

The Importance of Competitive Advantages to Rationalise Product Costs to Achieve Customer Satisfaction and Attract Investors in the Financial Statements. Applied Research in the Electric Cables Plant / Ur State Company

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The research aims to explain the reasons for the high cost of production and the application of modern concepts in accounting costs and administrative, which came to remove loss and waste and rationalisation of costs and improve operational performance in response to changing conditions in the business environment. As a result of these variables and circumstances, the research problem was manifested in the high cost of manufacturing the products of Ur Company, which lost competitive precedence with other products in terms of price, quality and other specifications imported from various sources. In order to achieve the objective of the research and solve the problem, a basic hypothesis was developed that the use and application of modern concepts leads to rationalising the cost of manufacturing products, improving activities and processes, and creates a market share in the local environment. It is also necessary to continuously seek (i) to reduce the production, marketing and administrative costs of the plant, (ii) the need to seek replacement of machinery and equipment with advanced technology machines, (iii) to impose customs duties on the imported products and (iv) activate the role of the standardisation and quality control apparatus.

Keywords: *Rational Costs, Competitive Precedence.*

Introduction:

In view of the developments in the modern business environment and the increasing pressure on industrial companies to satisfy the desires and needs of customers and then stay in the market competition, it is necessary for these companies to produce goods or provide the services demanded by consumers with high quality and at the right prices. The process of production or delivery of goods and services by companies may significantly affect the global competition and technological progress, which necessitates the introduction of new products to meet the speed of change in customer requests and tastes and to be of high quality, which has led companies to think seriously about how to keep pace with this development and respond to this change in applications tastes. The competitive superiority gives the company the ability to excel in the performance of competitors in the industrial sector in which it operates, and it provides harmony between the company's resources and opportunities in the surrounding environment as well as it being characterised by the durability and strength and the difficulty of imitating competitors. It also provides a basis for future improvements and through the guidance and motivation to all the components of the company. This research has been divided into three aspects to cover the theoretical and practical aspects and the main conclusions and recommendations that came out.

Methodology of Research:

The research methodology includes the following:

1. Research problem:

Most of the products, including the products of the Ur Company for the manufacture of cables and cables - the electrical capacitor factory, the research sample suffers from a high cost of manufacturing, which makes its competitive position weak compared to competing foreign products. This is due to the transformation of the business environment in which the company operates from a non-working competitive environment to a wide competitive environment where products are exposed from different global originators at different prices and quality, which led to a significant drop in sales and significant losses.

2. The importance of research:

The research derives its importance from the following:

- 1 - Study and application of modern concepts of cost accounting and management accounting and its contribution to achieve competitive precedence.
- 2 – To contribute seriously to increase the level of awareness of the administrative leaders of the economic units of the importance and the need to apply modern concepts

that lead to rationalisation of costs and improve the performance of companies on an ongoing basis.

3. Providing the economic units with a working guide to rationalise the costs and raise the quality of their products in order to survive and compete.

3. Research Objective:

The research aims to:

- 1 - State the reasons for high production costs and weaknesses in the performance of production systems management.
- 2 – Outline the application of modern concepts and methods that will enable the company to stay and continue in the competitive market by identifying the areas of rationalisation of costs, increase the volume of production and collection of revenue, and the eliminate accumulated losses.

4. The hypothesis of the research:

The research is based on a basic premise: The use or application of the precedence of the rationalisation of costs as one of the competitive priorities leads to rationalise the cost of making products, improving activities and processes, increasing sales, achieving profits and obtaining a marketing share in the work environment which enables the company to stay in the industrial environment.

5. Research Methodology:

First: The deductive approach. Adopted in this approach is the following:

- 1 - Arabic and foreign books and sources.
- 2 - Messages related to the subject of the research.
- 3 - Research and articles published in scientific journals and periodicals.
- 4 - World Wide Web (Internet).

Second: Inductive Methodology. The research in this method was based on the following sources:

- 1 - Books and official documents of the company sample research.
- 2 - Documents, records, audit balances and company reports.
- 3 - Personal interviews with company officials.

6: The limits of research:



- 1 - Spatial boundaries: **Electric Cables Plant / Ur State Company.**
- 2 - Time Limits: The research period is set for the fiscal year 2019.

7: Society and Research Sample:

The research community is the public company Ur for electrical industries, the reason for the selection of the community and the sample of the research is due to the following reasons: It is one of the major companies affiliated to the Ministry of Industry, which produces a basic product, electrical cables and cables, which fills 70% of the need of the Ministry of Electricity, varying percentages to meet the needs of other ministries, 90% of the need of Diyala for electrical industries and household electrical appliances.

The First section: Literature - The main concepts of cost rationalisation and competitive priorities:

First: Cost rationalisation:

Companies need to determine the cost of the product they provide to their customers. It helps in determining the cost of units sold. It also helps in determining the cost of unsold units. It further helps in making pricing and profitability decisions, evaluating the performance of the organisation and planning for the future. It is one of the competitive priorities in the work environment.

1. Cost: Cost is defined in several definitions, including:

A - Cost is defined as a resource to be sacrificed or offered in return for a specific objective. This cost includes the cost of direct materials, the cost of wages, etc., which are usually measured in monetary units and which must be paid for the acquisition of the goods or services

(Horngren et al, 2012: 27).

B - Cost may be defined as a sacrifice performed, which is usually measured by the resources spent on them to achieve special symptoms. If carefully considered, the term cost can have several meanings depending on the context and nature of the purpose used. Cost data is classified and recorded in a particular way for one purpose may not be suitable for another (Hilton & Platt, 2011: 72).

C - Cost is defined as an economic sacrifice for a portion of the resources of the enterprise, which is matched by a service or benefit necessary to achieve the objectives of the project and expressed in monetary units and can be foreseen and determined in advance (Al-Azmah and Al-Adli, 1990: 106).

The two researchers believe that the cost is the sacrifice of the institution with its human and material resources, which they bear in exchange for the necessary benefit and service to achieve its goal and express this sacrifice in monetary units.

The process of categorising the cost components is based on the nature or relationship of the functions of the company; the unit of the final product or the volume of production, as shown in forms (1) and (2) and will be adopted during the research:

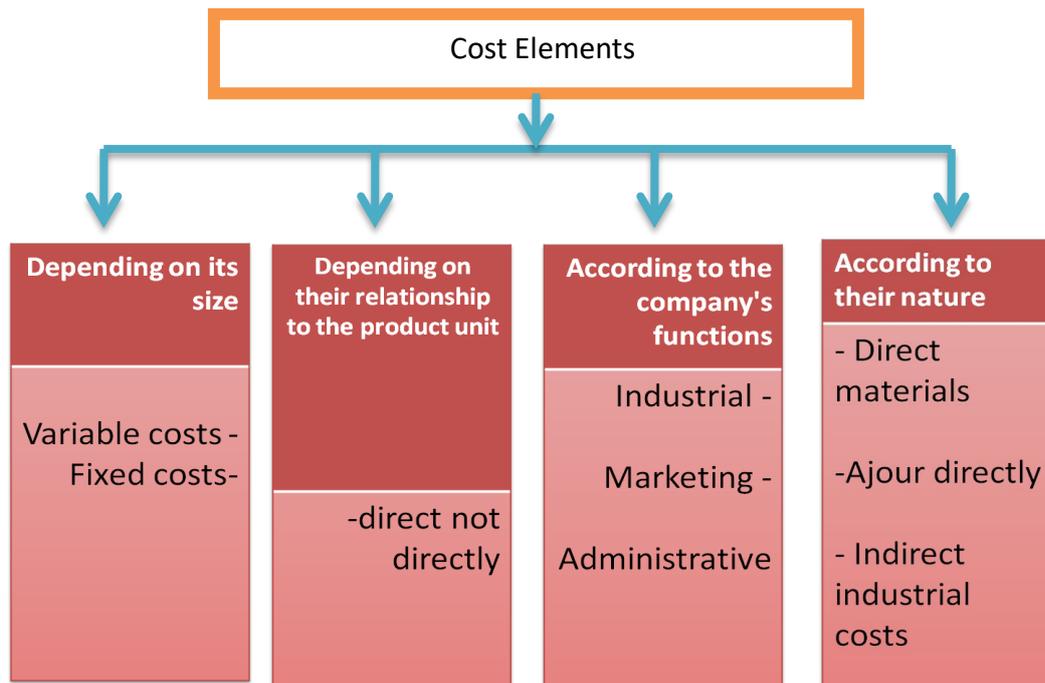


Figure (1) elements cost elements

Source: Al-Azma and Al-Adly, 1990, Fundamentals of Cost and Administrative Accounting, Al-Salsal, Kuwait, p.).

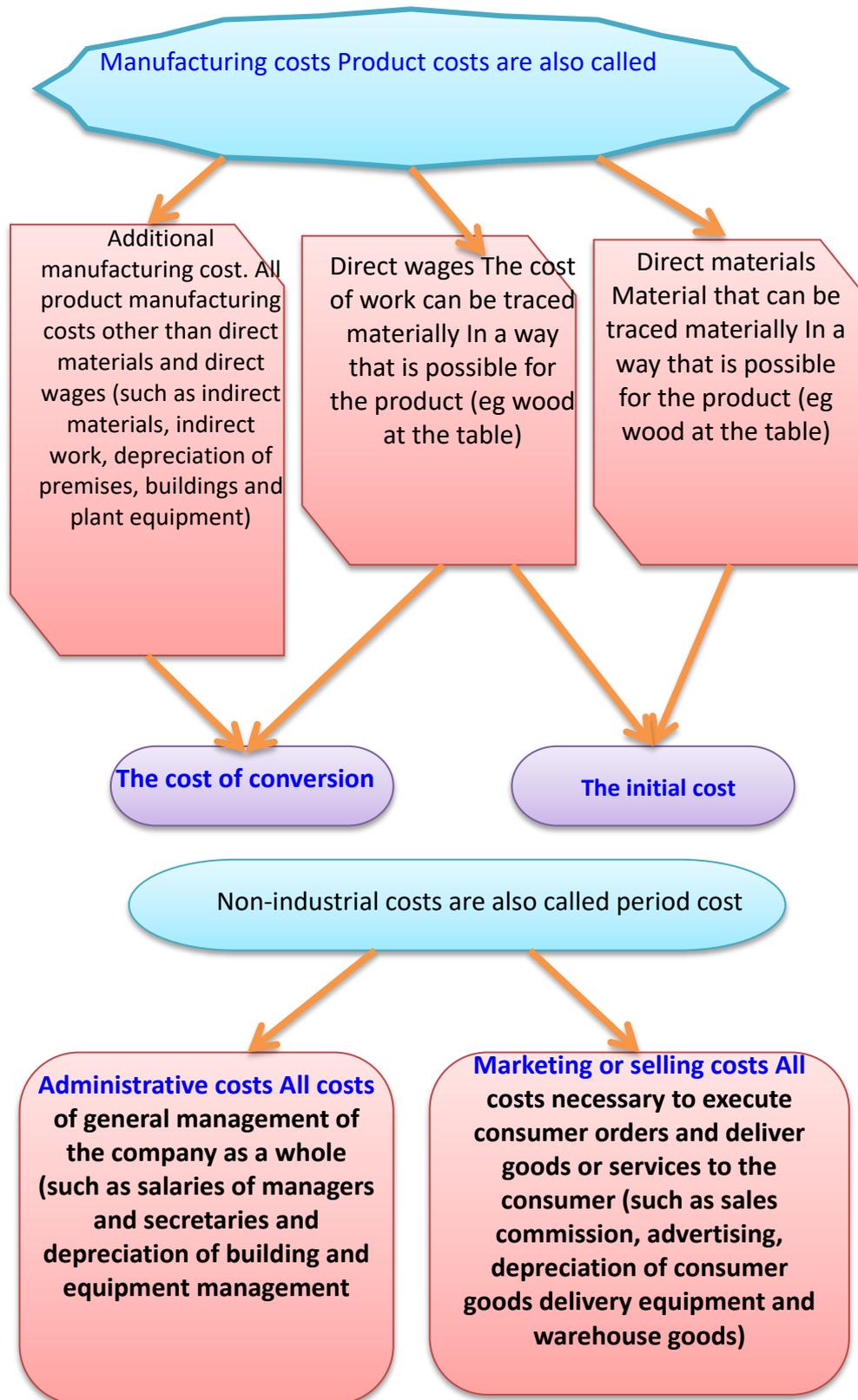


Figure (2) classification production costs

Source: Prepared by the researcher.

2. Rationalisation:

The word rationalisation is linguistically meant to mean, or to be guided by, or guided by it. It may be guided by it. It means that it is given to him and approved by him (Arabic Language Complex, 359,2011), and rationalisation means those who are injured and guided. (Dictionary of the tongue of the Arabs ,203,1999).

The term rationalisation means control and is defined as the right decisions that are taken efficiently and effectively, which are in the interest of the company's objective, namely, rational and studied decisions according to historical data and future predictions according to changes in money and circumstances.

In the opinion of the two researchers, rationalisation is the preservation and care that the resources of the institution are not spent wastefully and lost and that the resources of the company are not without a corresponding benefit, which cause losses to the company and thus does not achieve the desired goals that seek to achieve them a gain profits and continuity and stay in the business world, which features unexpected changes. Hence, the rationalisation of the cost of products is one of the competitive priorities and the company must have at least one competitive advantage in order to survive and continue.

Second: Competitive Precedence

The business environment is currently known for its strong competition and many competitors in light of globalisation and the open market economy, which is characterized by the removal of customs restrictions and raising the protection of the government to its institutions and thus find the institution itself forced to face this competition.

1 - The emergence of competitive precedence:

The reason for the emergence of competitive precedence was attributed to Chanberlin (1939) as well as to Selznick (1959), which linked precedence with ability, and then developed precedence when he described (Schendel, Hofe) as the distinctive position developed by the company against competitors through the deployment of resources in a unique and distinctive way. Then came in (1984) M. Porter (1985). Each of these studies formulated a conceptual formulation of competitive precedence. They considered competitive precedence as a strategic objective for the dependent variable, and their justification is that outstanding performance is linked to competitive precedence (Al-Zugbi, 2003:39).

2 - Defining Competitive Precedence:

Defining competitive precedence with several definitions, including:

a - Porter knows that it arises mainly from the value that the organisation can reduce to customers, which can take several forms, including a lower price compared to the prices of competitors with equal benefits, or to provide a single feature or advantage in the product attracts consumers (Porter, 1999: 8).

b - defined as finding different dimensions of excellence owned by institutions / institution agree in the fields of production, marketing, human resources and finance (Khudairy, 2004: 34).

c - defined as a means to find a single advantage superior to the institution to the rest of the competitors, that is, it makes the institution unique and distinct from the other competitors (Heizer & Render, 2008: 36).

d - defined as "competitive advantage arises by increasing the value of the product to customers or lower the cost of delivery or display in the market, in other words it is determined by increasing the value of products to customers and reducing the cost and thus a reduction in the price of the product" (Garibaldi) (Krajewski).

Competitive precedence was realised through the optimum utilisation of resources and capabilities available to the institution as well as the capacity and competencies of the institution (Garibaldi 2002: 17).

3. Characteristics of competitive precedence:

In order for the organisation to remain in the lead, it must realise that there is no competitive primacy forever. The institution that wants to continue with success is the institution capable of developing a continuous flow of competitive priorities and achieving strategic competition when it reaches above the average and remains at the forefront of competitors. In the foreground, they set in their expectations that everything is subject to change and that change is the only fixed thing and extends the survival of competitive precedence within a limited period of time. The space of this period increases when the competitive precedence depends on the efficiency and value of core and difficult traditions and is expensive when imitated. Therefore, the institution's ownership of competitive precedence is the secret of its success and superiority in the work environment (Bakri and Suleiman, 18: 2004).

In order for competitive precedence to take precedence, it must have the following characteristics:

- a - The property should be oriented towards the needs and desires of customers as the institution provides value to its customers not provided by other competitors.
- b - To have an important contribution to success.

- c - Create harmony and cooperation between the unique resources of the institution and environmental opportunities as no two institutions possess the same resources, but the excellent strategy is to use these resources efficiently and effectively.
 - d- To be constant and continuous and difficult to imitate.
 - e- It provides the basis for continuous improvement.
 - f- It creates motivation and motivation for each economic institution.
- (Evans & Dean, 2003: 19)

4 - Priorities of competition / key success factors:

Planning for competitive priorities is adopted or adopted within a single process or set of processes and is a capacity that should be available to create a market share or allow other internal processes to be successful (Krajewski & Ritzaman, 2005: 62).

Competitive priorities are important dimensions that should be within the organisation's aspiration to satisfy existing and potential customers. Krajewski & Ritzaman (2005: 62) focused on nine competitive priorities that are divided into four groups as follows: (a) Cost: cost reduction processes (b) Quality: quality improvement processes (c) Time: processes improve delivery speed and delivery time (d) Flexibility: processes of diversification and flexibility. Each will be explained in detail as follows:

A- Cost:

The cost is the first competitive dimension to which many institutions are oriented towards maintaining and gaining market share, enhancing their position and enjoying the advantages of economies of scale, including compensating for the low profit rate resulting from the reduction of prices through a large volume of sales (Maamouri, 1999: 13).

In other words, customers cannot easily distinguish between products produced by other institutions and, as a result, customers tend to view cost mainly as a function to determine the purchasing situation (Chase, et.al., 2003: 24).

There are several conditions that the organisation should adopt if it wants to reduce the cost of the products, including the following points (Waeli, 2005: 13).

B. Quality:

The quality represents the product's suitability to the needs and desires of the customer according to the quality that suits his wishes. Quality is the key to achieving competitive precedence and is the critical success factor for each organisation. Quality has been of great importance to the customer and quality is the key to achieving profits. "Improvements in quality can help organisations increase sales and reduce costs, through which quality is a

measure of the extent to meet the needs of customers and their stated and implicit requirements and the importance of quality stems from (Naama, 2006:14) protecting the enterprise from competitors who offer their products at low prices and low margin (Heizer and Render, 2001: 172) (Evans, 1997: 45).

C. Time (delivery time):

Increasing the need for effective delivery as a form of priority for enterprises and an indispensable competitive dimension in light of the increasing importance of time to the customer, especially with the institutions that make-to-order, including service institutions (Maamouri, 1999: 21).

The implications of this dimension are linked to three trends: (i) rapid delivery, which refers to the time it takes between receiving the customer's request and delivery, (ii) delivery on time, and (iii) the speed of development, which indicates the speed of submission of the product and the time between the emergence of the design idea and the final production (Krajewski, 1999: 34).

The firm's ability to have fast delivery enables it to deliver its products as quickly as possible, as the products must be delivered to the customer as soon as possible and on the agreed date of delivery (Chase et al 2003: 34).

Time and delivery are determined according to the quick response of the customer request in the modern manufacturing environment with the time that adds value and knows the time of the manufacturing cycle and the delivery to the customer.

D. Flexibility:

Flexibility is the fourth dimension of competitive dimensions or priorities. Flexibility is one of the fundamental success factors for enterprises.

Flexibility consists of a strategic view of two dimensions: The ability of the organisation to provide a wide range of products to its customers in order to meet the specific needs and requirements of each customer. The other dimension of flexibility is that the organisation is rapidly diversified so that it can change its products to produce a new line of products, and this dimension has become more important so that the product life cycle becomes shorter and shorter (Chase, et, al., 2003: 35).

Russell & Taylor explained that flexibility has become a competitive dimension and means the ability to produce new products in large quantities, as well as the ability to rapidly change existing products and respond quickly to customer desires (Russell & Taylor, 1998: 32).

That is, the concept of flexibility is the ability of processes to change from one product to another or from one customer to another at the lowest cost or in the least time (Davis, et al., 2003: 35) (Krajewski & Ritzaman, 2005: 65).

Innovation can be achieved through continuous improvement and cost reduction and can be achieved by satisfying the customers' wishes when meeting the requirements for rapid delivery and timely product specification. Figure 3 illustrates the relationship between competition dimensions

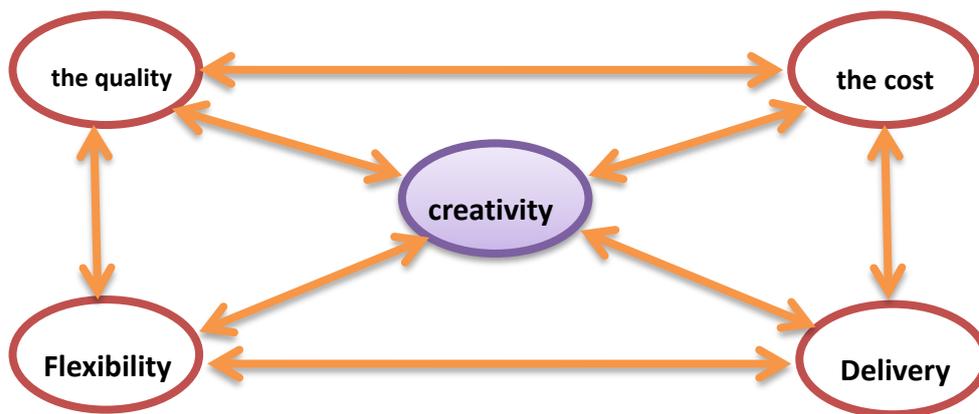


Figure (3) Relationship between competitive dimensions

Source: - (Al-Raziq, 2004:203).

(Chase, et Al., 2003: 35).

5. Relationship between the primacy of competition (basic success factors):

The superiority in the primacy of the primacy of competition depends on the performance of the distinctive priorities of the other in the sense that there is no superiority in a certain precedence at the expense of sacrificing another precedence because of the existence of mutual relations between them There are two points of view on this subject. The American view that there is a relationship between the conflicting choices of priorities which requires different procedures between the cost and quality precedents, or between the two precedents of time and flexibility. In the field of the relationship between cost and quality, the corporation faces two types of first priorities: ensuring a high quality product and the second production of these products at the lowest possible cost.

6. Competitive priority determinants:

The competitive precedence of the institution is determined from two dimensions as follows:

First: The competitive priority:

Competitive precedence takes place in the same life cycle of products, represented by Figure (3) below:

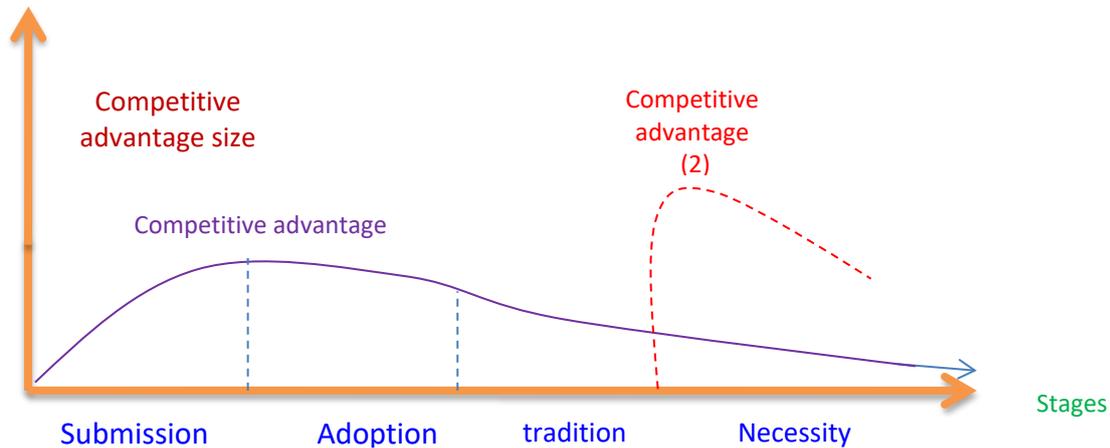


Figure (3) Lifecycle of Competitive Precedence

Source: (Nabil Morsi Khalil, *Competitive Precedence in the Field of Business*, Alexandria Book Center, 1998, p. 86, Egypt).

Second: Scope of competition:

The scope of competition consists of dimensions: (i) Market segment: This sector reflects the diversity of the organisation's outputs as well as the variety of customers for which products are offered; the choice is made between focusing on a particular sector of the market or covering the entire market. (ii) Degree of frontal integration: refers to the degree of performance of the institution for its activities, whether internal or external, higher frontal integration compared to the competitor may achieve the advantages of low cost or discrimination. (iii) Geographical dimension: represents the area of the geographic region or countries in which the organisation competes (Khudairi, 2004: 88).

The third section - the practical side: The definition of the sample of the research and the production of electricity and the cost of production to diagnose problems, provide treatments and propose solutions and alternatives:

The company faces many variables and rapid developments that require research and exploration of the best ways and approaches to address those variables by adopting ideas, concepts and modern principles aimed at reaching one of the competitive priorities, including rationalisation of costs, creating the costs inflated by the waste of material and human resources.

The purpose of determining and measuring the cost of manufacture of the products are shown in Table (1) for eight products.

Table (1) Products for which production costs have been measured

Measuring the cable	3 x 150/70 mm 2 plain	240 x 4 mm 2 armed	10 x 4 mm 2 armed	10 x 4 mm 2 Normal	95 x 1 mm 2 Normal	50 x 1 mm 2 Normal	95 AAC	120/20 ACSR
Product Type	Multi-conductor copper conductor	Copper quadrilateral	Copper quadrilateral	Copper quadrilateral	Single copper clad (RM) Scheduled	Single copper clad (RM) Scheduled	Aluminium Alloy Wire	Aluminium alloy steel wire
Production quantity / Km for 2016	<u>2.529</u>	<u>1.162</u>	<u>4.338</u>	<u>0.632</u>	<u>30.75</u>	<u>18.12</u>	<u>157.9</u>	<u>661.974</u>

Table (2) has been prepared according to the classification of direct and indirect costs as well as their classification to indirect industrial, marketing and administrative costs according to the theory of total costs.

Table (2) Calculation of the cost of production of the production plant / electrical capacitors (cost centre 5) (amounts in thousands dinars)

Cost Elements	Cable Electric + Air Wires
Direct Materials:	
Raw materials (168.551) tons (407.583) ton H / 3211	¹ 1532358
Help material A / 3212	40400
Direct wages:	
Ac / 3111's homepage!	2209870
A / 3118 equivalents	700
Indirect Industrial:	
Backup Tools / 323	29850
Packing and packaging for cables (wood, iron and bolts) A / 3241	71955
Supplies & Stationery Factory A / 32512	3460
Electricity A / 3272	76155
Oils A / 3223	3315
Transfer of affiliated factory H / 3341	11500
Factory deliveries H / 33432	2840
depreciations A / 37	745295
Other A / 39	6120
Total Productivity (Center 5)	5815380
Total Productive Services (Cost Center 6)(Table 3)	2052065
Total Marketing Services (Cost Center 7)	183530
Total administrative services (cost center 8)	129910
Total costs.....	9343885

¹The amount includes the raw materials of both electrical cables and aerodynamic wires ... The value of the primary materials that belong to the receiver is as follows:

Primary materials / copper = 1160005 thousand dinars.

Primary materials / Aluminum = 372353 thousand dinars.

Table (3) Calculation of the total costs of production services for the movable factories section (cost centre 6) (thousand dinars)

Cost element	the amount
Indirect Materials H / 32	_____
Indirect wages h / 31	1742745
Indirect costs	
H / 33 For production service centres	235375
H / 37 Indentations for production service centres	<u>73945</u>
Total amount.....	<u>2052065</u>

Table (4) Manpower and the amount of wages of the company for the year 2019 (amounts in thousands dinars)

The factory name	the Number	Wages
Cable electric	212	2161552
support	<u>1756²</u>	<u>17904786</u>
	_____	_____

Table (5) represents the total company total revenue.

Table (5) Revenues for the year ended 31/12/2019(thousand dinars)

account number	Account name	Details 2016	
		Actual	Plan
	Revenue from commodity production / net sales	1434993	69660000
	Sale of waste	8578	-
	Variance difference (between the first and the last period of total production)	7245263	-
41	Total	8723071	69660000
42	Revenue of business activity	-	-
43	Revenue of service activity	45742	50000
44	Operating income for others	-	125000
45	Internally manufactured assets	680995	2475000
46	Benefits and rents of land	-	-
47	Subsidies	-	-
48	Transforming income	30869528	34595085
49	Other Revenue	<u>937468</u>	<u>200000</u>
	TOTAL	41,256,270²	107,105,085

²– The number of employees in the supporting bodies provide the work for all the factories of the company, including the plant of electrification.

³– The amount represents the total revenues of the company, the share of the Electrical Power Plant is 27,481,651 (thousand dinars).

Table (6) Income statement of the power plant for the period ended 31/12/2019

The statement	Amount (thousand dinars)
Revenue	7507970
Revenue from commodity activity	19973681
+ Other income	
Total revenue	<u>27481651</u>
Cost of goods sold:	
Cost of direct materials	4308480
+ The cost of direct wages	8733760
+ Indirect industrial costs	10541815
Manufacturing costs	23584055
+ Change in the stocks of the first and last period under operation	170176
Cost of manufactured goods	23754231
+ Difference in stock change in the first and last period of total production	6283158
Cost of goods sold.....	30037389
Total profit (loss).....	<u>(2555738)</u>
Operational costs are raised:	
Marketing costs	(488530)
Administrative costs	(3865810)
Operating income (loss)	<u>(6910078)</u>

3 - Determination of production costs in relation to the size of production and by nature:

First: Cost Calculation:

1 - Calculating the rate of loading the cost of wages and the cost of depreciations:

A. Calculation of the rate of loading Cost of labour:

Cost of labour / production department = [700 + 2209870] (Table 2)

Cost of labour / service department $\frac{+1742745}{3953315}$ (Table 3)
Thousand dinars

Loading rate = Cost pool ÷ Cost drive = 3953315 ÷ 3115 (supplement /1) = 1280 thousand dinars/ hour

B - Calculating the rate of loading the cost of depreciations:

Table (2) = 745295 thousand dinars of the production department

Table (3) = 73945 thousand dinars and the department of production services
Total 819240 thousand dinars

Load rate = Cost pool ÷ Cost drive =
= 819240 ÷ 3115 hours of operation (supplement / 1) = 263 thousand dinars / hour

Table (7) Calculation of fixed costs (direct labour and costs depreciations)

S	the product	① loading rate of labour Thousand dinars	② loading rate for deprecation Thousand dinars	③ Product time/ (supplement / 1) hour	④ ① × ③ = ④ Cost of labour Thousand dinars	⑤ ② × ③ = ⑤ Cost of deprecation Thousand dinars
1	20\120ACSR	1280	263	2.433	3123	647
2	95AAC mm 2	1280	263	2.17	2835	585
3	1 x 50 mm 2 Normal	1280	263	4.19	5360	1110
4	1 x 95 mm 2 Normal	1280	263	4.69	6870	1420
5	4 × 10 mm 2 normal	1280	263	9.79	12525	2595
6	4 x 10 mm 2 armed	1280	263	15.2	19446	4029
7	4 x 240 mm 2 armed	1280	263	54.0	69087	14318
8	3 x 70 \ 150 mm 2 normal	1280	263	31.0	39661	8219

Second: Cost Calculation:

2 - Calculation of loading rate of raw material for aluminium and copper:

Cost of raw materials / aluminium = 372353 thousand dinars (Table 2).

Cost of raw materials / copper = 1160005 thousand dinars (Table 2).

Total = 1532358 thousand dinars

A) Loading rate for raw materials / aluminium = Cost pool ÷ Cost drive =
= 372353 ÷ 110066 ton weight (supplement / 1) = 3.383 thousand dinars /
ton

B) Loading rate for raw materials / copper = Cost pool ÷ Cost drive =
= 1160005 ÷ 110066 ton weight (supplement / 1) = 10.541 thousand dinars / ton

3 - Calculate the loading rate of packaging cost:

Loading rate = Cost pool ÷ Cost drive =

$$= 71955 \div 561297 \text{ kg (supplement / 1)} = 0.128194164 \text{ thousand dinars / kg}$$

Table (8) Calculation of Raw Materials and Packaging costs (thousand dinars)

S	The Product	① Rate of raw materials / copper	② Download rate packaging Thousand dinars	③ Technological quantity Kg (supplement / 1)	④ Total weight kg (supplement / 1)	⑤ ① × ③ = ⑤ Cost of raw materials	⑥ ② × ④ = ⑥ Cost of packaging	Total costs of raw materials and packaging
1	20\120ACSR	3.383	0.128	342	496.4	1157	63	1220
2	95AAC mm 2	3.383	0.128	261.3	261.3	884	32	916
3	1 x 50 mm 2 Normal	10.54	0.128	428	653.6	4570	80	4590
4	1 x 95 mm 2 Normal	10.54	0.128	1630	1160	17182	148	17330
5	4 × 10 mm 2 normal	10.54	0.128	371.6	878.9	3914	111	4025
6	4 x 10 mm 2 armed	10.54	0.128	371.6	1107.7	3914	141	4025
7	4 x 240 mm 2 armed	10.54	0.128	9014	13569	94975	1730	96705
8	3 x 70\150 mm 2 normal	10.54	0.128	4738.4	7644.1	49940	980	50920

4 - Calculate the loading rate of the spare tools

Loading rate = Cost pool ÷ Cost drive =

Loading rate = 29850 ÷ 3115 hours of operation (supplement / 1) = 9.6 thousand dinars / hour

The need for spare tools.

Table (9) Calculation of the costs of the Spare Tools

S	the product	Loading rate Thousand dinars	Product time (supplement / 1)	Cost of spare tools (thousand dinars)
1	20\120ACSR	9.6	2.433	23
2	95AAC mm 2	9.6	2.17	21
3	1 x 50 mm 2 Normal	9.6	4.19	40
4	1 x 95 mm 2 Normal	9.6	4.69	50
5	4 × 10 mm 2 normal	9.6	9.79	95
6	4 x 10 mm 2 armed	9.6	15.2	140
7	4 x 240 mm 2 armed	9.6	54	520
8	3 x 70 \ 150 mm 2 normal	9.6	31	300

5- Calculating the rate of loading other industrial costs:

Loading rate = Cost pool ÷ Cost drive =
= 338773 ÷ 3115 hours of operation (supplement / 1) = 103.8 thousand dinars / hour.

F.O.H = Cost of supplies & stationery + Cost of electricity + Cost of oil + Cost of transfer of employs + Cost of deposits + Other costs + Indirect industrial costs of production services =

F.O.H (Table 2) & (Table 3) = [3460 + 76155 + 3315 + 11500 + 2840 + 6128 + 235375 = 338773 thousand dinars.

Table (10) Calculation of other industrial costs

S	the product	Loading rate Thousand dinars	Product time (supplement / 1)	Other industrial costs Thousand dinars
1	20\120ACSR	103.855	2.433	267
2	95AAC mm 2	103.855	2.17	243
3	1 x 50 mm 2 Normal	103.855	4.19	460
4	1 x 95 mm 2 Normal	103.855	4.69	590
5	4 × 10 mm 2 normal	103.855	9.79	1070
6	4 x 10 mm 2 armed	103.855	15.2	1665
7	4 x 240 mm 2 armed	103.855	54.0	3770
8	3 x 70 \ 150 mm 2 normal	103.855	31.0	3395

6 - Calculation of the rate of loading the costs of marketing services:

Loading rate = Cost pool ÷ Cost drive =
= 183530 (Table 2) ÷ 3115 hours of operation (supplement / 1) = 59 thousand dinars / hour

Table (11) Calculation of Marketing Costs

S	the product	Download rate Thousand dinars	Product time (hour)	Marketing costs Thousand dinars
1	20\120ACSR	59.48	2.433	170
2	95AAC mm 2	59.48	2.17	155
3	1 x 50 mm 2 Normal	59.48	4.19	291
4	1 x 95 mm 2 Normal	59.48	4.69	374
5	4 × 10 mm 2 normal	59.48	9.79	682
6	4 x 10 mm 2 armed	59.48	15.2	1060
7	4 x 240 mm 2 armed	59.48	.054	3770
8	3 x 70 \ 150 mm 2 normal	59.48	31.0	2165

7. Calculation of Administrative Services Cost Load Rate:

Loading rate = Cost pool ÷ Cost drive =
= 1292910 ÷ 3115 hours of operation (supplement / 1) = 415.9 thousand dinars / hour

Table (12) Calculation of administrative costs

S	the product	Download rate Thousand dinars	Product time (hour)	Cost of administrative services Thousand dinars
1	20\120ACSR	415.059	2.433	1225
2	95AAC mm 2	415.059	2.17	1115
3	1 x 50 mm 2 Normal	415.059	4.19	2109
4	1 x 95 mm 2 Normal	415.059	4.69	2701
5	4 x 10 mm 2 normal	415.059	9.79	4928
6	4 x 10 mm 2 armed	415.059	15.2	7650
7	4 x 240 mm 2 armed	415.059	54.0	27180
8	3 x 70 \ 150 mm 2 normal	415.059	31.0	15605

4 - Identify and measure the cost of manufacture, marketing and management:

Table (13) and (14) below shows the total production, marketing and administrative costs which were calculated according to the above tables for determining production costs.

Table (13) Manufacturing Cost (thousands of Dinars)

Variable costs of production centres and production services			Fixed costs for production centres and production services			measuring unit	S	Manufacturing cost
Other industrial costs	Spare tools	Raw materials & packaging	Other	depreciations	Direct labour			
267	23	1220	-	647	3123	kilometre	1	5280
243	21	916	-	585	2835	kilometre	2	4600
460	40	4590	-	1110	5360	kilometre	3	11560
590	50	17330	-	1420	6870	kilometre	4	26260
1070	95	4025	-	2595	12525	kilometre	5	30310
1665	140	4055	-	4029	19446	kilometre	6	29335
3770	520	96705	-	14318	69087	kilometre	7	184400
3395	300	09205	-	8219	39661	kilometre	8	102495

Table (14) Manufacturing costs, marketing costs and Administrative costs 2019

S	the product	Measuring unit	Manufacturing costs thousand dinars	Marketing costs thousand dinars	Administrative costs thousand dinars	Production costs thousand dinars
1	20\120ACSR	Kilometre	5280	170	1225	6675
2	95AAC mm 2	Kilometre	4600	155	1115	5870
3	1 x 50 mm 2 Normal	Kilometre	11560	291	2109	13960
4	1 x 95 mm 2 Normal	Kilometre	26260	374	2701	29335
5	4 x 10 mm 2 normal	Kilometre	20310	682	4928	25920
6	4 x 10 mm 2 armed	Kilometre	29335	1060	7650	38045
7	4 x 240 mm 2 armed	Kilometre	184400	3770	27180	215350
8	3 x 70 \ 150 mm 2 normal	Kilometre	102495	2165	15605	120265

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