SURVIVAL OF SMALL-SCALE MANUFACTURING IN CAIRO DURING STRUCTURAL ADJUSTMENT RESULTS FROM A LONG-TERM STUDY

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Abstract

The structural adjustment policy in Egypt has caused a dramatic decline in demand for many goods produced in the handicraft sector. A long-term study between 1986 and 1998, of 2,415 workshops in six quarters of Cairo determined that the majority of the small enterprises were able to secure their economic survival due to their flexibility in production and their informal employment strategies, which included the reduction of permanent male wage labor in favor of low-paid women and children or unpaid family members. In some handicraft branches it was also evident that the highly praised credit program for the support of small enterprises, while helping to raise the level of technology in small-scale manufacturing, at the same time destroyed more jobs than it created, due to the flooding of the market with similar products.

Introduction

Following the introduction of the informal sector into the debate on the economic development of the third world during the seventies (Hart 1973; Sethuraman 1976, 1981), the promotion of small-scale manufacturing was given high priority by the International Labor Office in its programs for the creation of new jobs in the developing world (Drilling, 1993; Schamp, 1993). Since then, the support of the handicraft sector has been regarded as one of the most efficient strategies for the creation of jobs and the securing of economic survival of the urban poor. Small-scale manufacturing enterprises generally show the following characteristics:

- In most cases they are family enterprises;
- the majority of the labor force has acquired its professional skills outside the public educational system, mainly by on-the-job training;
- the technology applied in the workshops is highly labor-intensive but not necessarily traditional;
- the micro-enterprises have no access to the formal credit market but have to rely on loans from relatives, private money-lenders or other informal sources of credit;
- they are mainly producing for small, local markets, which are highly competitive because every successful craftsman will soon be confronted with newly established manufacturing enterprises producing the same goods (Herrle, 1983).

In order to improve the performance of the small-scale manufacturing sector, two major strategies of the national and international development agencies have been favored: the promotion of vocational training and the creation of credit programs for granting loans for the establishment of new enterprises and the acquisition of new machinery for the improvement of production. The evaluation of such credit programs has generally shown highly promising results - both in terms of creation of new jobs and increase of output - among most of the workshops which had received loans. These positive assessments however, did not take into consideration the development of other micro-enterprises, which were working in the same sector but did not participate in the credit program. Are they able to survive the increased competition from the newly established workshops equipped with more advanced machinery? This question is extremely relevant in a situation where many workshops are threatened by the impact of the structural adjustment policy, where the reduction of public subsidies, rising unemployment and decreasing consumer spending power results in a decline in demand for goods produced by small-scale manufacturing (Meyer, 1997).

Long-term Survey in Greater Cairo

In order to study the chances and strategies of survival in the small-scale manufacturing sector the results of a long-term survey from six selected areas in the metropolitan agglomeration of Cairo were analyzed (Figure 1). All urban quarters included in this survey are inhibited by a mainly low-income population. The density of the population is extremely high with 400 to 600 inhabitants per hectare. The manufacturing structure in these quarters differs considerably.

- In Bab esh-Sha'riya, located in the north-western part of the old city of Cairo, workshops of shoemakers are dominating. During the eighties multi-story manufacturing centers were built to accommodate up to 70 workshops in one building (Figure 2a; see also for the whole surveyed area Meyer, 1988a).
- El-Gamaliya, in the north-east of Fatimid Cairo, is mainly characterized by small aluminum workshop manufacturing, kitchen utensils, other metal workshops and the handicraft production for the nearby Khan el-Khalili, the greatest tourist bazaar in Egypt (Figure 2b; for the whole surveyed area see Meyer, 1990).
- The squatter settlement Manshiyet Nasr has developed since the 1960s on the lower slope of the Muqqatam hills (Meyer, 1992). Woodworking and metal workshops, as well as small enterprises of artisans have been established here in close relation to the traditional centers of production and distribution in the old city.
- The other studied areas of Matariya, Manshiyet Bulaq ed-Dakrur (Figure 2c; for the whole studied area see Meyer, 1989a) and Dar es-Salam are located in informal settlements built on former agricultural land on the periphery of the metropolis (Meyer, 1996). Workshops of carpenters and tailors dominate in these areas.

Between 1986 and 1998 the author carried out five surveys studying the development of all manufacturing enterprises in the six areas – a total of 2,415 workshops. 95 percent of these enterprises employed up to 10 people. This means that they belong to the informal sector according to the classification of the International Labor Organization.

From Boom to Crisis

The development of small-scale manufacturing in Cairo was characterized by extremely high growth rates in the early eighties: 71 percent of the 1,152 workshops with up to 10 workers, which were studied in 1986, had been established after 1980. The size of the first two columns in Figure 3 indicates the enormous boom in

establishing new workshops before 1986. This dynamic development corresponds with the overall economic conditions, which prevailed during the phase between 1974 and 1986 (Meyer 1988b, 1993). The economic liberalization of the "opening policy", increasing oil revenues and hundreds of thousands of new jobs in the public sector combined with massive labor emigration into the neighboring oil-producing countries led to labor shortage and a rapid rise in real wages in Egypt. Annual remittances of up to US\$ four billion contributed to the exceptional improvement of the spending power of the population even in the poorest quarters of the metropolis. The demand for consumer goods increased accordingly, resulting in a dramatic rise in the number of small-scale manufacturing enterprises producing those consumer goods.

In 1986, the economic situation changed for the worse. The deterioration of oil prices, shrinking job opportunities in the public sector and abroad, and a high rate of inflation combined with decreasing real wages contributed to the shrinking spending power of the population. This turned into an economic and social crisis when Iraqi troops invaded Kuwait in 1990 and some 700,000 Egyptian labor migrants were forced to return to their home country (Meyer, 1995) causing a dramatic rise in unemployment. Under these critical circumstances, the Egyptian government signed a treaty with the IMF in 1991, in which the seriously indebted country committed itself to a policy of structural adjustment of the economy. Due to further cuts of public subsidies for basic goods and services, the introduction of sale taxes and the lifting of controls on exchange rates contributing to increasing prices for imported goods, the rate of inflation reached a record 21 percent in 1991-92. This was a serious setback for the economic situation of all income groups, with the poor suffering most (Korayem, 1996; Meyer, 1997).

As a consequence, the demand for many types of goods produced by the small-scale manufacturing sector decreased rapidly. Between 1986 and 1992, the worsening of economic conditions was first reflected by lower growth rates in the manufacturing sector, but soon turned to a stagnation of the number of workshops (Figure 3). The subsequent gradual improvement of the macro-economic indicators – a declining rate of inflation to below five percent and a rise in the gross domestic product from a rate of two percent in 1991-92 to six percent in 1997-98 (Economy Staff, 1998) – obviously had no significantly positive effect on the development of the workshops. Only the slight decline in the rate of closing enterprises from 19.4 percent during the period 1992–1995 to 16 percent in the following three-year period, may be interpreted as a positive indicator. In this context it is quite surprising that 53 percent of the workshops studied in 1986 were still existing twelve years later, in spite of the deteriorating economic conditions. How did they manage to survive?

Adaptation of the Employment Structure

As an immediate reaction to the declining demand for their products, the workshop owners started to reduce the number of their workers. Permanent labor contracts are an exception in small-scale manufacturing – a characteristic feature of the informal sector in general. This allows the workshop owners to react in a highly flexible way to the falling off of orders by immediately adapting the labor force. Under these circumstances it can easily be understood that the number of workers increased by only eight percent between 1986 and 1989, while the rise in the number of workshops amounted to a rate of 23 percent (Figure 3). During the following period the number of workshops stagnated, while the rate of employment in these small-scale manufacturing enterprises decreased by 19 percent.

In 1986 the average number of people employed in the small-scale enterprises was 3.6. Twelve years later this rate had declined to only 2.5 workers per unit. This average figure differs significantly between the surveyed area located close to the center of Cairo and the informal settlements in the periphery. In the two old quarters of Fatimid Cairo and Manshiyat Nasr the average number of people employed in the workshops fell from 4.3 to 2.9. During the same period, the comparative figure in the peripheral quarters went down from 2.7 to 1.6. Here the majority of the craftsmen work alone in their workshop. The low rate of employment in the informal settlements is largely due to the relatively small local demand in the specific housing area. In the central quarters of Cairo, however, most of the workshops produce intermediate or final goods for the whole metropolitan area or even the national market. Accordingly, the demand for their products and the number of jobs per workshop is relatively high.

Wage laborers are most seriously affected by the reduction of employment: After 1986, when they represented 55 percent of the total labor force in the surveyed workshops, their share decreased to 37 percent in 1998. During the same period the share of the workshop owners and their family members rose from 45 percent to 63 percent of all people working in the small enterprises.

Increase in Child Labor

Another typical reaction to the economic crisis is the increasing employment of children. As wage laborers – officially declared as "helpers" or "apprentices" – children earn much less than adults; as members of the workshop owner's family they get no wage at all. Their share rose during the period of structural adjustment policy from 15 percent to 23 percent of all workers covered by this study – in spite of a tighter law for the protection of children passed in 1995, which raised the

prohibition of child labor from 12 to 14 years. Until the time period of the last survey, however, hardly any attempts were made to control the observance of this law. As a result, more children than ever are employed in the workshops. Many of them are even below the age of six. Some of them are working only before or after school and on the weekends, but most of them have stopped going to school at all and are spending up to 12 or even 14 hours per day in the workshops. The worst conditions are found in the aluminum workshops where the rate of children between six and nine years reached a record of 12 percent. Spending long hours in badly lit rooms, breathing air contaminated with gray aluminum dust, tormented by painful noise and threatened by the unprotected rotating parts of the lathes – these are working conditions which are hardly bearable for adults and completely intolerable for children.

Rising Female Labor

In 1985, female workers represented only 2.8 percent of the labor force in the surveyed workshops. Young women – mainly unmarried and between 15 and 19 years of age – were frequently employed in tailor workshops where they represented one quarter of the workforce. Twelve years later their share in the total number of workers in small-scale manufacturing had increased by more than four-fold to 12 percent. This can partly be explained by the strong increase in handicraft workshops offering jobs for women, for example the painting of tourist articles. In addition to this, more and more workshop owners are forced to employ their wives in their enterprises in order to save the costs of wage labor. This tendency is even found in branches where female employment was uncommon in the past, especially in shoemaking.

Development in Specific Branches of Small-scale Manufacturing

Aluminum Workshops

The aluminum workshops producing kitchen utensils were most seriously hit by the deterioration of the economic situation. In the surveyed areas, 127 units existed in 1986. Only 45 percent of these workshops survived until 1998 and the labor force in this sector decreased by as much as 79 percent (Figure 4). The first significant reduction in the number of workshops occurred in 1998 when aluminum prices reached a record height on the world market. The massive rise in prices for raw material forced many craftsmen to close their workshops. Many of them sold the quota of aluminum, which they had received from the public sector at subsidized prices, with a high profit on the black market. Other craftsmen responded to the booming demand for handicraft articles in the tourist sector. Instead of processing

aluminum they started to produce copper plates or glass vases. Here, small-scale manufacturing confirmed again its flexibility and adaptability which has also been observed in other cities of the Middle East (Wirth, 1985).

During the nineties the decline of enterprises and workers continued in the aluminum sector. This was not only a consequence of the lower spending power of the population and the resulting decline in the demand for kitchen utensils, but also due to more advanced machinery which came into operation. Such enterprises were able to expand their production at reduced prices forcing many other workshops to close down because they were no longer competitive.

Production of Textiles and Clothing

During the second half of the eighties, the number of tailor workshops continued to rise, particularly in the informal settlements. At the same time, however, the utilization of capacity decreased rapidly. The market conditions were aggravated through rising competition by modern textile factories in the new desert cities (Meyer, 1989b) and cheap clothing which was smuggled from the free-trade zone in Port Said or massively imported from South Asia after the abolishment of protective tariffs. Until 1998, the number of workshops had not fallen below the level of 1986, but employment in the small-scale manufacturing enterprises had been reduced by more than half (Figure 4). The income of many of these workshops is so low that they can only survive when the craftsmen do not have to pay rents because they are owners of the premises. Many other tailors gain their livelihood as wage-laborers during the daytime, opening their workshop only at night or at the weekend.

Production of Furniture

Similar survival strategies to those seen among tailors are also being applied by carpenters, most of whom complain about low demand for their furniture. Starting in the eighties, these small workshops were no longer able to compete with modern furniture factories in the production of high-quality, expensive furniture. The declining spending power of the low-income population during structural adjustment led also to a fall in demand for low-quality, inexpensive furniture from the carpenters' workshops.

In the past, a large portion of the carpenters had cooperated with furniture traders. By ordering furniture from the carpenters, the retail traders used to pay a significant sum of money in advance. However, under more recent economic conditions, there is such a surplus of furniture in the market that the sales conditions have changed to the disadvantage of the producers: The carpenters receive their payment only after the retail trader has sold the piece of furniture; and even then the amount of money agreed upon is often paid only in installments. This has become one of the major problems for many carpenters who lack sufficient working capital to finance the furniture production in advance. Most of them can only survive by orders from private customers who pay the major part of the final price when giving their orders. Under these circumstances long established workshops with good relations to many regular customers have the best chances of survival, whereas the fluctuation in wood-working enterprises is extremely high among those carpenters who opened their workshops after 1991.

Shoemaking

The producers of shoes were able to cope with the crises more successfully than the other branches mentioned so far. The quality of shoes manufactured in large-scale factories is in general higher than the output of small workshops, but factory made shoes are also, in general more expensive. At times of decreasing spending power more and more people, even from the higher income groups, resort to cheap shoes produced by the workshops in the old parts of Cairo. Such producers of small series are able to react in a highly flexible manner towards changes in fashion trends and fluctuating demand. The concentration of these workshops in Bab esh-Sha'riya is characterized by an extensive network between suppliers of raw material and accessories, hundreds of workshops specializing in specific steps of shoe production, and the wholesale, intermediate and retail trade in the nearby shopping streets. How important the concentration of this industrial network is, became quite clear to many shoemakers, who had moved their workshop into the peripheral parts of Cairo: After a short period of time most of them had to close down their enterprise because of lack of orders or they turned to repair of shoes for the local population in the neighborhood.

Production of Bread and other Food-Stuff

The number of bakeries and other workshops producing food-stuffs are gradually increasing. Bread is indispensable even in times of declining income. In addition to this, a significant change in bread consumption has been observed: New sorts of bread, which in the past were only found in upper class areas of Cairo, are now also offered in poor areas, contributing to the rising number of specialized bakeries.

Production of Handicraft Articles

The strongest increase in the number of workshops has been observed in the production of handicraft articles. The number of enterprises in this sector of small-sector manufacturing rose by almost three times during the studied period. The main reason for this dynamic development is to be found in the rapid increase in tourists

from 1.4 million in 1986 to 3.2 million in 1992 (Meyer, 1996). In the following years, however, until 1994 and again in 1997-98, assassination attempts by militant fundamentalists caused a drastic decline in international tourism and consequently in the demand for handicraft articles, resulting in a serious reduction in the number of workers in this manufacturing branch. Most of the workshops could only survive because the loss of customers from the international tourism sector, was compensated for by Arab tourists as well an increasing demand for handicraft articles by the Egyptian population. Such articles are becoming more and more fashionable among members of the local middle and upper classes.

Production of Metal Articles

Finally, it is quite impressive to see the positive development among the other metal workshops. Here, the spectrum of production ranges from nails made from scrap metal to the manufacturing of highly complicated parts for the construction of machines or for car repair shops. In many of these small-scale enterprises, very expensive lathes and other advanced equipment can be found. In many cases, this technological progress was achieved with the assistance of new credit programs for the support of small-scale enterprises.

Loans for Small-scale Manufacturing

The Social Fund for Development was founded to cushion the negative economic impact of the structural adjustment policy. The total sum of loans granted by the Social Fund between 1993 and 1998 to small- and medium-sized manufacturing enterprises was more than four billion Egyptian Pounds (Khalil, 1999). As a result of the activities of the Social Fund, more than 100,000 new jobs were created. This program is regarded as one of the most successful and most cost-efficient projects among all the similar activities initiated by the IMF worldwide (Butter, 1996).

No more than four percent of all workshops included in the long-term survey had received loans from the Social Fund or other international donor agencies. While it is true that the majority of the respective workshops benefited considerably from the loans, many other workshops were forced to give up their enterprise. This applies especially to the aluminum workshops in El-Gamaliya. Some craftsmen in this sector were able to buy highly efficient machinery with loans from the Social Fund for Development and create additional jobs, which is documented as a success in the balance of the credit program. This evaluation, however, did not take into account that at the same time other aluminum workshops had to close because of the general increase in the production capacity during a period of very low demand. This caused such a surplus of cheap aluminum goods on the market, that some small-scale

enterprises could either not sell their goods at all or could do so only at a loss. As a result, more old jobs were destroyed in this branch than new income possibilities created by the credit program.

Such loans were also used to establish a number of workshops for the production of furniture and clothing. Some of these enterprises also had such serious problems in selling their products and repaying the loans that they had to close down their enterprises after a short period of time.

Conclusion

The last examples show how important it is – especially under the difficult economic conditions of structural adjustment – to examine the sales prospects of the goods produced by small-scale manufacturing before granting loans. In addition to this, the evaluation of credit programs should not only consider the development of enterprises receiving loans but should also assess the impact on other possibly affected workshops.

In summing up the results of this long-term study, it has become clear that smallscale manufacturing in Cairo is able to survive even in times of deteriorating economic conditions and growing competition from expanding modern industry. The major advantage of these small enterprises lies in their flexibility:

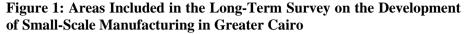
- They are able to immediately adapt their production to the changing demand especially where fashionable goods are concerned – by manufacturing small series and specializing on niche products;
- their informal employment structure makes it possible for them to employ only low-paid women and children or unpaid family members and even to close the workshops temporarily as a reaction to an economic crisis.

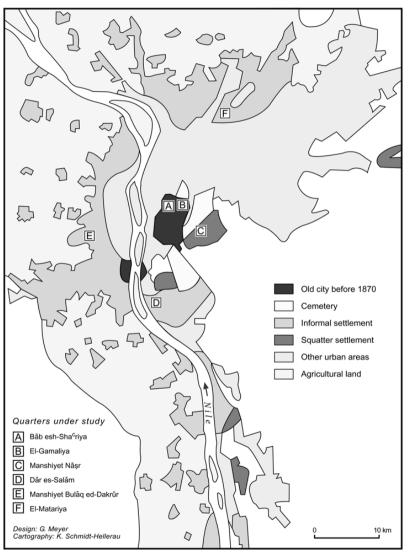
The different development in the various branches of small-scale manufacturing indicates also that the expanding modern Egyptian industry and the rising flood of cheap imported goods will sooner or later force many workshops to halt production. As a final strategy for economic survival some workshops turn from production to repair. This could be observed, for example, in the case of shoemakers, tailors and metal working enterprises. Under the conditions of the worsening income situation, more and more consumers are inclined to have defective articles repaired because they cannot afford to buy new goods. Here, new economic chances become available for craftsmen.

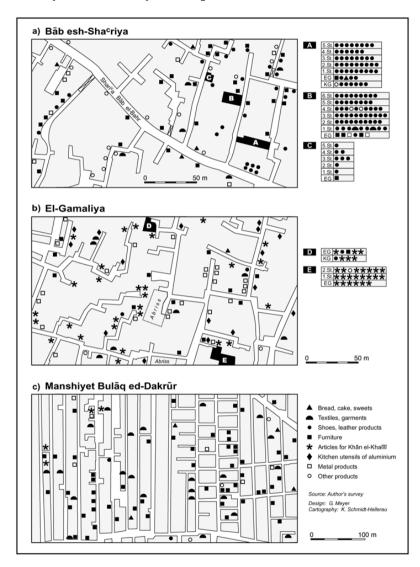
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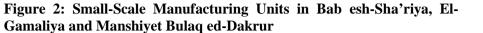
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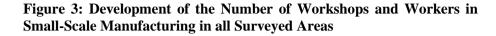
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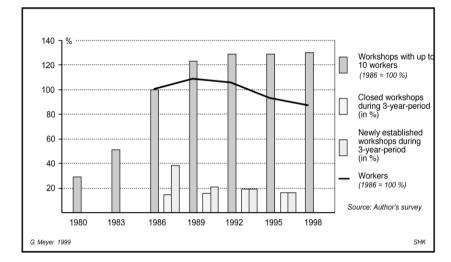












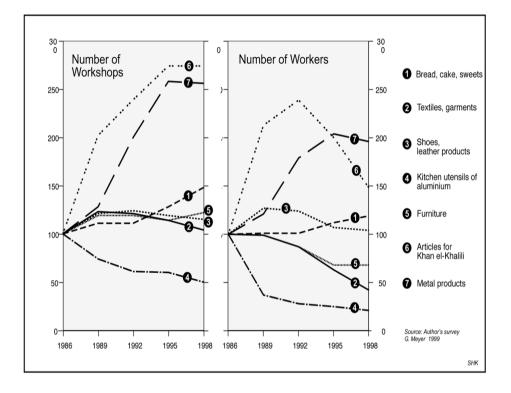


Figure 4: Development of the Number of Workshops and Workers in Selected Branches of Small-Scale Manufacturing (1986-1998)