

**THE INDUSTRIAL DESIGNER ROLE TO CREATE NEW
CLOTHES EQUIPMENT TO FACE THE ECONOMIC
CRISES
(CLOTHES IRONING EQUIPMENT)**

***DR.AYMAN MOHAMED AFIFI**

ABSTRACT

The economic crises have negative impact on the industry and the unavailability of the production supplies such as the equipment, the tools and the materials. From this prospect, the industrial designer finds his role in facing the problems resulted from the economic crises. Moreover, the research aims at paying the attention to the designers and manufacturers to enter within the domain of the equipment of clothes manufacturing, the competition in designing and manufacturing the production supplies, decreasing the importation and approaching the addition value in using the local materials, facing the economic crises by depending on ourselves the same as the other countries and finally finding the effective role of the industrial designer in the field of manufacturing clothes. the researcher selected the Ironing and press Equipment to conduct a new innovation or innovative design the new design that is considered as the outer form of human being that can be made of steel panels painted by Nickel Chrome and this form have many holes to push the steam that is necessary for ironing, then two wings are added to this figure to perform the Ironing and press process on the upper part of the Jacket.

KEY WORDS: Industrial Designer, Ironing Machine, Laundry press, shirt-ironing machine.

* High institute of applied arts 6 October city, Egypt, Industrial Design department

INTRODUCTION

Recently Egypt witnesses many economic, social and political crises due to the repercussions of the last revolutions in January and June. In addition these economic crises lead to the declining in the foreign exchange reserves in the Central Bank and the stock Market as well as the increasing in Dollar's price before the Egyptian Pound, thus the parallel market appears and the industrial production decreases as result of the political crises, the security disruption and the class protests, the decline in the volumes of the imports and exports, the decline in the number of tourists (one of the most important foreign currency sources), the credit decline of Egypt by some universal Credit Rating organizations, therefore Egypt becomes one of the unsafe capitalist countries, consequently the decline of the foreign investment, the inflation, the higher interest price on the deposits in the banks, the raising deficit in the public budget of the country, the increasing in and out dept and resorting to borrowing from abroad.

All these factors have negative impact on the industry and the unavailability of the production supplies such as the equipment, the tools and the materials. From this prospect, the industrial designer finds his role in facing the problems resulted from the economic crises that is related to the industry through designing the equipment with innovative and new ideas and they are can be manufactured by an Egyptian material and labors especially the equipment of manufacturing the clothes. This industry has a big importance as it is considered one of the great-labor industries as well as it is considered as an exporting industry that has a vital role in increasing the supplies of the foreign exchange.

IPORTANCE OF THE RESEARCH

The Significance of the Research is represented in the following points:

1. The competition between the products imported from abroad and the Egyptian products in terms of the production supplies in various domains especially the equipment of manufacturing clothes, as well as the decreasing new and innovative designs that coincide with the local clothes industry environment.
2. saving the products supplies especially the equipment of the clothes industry (Ironing equipment) and innovating new and innovative designs that can be manufactured locally to face the foreign competition and depending on the Egyptian materials and Egyptian labors to decrease importing from outside.

OBJECTIVES OF THE RESEARCH

the research aims at paying the attention to the designers and manufacturers to enter within the domain of the equipment of clothes manufacturing, the competition in designing and manufacturing the production supplies, decreasing the importation and approaching the addition value in using the local materials, facing the economic crises by depending on ourselves the same as the other countries and finally finding the effective role of the industrial designer in the field of manufacturing clothes.

REVIEW OF LITERATURE (PREVIOUS STUDY)

A. Ironing instructions: The research is concerned greatly with the Clothes' manufacturer in terms of finishing and packaging meaning the Ironing Equipment that is considered one of the most important phases in order to present and show the product for the consumer and encourage him to choose the cloths. Thus, the process of Ironing has many bases and rules that shall be applied in order to know and identify the requirements of the proposed Ironing Equipment when designing:

1. Removing all buttons as well as the collar and cuffs fixtures, make sure of the type of the textile from which the shirt is made. In case it is made of cotton, set the Iron Equipment on high temperature with a lot of steam and with the other types, you shall return to the guides coded on the label.
2. Put the collar in a flat position on the Ironing Table in order to be able to iron the outer part of the collar, Then fold the collar and press on its the outer surface.
3. Then iron the upper part of the shirt that is the part that passes through the shoulder and the neck, then fix it on the side of the iron table then direct the iron equipment carefully towards the middle, then direct the iron to the part of the neck and the shoulder, then repeat the method of the good press in order to render the shoulder of the shirt in a regular and smooth form.
4. Now put one of sleeves of the shirt on a flat form on the Ironing Table and make sure that the wrinkles on the internal part of the sleeve straightly, then iron through making small presses on the sleeve and make sure that it is away from the part that is empty of wrinkles. When you iron the sleeve completely, Iron carefully n order to treat the wrinkles found on the edge, then put the edge of the sleeve straight on the Iron table and iron it as well , repeat this step on the other sleeve.

Through the previous method of ironing and the guidelines, the researcher concludes some requirements of designing the Ironing Equipment that take into consideration that the following factors shall be available:

1. The existence of a steam source and it is preferable to save a starch solution
2. A special system to press on the cloths when ironing
3. The existence of a temperature thermometer required for Ironing
4. Body or table for ironing or the similar hanging method.

B. Clothes ironing machine for factory : The Form Feature is so artistic, adopt a man Model of style, as long as put dress inside can be automatic ironed, with a high automaticity, blast, manual operation, and automatic free choice, the machine's shoulder can be adjusted, the model frame can rotated 360 degree, the joystick degree of tightness can be adjusted, prevent the clothes dusty effectively, this machine can be used to garment industry or hotel laundry in industry as shown in figure1.



Figure 1 .showing Shirt And Clothes Ironing Machine

The machine body manufacture by imported stainless steel has the corrosion resistance and durability. Automatic and manual operation with computer use the model can be moved free rotation around; it's very easy to operate. Have steam injection device and a adjustment of strong weak function.

C.Laundry press: Universal laundry ironing machine shirt is an appliance used to remove wrinkles from fabric and give clothes a clean, pressed appearance. These devices serve as an alternative to traditional hand-held irons, and may allow consumers to dry clean clothes even at home. The steam press comes in a variety of sizes to meet the needs of different applications, widely used in hotels, armies, dryers and cleaners ,garment factories etc. laundry press is specialized in legger and topper form ironing suitable to material of wool ,synthetic fibers and knitted wears .with easy operation and maintenance, it is extremely practical. The parameters and pictures of ironing machine shirt are shown in figure No2



Figure 2 .showing Laundry press

E. Shirt ironing machine (Dressman): It's an ironing machine designed to iron shirts and it has just gone on the market, it works very well Research shows it takes the average person eight minutes to iron the average shirt according to Seimens, the makers of the Dressman, the world's latest attempt at building a machine to iron shirts. For those busy professionals amongst us, that

represents a saving of at least 40 minutes a week, not to mention the opportunity to avoid one of man's least favorite. The 'dressmann' irons completely on its own and has a number of other attributes which make it worthwhile - it can 'freshen up' jackets that have not been worn for a while, and can actually dry a freshly washed blouse. To operate the 'dressman', you pull the spun-dry shirt over the dummy where it is then clamped and smoothed out. You then select the right ironing program and it's away. Hot air flows through the dummy which inflates during the procedure. There are twelve programmes to enable exact setting of the time required so that every shirt is reliably dried and smooth. At the end of the procedure, which lasts approximately six and a half minutes, cold air is applied to set the job done. The shirt ironing appliance is suitable for shirts and blouses of silk, viscose, cotton, linen, flannel and all other non-stretch materials as shown in figure No3(a-b).



Figure3a.showing shirt-ironing machine (Dressman)



Figure 3b. showing the dummy of shirt-ironing machine (Dressman)

One of the major advantages of the 'dressman' is that it is very gentle with the laundry. In comparison with the classic iron and its hot temperatures, the dressman's low temperatures apply less stress to the fabric, buttons remain where they should be and shiny spots and ironing disasters are a thing of the past. The Dressman is suitable for all shirts sizes from 35 to 50 and blouses of sizes 38 to 52. It compacts to a space of 45 x 36.5 x 119 cm for easy storage, and weighs 28 kg.

F. Tubie ironing clothes: Now again, we have time for other things. TUBIE is a smooth ironing-machine that can help us at any time. While it's doing the work, we can take care of more important matters or simply relax. It is the best solution for us, fast and perfect for the job, Thus we can spare ourselves from the cumbersome standing at the ironing table. Check out more about this wonderful equipment.

We might be surprised of its performance as shown in figure No4.



Figure 4. showing Tube ironing clothes.

METHODOLOGY

In the present study descriptive survey method was used to serve the purpose and focus of the study to design and create ironing clothes equipment

THE PROPOSAL DESIGN

The research mentions this equipment as example, thus the researcher can select the Ironing and press Equipment to conduct a new innovation or innovative design and figure no. (5-A-B) shows the new design that is considered as the outer form of human being that can be made of stain steel panels painted by Nickel Chrome or stain steel and this form have many holes to push the steam that is necessary for ironing.



Figure 5a. shown the proposal design have many holes to push the steam



Figure5b. shown the proposal design have two wings.

Then two wings are added to this figure (one from the front and the other in the back) to perform the Ironing and press process on the upper part of the Jacket as it is shown in figure No6. in this figure, there is another type of color processing that appears in the design (Yellow and blue colors).

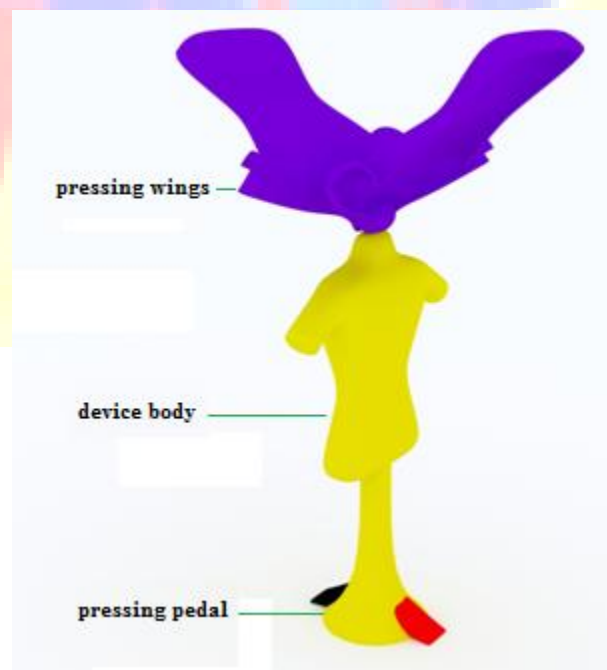


Figure 6.. shown the proposal design have two wings

The equipment is working via pressing the air to move the two wings via the pedal found in the bottom of the design colored by red and black, one of them for the press and the other for raising the two wings to the upper figure No 7 shows a drawing of the internal and external elements of the equipment.

This product will save the time of ironing and press as it takes the form of the Jacket and this make it easy for the worker to install and change and during its manufacturing, he will use local materials and it is considered the beginning of designing the other equipment in the domain of manufacturing cloths as well as decreasing importation from abroad.



Figure 7. Shown the proposal design and moving wings

the researcher made illustration to show internal components as follow:

1. Pressing wings.
2. Pneumatic piston.
3. Pneumatic hose.
4. Steam hose.
5. Steam injection device.
6. Pneumatic compressor.

internal components of the proposal design as shown in Figure No 8

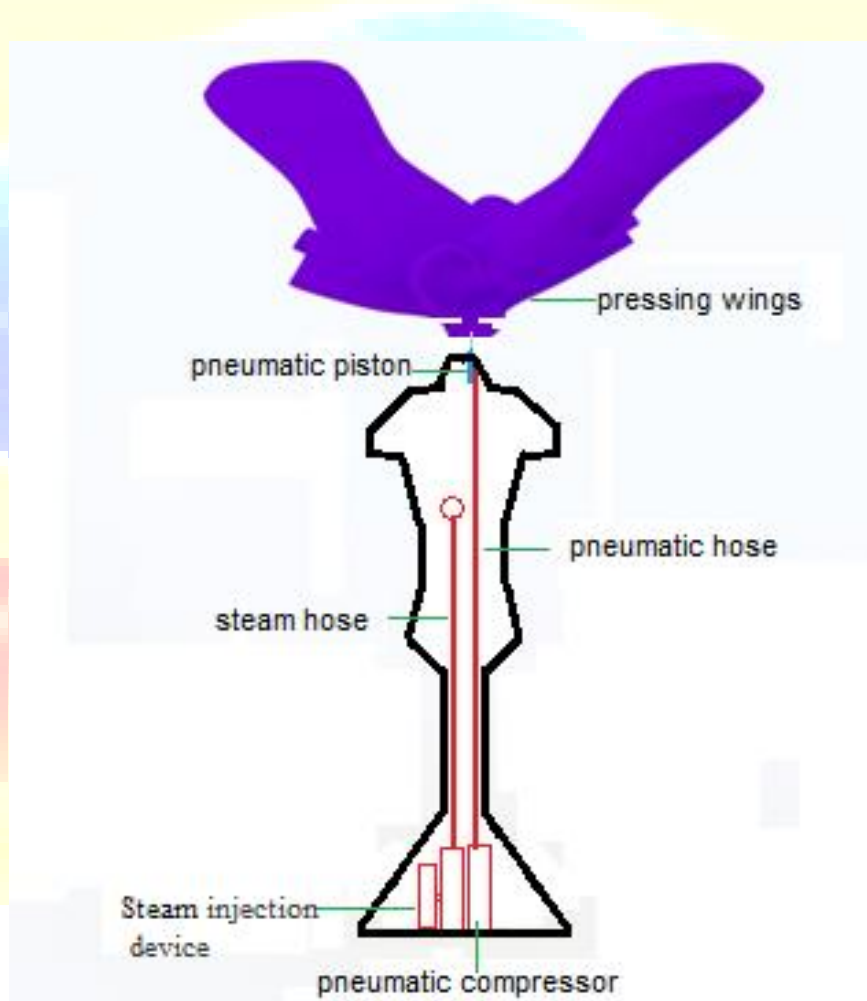


Figure 8. showing internal components the proposal design

RESULTS

1. The process of designing and innovating modern equipment in the domain of cloths' manufacturing and the productions supplies increases the competitive capacity in this domain before the universal markets.
2. Moreover, designing and manufacturing the equipment of cloths' manufacturing proves that by depending on the national labors and using the local materials to decrease the importation and directing towards the added value in using the local materials
3. The design prepared Ironing this way will reduces the performance of ironing time and increase output.

REFERENCES

1. Mary Louise Starkey, (2008) Mrs. Starkey's the Original Guide to Private Service Management, the Household Management Bible, Starkey International,
2. Ramos, Et Al,(2008) Home Economics and Productive Living Education 4, Rex Bookstore, Inc.
3. Rupa Chatterjee,(2011) Smart Housekeeping, V&S Publishers,.
4. Tanith Carey,(2009) How to Be an Amazing Mum When You Just Don't Have the Time: The Ultimate Handbook for Hassled Mothers, Lion Books,
5. United States. Extension Service,(2009) Program Aid, U.S. Department of Agriculture, Extension Service.,
6. United States. Dept. of Agriculture,(2009)Farmers' Bulletin, U.S. Government Printing Office,