



THE THREE MAJOR ASPECTS OF THE ECONOMIC RISKS OF HUMAN CAPITAL ACCUMULATION AND EFFICIENCY: CASE STUDY OF AL-SALAM DISTRICT, CAIRO

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Abstract

Purpose: We need to identify three major challenges facing the socio-economic development of human capital to avoid an ultimate economic risk. These are poverty, poor environmental conditions and the filtration from education at an early age.

Design/methodology/approach: The choice of Al-Salam District in Cairo in Egypt as a case study to represent the human capital economic risks is based on several reasons. The area represents the interaction between poverty, poor environmental conditions and the problem of filtration from education at an early age.

Findings: The three random samples in Al-Salam District represented the families, the working children and the workshops' owners. The findings typified the poor environmental deterioration, lack of public awareness, lack of education and the early enrolment of children in the labour force to provide income for their families.

Originality/value: The data collected were sorted and analyzed in a statistical manner to analyze the human capital economic risk.

Keywords: *Socio-economic, Human capital economic risk, Poverty, Environment, Filtration from education, Human Development, Public awareness, Poverty line, Family income, Health, Working children, Illiteracy, Multi-stage sample method, Industrial safety measures*

Paper type: *Research paper*



INTRODUCTION

The three major
aspects of the
economic risks
of human capital
accumulation and
efficiency
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During the second half of the twentieth century, the world witnessed several substantial changes. Such crucial changes were evident in the special emphasis given to the issue of development of human capital. In economics the three main factors of production are labour (human capital), capital (physical capital) and land. Development of human capital became the cornerstone of economic cooperation, and a motive for global political changes as a vehicle for the international flow of funds and investments.

Development of human capital shifts any economy to a better, i.e. developed, position. It is a dynamic that helps poor societies to overcome their problems. It is more practical to evaluate the process of development as a socio-economic process. The economic aspect and the social aspect are integrated and of mutual effect, which can never be ignored.

There are three major challenges which need to be considered to provide the socio-economic meaning of development of human capital. The absence of these factors constitutes an ultimate economic risk. These three major risk factors are poverty, poor environmental conditions and the relevant problems of the filtration from education at an early age. The study of these problems is not only limited to the lack of basic needs but also covers illiteracy, and even the deprivation from any good quality of life.

Egypt's back rank in the Human Development Index (HDI) 2011 Rankings is 113 among 187 countries listed. The choice of Al-Salam District in Cairo as a case study to represent the human capital economic risks is based on several reasons. The area is highly populated and represents the interaction between poverty, poor environmental conditions, and the problem of the filtration from education at an early age at a massive level. Al-Salam District is divided into four poor sections. Three sections are mainly residential areas, and the fourth section is the Craftsmen City, which hosts both housing and workshops, where the apartments are located above the workshops. The average number of family members is high: seven individuals living in a small apartment of 63m². The average family income is EGP 1,197/month, which is less than the poverty line EGP 1,771/month for seven members, according to the UNDP poverty line of USD 1.25/day per person. The UNDP targeted poverty line is to be USD 2/day per person, which will increase the family poverty line to EGP 2,835/month for seven members (INP, 2012; ILO, 2012; UNDP, 2012).

Pollution exists in Al-Salam District because of the workshops, poultry farm and garbage. This research paper shows that child labour is a major problem in Al-Salam District. Across the sampled families in the study, the total number of children was 324, and 16% of them withdrew from the education system to financially support their families.

LITERATURE REVIEW

In fact, when we study the three main elements of this proposed research, we discover that they are poverty, environmental quality and childhood. This research provides a link between them. Such a link has not been the subject of any previous literature, which has been concerned with poverty, environment and childhood as separate topics. Very few studies provide a link between two of them, but no previous study has formulated a link between all three of them, which constitutes the main research gap. Accordingly, no case study was chosen to provide the link between the said three edges.

Poverty is a subject covered by economists, social scientists and socio-economic researchers. Egypt's Human Development Report 2012 shows that the figures of 2011/12 verify that 28% of the Egyptian population lived below the poverty line. Nagi (2012) explained how the slow adaptation of economic, political, educational, family and health institutions in developing societies is hampering reform measures. Nagi examined the change in income distribution and the strength of poverty by using historical and comparative analysis. The conclusion was that these are central to understanding the problems of poverty in Egypt and elsewhere. The UNDP (2012) set down a new image for the issue of poverty. The Human Development Report 2012 proposes bold new approaches to political and economic roles that deliver social justice. The report underlined the importance of the equality in socioeconomic and social rights. This includes fair pay, education and health care. The ILO (2012) examined the relation between poverty on one hand and both employment growth and better quality of life on the other hand as a tool for reinforcing the human capital development agenda. The report showed that about 500 million workers are unable to earn enough to keep their families above the US\$ 2 a day poverty line. Hakimian (2012) discussed the relation between poverty and the accumulation of efficient human capital within the context of the Middle East and North Africa attempts of liberalization and economic reform. This provided for a transition period in the past two decades. This gives rise to the need to examine poverty as a hidden cost when studying the

rationale and strategies for reform of human capital. The World Bank (2012) discussed the importance of studying the indicators of well being as multidimensional rather than as simple measures of income and consumption. The report showed that of the world's 7.5 billion people, 3.2 billion live on less than \$ 2 a day, and 1.8 billion on less than \$1 a day (McDonald, 2012). In rich countries, less than one child in 100 does not reach its fifth birthday. In the poorest countries, as many as a fifth of children do not, and as many as 50 per cent of children are malnourished. The average income in the richest 20 countries is 37 times the average in the poorest 20, a gap that has doubled over the past 40 years. The world population will increase by some two billion over the next 25 years, with 97 per cent of this increase in developing countries. This requires ensuring universal primary education, reducing infant and child mortality and eliminating gender disparity. The Institute of National Planning (INP) (2012) emphasized that the achievement of human capital development necessitates solving the problem of poverty. The reports showed that economic growth is a tool, while human development is an end. The reports emphasized that the problem of accumulating human capital requires the advancement of efforts for basic needs, safety nets, and the provision of high quality educational and health services. de Silva (2012) discussed economic development projects and NGO's participation in developing countries with special emphasis on poor segments. Wilber and Jameson (2012) discussed poverty with respect to supply-side economics policies, free enterprises, and business cycles. El-Ghonemy (2012.) discussed poverty in the Middle East with respect to the prevailing economic situations, and income distribution. Bromely (2012) discussed casual labour among poor people in developing countries. Gilbert (2012) discussed urbanization in developing countries with special emphasis on poor housing conditions, disparities among social classes, and the prevailing economic conditions. Rugh (2012) discussed a case study of the disparities among social classes in Cairo during the 2000s. Al-Khatib (2012) discussed the social and economic conditions in Cairo until 2011. Bonine (2012) discussed urbanization, urban poor and policies, social conditions, and the role of the government in Middle East cities. Sahn (2012) evaluated the economic structural adjustment policies with respect to poverty in Africa. Lipton (2012) suggested methods to help the poor segments. Alcock (2012) provided a framework for the social conditions of poverty.

On the other hand, filtration from education is a subject covered by psychologists and social scientists. Jenks (2012) discussed the behaviour of

the children with respect to the surrounding social environment. McGuire (2012) discussed child development and psychology with respect to social aspects. de Mause (2012) focused on the issue of child development with respect to the framework of child management and the role of parents. In addition, environment is a subject covered by environment specialists and environmental economists. Harris (2012) discussed the ecology of Africa and the applied environmental policies. MacDonald (2012) discussed environmental policies with respect to sustainable development. The issue of environment was discussed by several other authors but their approaches are beyond the theme of this research.

Several researchers provide a link between poverty and filtration from education. MacPherson (2012) carried out studies in international social policies with respect to child welfare. MacPherson also studied the interaction between poor children and the government policy in developing countries. Melody (2012) discussed childrens' situations with respect to poor societies. Mavel (2012) discussed the children situations in slums in the US. Newman (2012) and the SRC (2012) discussed the history of famines, the shortage of food supplies, and the reasons that force children to be enrolled in the labour force.

Several researchers provide a link between poverty and the environment. The issue was discussed in several recent conferences and workshops. Many researchers exerted a lot of effort trying to find out which leads to the other. Is it poverty that leads to environmental degradation, or is it environmental degradation that leads to poverty? It is still an open-ended question to understand which is considered to be the cause and which is considered to be the effect. But still the two research papers written by Durning in 2012 remain the cornerstone in understanding the link between poverty and environmental conditions. Durning (2012) discussed the relation between poverty and environmental degradation in developing countries.

OBJECTIVES OF THE STUDY

It is clear from the previous illustration of the literature review that this human capital economic risks research in its theoretical and empirical framework provides the missing link between poverty, environmental degradation, and the relevant filtration from education problems. The field study with its applicable results and recommendations could be considered the first case study in this connection.

The relevant field study was carried out in Al-Salam District in Cairo. This was achieved by identifying, in a precise manner, the main dimensions affecting it. Thus, the ultimate objective was to design the proposed framework concerned with achieving development by tackling the three dimensions of the problems. This required the provision of recommended solutions to problems related to poverty, environmental degradation and relevant filtration from education problems within the scope of the case study in Al-Salam District. More specifically, the proposed study carried out the following tasks:

1. Identifying the main parameters of the poor housing conditions in Al-Salam District, and the relevant consequences of this problem. An illustration of the economic aspects of the problem underlines the framework of the problem.
2. Identifying the all relevant health, environmental and educational problems facing the poor population in Al-Salam District.
3. Identifying all the problems facing poor children in such poor areas. Special emphasis was given to the early exit of children from the education system, and their enrolment in the labour force in the area to support their families. Special emphasis was also given to exhibit their poor working conditions. These children add to unskilled labour and deprive Egypt of its share of skilled labour to increase the Gross Domestic Product (GDP).
4. Identifying the poor environmental conditions in the area and the sources of pollution. This problem decreases the efficiency of the labour force due to the deteriorating health conditions.
5. Identifying the population growth in the area.
6. Providing a list of recommendations to deal with the problems of poverty, environmental degradation and relevant filtration from education problems in the area. This includes incorporating socio-economic and environmental dimensions to be applied in Al-Salam District.
7. Providing a list of recommendations to the decision makers in Egypt to avoid the economic risks facing the future of the human capital in Egypt. For this particular reason, copies of this research will be circulated at a later stage among all Egyptian libraries, research centres, educational institutions, universities, concerned government bodies, local press agencies, and all interested bodies.

METHODOLOGY

The research work was a combination of a desk study and a field study. At the end of the field study, the data collected from the questionnaires and the observation lists were sorted and analyzed in a statistical manner by using the SPSS statistical package. Then, the results were interpreted accordingly and in conjunction with the desk study. The research work comprised the following tasks:

1- Desk study

This included the following tasks:

- 1/1- Review the various economic, social and environmental literature discussing the problems related to poverty, poor environmental conditions and childhood within the context of poor societies.
- 1/2- Review law No. 12 of 1996 concerned with the Means To Protect the Child (Child Law) and its Executive Regulations. The law in its Article 144 established the NCCM in accordance with a Presidential Decree. The situation in Al-Salam District is a clear violation to the articles of the law. Articles 64 to 69 concerning the enrolment of children in the labour force are completely violated.
- 1/3- Review the role of the concerned Egyptian governmental bodies in solving the problems of the poor society in Al-Salam District.
- 1/4- Preparation of three different forms of questionnaires dealing with three random samples. Such questionnaires were required for the field work.

2- Field study and works

The field study was conducted with the purpose of collecting primary data from three random samples. The first sample represented the population of the families living in Al-Salam District. The second sample represented a population of the children working in the workshops. The third sample represented a population of the workshops owners in the Craftsmen City in Al-Salam District specifically and in Al-Salam District in general.

This is in addition to an observation list that assisted in gathering data about the environmental performance of the car service workshops, the casting workshops and the chicken farm. The observation list also dealt with the available health and security services in Al-Salam District.

The data collection and interviews were done by a specialized team of assistants chosen by the author. The team was composed of one head and three other members. The head of this team was Osama Hussien Ahmed, who has relevant field experience in the Egyptian National Center for Social and Criminological Research since 1999. He supervised the other three members of the team, and he reported together with his team members to the author. Mohamed Ahmed El-Daba and Mohamed Abd Al-Aziz served as interviewers. Both of them have the same experience record. Both of them serve as interviewers in research carried out by the Egyptian National Center for Social and Criminological Research, the Demographic Center, and the Canadian CIDA. The fourth member of the data collection and interviewers group was Hoda Mohamed Ibrahim. She was selected by the author to collect data and facilitate access to the families. She is one of the residents of Al-Salam District, and she is the Deputy Principle of the technical secondary school in Al-Salam District.

The statistical work was done by using the SPSS package and the back-office work was carried out by an assistant called Mohamed Thabet together with secretarial help. Mohamed Thabet has performed the same job in the Decision Consulting Group since 1995. He served as the General Manager of the Computer Department in the General Company for Trading and Chemicals (Public Sector Company) from 1985 to 1995. He served as the Head of the Computer Research, and Development in the Saudi Electric Company in the Western Region (SCECO West) in Saudi Arabia from 1975 to 1985.

DESCRIPTION OF AL-SALAM DISTRICT

Al-Salam District is divided into four poor sectors. All such sectors are mainly residential housing sectors except one attached sector with small workshops called Craftsmen City. The Government of Egypt (GOE) launched several human capital development projects in the area in May 1998. These projects were mainly concerned with Craftsmen City only and not the other sectors in Al-Salam District. The scope of these projects based on its objectives represents a step in solving the severe problems in the area. However, such a project is not enough by itself to solve the area's problems. Accordingly, this research addresses some missing aspects across Al-Salam District as a whole and also in relation to Craftsmen City.

The GOE's projects objectives in Craftsmen City are as follows:

1. Providing health protection and health checks for the working children.
2. Improving the children's working conditions.
3. Eliminating the illiteracy of working children, fathers, mothers and workshop owners.
4. Raising the standard of environmental awareness, and health awareness.
5. Providing complementary meals to working children.
6. Allowing working children to participate in sport and social activities on their vacation day.
7. Motivating workshop owners to participate in improving the working conditions of the working children.

The following description of Al-Salam District is based on an observation list, and on the information obtained from the concerned authorities. The concerned authorities, from whom the information was obtained, are as follows:

Central Agency for Population, Mobilization and Statistics (CAPMAS): Population, Housing, & Establishments, 2012.

Information Support Center of the Cabinet: Cairo Governorate Description, 2012.

Cairo Governorate: Description of Cairo Governorate with Information, 2012.

The total population of Al-Salam District is 538,316 persons. The annual population growth rate is 2.95%.

There are 145 schools in Al-Salam District. The total number of classes is 2,102 classes.

In Al-Salam District there is one hospital and 14 health service units. There are also four ambulance cars and three fire engines. The hospital beds number 350.

In Al-Salam District there are three youth centres providing sport facilities for the youth. There is also one cinema in Al-Salam District. Al-Salam District is connected to the central sewage network, the

potable water network, and the electricity network. The number of telephone lines is 15,268.

Al-Salam District is governed by one local government authority, and the security is handled by two police stations. The district is divided into several sectors. The three residential sectors inside Al-Salam District are given as Al-Obour City, Al-Salam City, and Al-Nahda City. Craftsmen City is the sector that combines both housing and workshops, with the apartments located above the workshops. All other sectors inside Al-Salam District are mainly residential areas. Craftsmen City also includes one chicken farm which cause high rates of pollution. The chicken farm excretes exhaust steaming from burning the residuals of the poultry stocks, in addition to attracting insects.

THE SITUATION OF THE FAMILIES IN AL-SALAM DISTRICT

The study of the situation of the families in Al-Salam District was done by choosing a multi-stage random sample of 100 families. The choice of the sample was done by using the multi-stage sample method. The random sample represented the four residential sectors inside Al-Salam District. After listing the residential sectors with a cross check on the map, this went down to 25 streets in each of the four residential sectors, and then to one building in each street. The average number of children is five children per family. Twenty-nine families have children working after their withdrawal from the education system. Twenty families have children working inside Al-Salam District. All children working inside Al-Salam District are boys because they are working in the workshops at Craftsmen City. Nine families have children working outside Al-Salam District; of these, six families have girls working outside Al-Salam District. Ninety-one families have children still enrolled in the education system.

A questionnaire was used to collect information related to the three major aspects of underdevelopment, given by poverty, poor environmental conditions, and the context of filtration from education. Among the responsible persons of the families, 92% are males and 8% are females. Ninety-one per cent are married and 9% are widowed, 86% are married to one wife, 4% to two wives, and 10% are unidentified.

The family size varies between three members and 11 members. The average size of the family in Al-Salam District is of seven members. Table 1 shows the size distribution of the families.

The house area varies between 52m² to 83m². The average area of the house in Al-Salam District is 63m². The majority of families live in houses of 83m². Table 2 shows the distribution of the sampled houses according to house area, while Table 3 presents the distribution according to number of rooms.

Therefore, on average, seven family members live in a 63m² apartment divided into three rooms.

According to interviewers' observation, it is found that the lighting, ventilation, and cleanliness levels are accepted in 90 cases, 87 cases, and 48 cases respectively.

In the families surveyed, 72% of the fathers are working, 3% unemployed, 4% carrying casual jobs, 13% retired, and 8% dead.

The main provider of family income is the father in most cases. The fathers contribute solely or jointly with other family members in 89%

Table 1. Percentage distribution of the sampled families according to number of members

No. of family members	Percentage
3	2%
4	3%
5	15%
6	22%
7	30%
8	14%
9	12%
10	1%
11	1%
Total members of families: 100	

Table 2. Percentage distribution of sampled houses according to house area

House area in m2	Percentage houses
52	1%
53	6%
60	1%
63	31%
65	21%
70	4%
73	3%
83	33%
Number of houses: 100	

of the cases. The mothers contribute solely or jointly with other family member in 19% of the cases. The sons contribute solely or jointly with other family members in 20% of the cases. Table 4 shows the providers of family income in the sampled households:

It was found that 69% of the families claimed low-income levels. The average family income is EGP 1,197/month, and 88% of the families do not receive subsidies. In addition, 97% of the families have no income-generating assets.

The age of the working children varies between eight and 14 years of age. The average age of working children is 12 years and nine months. The income of the working children varies between EGP 215/month to EGP850/month. The average income is EGP 510/month. Across the sample, the total number of children is 324. Out of the 324 children, 272 children are still enrolled in education, 42 children withdrew from education, and 10 never attended school. Among the 52 children who are not currently enrolled in the education system, 65% are not enrolled to financially support their families, 18% to learn a profession, 8% because of education failure, 4% to earn money, and 5% due to unidentified reasons. Actually, on average about 93% of the working children are participating in the family income, with an average participation of EGP

No. of rooms	Percentage of the total
2	32%
3	52%
4	16%
Number of houses: 100	

Table 3. Percentage distribution of sampled houses according to number of rooms

Income provider	Percentage of the families
Father	62%
Mother	6%
Father & mother	10%
Mother & grandfather	1%
Father & sons	16%
Father from subsidies	1%
Sons only	2%
Mother & sons	2%
Number of families: 100	

Table 4. Distribution of sampled families according to the income providers

285 per month by each child. The average number of children per family is five children. The average number of families with children withdrawn from the education system is 29 families. All the children who withdrew from the education system are currently working.

The residential areas suffer from pollution because of the workshops, the poultry farm and the garbage. As a result, 85% of the families suffer from mosquitoes. In addition, 44% of the families claimed that the garbage stays for a long time after being collected in plots in the streets. However, none of the families reported any problems with the sewage.

Within the 100 researched families, 12 cases of health problems were reported. All were simple cases with the exception of two cases suffering from kidney problems. The rest of the cases comprised three allergy cases, two teeth problems and five bone problems. The majority of the population refuses to deal with the hospital located in Al-Salam District. They prefer going to private trustful clinics.

The situation of the children working in the workshops who come from outside Al-Salam District

The study of the situation of the children working in the workshops that come from outside Al-Salam District was done by choosing a random sample of 25 cases. The choice of the sample was made via the multi-stage sample method. It was found that children work in five professions (as mentioned in Table 5). Therefore, five workshops were randomly chosen from each profession, then one child was chosen from each workshop. The questionnaire used was designed to follow the same methodology as that used with the previous 100 families, of questioning the studied aspects of underdevelopment in human capital.

The age of the working children varies between 12 and 14 years. The average age is 13 years and 6 months. The majority joined the labour force for the first time at the age of 10. A few joined at an earlier age, starting from 6 to 10 years old. Table 5 shows the distribution of labour among the working children.

All working children are subject to noise pollution (which might cause deafness and nervous breakdown), and air pollution resulting from the exhaust and use of chemicals in paints. Chemicals in paints cause adverse effects on the respiratory system.

It was found that 20% of the working children in the sample are illiterate, and 40% withdrew from the primary education stage. The remaining 40% withdrew from the preparatory stage. None of them finished the obligatory preparatory stage of education in accordance with the requirements of Article No. 59 of the Egyptian Child Law No. 12 of 1996.

Children work between 10 to 15 hours/day with excess hours reported in 48% of the cases. This is another violation of the Articles No. 64 to (69) of the Egyptian Child Law No. 12 of 1996. The law allows only for seasonal jobs between the ages of 12 to 14 years. This even requires the approval of the Minister of Education and the concerned Governor. Such seasonal jobs must not have any adverse effect on their growth, their health, or their educational enrolment until they have finished the obligatory preparatory stage. The Child Law prohibits long working hours beyond six per day, and the continuity of more than four continuous hours. The Child Law requires one break hour during the working day. Excess hours are completely prohibited by the Child Law. Evening hours beyond 8pm are also prohibited. The Executive Regulations of the Child Law incorporated a Ministerial Decree which prohibited employment of children below 17 years in hazardous occupations. The use of chemicals in the car forming and painting workshops and the car painting specialized workshops together with the noise and the absence of industrial safety measures constitute a risk on the health and the life of the working children. Accordingly, it is clear that the working situation of the children in the sample completely contradict Child Law provisions. It is also worth nothing that the ILO Convention on the Minimum Age for Employment No. 138, 1973 specified that a member country whose economy and educational facilities are insufficiently developed may specify a minimum age of 14 years for admission to work. The minimum age for admission to work which by its nature or circumstances is likely to jeopardize the health, safety or morals of young persons shall not be less than 18 years.

Types of labour	Percentage of working children
Car forming technicians	24%
Car painting technicians	28%
Car mechanic technicians	20%
Shaping technicians	20%
Car air conditioning technicians	8%
Number of working children: 25	

Table 5.
Distribution of
sampled working
children according
to type of work

It was found that the average monthly income of the working child is EGP 690/month. The average amount paid to support the family is EGP 320/month. The remaining amount covers the expenses of daily food, transportation and clothing. Therefore, 46% of the working child income is directed to support his family, which puts on him a heavy burden to withdraw from the education system to carry this role.

In fact, the role played by the children must be replaced by the parents' role. In 96% of the cases in the sample at least one of the parents is alive. The illiteracy rate among mothers was 100%, and among fathers was 76%. The mother works only in 12% of the recorded cases to support the father. The father works in 80% of the cases.

Both mothers and fathers do not work in 20% of the cases. This situation gives rise to the importance of replacing the role of working children by the mother. This means that the mothers will need to join classes to eradicate their illiteracy. They also need training to carry specific jobs. They also need funds to start very small projects to generate profits.

THE SITUATION OF THE WORKSHOPS IN AL-SALAM DISTRICT

The study of the situation of the workshops was done by choosing 25 random workshops. The choice of sample was done by using the multi-stage sample method. The 25 chosen workshops are different from the 25 workshops previously illustrated in the case of the sampled working children. It was found that the distribution of workshops in the Craftsmen City represents nine different fields of specialization. Therefore, between two and three workshops were randomly chosen from each field of specification. The questionnaire used was designed to follow the same methodology used with the previous 100 families and the previous 25 working children, of questioning the studied aspects of underdevelopment.

It was found that 5% of the workshops' owners are illiterate, and 50% could not finish the obligatory education level. This indicates that at least 55% of workshops' owners are not exposed to cultural concepts and awareness.

Table 6 shows the various specializations of the workshops:

The number of labourers in each workshop varies between one to eight labourers in addition to the owner. Fifty-six per cent of the

workshops employ only two labourers in addition to the owner. All labourers have never been subject to any vocational training.

Workshops working hours vary between 10 to 12 hours with additional hours as well. Accordingly, it is found that 36% of the workshops have no fire fighting system and no industrial safety system. Also, 56% of the workshops have no toilets. The owner of the workshops verified that working children's average age of withdrawal from the education system is 11 years old. The working children in these workshops also confirmed this piece of information.

CONCLUSION AND RECOMMENDATIONS

The findings presented above illustrate the interaction between the three major aspects of underdevelopment: poverty, poor environmental conditions and the context of filtration from education. The case study of Al-Salam District in Cairo served as a prototype model for the extent of the problem in poor societies. It adds to the literature a missing link between the three main edges of human capital economic risks and underdevelopment within an empirical framework.

The data collected and analyzed all through this research paper provide a clear understanding of the human capital economic risks and underdevelopment in its dynamic link with poverty, poor environmental conditions, and the filtration from education.

The findings explored the clearly poor environmental deterioration, the lack of public awareness, the lack of education, the early enrolment

Types of specialization	Percentage of the workshops
Forming	20%
Forming & painting	12%
Painting	18%
Suspension maintenance	4%
Mechanics	8%
Electric maintenance	4%
Electric & mechanic maintenance	4%
Shaping	20%
Air conditioning	4%
Number of workshops: 25	

Table 6.
Distribution of sampled workshops

of children in the labour force as the major provider of income for their families, and the early exit of children from the education system.

It is, therefore, recommended that the following should be applied:

1. Provide men and women with basic education and technical training to be enrolled in the labour force instead of the children. Provide them with small funds to start very small projects to generate profits.
2. Help the working children to leave their jobs and return to school education by providing them with education funds.
3. Increase the level of public awareness by launching organized campaigns and guiding the population there to basic knowledge and reading.
4. Guide the working population to industrial safety measures, including firefighting systems.
5. Provide health services that fit with the poor community and labour requirements.
6. Improve the environmental conditions to provide the poor population and labour with better environmental standards as related to clean air and noise level. Also, provide the labourers with masks, especially those working with paints. Chemicals in paints cause adverse effects on the respiratory system.
7. Launch a programme to compensate the deprived children to avoid early filtration from education.
8. Eradicate the high illiteracy level among the parents who direct their children to withdraw from the education system and enrol them in the labour force at an early age.
9. Eradicate the high illiteracy level among labourers, especially the young.
10. Provide technical training and continuous education programmes to the working labourers.
11. The Child Law needs to be applied to the working children to stop their early withdrawal from the education system, and to provide them with suitable working conditions.
12. The Government of Egypt (GOE) needs to integrate problems addressing environmental issues and poverty alleviation when dealing with the problem of child labour in Craftsmen City in Al-Salam District.

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