

## Financing Public Education in Iran: An Action Plan

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**Abstract:** Financing education in Iran has faced a serious crisis and therefore developing a plan to ensure adequate financial resources has become necessary. This study is a research report in which the mentioned plan has been developed by answering to the question “from the perspective of experts and scholars what are the categories and the order of priority of policies and actions related to financing education?” In this regard, draft of a plan was prepared with documentary method and it was validated by using mixed method and Delphi method. Then by designing a questionnaire (including 7 policies and 55 actions) they were prioritized by quintet groups of professors, planners, executors and authorities and then the results were analyzed by using Kruskal-Wallis and Friedman’s tests. The results showed that from the perspective of experts, triple policies of convincing the government to perform duties stipulated in the constitution in order to ensure adequate finance, encouraging participation of governmental and public institutions (non-educational) in financing education and development of organized public participation through education councils of different districts are prioritized, respectively. Then, the actions were also prioritized and the consistency of views of quintet groups on determining the priorities were assessed.

**Key words:** Financing, public education, accreditation of policy, delphi method, Iran

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### INTRODUCTION

The financial crisis in the public education sector of the world, although, with some delay, became clear in Iranian society, as well. The young population of our society and the Islamic revolution exacerbated this issue and extensive social demand for secondary education which was the result of high investments in primary education, along with raising ideals such as seeking justice, fighting poverty and seeking independence, increased social demand for education.

On the other hand, severe fluctuations in oil revenues due to the price changes and economic sanctions were and still are reasons which limited public financial resources and competition between protecting deprived classes programs and education on resources and also extension of rent-seeking powerful groups gradually reduced the share of public education in the public budget, especially in the middle of the second decade of revolution. So, public education faced severe financial difficulties and realization of thirtieth act of the constitution which indicated the necessity of providing free education, became a dilemma for the government and for public education sector.

However, in our country a considerable amount of resources has been allocated to education sector. Extensive changes in educational system, including development of basic education, increasing schooling

years, providing training centers with different types of learning aid tools and have all been conducted by spending vast amount of resources. It is obvious that these changes in the educational system will not end to a certain level but continue along with development of science and technology in parallel to it, the educational system has to change continually and therefore more resources will be needed in the future. All of above problems have turned the issue of financing public education to a serious question and concern. This study is a research report in which a list of policies and actions related to financing education was prepared and they were validated according to the views of experts and were prioritized by groups of experts and authorities.

The main objective of this study is to prepare a plan for financing public education and prioritization of policies and actions by authorities and the implicit purpose of the research is determining the existence of consistency of priorities by different groups of experts. In this study, we try to answer these questions: “from the perspective of experts and scholars what are the categories and the order of priority of policies and actions related to financing education” and “is there any consistency between groups of experts, about priorities”.

In this regard, at first, theoretical foundations of financing education were reviewed and then after explaining the research method, data collecting and analyzing mechanism, the plan (the list of drafted

categories of policies and actions) of financing public education which has been validated by scholars and prioritized by experts and authorities are provided.

**Theoretical framework:** The draft of the categories of policies and actions related to financing education was developed by reviewing the literature and national documents.

**The concept of financing:** Financing public education is a process by which the resources for establishment and management of primary and secondary schools are provided. Comprehensive study of the subject is not possible only in the context of economy and public finance as it is also related to politics, law and management (Levin, 1992).

**Private benefits of education:** Demand for education is the result of its vast benefits that include both the individual and the society who benefit from it. People with higher educational experiences, benefit from higher salaries and non-material benefits like better health and longer lives, as well. Education also provides some indirect and external benefits for the society. Due to the broad social benefits of education, it has been argued that government as the representative of the society must be responsible for financing the needs of education. Due to some issues including externalities effect, existence of limited financial markets which doesn't allow students to borrow enough money to finance their education and due to the role of investment in human capital to fight poverty, government intervention is essential; therefore, most countries finance a major part of their public schools through the distribution of central government funds (Ansari, 2011).

**General methods of financing:** The most general experience of financing in the most countries is reliance on general revenues (Ansari, 2011). Financing methods include: budget deficit, domestic borrowing, collecting taxes, resorting to alternative financing methods, such as charging the user, special taxes and financing through local communities and regions, private financing through charging users (price discrimination policy according to the type of service and the user, tariff increase for users at higher levels of education, avoiding payment of subsidies for services which have significant private benefits, giving priority to investment in more effective education such as primary education, increasing prices in proportion to the capacities of the country to develop plans to pay educational grants and loans, exclusion of charging fee for primary education from proposed increased prices, feasibility study of employing methods

such as" awarding scholarships on the basis of the needs" (Ansari, 2011), receiving tuition fee. In Iran, in accordance with the thirtieth principle of the constitution, the government is obliged to provide free education up to the end of the high school (supporters of receiving tuition fee raise some reasons, such as a more efficient use of public and private resources, social justice and improvement of facilities and quality of education and the reasons which the opponents raise include reduction of demand for education, not accessing education for talented individuals who don't have financial resources). Offering voucher to qualified schools by the government, applying tax exemption or rebate for students' parents, proportional to the fees they pay to private schools, imposition of special taxes (for vocational education and training, salaries and wages, payrolls, etc.) and financing through local communities.

**Measures to evaluate systems of financing education:** It is common to judge, systems of financing education on the basis of three major criteria: adequate provision of educational services, efficient and equitable distribution of educational resources. Financial resources of education funding must have two features of stability and growth, as well (Levin, 1991).

**Principles of optimum utilization of oil resources:** Program of optimum utilization of national resources (oil) to finance education should be consistent with the requirements of development of the country which include justice and freedom. Justice means absence of arbitrary discrimination in the assignment of rights and tasks to individuals. In addition, government's commitment to establish basic freedom is considered as a prior condition and the legitimacy of the government (Khalatbari, 2000, 2007). Connection between society and the government is being established in the form of a social contract and the constitution is the most significant example of this social contract. According to this social contract, government or other institutions must serve in order to raise the quality of people's lives and therefore, the government is obliged to provide high quality services (Khalatbari, 2000). Since, the development of public education can facilitate social transformations and economic development, so granting subsidies to education by the government, not only benefit generations who receives free or affordable education but it will benefit future generations as well (Khalatbari, 2000) and on this basis, it is permissible to allocate oil revenue resources to education. Also, offering direct services, such as education is less subjected to possible abuses and deviations such as information deviation, incentive

deviation, negative utility and labeling, administrative costs, aggression and corruption and political stability (Sen, 1999).

**Financing: a phenomenon based on decision-making:**

Regarding the causes of inadequate financial resources allocated to education, some believe in issues such as general limitations of resources of government, government's financial conservatism, policy makers' belief in consumptive nature of education and some experts believe that this problem is due to issues such as the mechanism of decision making for resource allocation and high influence of powerful groups in pushing the resources to programs which are not in line with development of the country and preventing allocation of resources to education, because of lack of significant opportunities for rent seeking in education (Ansari, 2011).

**Freedom of school choice:** Freedom of school choice is an example of freedom in education. Freedom of school choice is the right of parents to choose their children's education which is an indicator of public freedom, a tool to fight racial discrimination, a factor for the development of parent's involvement in the process of effective learning and educational achievement of students (Levin, 1991). Freedom of school choice will lead to more satisfaction of education clients, lower prices and greater competition of schools to attract students and finally improvement of efficiency of schools in terms of academic achievements. In the context of mechanism of public choice in order to increase the efficiency of education, items including preferences of families, increasing competition of schools to attract students, offering more diversified programs and courses and selecting schools among a larger number of public sector schools and various educational areas will be possible (Levin, 1992).

**Research background:** Herrington (2015) showed in a research that taxes and public education spending account for one-third of differences in earnings inequality and 14 percent of differences in intergenerational earnings persistence between the US and Norway (Chyi and Zhou, 2014) studied the effects of sequential reforms that took effect between 2000 and 2006 on school enrolment for poor, rural families in china. They found that tuition control had a minimal effect on primary and junior high school enrolment. Furthermore, a policy that included tuition waivers, free textbooks and living expense subsidies which started from 2003 had a significantly positive effect on school enrolment of rural girls but not rural boys. Mehrotra (2012) studied the cost of the right

to education in India which resulted in passing the right to education act in 2009 by India's parliament. This act entitles all children 6-14 years old to minimum of 8 years schooling. The researcher to answer the question of whether India can fill the financing gap to achieve such a goal?, states that implementation of mentioned act will be faced with difficulties, given the large fiscal deficit caused by the global economic crisis. Expanding secondary education through private sector contribution and releasing government resources for elementary education were suggested. Hubner (2012) based on information on enrolment decisions of the entire population of high school graduates between 2002 and 2008, showed negative effect of tuition fee on enrolment behaviour. The effect was larger than in existing studies for European countries but similar with US data. Josephine (2011) has reported the case of under utilization of resources in government and most of the aided schools. Also, she added that competing for student tuition, private schools don't benefit from steady flow of funds which government schools do and teachers are also under extra pressure found that enrolment behaviour in a big way depends on structural characteristics of countries like ability to access given aids by students and taxes related to investment in human-capital activities. Kingdon reports that in the Uttar Pradesh state per pupil expenditure in private schools was only 41% of the expenditure in public schools. The most of this difference is due to the fact that teacher salaries are much lower in private schools compared to government schools Kelkar, stated as a result of his research that increased dissatisfaction due to the quality of education at government schools has caused increase in private sector intervention and even private and public sectors contribution in the form of educational vouchers for education at India's schools Muralidharan states that performance of private schools are on the whole better but many of them charge high fees making them accessible only to the middle and higher class families. (Husen and Postlethwaite, 1994) found that in china poorest families have spent 14.2% of their annual income on education and 9.7% on primary and elementary education. Norouzzadeh *et al.* (2013) by using document review method selected 9 documents as purposive sample and extracted central policies in the science and technology sector. Golzari *et al.* (2010) in a study validated 85 variables by using delphi technique and then they applied them to determine the status of quality of e-Learning in universities. Tabatabaian *et al.* (2009) have evaluated the method and the process of providing science and technology communication policies in research centers. Kalantari *et al.* (2009) compiled and

validated indicators of sustainable rural development in Iran. The 112 indicators in various aspects were validated and judged by 63 experts and executives and eventually 98 of them were identified as appropriate indicators.

The most significant shortcoming in the literature is that there is no article related to planning for financing public education. To overcome the mentioned shortcoming, we tried to collect and classify articles which have discussed the issue of theoretical foundations of financing public education and policy validation.

## **MATERIALS AND METHODS**

Considering the research objectives and questions, in this study, we applied mixed research method in which a combination of qualitative and quantitative methods were used, in order to present a better understanding of the issue (Kiamanesh, 2009). Research steps include:

- Extracting different components and drafting the plan (categories of policies and actions) of financing education. At this step data collection method includes the study of documents, scientific reports and related articles
- Compiling the questionnaire and using the Delphi method, to obtain expert's opinions. In this study, data were obtained and analyzed through interviewing, sending e-mail and making phone calls to discuss the research topic with 9 expert professors
- Setting the priority of policies and actions listed in the questionnaire (after evaluation by experts and applying Delphi Method) by asking experts and authorities; analyzing the results of implementation of priority setting questionnaire (policies and actions) and investigating the existence of consistency among opinions of groups of lecturers, managers, authorities and executives

**Statistical population:** The statistical population, based on research objectives include: researches and national documents and relevant studies experts including 9 persons quintet groups of experts and authorities, including: member of policy making, decision-making and planning councils, a group of administrators of departments and offices of Ministry of Public Education, university professors and education researchers who are active in the field of economics and financing education decision-makers, policy-makers and executives provincial managers 110 officials and experts involved in the decision-makings of institutions and organizations related to economic and financial aspects of education. In proportion to the statistical population, the statistical samples in the first section include the greatest number of researches and national documents which were selected by using purposive sampling method. In the second

section, a nine member sample of experts were selected by using purposive sampling and in the third section, the number of central and provincial experts, decision makers and executives (86 persons) was determined by using Cochran sampling formula and simple random sampling.

**Research tools:** In the first and second sections, data were measured by using check lists to evaluate research documents, studies and related national documents. In the third section, the prioritization questionnaire which was designed by the researcher was used.

**Data analysis methods:** Due to the qualitative nature of data analysis, data were analyzed by using verbal, visual and inductive analysis in order to prepare draft of the plan (in the form of an initial questionnaire). Regarding the second question, due to the quantitative nature of the data, in descriptive statistics section, frequency distribution tables and the average rank were used and in inferential statistics section, Friedman and Kruskal-Wallis nonparametric tests were used.

## **RESULTS AND DISCUSSION**

**Research findings:** In this study, policies related to financing public education and actions related to each policy, along with the results of relevant tests are provided. However, due to the large number of actions and limited capacity of the study, among all the actions, only three of them have been mentioned. At first three policies are provided and then actions which have been prioritized from the perspective of respondents are provided and then the existence or lack of consistency between opinions of different groups of experts are expressed.

**The order of priority of policies of financing education:** The results of Friedman's two-way analysis test, in responding to the question of significance of the difference between priorities ranks set by respondents indicated that the null hypothesis is rejected and therefore there is a significant difference between the ranks of research priorities show in Table 1.

However, this difference does not indicate that which ranks have been different but it means that at least there is a significant difference between two ranks. With a little caution, it can be concluded that probably those categories of policies which their average of ranks are significantly different from the average of ranks of the others have different priorities.

We used Kruskal-Wallis test in order to answer to the second research question which asks the existence of a significant difference between opinions of quintet groups of respondents, in the process of ranking the policies. In this test, the null hypothesis indicates: there

is no significant difference between the opinions of respondents in ranking policies. As it can be seen, the null hypothesis is rejected regarding the first and second policies but it has not been rejected in the case of the third priority, indicating lack of consensus among quintet studied groups in ranking the first and the second priorities and their consensus on third priority.

**The list of prioritized actions for “providing adequate financial resources for education” in the order of priority:** The list of eighteen actions has been presented according to the policies (seven policies) and the order of their priority show in Table 2.

The results of Friedman’s two-way analysis test in responding to the question of significance of the difference between priorities ranks set by respondents indicated that the null hypothesis is not rejected only on the actions 1-3 and this means that there is no significant difference between the ranks of these priorities; but regarding the ranks of other actions including (4 and 5), (6, 7, 8), (9, 10 and 11), (12 and 13), (14 and 15) and (16, 17 and 18) the null hypothesis is rejected which indicates that there is significant difference between the ranks of priorities of these classified actions. The results of Kruskal-Wallis test showed that the null hypothesis is not

Table 1: Friedman and Kruskal-Wallis tests results, the order of priority of policies, from the perspective of respondents, along with the results of consistency of opinions of quintet groups of experts

Priority	Policy	Friedman test		Kruskal-Wallis test					$\chi^2$
		Mean rank	$\chi^2$	Group (mean rank)					
				1	2	3	4	5	
1	Convincing the government to perform duties stipulated in the constitution in order to ensure adequate finance	3.3	106.2*	35.40	46.40	44.90	39.06	50.36	9.8*
2	Encouraging participation of governmental and public institutions (non-educational) in financing public education	4.7		34.63	33.32	45.53	43.88	41.88	7.9*
3	Development of organized public participations-education councils of different districts	5.4		37.00	35.36	44.62	41.17	36.15	4.87

Table 2: Friedman and Kruskal-Wallis tests results, the order of priority of actions, from the perspective of respondents, along with the results of consistency of opinions of quintet groups of experts

Priority	Policy (action)	Friedman test		Kruskal-Wallis test					$\chi^2$
		Mean rank	$\chi^2$	Group (mean rank)					
				1	2	3	4	5	
1	Convincing the government to increase the share of education from public funds (ensuring adequate finance) as a duty stipulated in the constitution	1.76	5.52	39.04	36.88	42.93	40.08	33.09	2.05
2	Attracting the attention of policy makers and decision makers (members of Parliament, cabinet, etc.) to meet the needs of education	1.94		34.04	45.94	38.38	35.79	42	2.57
3	Tracking legal and constitutional investment in education with regard to prospective documents, comprehensive scientific map and fundamental developments of education	2.21		42.88	34.19	37.85	43.00	43.25	1.94
4	Rooting the past developments and the current status of public educational funds	5.30	34.77*	27.33	38.39	54.91	44.73	40.54	6.23
5	Encouraging more participation of public institutions (non-education) in financing education	5.58		33.65	42.36	46.44	50.71	52.07	4.450
6	Conducting the feasibility study of providing the main portion of financial resources for education, by urban and rural managements	5.34	190.6*	44.07	33.45	34.34	45.32	45.32	2.91
7	Investigating constitutional and legal grounds and obstacles, effective in collaboration of governmental and public institutions in financing education	5.36		42.59	44.92	43.92	38.96	40.03	0.66
8	Generating income by selling products and services in education sector	5.95		34.08	43.25	53.41	44.47	47.40	5.57
9	Investigating the reasons for non-implementation of education councils act	1.80	12.04*	34.77	49.50	44.70	38.23	38.39	3.70
10	Collecting financial data of education councils of different districts and creating a database by using these information	1.90		41.05	43.62	48.24	43.12	44.10	1.05
11	Investigating legal bases and constitutional obstacles of affecting the performance of these education councils	2.30		39.54	44.79	43.88	38.46	40.38	0.99*
	Activating technical and vocational centers in order to meet some of the expenditures								
	Using student services to reduce educational expenditures in schools								
	Earning income through education facilities during holidays								
	Utilization of existing capacities Islamic law (zakat, khums, charity, vows, etc.) for financing education								

Table 2: Countinu

Priority	Policy (action) Convincing the government to increase the share of education from public funds (ensuring adequate finance) as a duty stipulated in the constitution	Friedman test		Kruskal-Wallis test					$\chi^2$
		Mean rank	$\chi^2$	Group (mean rank)					
				1	2	3	4	5	
12	Estimation of achievable (potential) revenues, on the basis of orders and decrees of Islam (donation, Khums and Zakat)	4.56	104.1*	35.17	47.64	46.89	46.23	41.86	2.38
13	Development and diversification of educational resources through donation(vaghf)	4.60		33.81	44.25	45.16	39.81	48.58	3.03*
14	Direct participation of private sector-non-government school Evaluating the economic impacts of activity of non-governmental schools in the possible reduction of financial burden of government	4.51	195.4*	41.91	42.77	43.91	43.69	38.5	0.57
15	Reinforcing financial supervision on the performance of non-governmental schools in the country	5.07		37.65	42.92	41.33	34.95	37.12	1.17
16	Establishment of specific taxes and tolls on education Investigating the feasibility of receiving direct taxes for education	6.60	296.3*	39.96	31.54	45.27	41.75	49.00	1.21
17	Investigating the feasibility of imposing tax on properties and real estates and urban lands for education	7.12		32.04	44.59	45.16	27.31	55.42	5.39
18	Lobbying to apply tax exemptions for educational expenditures	7.21		27.75	35.50	45.53	44.21	43.82	6.96*

p<0.01; N = 84

rejected for any category of prioritized actions, so there is consensus among quintet groups of experts, regarding prioritization of actions.

### CONCLUSION

In order to answer to the question of “from the perspective of experts and scholars what are the categories and the order of priority of policies and actions related to financing education?” draft of a plan was prepared and after validating by experts (in the form of 7 policies and 55 actions) it was prioritized by some groups of experts. The results included.

Policies of convincing the government to perform duties stipulated in the constitution in order to ensure adequate finance, encouraging participation of governmental and public institutions (non-educational) in financing education and development of organized public participations of education councils of different districts were triple policies which were prioritized to provide adequate funds for education. The results showed that from the perspective of quintet groups of experts, there is no significant difference regarding the ranks of the priorities. Also from the perspective of quintet groups of experts, there is no significant difference on ranking these policies.

The most important limitation of this study was lack of reliable sources in the context of planning and policy making for the provision of sufficient funds for education. It is suggested to complete the process of evaluation of policies and actions (before, during and after implementation and outcome evaluation) in order to implement these policies and actions. Also, assessment of

the impact of implementation of policies in relevant institutions and establishment of a comprehensive database on financing education can contribute in this regard. Consistency of opinions of the quintet groups and especially officials and experts who are involved in the decisions of institutions which are associated to the economic and financial aspects of education can be considered as a good opportunity for the success of the program.

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