

Frugal innovation approach utilizing Orange Economy in fashion via Graduation project

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Abstract:

The creative economy represents a viable path for growth, achievable through forward-thinking, collaborative policy measures and actions across different industries Fashion industry as an example. This research is establishing a graduation project to: Reviving the Egyptian costume identity in a trendy contemporary way. increasing the economic and social empowerment of women (students of fourth grade clothing and Textile program).to achieve these goals twenty-nine were done taking twelve products as an example evaluating by questioner form cost and profit proposals with brand constructing.

Keywords:

Orange Economy, Fashion Industry, Graduation Projects, Women Empowerments

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Introduction:

Cultures influence fashion, which may even take on new cultural significance in other communities.1. Thus, a cultural behavioral phenomenon of consumers expressing human uniqueness in a socially acceptable way might be classified as fashion design.2.

-The fashion design industry is encountering a wide competitive challenge due to fluctuating consumer needs, a tough market, and the growing roster of fashion design institutes, each with unique objectives. Consequently, the project seeks to provide emerging fashion designers with the essential skills to assume various professional roles and establish a fashion brand through Small and Medium Enterprises (SME), aligning with Egypt's inclination to endorse the future economy. 3

Economic and Fashion

Over time, it has evolved from a purely economic sector with an industrial focus to a cultural-economic sector with a design focus, where design is given equal, if not greater, importance than the manufacturing process. Moreover, the sector has undergone changes in terms of its focus and the scale of its operations. Fashion has expanded globally, influenced by the spread of global tastes and the global division of labor, with material production often shifting to regions with lower costs.3

The creative economy represents a viable path for growth, achievable through forward-thinking, collaborative policy measures and actions across different departments. Central to the creative economy are creative industries, identified as the processes involved in generating, creating, and distributing products and services that rely heavily on creativity and intellectual resources as key elements. The United Nations Conference on Trade

and Development (UNCTAD) and the United Nations Development Program (UNDP) categorize these industries based on their functional areas, including heritage, art, media, and functional creations. 4,5,6

These sectors encompass advertising, architecture, arts and crafts, design, fashion, film, video, photography, music, performing arts, publishing, research and development, software, computer games, electronic publishing, and TV/radio. 7

The Orange Economy is gaining attention for its ability to generate jobs, foster unity, encourage new ideas, and enhance the quality of life in communities, as it embraces both business and cultural principles. It is also acknowledged for its importance in reaching the Sustainable Development Goals (SDGs) .6,7,8

Frugal innovation: Innovation often goes hand in hand with design, as having great designs can make innovations more affordable and functional, whether it's in software, architecture, or fashion. Each field presents opportunities for resource-efficient creativity to improve efficiency and effectiveness, with the creative sector offering essential services. Within this sector, smaller businesses or MSMEs are more likely to be the ones that can quickly adapt to market demands, making them crucial for resource-efficient creativity. This approach emphasizes the importance of practicality and meeting consumer needs, especially in digital segments, which offer a high degree of adaptability. A significant obstacle for creative business owners is the challenge of finding enough skilled labor. However, with the rise of digital services, this issue isn't as severe, as forming global value chains becomes more straightforward.9

The contribution of the orange economy to achieving growth in Egypt:

Egypt has a strong infrastructure in the field of creative industries and services, and the government has provided support for these industries through a set of procedures and policies, and yet these industries are still faced with a set of measures. Many challenges have negatively affected its ability to support growth in the local economy.¹⁰

Cultural and creative infrastructure in Egypt:

Egypt has an extremely rich cultural heritage that can be seen in every corner of its major cities, from the northern coast to the High Dam in Upper Egypt. Despite the great diversity of cultural and creative industries, there is no classification. A national definition and official data are available on those industries. We can be based on the EMEA (classification) report. The creative industries in Egypt are divided into the following main groups: handicrafts, arts and culture, media, and design.¹¹

The Present Condition of the Orange Economy in Egypt:

The orange economy, along with its associated activities, represents an emerging economic sector characterized by rapid growth. The present condition of the orange economy within the Egyptian economic landscape can be evaluated through four key dimensions:

- 1- Economic Impact: This dimension assesses the economic influence exerted by the orange economy in Egypt.
- 2- Research, Development, and Innovation Environment: Here, the performance of the research, development, and innovation ecosystem supporting the orange economy sectors is measured.
- 3- Investment in Sector Development: This aspect examines the investments allocated towards the enhancement of entities involved in the sectors of the orange economy in Egypt.
- 4- Employment in Orange Economy Sectors: The number of individuals employed within the sectors of the orange economy in Egypt is

considered in this dimension.

The orange economy in Egypt is experiencing swift growth, exerting a significant economic impact. Its status can be gauged through these dimensions, which include economic influence, the performance of the research, development, and innovation environment, investments in sector development, and the employment status within the orange economy sectors.

National Identity:

National identity is a multifaceted concept, encompassing various perceptions and attitudes specific to a group. The connection between individuals and their national identity plays a crucial role in understanding consumer preferences. Consequently, research on national identity is of paramount importance in today's globalized world, characterized by a dynamic market.¹³

Fashion education as a source of small business:

According to prevailing market forecasts, the field of fashion design, it is imperative that the realm of fashion design education be integrated with a comprehensive structured framework aimed at nurturing the development of fashion design skills. The highest level of proficiency is sought to cultivate individuals equipped with the requisite qualifications to become creative, productive, and innovative fashion designers. This objective necessitates that the fashion design sector endeavors to:

- 1- Foster a competitive atmosphere within the field of fashion design.¹⁴
- 2- Encourage fashion designers to integrate critical thinking and intellectual rigor into their creative processes.
- 3- Inspire fashion designers to refine their skills by incorporating novel and innovative elements, along with proficiency in various technologies.
- 4- Prepare fashion designers for the transition into the role of producers, focusing on the application of practical and experimental elements within the context of fashion design.¹⁴

A Fashion Design Process for Small and Medium Enterprises:

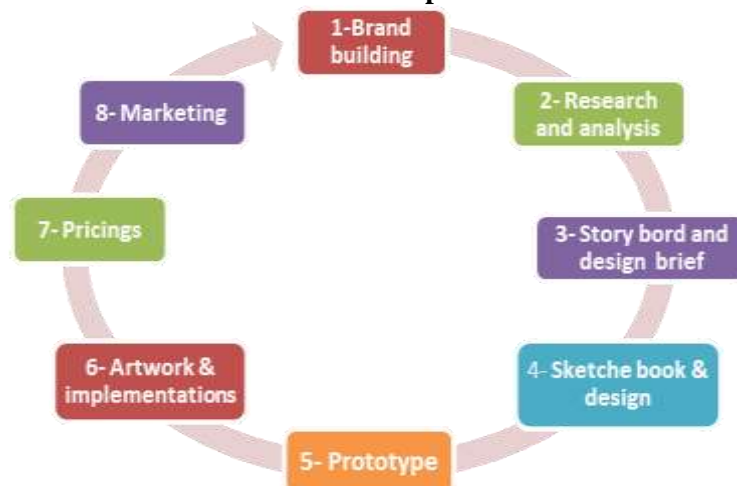


Fig. (1) Fashion Design Process for Small and Medium Enterprises.³

Brand Establishing:

- 1- Establishing a strong fashion brand through SME required each group to do the following: Identify target customers and their needs.
- 2- Identify each group's brand identity
- 3- Choose an effective logo that visually connects to the brand.

Entrepreneur and small business:

An entrepreneur is characterized as an individual possessing both the capability and the ambition to initiate, manage, and achieve success in a startup enterprise, which inherently involves risk. This risk is in exchange for the potential to generate profits. The quintessential instance of entrepreneurship is the establishment of a new business venture. Entrepreneurs are frequently recognized as a wellspring of innovative ideas or as innovators, introducing novel concepts into the marketplace by supplanting outdated practices with new inventions.16,17

2- Research Objective:

This research is establishing a graduation project to:

- 1- Reviving the Egyptian costume identity in a trendy contemporary way.
- 2- Increasing the economic and social empowerment of women (students of fourth grade clothing and Textile program).
- 3- Applying creative Economy (Orange Economy) managing the means of production and turning graduation project to small projects,
- 4- Raise the percentage of projects directed to women, so that they can make economic decisions, also reduce the rate of unemployment and poverty among females in Egypt.

3- Methodology:

This work follows the experimental, analytical method.

4- Experimental:

From the graduation project for the student of fourth grade clothing and Textile Program - at Faculty of women for Art, Science and Education, Ain Shams University, Cairo, Egypt.

1- Products Performing:

twenty-nine creative fashion designs for women between (15-50) years old a 100% low-cost cotton fabric which available in Egyptian market were designed, pattern drawn, implemented, dyed and decorated inspired from Egyptian traditional

Samples of Performed Products:

Costumes for Heritage Revival Theme were applied using the Creative Economy concept.

2- Questionnaires Forms:

Questionnaires Forms were distributed using google form to explore the opinions of the specialists in the activity to see the acceptability of the final products and their fulfillment to the scope of the graduation project.

The questionnaire includes 10 Items as follows:

- 1- The design fits women suggested age.
- 2- The outfit performed fulfilled the aim of the project trendy heritage revival.
- 3- Outfit suitable to be marketable.
- 4- Outfits satisfy elements and principles of fashion design.
- 5- Design shows Egyptian inspirational spirit.
- 6- Accessories, decoration tech. and embroidery add a contemporary look.
- 7- Finishing tech. and dying tech. helped to produce sustainable trendy outfit.

Each item was assessed on a 5-degree (5= strongly agree, 1= strongly disagree).

3-Financial management of the project:

(Project Financial Management) Financial management contributes to achieving this goal by influencing decisions regarding the elements of the capital structure, sources and types of financing, and the nature and size of the types of investments selected in assets.

- 1- Key Resources.
- 2- The project needs of raw materials.
- 3- Manpower (Employment):
- 4- Costs for investment production (main resources).
- 5- Then pricing and assessing proposed profit (according to market stimulation)
- 6- Designing Cost & Profit Proposal to measure the Efficiency of being a small project.

4- Establishing a brand (creating a logo- foundress a Instagram page as a example of social media e-marketing).

5- Results and Discussion:

Twenty-nine designs were performed taking into considerations elements and principles of fashion design, with Egyptian folklore decorative added units. The following products implemented with the criteria of (Visual Appearance Garment fit-Sustainability- Manufacturability Marketability), as well as used techniques – product analysis-questionnaire and its analysis.

Design 1:

Element of cost	COST/EGP
Manufacturing labor	50
Martial	480
Treatment /dye	60
Accessories	400
Cost profit 30%	297
Total price	1287
Market price	3000

This tie-dye design is inspired from Sinai bedwian culture. The design consists of (tie-dye blouse and dyed wide leg pants). The tie-dye blouse using Shades of Maron and white colors. With a network on the right side with gold beads, and on the back a drawing of a face surrounded by a burqa decorated with gold coins. With dark Maron red pants. The design gives a modern trendy look.

Design 2:

Element of cost	COST/EGP
Manufacturing labor	50
Martial	540
Treatment /dye	50
Accessories	125
Cost profit 30%	229
Total price	994
Market price	3000

This outfit is inspired from 'Eastern Egypt '(red sea areas) red sea vibes

-Using Color palette: Blue 'shades of white to dark blue (reflecting the shades of the seaside.).

Design consists of two pieces:

- the first and upper piece is a cropped jacket that contains dyed lapel where the dye effect starts from the break line of the lapel and is accompanied by some embroidery on the back showing the name (Sinai in a separated letters).
- Lower piece, which is the wide, loose trousers, is inspired by the fisher man costume and it's decorated with a blue tie-dye Tech., which gives the shape of asymmetrical rings differ in sizes and gives a simple image of the shape of sea wave

Design 3:

Element of cost	COST/EGP
Manufacturing labor	50
Martial	480
Treatment /dye	80
Accessories	325
Cost profit 30%	280
Total price	1215
Market price	3000

This modern jumpsuit with macramé band is inspired by Sinai embroidery (cross stitch).

This jumpsuit consists of “fit blouse with princess cut and a wide leg pants and has a Bumb sleeve” the length is from the shoulder to the ankle. Its simple jumpsuit dyed with blue dye and then decorated with macrame “pixel stitch to make cross stitch on it” three pieces of macramé were made and put one on the shoulder to the waist then the other around the waist and the last on from the waist to the knee, its off-white color with dark red. Which give the jumpsuit an oriental trendy look.

Design 4:

Element of cost	COST/EGP
Manufacturing labor	50
Martial	370
Treatment /DYE	80
Accessories	100
Cost profit 30%	180
Total price	780
Market price	3000

This outfit consists of long dress and cropped vest , Colors used are (purple, red, yellow, blue).This outfit is inspired from Nubian culture (upper Egypt),with cuffed sleeve , cinched waist. Adding ornaments with embroidery threads, the motifs used inspired from Nubian's hat, violet color in dress and decoration colors in vest add youth royal feminine look.

Design 5:



Element of cost	COST/EGP
Manufacturing labor	50
Martial	720
Treatment /DYE	100
Accessories	700
Cost profit 30%	471
Total price	2041
Market price	3000

Its a sea side nature outfit inspired from lower Egypt culture fishermen net, sea shells design consist of (blouse, skirt and crochet vest).

The length of the blouse is from shoulder to waist and its fit blouse with violet and lavender tie and dye showing the sea side natural colors, with handmade crochet top simulates fishing net and tie and dye layers skirt.

Design 6:



Element of cost	COST/EGP
Manufacturing labor	50
Martial	360
Treatment /DYE	140
Accessories	150
Cost profit 30%	210
Total price	910
Market price	3000

This colorful outfit is inspired from Nubian and upper Egypt.

Color use is violet, orange and yellow its related to Nubian palette, the design is a dress with slit and tie-dye piece gather on waist begin from the front to the back without seam line on the side; and the front is dyed with violet and embroidered with beads and threads of the orange and yellow shades. The embroidered pattern with orange to yellow geometrical pattern gives a youth summery look sleeve consist of two pieces separated by embroidery bands.

Design 7:

Element of cost	COST/EGP
Manufacturing labor	50
Martial	445
Treatment /Dye	120
Accessories	85
Cost profit 30%	210
Total price	910
Market price	3000

The design consists of two pieces (sleeveless jacket and dress)

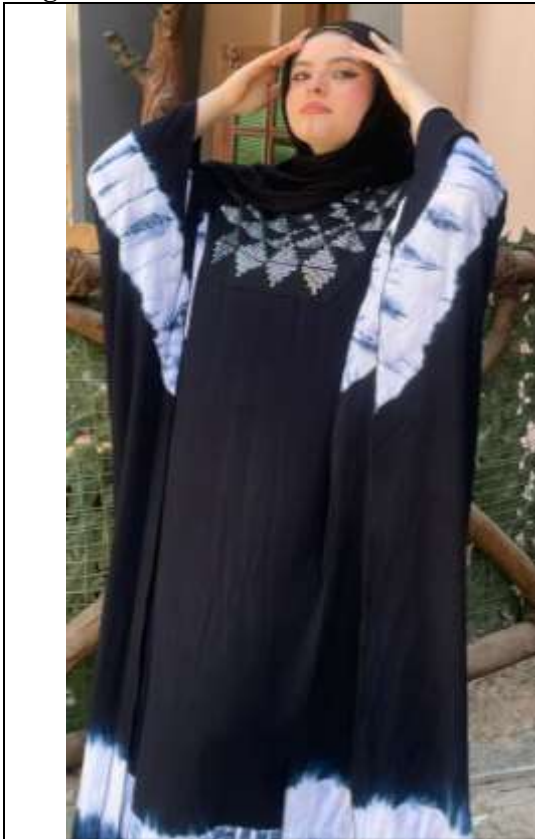
The first piece is a simple dress with plain orange dye from the shoulder to ankle with A-line design with bell shape sleeves to add a free and flowless movement, the second piece is sleeveless tie-dye wrapped jacket with asymmetrical design that consist of (dark blue, orange, yellow, green, turquoise) dyes and embroidery yarns (orange, light blue, white) and white button with different sizes and symmetrical lines like sun rays

Design 8:

Element of cost	COST/EGP
Manufacturing labor	50
Martial	400
Treatment /dye	50
Accessories	275
Cost profit 30%	250
Total price	1025
Market price	3000

-This outfit is inspired from "Matruh" culture, this design is a wide dress with extensions at both sides of shoulder extending to the ankle.

-the length of the dress is from shoulder to ankle, the fabric of the dress is dyed with tied & died and tub dye with red dye, the top of the dress is hand painted with a fabric color of monochrome red color, the painting is a scene of Matruh beach and a mosque there.

Design 9:

Element of cost	COST/EGP
Manufacturing labor	50
Martial	300
Treatment /Dye	75
Accessories	500
Cost profit 30%	262
Total price	1137
Market price	4000

This outfit is a glory Tali Dress Inspired from “Sohag & Assuit in Upper Egypt It’s a wide zero waste abaya dress with Tali front yoke. With a degradation from black to white endings , silver shine of silver Tali add a glamorous Touch suitable to evening look.

-Color palette : Black , white, and silver.

Design 10:

Element of cost	COST/EGP
Manufacturing labor	50
Martial	640
Treatment /dye	100
Accessories	230
Cost profit 30%	309
Total price	1339
Market price	3000

This outfit is inspired from Siwa oases countryside. It consists of suit (blouse and Pants).

blouse with a drawing with hand embroidery on the front bordering some drawings, and open sleeve at the elbow, pants with a Charlson and at the end of a dye tie, with hand embroidery of lines in green and blue colors.

Design 11:

Element of cost	COST/EGP
Manufacturing labor	50
Martial	450
Treatment /dye	40
Accessories	135
Cost profit 30%	199
Total price	862
Market price	3000

The design is a modern tie dye look, tunic with pants. the tunic has a diagonal wave ruffle connected to the sleeve and asymmetrical hemline, adding an edgy and modern touch to the flowing silhouette. The tie-dye pattern of olive green and yellow dances playfully along the uneven edges, enhancing the tunic's unique charm.

Design 12

Element of cost	COST/EGP
Manufacturing labor	50
Martial	600
Treatment /DYE	200
Accessories	780
Cost profit 30%	390
Total price	1690
Market price	4000

The outfit is inspired from lower Egypt costume and geographical, this design consists of (blouse and skirt). The length of the blouse is from shoulder to waist, it's a crop top blouse with orange, blue, black, yellow and pink fabric color from the shoulder to the hem of the blouse (which gives a contrast and a clarifying nature of sea side).

And the skirt also has art design handmade in the front and back all the design color were made in an aqua blue fabric with sea touch.

Questionnaire results:

Design no.	1	2	3	4	5	6	7	8	9	10	11	12
%	95	94	94	93	94	94	94	93	95	91	93	93



Fig. (2) the acceptability chart.

Comment:

From the previous Fig. 2 design no.1 and 9 shows the highest ranking in the questionnaire sheet evaluation with 95%, while design no. 2,3,4,5,6 and

7 ranked second with evaluation percent 94%, while designs no. 8,11 and 12 scored 93%. Design no. 10 was considered the lowest ranking score with 91%.

Brand building establishments:

Fig. (3) the brand in the Instagram

Conclusion:

Applying and performing a final graduation project for young women of forth grade in clothing and textile program as core of futuristic small business holding all accumulated expertise for them giving a step for women empowerment and creating a new future job.

The Orange Economy has become increasingly recognized as an accelerator for growth, innovation, and creation of jobs.

- 1- The primary force behind the growth of small initiatives is entrepreneurship, which guarantees their viability, continuity, and sustainability.

- 2- Regarding standard small enterprises, entrepreneurship is a revolution that calls for a wide range of abilities, including creativity, invention, and the ability to research and analyze both existing and future market demands.
- 3- Given that entrepreneurship can improve product marketing and promotion as well as help with product quality improvement, it is crucial to the growth of the textile sector.
- 4- One of the project's investments that contributes to its sustainability might be skill training.
- 5- To update items and create fashionable products suitable to contemporary markets, it is possible to work with young, creative designers.
- 6- Crafts may be developed and unique designs that progress them can be created using artificial intelligence approaches in some steps like pattern making.
- 7- Products may be promoted and marketed through entrepreneurship, and websites can be made to sell and market things online.
- 8- To create affordable, handcrafted outfits for a wide range of social groups, as well as to promote cleaner manufacturing and environmental preservation, trash from textile and yarn factories and apparel manufacturers may be recycled.
- 9- By creating a monochromatic textile product and printing on it, one may boost productivity and profit margin while decreasing the time and effort required by artisans.
- 10- Collaboration between the costumer and the designer in the single-piece manufacturing method in accordance with the client's preferences, whether for investment or personal use, since historical craft objects have worth as heritage possessions with a variety of their acquisitions.

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