

E-learning in Development (Case of a Turkish Public Bank)

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Abstract: This study aims to attract the attention to Turkey's development level and lack of sufficient qualifications in terms of education. Turkey's educational and technological development level is analyzed comparatively with other countries of the world and thus, fundamental educational requirements are tried to be put forward. is important from the aspects scrutinizing the methods of identifying educational needs within the country and meeting the educational deficit accordingly. The study is carried out in experimental and review models together. Basic consideration here is to analyze Turkey's educational requirements and technological development. In the public bank mentioned some researches have been carried out since the period 1995-1997 to identify educational requirements. Education is vitally important to achieve the modern life standards and electronic education should be given weight in order to meet the deficit swiftly. Regarding the findings, it can be inferred that Turkey's development deficiency is remarkably high and quick improvements in technology necessitates equally quick attempts to meet the deficit.

Key words: Electronic education • Education • Economical development • Banking • Technological development

INTRODUCTION

Education and Turkey's educational level is closely scrutinized from the perspective of general to particular approach and the requirements are tried to be determined on that issue with an intention to come up with recommendations to meet the deficit for reaching the standards of "information era" from country, organizational aspects.

While conducting the study, a special importance was attached to Turkey's development profile from worldwide and technological perspectives. This determination is important from the aspects scrutinizing the methods of identifying educational needs within the country and meeting the educational deficit accordingly. It is considered that it will never be appropriate to take progressive steps in especially electronic education unless the current technological and educational infrastructures are clearly determined.

The mutual relation and dependence between education and economics are analyzed within the scope of the study. One of the prerequisites for effective application of electronic education, which is relatively more expensive than classical classroom education especially at first stages, is financial opportunities and the speed of their regaining.

Definitions: Some basic concepts used in this study are defined as follows [1,2]:

Distant Education: It is an education model in which teacher and student do not exist in the same time and place and they use corresponding tools to realize it.

Computer Based Education (CBE): This education defines the method in which the educational materials come up with discs and CDs for use in PCs.

Web Based Education (WBE): It defines educating through a computer connected to internet or intranet with the use of TCP/IP and HTTP protocols that describe www (world wide web).

Computer Supported Education (CSE): It is very like the CBE. The main difference is that it is designed to assist the classroom education methods. Students should be taking classical classroom education in order to use CSE.

The Relation Between Education and Economical Development: On the other hand there is a direct relation between education and economical development. According to some studies related to that issue, education based macro-economical development makes

Table 1: Human Development Index (1999)

Country	Life Expectancy (Year)	Adult Literacy Rate (percentage, 15 year of age and above)	Joint Enrollment Rate for Elementary, Secondary and High Schools (%)	National Income per capita	Life Expectancy Index (SGP, USD)	National Education Index	Income Index	Human Development Index Value (HDI)	National income per capita level - (HDI)
1 Norway	78.4	a	97.0	28.433	0.89	0.98	0.94	0.939	2
2 Australia	78.8	a	116.0	24.574	0.90	0.99	0.92	0.936	10
3 Canada	78.7	a	97.0	26.251	0.89	0.98	0.93	0.936	3
4 Sweden	79.6	a	101.0	22.636	0.91	0.99	0.90	0.936	13
5 Belgium	78.2	a	109.0	25.443	0.89	0.99	0.92	0.935	4
6 U.S.A.	76.8	a	95.0	31.872	0.86	0.98	0.96	0.934	-4
7 Iceland	79.1	a	89.0	27.835	0.90	0.96	0.94	0.932	-3
8 Holland	78.0	a	102.0	24.215	0.88	0.99	0.92	0.931	5
9 Japan	80.8	a	82.0	24.898	0.93	0.93	0.92	0.928	2
10 Finland	77.4	a	103.0	23.096	0.87	0.99	0.91	0.925	5
11 Switzerland	78.8	a	84.0	27.171	0.90	0.94	0.94	0.924	-6
12 Luksemborg	77.2	a	73.0	42.769	0.87	0.90	1.00	0.924	-11
13 France	78.4	a	94.0	22.897	0.89	0.97	0.91	0.924	3
14 Englend	77.5	a	106.0	22.093	0.87	0.99	0.90	0.923	5
15 Denmark	76.1	a	97.0	25.869	0.85	0.98	0.93	0.921	-7
16 Austria	77.9	a	90.0	25.089	0.88	0.96	0.92	0.921	-6
17 Germany	77.6	a	94.0	23.742	0.88	0.97	0.91	0.921	-3
18 Ireland	76.4	a	91.0	25.918	0.86	0.96	0.93	0.916	-11
19 New Zeland	77.4	a	99.0	19.104	0.87	0.99	0.88	0.913	3
20 İtaly	78.4	98.4	84.0	22.172	0.89	0.94	0.90	0.909	-2
82 Turkey	69.5	84.6	62.0	6.380	0.74	0.77	0.69	0.735	-21

Source: UNDP [4]

more than the total sum of micro- economical contributions of the educated individuals. When the educational investments exceed the average education level that is called “treshold effect”, significant increase occurs in macro-economical outcome. According to a research conducted in Turkey between the years 1980 and 1990, it was brought up the matter that average education level of workers working in industrial sector had positive effect from the aspect of productivity. The effect of education over marginal productivity level was also studied and It was figured out that the mentioned “treshold effect” became evident after the educational level was brought to four-five years [3].

Turkey’s Educational and Technological Development

Level: In this part, Turkey’s educational and technological development level is analyzed comperatively with other countries of the world and thus, fundamental educational requirements are tried to be put forward. The aim here is to demonstrate the parallelism

between those fundamental requirements and personal and organizational aspects of educational deficit. The tools benefitted hereby are Human Development Index (HDI) and Technological Access Index (TAI).

Human Development Index: The main purpose of coming up with Human Development Index (HDI) is to determine the development level of all world countries globally and so that it can be comperative. HDI is determined through a calculation method where economical parameters are used in only one single part considering that economical development doesn’t necessarily mean human development.

The closer the index to 1, the better the HDI is in the mentioned country whereas the opposite conditions are applied accordingly [4].

As is seen in Table 1, Turkey with the index coefficient of 0,735 is included in medium developed group of countries. This index is well below the average index of OECD countries which is 0,900. The same

Table 2: Technology Access Index

TAI Grading	Country	Technology Access Index Value	Patents obtained Per one million 1998	Dissemination of The Latest Innovation	Dissemination of The Latest Innovation	Dissemination of The Latest Innovation	Dissemination of The Latest Innovation	Educational Dvelopment	Educational Dvelopment	
				Licence income obtained per a thousand, USD 1999	Internet hosts (for every thousand 2000)	Export of high and medium level technological goods (percentage of total export) people)	Telephone for every one thousand (standard ve mobile phones) 1999	Electricity consumption (kişi başına kw/h per capita) 1998	Average education period of people who are 15 and above 2000	Collage students who attend positive science classes (%) 1995-1997
Leading Countries										
1	Finland	0.744	187	125.6	200.2	50.7	1230	14129	10.0	27.4
2	USA	0.733	289	130.0	179.1	66.2	993	11832	12.0	13.9
3	Sweden	0.703	271	156.6	125.8	59.7	1247	13955	11.4	15.3
4	Japan	0.698	994	64.6	49.0	80.8	1007	7322	9.5	10.0
5	South Korea	0.666	779	9.8	4.8	66.7	938	4497	10.8	23.2
6	Holland	0.630	189	151.2	136.0	50.9	1042	5908	9.4	9.5
7	England	0.606	82	134.0	57.4	61.9	1037	5327	9.4	14.9
8	Canada	0.589	31	38.6	108.0	48.7	881	15071	11.6	14.2
9	Australia	0.587	75	18.2	125.9	16.2	862	8717	10.9	25.3
10	Singapor	0.585	8	25.5	72.3	74.9	901	6771	7.1	24.2
	Turkey	..	()	..	2.5	26.7	384	1353	5.3	4.7

Source : UNDP, 2001

deduction can be applied for educational index. The situation signifies that Turkey's economical development is not going parallel to human resource investments and indicates that great investments are being made in unproductive fields.

Technology Access Index: The parameters in this index are patent numbers and licence incomes per a person, internet suppliers per person, the percentage of export of high and medium level technological materials regarding the whole export amount, phone and cellphone numbers per capita, electric consumption per capita. The countries are grouped as "leading countries", "potentially leading countries", "quickly adapting countries", "marginal countries" and "others" in this index.

In *leading countries* technological development is continuous and they lead rest of the world in creating, spreading and using technology. *Potentially leading countries*, on the other hand, spend relatively low money for technological change despite they invest great amount on human resources. Despite deficiency in some above explained parameters, they may have similar characteristics with leading countries regarding other parameters. *Quickly adapting countries* are the ones who make improvements in terms of use of technology only. In this countries there are remarkably

high investments on human resources and education. In *marginal countries* there is significant deficiency in spreading of technology and qualified human resources. As seen in the Table 2 below, the countries of which technological access index is lower than "1", including Turkey and thus cannot be calculated are gathered under the title of "others".

"eEurope" ve "eEurope" Projects: In order to apprehend the importance of education better worldwide and for Turkey, the "eEurope" and "eEurope" projects should be analyzed. The eEurope project was started by European Commission in December 1999 in order to bring the Europe to the level of most dynamic and competitive market in the world. After this project, in the Leaders Summit that took place in Stockholm in 23rd and 24th March 2001, eEurope+ Project, an attempt including the actionplans to bring the candidate communities to a knowledge community level, was discussed and accepted as a policy. Türkiye was the last country among the members to get the membership for eEurope+ project [5].

The purpose of eEurope project is to establish knowledge community for European countries. Therefore the fields and aims of very first priority were determined. The purpose is to introduce each individual, school, business agency, administrative unit with the internet; to develop digital literacy; to facilitate for each european

Table 3: e-State Usage

Country	e-State usage (%)
Norway	53
Denmark	47
Canada	46
Finland	45
U.S.A.	34
Holland	31
Taivan	26
Estonia	25
India	22
France	18
Spain	17
Japan	16
England	11
Slovakia	8
Poland	5
Russia	3
Indonesia	3
Türkiye	3

Source: Radikal

2001: 12

citizen to access internet. Within the framework of the main Project, the following sub projects have been developed:

- A- priceless internet access,
- B- e-research,
- C- e-security,
- D- e-education,
- E- e-study,
- F- e-access,
- G- e-trade,
- H- e-state,
- I- e-health,
- J- e-content,
- K- e-transport.

Turkey hasn't made for such a remarkable issue yet. According to a survey conducted on e-state with twenty seven countries by a research agency named Taylor Nelson Sofres, in the grading arranged for the use of internet in public services, Turkey gets the last three place with Indonesia and Russia together with the rate of 3% [6].

Electronic Education Applications: Banks: On-the-job training (in terms of professional education) is important for the banks just like all other organizations. The

organizational problems confronted are also almost the same; will education increase the productivity?, will the educated employee work long enough for the organization to payoff?, is it advantageous to give education to employees or to hire qualified (already educated) people offering high salaries? These questions are the ones which all the organizations may confront more or less. Naturally, each organization has its unique answers for them.

Private and public banks come up with different or similar answers from time to time. It is considered that private banks, especially the ones that operate in international field, give special importance to education. ABN AMRO Bank may set an example for this. It has educational unit named ABN AMRO Academy established for that purpose [7].

Similar studies are carried out by ING Bank as being another international bank. For this purpose it established an education center named Business School. The main purpose of the center is to educate the promising future managers of the group. It is declared that 700 managers and specialists got educated in the mentioned center in the year [8].

Another example is an association named Bankakademie which was established under the leadership of German Banks Association and gave education service to the other member banks in year 1957 in West Germany. One of the most significant applications of Bankakademie was computer supported education activities. They conduct educational activities in this field with the help of softwares in which the banking activities were simulated under the titles of "Banking for beginners," "Banking for bankers" and "Banking for professionals" [9].

Purpose of The Study: This study aims to attract the attention to Turkey's development level and lack of sufficient qualifications in terms of education as well as making the required suggestions to get rid of the insufficiencies in the mentioned field.

Assumptions: The basic assumptions in this study are; (1) education is important for both individual and economical development, (2) Turkey's educational deficit is remarkably high however, most of the organizations and especially universities have the fundamental infrastructure in terms of computers and qualified staff. Second group assumption is supposed to be that developments of country, organization and an individual are mutually in interaction and the development of these three groups are very close in progress.

METHODS

This study is carried out in experimental and review models together. Basic consideration here is to analyze Turkey's educational requirements and technological development and to determine the importance attached to electronic learning in this whole picture through the review of different resources as well as the UNPD. About electronic education, this part of study is outlined through the interviews with the experts who have studied the issue in masters and Ph.d. level.

Collection of Data: In the public bank mentioned some researches have been carried out since the period 1995-1997 to identify educational requirements and the data collected by survey technique is reviewed within the mentioned framework or new programs have been arranged. In a study conducted by Education Planning Directorate in 1999, the aims of the education within the organizations were arrayed as follows [10]:

- a. To eliminate performance deficiencies,
- b. To acquire knowledge and skills required for social, economical and technological changes,
- c. To increase employees' motivations and to confirm organizational obedience.

Problem statements: In this study below mentioned two questions are tried to be answered:

1. What are the problems and desired educational programs required for getting rid of these problems in *administrative units*?
2. What are the problems and desired educational programs required for getting rid of these problems in *branch offices*?

FINDINGS AND INTERPRETATIONS

According to the result of the study, it is figured out that vast majority of administrative center units request education on the topic of "correspondance". They also request education mostly for the subjects of Word, Excel ve Powerpoint under the topic of "computer". For the branch offices it was found that "official corresponding rules" turned out to be the most requested subject under the topic of "corresponding". Branch offices' requests mostly densified on learning Word and Excel. Branch offices' demands for PowerPoint ve Reuters/Telerate/Internet turned out to be at very low level.

In the same study all the problems which are clarified by all the units to require education are analyzed and it was determined that employees didn't have the sufficient level of knowledge considering some issues related to vocational education. it was also found that, directly related to electronic education, there were only few employees who could use Word and Excel programmes [10]. Therefore it is highly recommended that the employees in both administrative center units and branch offices should be given computer education.

RECOMMENDATIONS

As seen in the analysis of educational activities in public and private banks of the world, no bank has managed to make enough progress yet in the field of electronic education. However, almost all of them attach special importance to release their publications and to provide services by created web pages that can be reclaimed as at least a part of electronic education.

Providing each employee with computer but stil preserving the accustomed stationery together, doesn't have any positive effect on increasing organizational productivity except for remaining eye-pleasing "good handwritings" [11].

In order to apply electronic education effectively in a bank, cooperation of some units may be required. The most important units regarding the cooperation are; human resources and information process units.

In order to encourage active participation of employees to educational activities, a new system in which all the staff can register directly on internet to the courses arranged by education unit should be introduced as it is now a method applied in our famous universities.

In summary, among the distant education tools the most appropriate one is considered to be web based education for its compliance with transformative learning and for its reducing education costs. Thus, it is recommended that activities pertaining this issue should be developed. It is considered to sustain educational activities substantially for banks to release their documents in PDF format in their web pages.

DISCUSSION

It should always be kept in mind that technological development is an indispensable fact of today's life and that it has significant effects on humanity. It is admitted that technological development effects human development in two ways. The first one is the direct effect which includes discovering consolidated herbs that lives

in infected environment and that are long-lasting in different atmospheric conditions; vaccines for epidemics; pure (unpolluted) energy resources; low-priced internet access; health and nutrition and life standards. The second effect is that technological development's positive contribution to economical growth cause an increase in both agricultural and industrial productivity and quality improvement in the products of service sector. Thus, education will definitely get the impact on its side.

Electronic education is beneficial and advantageous from the aspects of countries and organizations development.

The first benefit obtained from that kind of education is the existence of probability to meet the present educational deficit countrywide and in the shortest time possible within the country aspect.

Another benefit obtained from that kind of education is in the field of economics. However, it may take longer than expected for new technologies to confirm constructing a peculiar foundations in economics [12]. Therefore it may take certain time to take the economical returns of educational investments. This period can take so long as the impression of no progress may be observed just as it is in "Solow Paradox". But at the end of the period a great bounce in the *National Gross Product* may be observed most probably [13].

One of the main characteristics of developing countries is the "dual structure" they have. In that kind of country there are those modern organizations as well as conservative ones [14]. Considered as one of the modern organizations, universities should be encouraged to participate in electronic education activities regarding the opportunities provided in terms of academicians and technological opportunities. Universities' being relatively independent will definitely balance public sectors' canned approach to a certain extent.

The advantages of electronic education from organizational aspect is more distinctive. Because, contrary to macro economic incomes, it takes shorter period of time to take the returns of the investments made on this subject at organizational level.

CONCLUSION

As a result; education has direct effect on technological development as well. More educated economic actors have profound effect on the quality and quantity of the ultimate product. Therefore, countrywide development and technological development growing together by feeding each other with an interaction [4]. Education is vitally important to achieve the modern life

standards and electronic education should be given weight in order to meet the deficit swiftly. Regarding the tables above it can be inferred that Turkey's development deficiency is remarkably high. Fast improvements in technology necessitates equally quick attempts to meet the deficit.

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