of attention to the needs and requirements of service providers. In addition, poor inter-sectoral coordination between the health department and other health-related organizations such as insurance, differences in the attitudes of these organizations on how to provide and build up financial support, and inflexibility of instructions have been among the inter-sectoral challenges affecting the outsourcing of health services.

“Another challenge in this area is the lack of cross-sectorial coordination, as it was to companies that provide healthcare services, are tax deductible, but at the time companies go to the Tax Office do not pay attention to companies’ tax exemptions with the various excuses, which this matter, in turn re-creates additional financial burden for the university and also causes tensions and problems between us and other organizations” (Interviewee No. 5).

Physical and infrastructure challenges

Regarding to the fact that outsourcing plans are mostly carried out in health centers of outlying and rural areas, naturally, these areas have had a number of infrastructure problems that have challenged the deployment and implementation of the project.

“Lack of facilities, equipment, physical space and lack of some medicines in some remote areas are other major challenges for us” (Interviewee No. 8).

Challenges related to specific contracts format

Another major challenge in order to implantation of health service outsourcing projects in the Isfahan is that this project was first implemented seriously and there were no previous experience in services outsourcing especially

health services. Also, the uncertainty and lack of a specific and uniform format for contracting with private companies has created another type of challenge in this area.

“It was a new project and a new idea that has never been done to date. It is consider new because it requires a specific type and new format of contract which there was not any similar one for it already in the Health Chancellor. Also at this time, we do not have the same and special format, therefore, each university has to plan separately for doing it and set up its own contract format and conduct bids for the outsourced services. This novelty and lack of experience as well as the unevenness of the format in the contracts due to high diversity of services and contracts type is one of the serious challenges for us“ (Interviewee No. 6).

Discussion

This study endeavored to identify challenges in outsourcing healthcare services in PHC services in Iran, Isfahan Province, based on a qualitative approach. The results revealed that there are seven themes including financial, technical, social and cultural, inter-sectional and upstream, physical and infrastructure, and contract related challenges. Some of these challenges are related to being new of the outsourcing in primary healthcare facilities because outsourcing was previously much less used in the primary healthcare facilities and most of the outsourced services in this sector were logistic; thus, there was weak experience about implementing outsourcing in health deputy of medical universities.

The main sub-themes of the financial challenges of outsourcing in health facilities were lack of institutional funding for outsourcing under the Transformation Plan, high rate of overhead costs, delay in payments and the existence of deductions, and financial burden due to infrastructure standardization. The results indicate that the financial burden on health deputy was not changed after outsourcing; it may be because of increasing in the volume and diversity of services. Some of the challenges are due to less use of outsourcing in the health sector. A study by Sajadi Asl *et al.* has shown that financing challenges are one of the most important challenges in this area. These include late payment by insurance organizations, rising overhead costs, and price fluctuations in goods and medical equipment; thus, this corroborated this study results.^[14] The other study by Rasi *et al.* also emphasizes on insurance and tariffs challenges, weak costing and unspecified cost price of services before outsourcing and lack of financial resources.^[15] The results of a study by Alizadeh and Torabi pour confirms the results of this study in the field of unspecified tariffs and lack of cost price.^[16]

Most of the technical challenges are related to private sector. Lack of powerful companies, weak management, technical problems for the supply of human resources are the challenges in filing health records related to private

sector. Some of them are related to health system such as problems due to the macro and ineffective definition of the urban and suburb areas and weak referral system. The study by Rasi *et al.* corroborate the study in the field absence of a strong and enthusiastic private sector^[15]

Social and cultural challenges are related to the community and are not in the authority of the university but they are so important because of their impact on health of the population. The study results show that these factors encountered health sector to some challenges to achieve their goals. A study by Casado *et al.* (2012) in Nigeria aimed to examine the challenges and opportunities for outsourcing software development has suggested that the main challenge is the lack of knowledge about the culture and customs of the population.^[17]

The results showed some of the human resources challenges are related to lack of financial resources allocated to second phase of Transformation Plan. These are lack of human resources especially in rural areas; workforce moderation, lack of some services, lack of sufficient incentive for human resources to serve with high quality and Lack of job security due to inappropriate deployment of Transformation plan. Some of them are related to individuals such as unfamiliarity with the Plan. Sajadi Asl and Rasi also point to the issue of job insecurity and the consequent reduction in employee commitment^[14,15]

Difference between views of the Insurance Organization and the Ministry of Health, uncertainty in planning, centralized planning and inflexible instructions and lack of inter-sectoral coordination are the inter-sectoral challenges that are related to inter-sectoral leadership role of the Medical University in every province and ministry of health in the country. These challenges are consistent with the planning challenges addressed by Rasi *et al.*^[15] Lack of knowledge and expertise, lack of trust between different stakeholders and contracting parties were barriers to outsourcing according to Laamanen *et al.* that is consistent with the present study.^[18]

Physical and infrastructure challenges are due to the lack of sufficient funding and they themselves reduce the quality of services. Alizadeh *et al.* addressed only to lack of funding for outsourced units.^[16] The other studies did not reported infrastructural challenges of outsourcing with this classification.

Lack of outsourcing history, lack of familiarity of private sector with the specific format of university contracts, diversity and variety of contracts and the inflexibility in interactions and contract items along with insufficient supervision of managers outsourcing faces many problems. Challenges related to contract format has an important function in increasing trust between the parties and this is in line with other studies such as Laamanen *et al.*^[18] Also Alizadeh's *et al.* study addressed legal challenges of outsourcing that include defects in the drafting of contracts,

Legal defects in contractor selection indicators and Lack of transparency in outsourcing rules that don't confirm some of the results of this study.^[16]

According to this study outsourcing in health facilities faces by some challenges that can lead it to fail. The failure is indeed the result of not consider to the related factors. Therefore we can say that outsourcing in health can be useful and successful if decision makers view all the aspects of outsourcing.

One of the limitations of this study was the low number of interviewees because the lack of key persons about outsourcing health facilities. This was exacerbated by a lack of access to some of the experts in the process. This study was conducted in Isfahan.

Conclusions

This study has shown that there are some challenges about outsourcing healthcare services in health facilities. Some of these challenges are related to upstream organizations such as Ministry of Health and also legislative organizations, some are related to medical universities and the others related to private sector. The managers of health deputy of medical universities are responsible for decision making about outsourcing these services. They should pay attention to potential challenges and predict and utilize solutions to the potential challenges before outsourcing, supervise more comprehensively and evaluate the impacts of outsourcing after at least one year. The authors suggest that decision makers need to be trained in this regard. The findings of this study can help authorities to consider different aspects of outsourcing health services.

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Conflicts of interest

There are no conflicts of interest.

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References

1. Alvani M, Ashrafzade A. Outsourcing, A Guide for Manager Decision Making in Services Outsourcing. Tehran: Ghasidesara

publication; 2004. [In Persian].

2. Saharkhiz H, Anoosheh M. Assessing the obstacles of outsourcing in nursing. *J Nurs Manag* 2015;4:29-36.
3. Khorasani A, Ghahremani M, Mirahmadi KH. The challenges of outsourcing provider education institutions of education, training managers. *Quarterly J Training Development Human Resources* 2014;1:1-29.
4. The Thirth Economic, Political and Socio-Cultural Development Plan (2000-2004) of Islamic Republic of Iran. Retrieved from <https://behdasht.gov.ir>. Available from: Website of the Expediency Council: <http://MASLEHAT.IR>. [Last accessed on 2008].
5. Rafeie M. Comparative study on performances of companies in privatization pre and post privatization in Iran. [MSc theses]. MBA. Tehran: Tarbiat Modares University. Tehran; 1995. [Persian].
6. Salmani MR, Rashidian A, Abolhassani F, Majdzadeh R. Assessing experiences of outsourcing urban health posts: Facilities and services offered in publicly owned and outsourced health posts in Tehran University of Medical Sciences. *Hakim Res J* 2013;16:28-34.
7. Jones and Barttlet. *Management and Leadership for Nurse Manager*. London WPA; 2002. p. 359-78.
8. Kavosi Z, Rahimi H, Khanian S, Farhadi P, Kharazmi E. Factor's influencing decision making for healthcare services outsourcing: A review and Delphi study. *Med J Islam Repub Iran* 2018;32:56. Available from: <https://doi.org/10.14196/mjiri.32.56>.
9. Nwugabala E. Does outsourcing improve quality of service in public healthcare institutions in south-east Nigeria. *Int J Acad Res Accounting Finance Manag Sci* 2016;6:196-205.
10. Schniederjans MJ. Focused issue on operations research and outsourcing. *Computers Operations Res* 2007;34:3515.
11. Health System Transformation Plan. Retrieved from <http://treatment.sbmu.ac.ir>.
12. Braun V, Clarke V. Using thematic analysis in psychology. *Qualitative Res Psychol* 2006;3:77-101.
13. Lincoln YS, Guba EG. *Naturalistic Inquiry*. Sage; 1985.
14. Sajadi asl A, Shaarbafchizadeh N, Faraji F. Survey of challenges of Para medical services outsourcing in hospitals affiliated to Ahvaz Jundishapur University; 1395, MSc Thesis in health services management, Isfahan University of Medical Sciences, September 2017.
15. Rasi V, Doosty F, Reihani A. Challenges of Outsourcin health services from the point of view of staff in Mashhad Medical University, social security Quarterly. 49, 2018;13:117-34.
16. Alizadeh Z, Torabipour A. The Obstacles of Outsourcing in Educational Hospitals: A Qualitative Study. *J Qual Res Health Sci* 2018;7:204-13.
17. Casado C, Colomo R. Software development outsourcing: Challenges and opportunities in Nigeria. *Information Systems Front* 2012;5:1-18.
18. Laamanen R, Simonsen-Rehn N, Øvretveit J, Brommels M. Outsourcing primary health care services—How politicians explain the grounds for their decisions. *Health Policy* 2008;88:294-307.