

The Role Of Applying Resource Consumption Accounting In Achieving Competitive Advantage And Reducing Production Costs / A Practical Case Study In Kosar Feed Factory – Erbil

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Abstract:

This research aims at the possibility of interpreting the many advantages of the resource consumption accounting method, such as (reducing costs, achieving competitive advantage, determining surplus capacity, providing information for the purpose of cost management and making sound decisions to appropriately exploit resources). In order to achieve the advantages of this modern method in cost and administrative accounting. The theoretical approach was based on the deductive approach through Arab and foreign sources. On the practical side, the researcher relied on the analytical descriptive approach through financial and non-financial statements and statements issued by the Kosar Erbil Feed Factory for the year 2021. As well as personal interactions with laboratory officials, in addition to frequent visits and field observations of the production stages. This research was able to reach the achievement of most of the research objectives through a set of conclusions and recommendations that serve this industrial facility.

Keywords: Resource Consumption Accounting, Competitive Resource consumption accounting, Competitive, reducing Cost, Idle Capacity

Introduction:

With the huge changes and developments in technology, which led to the provision of high facilities in the methods of production and service provision, and the creation of opportunities and alternative paths for maneuvering in the provision of products and innovation in them in different ways through modern alternatives, most of which meet the demands and desires of consumers, and in the industrially advanced countries exploited Most of the industrial companies these changes and what is required through studies and research to keep pace with these changes, including those related to administrative methods and modern costs in order to provide products and services at the lowest costs and high quality, taking into account the consumer's desire, and this policy

has become an entry point for competition and survival and continuity in the work environment, But in the developing countries, they were not able to keep pace with these changes and benefit from studies and research to the same degree as the developed countries for local and material reasons, which led to the closure of many companies, as happened in Iraq, due to the invasion of foreign products to the markets of developing countries, due to their cheapness and quality, in addition to the benefits of their uses from Before the consumer, all of these things prompted some investors and company owners to change the way of thinking by searching for studies and research leading to saving the local industry, and accordingly these modern methods are adapted to suit the nature and privacy of local industries, so that local industries can catch up

with development, and be able to compete with foreign goods and preserve national wealth, and accordingly the method of accounting for resource consumption was chosen, and the researchers are convinced that this modern method has many advantages that outweigh the defects in traditional cost accounting, which is reflected positively on the applied study.

methodology

Research problem: Most of the national factories and factories have been subject to decline in the last two decades and their inability to keep pace with the changes taking place in the work environment in general. And the use of accounting terms that were not understood by traditional accounting, in addition to that, there is a shortage and shortcoming in traditional accounting applications and criticism as a result of the emergence of weaknesses and problems in the appropriate measurement of costs and energy available for resources, all of these factors and other factors that led to the decline of the local industry, Therefore, we believe that the research problem lies in the shortcomings and deficits that exist in the traditional system of costs, and through the use of one of the modern methods in cost and administrative accounting, including the method of resource consumption accounting to address the existing problems in the traditional system, and the research problem can be formulated by raising the following questions:

- 1- Is the method of resource consumption accounting appropriate in overcoming some of the problems found in the traditional accounting system used in the laboratory, the research sample?
2. Does the application of resource consumption accounting reduce costs and support the competitive position in the Erbil Kosar Feed Factory?

3- Does the application of resource consumption accounting contribute to providing information on idle energy and help in making decisions?

The importance of research: The importance of research stems from providing accurate and fair information on product costs and controlling those costs through the application of the resource consumption accounting method.

Research Objectives: The research aims to address some shortcomings in the traditional cost system used in the Kosar Feed Factory / Erbil, through the application of the method of accounting for resource consumption in choosing the correct measurement of the available resources and extracting (used from them and identifying the unused) idle energy and an indication of cost reduction and raising the unit capacity To compete in the work environment and the relevant information it provides in this field.

Research hypothesis: The research is based on a set of hypotheses, including:

- 1- The method of accounting for resource consumption tracks the amount of used and unused resources, which helps in better allocation of costs and optimal utilization of available resources and production costs accurately in the Erbil Kosar Feed Factory.
- 2- The application of resource consumption accounting is an entry point to overcome some of the problems of the traditional system related to costs and to determine idle or unused energy in the Erbil Kosar Feed Factory.
- 3- The application of resource consumption accounting in the Kosar feed mill leads to an economic flow of indirect industrial costs, which gives a good indication of resource exploitation and is reflected positively on providing cost information that helps the administration in controlling, reducing costs and making decisions. And its ability to compete.

the theoretical side of the method of resource consumption accounting

Concept of Resource Consumption Accounting:

The administration is one of the clients of the accounting profession, and with the technological developments, the change in the production cost structure and the work environment, and the intensification of competition locally and globally, traditional accounting has lost its credibility in front of this client, due to its failure to keep pace with changes and its failure to provide information to management to make appropriate decisions, and that the RCA method is one of the tools Strategic costs of providing relevant, reliable and reliable information in making decisions that support the enterprise's competitive position,(Baki Yilmaz & Mehme Ceran (2017: 131). According to the study (Mahariq, 2017: 131), the Institute of Management Accountants in the United States of America in 2003 conducted a study and it was found that 77% of managers are not satisfied with the data provided by the current cost systems and that some of them believe that these data are misleading, and that in the allocation of costs Indirect in the traditional cost accounting system distorts product cost and fails to determine the causal relationship between product and cost is excessive and misleads managers in making decisions about product pricing and strategic management of the global and technological environment (Azubike, et.al, 2017:17), And based on the companies and factories' need for appropriate information to make decisions, it was required to conduct several studies and research for the purpose of overcoming the shortcomings and deficits that exist in the traditional cost accounting system. Comprehensive and sufficient information that helps in proper planning, reducing costs, discovering idle energy and controlling it, and it helps to take strict strategic and operational

decisions that will increase the competitiveness of the economic unit.

The concepts on which the resource consumption accounting method depend

The method of accounting for resource consumption depends on a number of concepts that can be clarified:

Resource: (Godinho, 2019:225) and (ALHibari, 2019: 771) agree that the RCA method is the latest development in modern management accounting. It is based on the philosophy that the resources owned by the organization cause costs and therefore it must be focused on, in calculating those resources and what is consumed from them. Resources represent the economic elements that are directed to the topics of cost measurement, It is the source of the cost that occurs when using these resources and since the use of resources is the reason for the occurrence of all costs and therefore the occurrence of revenues. And that the resources in service facilities are organized into relatively homogeneous groups, and each resource pool has its inputs to perform a particular service, and it is possible that the resource pool may support other resources (Al-Danaf, 2013: 89).

2- The concept of Proportional Costing: The RCA method is based on the separation between fixed costs and proportional costs in each pool of resources, and different charging rates are calculated for each of the costs. (Balakrishnan et al, 2012: 21) Proportionality and fixed costs, and the proportional cost rate per unit is determined on the basis of the planned production capacity to calculate the total proportional costs, (Bhañ 2014: 3).

3- The concept of the interrelationships between resources: Determining the interrelationships between the pools of resources helps to know the benefit of each resource from the resources as well as the resources that benefit a particular

costing subject (activities, operations, products, and customers) directly. (Kitab, 2000: 521),

4- Capacity Idle concept: It means the lack of full use of the available resources within the facility, and it is idle energy due to distribution restrictions, or because of the application of administrative policies, or as a result of complying with laws. The idle energy can be divided (Mahmoud, 2007: 260) and (Debs , 2014: 60) to: Idle energy due to distribution restrictions such as competitors monopolizing the production of the market, idle energy resulting from external laws imposed by the state such as environmental protection laws, or religious events, idle energy due to administrative policies such as not working on official holidays, and idle energy to face events such as obsolescence of machinery and service obstacles Finance.

5- The concept of replacement cost for calculating depreciation: the depreciation expense depends on estimating the replacement costs for each asset instead of the purchase cost (historical cost), as is the case in traditional cost accounting systems.

6- The concept of capacity Theoretical: The theoretical capacity represents the maximum available energy, i.e. equivalent to 100% of the energy available in the facility.

Steps to apply resource consumption accounting:

Resource consumption accounting can be applied through the following steps:

1-Inventory of the available resources, define the objectives of the higher administrative levels, and determine the resources necessary to achieve them, whether they are basic or subsidized. (White., 2004: 28)

2 – Defining resource pools, where resources are grouped into homogeneous pools called

pools of resources, and the costs of all resources are collected and the costs are divided into pools of resources, which can be homogeneous in terms of cost elements. These resources are organized and grouped into homogeneous resource pools so that each resource pool has a set of outputs that are used by other resources or used to produce the final products (Ozyapici and Tanis 2017: 663).

3-Classifying resource pools into primary resource pools and secondary resource pools (keys & Merwe, 200133:): primary resource pools: which support activities that produce salable goods and services such as production and marketing departments, customer complaints, and resource pools). Pools Resources Secondary: which provides services that support other primary and secondary resource pools such as strengthening information technology and production facilities.

The costs within each of the resource pools can be classified into primary costs, which are the costs that occur primarily within the resource pool, and therefore those responsible for this complex can control these costs, and secondary costs, which are costs that are charged to the resource pool in exchange for its benefit from other resource pools. These costs are limited, and it is noted that the elements of primary costs in the resource pools reflect the primary nature of costs, while the elements of secondary costs reflect the nature of the change in costs at the time of consumption, and it is determined whether these costs are fixed costs or proportional costs. If they are used only to operate machines and devices when providing services, they remain proportional costs, but if they use electricity as a resource in heating/cooling/lighting every day, then they become fixed costs (White, 2013: 20).

4- Determine the interrelationships between resource pools and each other.

5- Determining a unit of measurement to determine the size of the expected output from each of the resource pools (the causes of resource consumption) Resources Cost Driver. aggregators, increases the overall accuracy of the costing system. (Shaheen, 2009: 249).

6- Distribution of resource costs within resource pools using the causes of resource consumption previously identified in the previous step on other resource pools or cost measurement topics in a way that reflects the extent of consumption of the resource pool or cost measurement topics from other resource pools, and that resources that are not used in operations are considered energy idle, so the associated costs are not allocated to the costing subjects. (Michael & Maleen, 2019: 43).

Determining the amount of resource energy used, as well as determining the idle energy through the following equation:

Available resources (theoretical energy) - resources used (practical energy) = unused resources (surplus or idle energy). The focus is on making excess or idle capacity visible, so the energy can be easily managed.

. 7- Determining whether idle energy is unused energy or lost energy within each of the resource pools.

Advantages of the resource consumption accounting method: The resource consumption accounting approach has many advantages:

1- The resource consumption accounting technology is characterized by its ability to successfully integrate with any of the cost management techniques in a way that helps the economic unit achieve its goals, whether competitive advantage or cost reduction (Ahmad & Moosa, 2011: 755), and therefore companies use cost information in decision support operations. Where strategically important cost information contributes to achieving the

company's objectives and reflects the latest information derived from modern cost accounting systems (Yilmaz & Geran, 2017:139)

2- The application of the method of accounting for resource consumption leads to a contribution to reducing production costs, and this is reflected positively on the economic unit (Mohammed, 2021: 6), and this method is also characterized by providing information on self-control over the activities of the facility, because the causes of costs Control takes place at the level of resources, which helps in rationalizing the consumption of resources and controlling excess energy, and the proper orientation of surplus energy. (Clinton & Keys, 2011:22).

3-Accounting for resource consumption is a basic method for determining the optimal use of resources, and the actual use of each of the available resources is made according to the maximum capacity. The method is characterized by measuring idle energy and then informing the management of that information.

4- The method of accounting for resource consumption achieves effective operational control over the facility's resources in order to exploit the resources that were not used in the performance of activities and pushes to increase its productivity, (Fisher & Krumwiede 2015: 18).

5-Calculating depreciation on the basis of the replacement cost instead of the book value, and this is consistent with the internal information perspective that supports administrative decisions in the long run ((Bhatt, 2014:3)

the practical side

The establishment of the factory and the nature of the work: The Kosar Feed Factory is one of the factories of the Kosar Company for General Trading, Agriculture and Poultry Ltd., which was established in 2010-2011 with a

capital of \$1,450,000. It is located on the road linking the city of Erbil and Al-Kuwer district, on an area of 20 dunams, and the plant facilities occupies 10 dunams and the remaining area Dedicated to gardens and olives, and the number of workers is 38, and the working days are 6 days per week. One of the factory's goals is to contribute to providing an important part of the various types of fodder to serve the agricultural sector and support the national economy, in addition to making a profit.

Most of the feed factory's products are according to the orders received from customers, and according to the specifications agreed upon between the customer and the factory management, in quantities, price per ton and production time, in addition to the factory's production of some other feed produced by the factory and marketed to local markets with high quality specifications.

Steps to apply the resource consumption accounting method:

The first step: inventory the available resources in the laboratory:

Inventory of resources includes all available plant investments in order to obtain operational capacities and includes all plant buildings, machines, machines, individuals, means of transportation and cash, and according to the nature of production processes, there are direct resources that can be identified and allocated directly to production processes such as primary resources (raw materials, raw materials, workers and their wages), while there are Other resources are considered as resources that indirectly support production processes, and more than one department or unit participates in benefiting from them. According to this concept, we can identify the sources of resources available in the Kosar feed mill and for the year 2021 through Table No. 1:

Statemen	Costs in dollars
raw materials	10564066
Wages	260215
Total direct primary costs	10824281
auxiliary materials	75037
Oils and greases	150,000
Packing materials	101426
Various services	7000
Supplies and errands	3000
Staff equipment	20000
Foodstuffs	20000
Medical stuff	500
Electricity	20500
Maintenance of buildings and roads	25000
Maintenance of machinery	10500
Maintenance of transport	4000
Maintenance of office furniture	600
Research and consulting services	2500
Field visits cost	4000

examination fees	6000
lab expenses	3000
Depreciation	122232
water and electricity	2000
Advertising	4000
Exhibition expenses	6175
Hospitality Services	4000
Transfer and dispatch	46500
Transportation of merchandise	70000
public communication	2500
Subscriptions and affiliations	3000
Compensation for service rendered	30900
The sum of the indirect costs	744870
Total actual costs	11569151

Source: Prepared by researchers based on data in laboratory documents and records.

The second step: assembling the resources into homogeneous aggregates (the resource pool): In this step, the resources are coordinated and grouped into similar or homogeneous groups that suit the nature of the costs of each complex and understand the interrelationships between

them, in addition to quantifying the physical flows of each resource pool to reach the final cost goals and accordingly The resources in the Kosar Feed Mill can be distributed into the following groups as specified in Table No. 2:

Resource Pool	Resource	Cost \$
direct physical	Raw material	10564066
direct action	Direct workers wages	260212
energy Pool	Electricity	2050
	Depreciations	22322
Indirect material r Pool	Help materials	75037
	Packaging	101426
	Oils	150000
indirect wages Pool	Staff equipment	20000
	foodstuffs	20000
	Rewards	30900
	Subscriptions and affiliations	2815
	Medical stuff	266
maintenance Pool	Building Maintenance	5000
	Maintenance of equipment	10500
	Transportation maintenance	4000
	Maintenance of office furnishers	600

laboratory Pool	lab expenses examination fees The cost of field visits research services	25000 10500 4000 600
Services Pool	water and electricity Various services	1520 6619
communications Pool	Hospitality Services public communication	1520 6619
Advertising and printing Pool	Advertising Exhibition expenses Office supplies and supplies	4500 6175 2750
Transportation and customs services Pool	Transport of goods Turkish output Transfer and dispatch	42000 35000 39500

Source: Prepared by researchers based on data in laboratory documents and records

The third step: determining direct costs on cost objectives (products): according to this step, the share of direct costs from raw materials and wages on production units is determined, because these costs are directly related to products and in the light of this concept, direct

costs (raw materials and direct work) are started. It is charged directly to the cost target without going through the other steps because it occurs in the resource pool itself, and Table No. (3) shows the share of the cost of production per ton from the initial costs.

Product\$	Cost of direct materials \$	COST OF DIRECT WAGES	Initial cost \$	Production volume ton	initial cost per ton \$
stage feed /1	1643998.2	40495	1684493.2	4234	397.8
Feed stage/2	6107332.8	150436	6257768.8	15729.3	397.8
Feed stage/3	487685.8	12012	499697.8	1256.4	397.8
Feed s eggs tage/1	572331.91	14098	586429.91	1474	397.8
Feed stage/2 eggs	54359.883	1339	55698.883	140	397.8
Feed stage/3 eggs	733858.41	17875	751733.41	1869	397.8
Feed stage/4 eggs	378966.04	9335	388301.04	976	397.8

Feed stage/5 egg	550976.24	13572	564548.24	1419	397.8
Feed stage/6 eggs	42711.33629	1053	43764.33629	110	397.8
	10572221	260215	10832436	27207	

Source: Prepared by researchers based on data in laboratory documents and records

Separation of fixed and variable costs in resource pools: According to the resource consumption accounting method, costs are mainly related to the physical flow of resources according to resource pools to reach the final cost goals. With the volume of production. As for the fixed relationship, it is when the amount

of inputs from the consumed resources is not altered with the level of production, and the costs in the resource pools are separated into fixed and variable costs using the least squares method. Table No. 4 shows the separation of costs into (fixed and variable) dollar amounts:

Resource pools	Resources	Total costs	Fixed costs	Variable costs
Indirect materials	Help materials	75037	5400	69637
	Packaging	101426	3649	97777
	Oils	150000	9151	140849
the total		326463	18200	308263
Power pool	electricity	20500	----	20500
	The brothels	122232	122232	-----
the total		142732	122232	20500
Indirect wages pool	Workers' equipment	20000	13074	6926
	foodstuffs	20000	19200	800
	Rewards	3090	30214	686
	Subscriptions and affiliations	3000	-----	-----
	Medical stuff	500	3000	-----
the total		74400	65888	8512
Maintenance pool	Building Maintenance	25000	24564	
	Maintenance and equipment	10500	8500	436
	Maintenance transportation	4000	3368	2000
	Maintenance of furniture office	600	600	632
the total		40100	37032	3068

Laboratory and examination pool	Laboratory expenses	3000	1592	1408
	Examination fees	6000	4300	1700
	The cost of visits by transferred	4000	1000	3000
	Research services	2500	1400	1100
the total		15500	8292	7208
Service pool	Water and electricity	2000	2000	----
	Various services	7000	6000	1000
	Hospitality services	4000	2250	2750
the total		13000	10250	2750
Marketing Services pool	Advertising	4500	4100	400
	Exhibition expenses	6175	3000	3175
	Supplies and office tasks	3000	2500	500
the total		13675	9600	4075
Administrative Services pool	Transport of goods	70000	70000	-----
	Transfer and dispatch	50046	50046	----
	General contacts	2500	2500	----
the total		119000	119000	
Total		744870	390544	354376

Source: Prepared by researchers based on data in laboratory documents and records.

Determining the theoretical and practical capacity and the ratios of fixed and variable costs in the resource pools:

Resource consumption accounting is based on theoretical energy (design energy) as a basis for determining the fixed costs of the units produced. For each resource complex, depending on the theoretical energy, thus determining what is exploited from fixed costs and what is idle, untapped or wasted, while the percentage of variable costs can be determined depending on the practical energy or units produced during the period, according to the two equations:

Fixed costs ratio = fixed costs / theoretical capacity of the plant.

Variable costs ratio = variable costs / process energy

In light of the two equations, the share of the output unit from each resource of fixed and variable costs is determined as follows:

Indirect materials resources pool: In order to calculate the unit cost of the outputs of the indirect materials resources pool, it is relied on the quantitative basis in the pool, which is the number of times the materials are handled.

The theoretical capacity is the design capacity of the plant for material handling ($150768 / 312 = 483,23$, times * $365 = 176379$ times for handling materials, the theoretical (design) capacity of the plant is: Fixed costs ratio = $18200/176379 = 0.10$ dollars per time.

While the percentage of variable costs according to the practical capacity is done through the actual working days during the year, which is 150,768 times the amount of planned production during the year 312, and the proportion of variable costs is $308263 / 150768 = 2.04$ dollars per time.

Pool indirect wages resources: it is based on working hours, the number of working workers is 38, and in order to calculate the theoretical capacity $365 * 8 * 38 = 110,960$ theoretical hours per year, and accordingly, the percentage of fixed costs in the indirect wages aggregate: $65888/110960 = 0.59$ dollars for one hour.

While calculating the percentage of variable costs: $312 * 8 * 38 = 94848$ working hours, and the ratio is $8512/94848 = 0.08$.

Energy pool: In order to determine the theoretical energy, we note that the cost of depreciation is fixed throughout the year, the number of machines and motors is 37 machines and their annual operating hours, and for theoretical energy ($37 * 8 * 365 = 108040$ hours) and accordingly, the fixed costs ratio can be determined ($122232/108040 = 1$, \$13 per hour of machine work.

While the hours of practical power of the machines ($312 * 8 * 37 = 92352$) hours of the practical power of the machines, and accordingly, the variable cost of electrical energy ($20500/92352 = 0.22$ dollars) is a variable cost per hour of operation of the machines. The number of maintenance times, according to the laboratory records, is equivalent to 4 times per day ($4 * 365 = 1460$ times, and the percentage of fixed costs in the complex is ($37032/1460 = 25.36$) dollars per time.

As for the practical capacity of the pool $312 * 4 = 1248$ times and the percentage of variable costs in the pool ($3068/1248 = \$2.45$ each time.

Laboratory and Examination pool: This pool includes the number of visits of technical committees to the fields and the number of times to examine the purchased materials, as well as research and mixtures of raw materials for feed, and according to the laboratory records, these activities are estimated 20 times per month, and in order to determine the number of times these activities for theoretical energy ($12 * 20 = 240$ times, The fixed costs ratio is $8292/240 = \$34.55$ times.

As for the variable costs, they are calculated in light of the practical energy: $312 \text{ days} / 30 = 10.4$ months * 20 = 208 times, and accordingly the ratio is ($7208/208 = 34.65$ dollars).

pool services: the theoretical energy is calculated in light of the 365 days of the year, and accordingly, the fixed costs ratio is $10300/365 = 28.2$ dollars per day, while to calculate the variable costs according to the planned practical capacity is 312 days, and accordingly the ratio is $2750/312 = 8.8$ dollars per day.

Marketing pool: To extract the theoretical energy, the sales movement is relied upon during the period, since the factory's products are in demand throughout the work period, which means selling all the units produced, and since the theoretical design capacity for a full year is assumed that sales during the year (80 tons per day * 365 days = 29,200 tons of sales, and the ratio of the fixed costs of the complex is $9600/29200 = \$0.32$ per ton of sales, while the variable costs of the complex are $312 * 80 = 24,960$ sales tons, and the ratio of variable costs is $4075/24960 = 0.16$.

Administrative Services pool: Administrative services are of a similar nature during the year, amounting to 119,000 dollars. The fixed costs ratio is $119000/365 = \$326$ per day. The above information can be formulated in the following table No. 5:

Resource pools	Theoretical energy	Practical energy	Fixed cost rate	Variable cost rate	Total average
Indirect materials	176379 times	150768 times	\$ 0.10/for each time	\$ 2,04/for each time	\$ 2,14/once
Indirect wages	110960 x/Work	94848 x/Work	\$ 0.59 x work	\$ 0.08 x / work	0.67 x/ Work
Energy	108040 x/machines	92352 x/machines	1,13 h/machines	0,22 x/machines	1,35 h/machines
Maintenance	1460 times	1248 times	\$ 25.36/once	\$ 2,45/once	\$ 27,81/once
Laboratory & exam	240 times	208 times	\$ 34,55/once	\$ 34,65/once	\$ 69.20/once
Services	365 days	312 days	\$ 28.2/day	\$ 8.8/day	\$ 37/day
Marketing	29200 tons sale	24960 tons sale	\$ 0.32/ton	\$ 0.16/ton	\$ 0.48/ton
Administrative	29200	-----	\$ 4.07/ton	-----	\$ 4.07/ton

Source: Prepared by researchers based on data in laboratory documents and record.

The resources consumed by the activities from the resource pools: In this step, the cost drivers

for each activity are determined on a quantitative basis, that is, the activities consume resources.

Table No. (6) shows the share of each activity:

Resource pools Activities	Indirect Material	Indirect wages..	energy	Maintenance	Laboratory and examination	Services	Marketing	Administrative
Sterilization of a production site	60				60	60		
Production design	12				25			
Performing materials and packing Silat	624	14976	17472	223	23	26		
Create machines and equipment	312	7488		50		28		

Weight and mixing materials	24960	9984	17472	150	26	32		
Grinding and breaking the materials	24960	7488	17472	180	18	35		
Press the mixed materials	24960	7488	14976	210	27	30		
Trophy of the mixed materials	24960	14976	14976	205	10	32		
Clean feed produced from dust	24960	7488	4992	110	11	23		
Product packaging and packaging	24960	14976	4992	120	8	20		
Administrative		4992				12		24960
Marketing		4992				14	24960	

Source: Prepared by researchers based on data in laboratory documents and records.

According to Table No. 6 above, after determining the share of each activity of the consumed resources, the cost of the activity is extracted in the light of the equation:

Activity cost = activity’s share of resources * (unit rate of fixed costs + unit rate of variable costs), and in light of the equation, the cost of activities can be determined according to the following table:

Table No. 7 shows the cost of each activity:

Resource pools Activities	Indirect Material	Indirect wages	Energy	Maintenance	Laboratory and examination	Services	Marketing	Administrative	the total
Sterilization of a production site	135				4152	2220			6507

Production design	27				1730				1757
Performing materials and packing Silat	1404	10034	23587	6202	1592	962			43781
Create machines and equipment	702	5017		1390		1036			8145
Weight and mixing materials	56160	6689	23587	4171	1799	1184			93590
Grinding and breaking the materials	53414	5017	23872	5006	1246	1295			89850
Press the mixed materials	53414	5017	20218	5840	1868	1110			87467
Pressing the mixed materials	53414	10034	20218	5701	692	1184			91243
Clean the product from dust	53414	5017	6739	3059	761	851			69841
Product packaging and packaging	53414	10034	6739	3337	554	740			74818
Administrative		3344				444		101587	105375
Marketing		3345				518	11981		15844
the total	325498	63548	124960	34706	14394	11544	11981	101587	688218

Source: Prepared by researchers based on data in laboratory documents and records.

Distribution of activities costs to products: In this step, the costs of the extracted activities are loaded in Table No. 7 and according to the

activities' guidelines. Note that the products in terms of weights and time taken are typical.

Table No. 8 shows the products' share of activities costs:

Products	Activity Weigh t/ton	Activities costs													sum
		Confes sion	desi gn	Hand ling	Creat ing mach ines	Mixt ure	Gri nd	Press mater ials	cool ing	clean ing	Packa ging	marke ting	Administ rative		
Feed 1	4234	1013	273	6813	1266	1452	139	1360	141	9552	11639	2464	16386	1061	
Feed 2	15729	3762	1016	25308	4703	53950	51937	50553	52739	35485	43239	9154	60871	3904	
Feed 3	1256.5	301	81	2022	376	4310	4149	4038	4213	2835	3454	731	4863	3256	
Feed B/1	1474	353	95	2372	441	5056	4867	4737	4942	3325	4052	858	5704	3793	
Feed B2	140	33	9	225.3	42	480	462	450	469	316	385	81	542	4952	
Feed B 3	1869	447	121	3007	559	6411	6171	6007	6267	4216	5138	1088	7233	4770	
Feed by 4	976	233	63	1570	292	3348	3223	3137	3273	2202	2683	568	3777	2562	
Feed by 5	1419	339	92	2283	424	4867	4686	4561	4758	3201	3901	826	5492	3657	
Feed B 6	110	26	7	177	33	377	363	354	369	248	302	64	426	4210	
	27207	6507	1757	43777	8145	93590	89850	87467	91243	69841	74818	15844	105375	6862	

Source: Prepared by researchers based on data in laboratory documents and records.

Determining the cost of products: Depending on Table No. 3 of the initial costs of products, as well as Table No. 8 of determining the share of products from the costs of activities.

the cost per ton can be reached as in Table No. 9:

The initial cost	Feed/1	Feed/2	Feed/3	white fodder/ 1	white fodder /2	white fodder /3	white fodder/ 4	white fodder/ 5	white fodder/ 6	the total
The cost of raw materials	1643998	6107332	487685	572331	54359.883	733858.41	378966	550976	42711	10572221

Direct wages	40495	150436	12012	14098	1339	17875	9335	13572	1053	260215
pool initial costs	1684493	6257768	499697	586429	55698	7517331	388301	564548	43764	1083243
The cost of activities	106190	390445	32561	37939	4952	47707	25625	36580	4210	686212
Calculate production	1790683	6648214	532258	624369	60650	799440	413926	601128	47974	11518647
Product/ton	4234	15729	1256	1474	140	1869	976	1419	110	27207
The cost of one ton	422	422	423	423	433	427	424	423	436	423

Table No. 10 Extraction of Exploited Fixed Costs, Unutilized Energy, or Variable Costs with Extraction of Percentages for Each:

Resource pools	FIXED COST		Total Fixed costs	Variable costs used	Total costs used	Total costs Fixed and variable
	used	Unused				
Indirect materials	15076	3124	18200	308263	323339	326463
Indirect wages	55962	10826	65888	8512	64474	74400
energy	104358	17874	122232	20500	124858	142732
Glamor	31649	5383	37032	3068	34717	40100
Laboratory and examination	7186	1106	8292	7208	14394	15500
Services	8798	1502	10300	2750	11548	13050
Marketing	7987	1613	9600	4075	12062	13675
Administrative	101718	17282	119000		101718	119000
the total	332734	58660	391394	353476	686210	744870
Lineage	44%	0.08%	52%	47.76%	0.92	100%

Source: Prepared by researchers based on data in laboratory documents and records.

One of the points addressed by the resource consumption accounting is the difference between the realized costs and the distributed costs, and this is called the surplus or idle capacity as in Table No. 10, and according to this

method, idle energy is excluded from production costs and is not charged, in addition to recognizing the fixed and variable costs submitted to the administration, including It helps her in making decisions, and accordingly,

the resource consumption accounting is an entry for cost management to accurately measure the cost of production.

In order to understand what was achieved from the results of the resource consumption accounting method, it must be compared with the costs of the traditional actual method, and the following.

table No. 11 determines the costs of products in the laboratory, the research sample:

account name	Feed/1	Feed/2	Feed/3	white fodder/1	white fodder/2	white fodder/3	white fodder/4	white fodder/5	white fodder/6	the total
The cost of raw materials	1643998	6107332	487685	572331	54359	725704	378966	550976	42711	10564066
Direct wages	40495	150436	12012	14098	1339	17875	9335	13572	1053	260215
the total	1684493	6257768	499697	586430	55699	743579	388301	564548	43754	10824281
O.H	116098	430503	34377	40343	3832	51155	26713	38838	3011	744870
Cost Production	1800411	6688395	534085	626784	5953	794749	415021	603397	46775	11569151
Product/ton	4234	15729	1256	1474	140	1869	976	1419	110	27207
Cost per Ton	425	425	425	425	425	425	425	425	425	425

Source: Prepared by researchers based on data in laboratory documents and records.

Analysis of the results:

When looking at Table No. 11, it is noted that the total costs of feed in the traditional way amount to 115,69151 dollars during the year 2021, while the total feed costs during the period when applying the method of accounting for resource consumption is 115,18647 dollars, a difference of (11569151- 11518647 = 50,504 dollars), and this amount represents a reduction In the cost of production, and this reduction is a positive factor in favor of the laboratory, the research sample n, and it is an encouraging factor because one of the results of the application of this modern method is to reduce the cost, and the researchers believe that the amount of reduction is limited, but the reason is due to the high rate of exploitation of

production capacity and efficiency, as the production The actual annual is 27,207 tons, while the theoretical annual production at the maximum capacity of the plant is 29,200 tons, meaning that the percentage of energy utilization ($27207/29200 = 93\%$). This amount is not charged to production costs and is excluded, and the factory management can take the appropriate decision and invest it correctly due to the availability of information about it, and it entails the optimal exploitation of the money. The factory was returned, and as a result of these advantages, it is automatically reflected in the positive returns in favor of the factory in the market of competition and maneuvering at the prices of fodder sale, and the reason for this is

due to the possibility of reducing more feed cost in the case of optimizing the exploitation of the factory's resources and increasing production, and the researchers believe that another advantage is achieved as a result of this application of accounting Consumption of resources or the provision of an appropriate base and ground of data and information related to costs as a result of applying the steps of this method, which were not available in the traditional system of costs, such as the relationships and interrelationships of the internal units in the project and taking them into account, which is reflected in an incremental way in the ability of the economic unit, and thus the method of accounting consumption Resources are an appropriate entry point for successful cost management.

The fourth topic / conclusions and recommendations

Conclusions: Our research aimed to achieve the advantages of the resource consumption accounting method by translating its steps into practical translation in the Erbil Kosar Feed Factory. The researcher was able to determine the following conclusions:

1- The backbone and basic for making decisions related to selling price and competition is to achieve cost reduction, and this is what has been achieved

In the laboratory, the research sample

2- Idle or excess capacity has been identified in the laboratory, the research sample, and the right decision can be taken regarding this energy.

3- As a result of the interrelated and integrated steps in the method of accounting for resource consumption and in an applied manner, it becomes an appropriate system or approach to address the shortfall in the traditional method of costs and becomes a valid entrance to cost management.

4- As a result of applying the detailed steps, the director of the factory administration or factories that use this method have good information about costs, especially their behavior.

5- The economic unit in general and the laboratory sample research in particular that uses the method of accounting for resource consumption to enter the competition market in the manufacturing environment due to its adoption of the maximum benefit from the resources of the economic unit and determining the cost of the product closer to accuracy and justice and following the scientific method.

Recommendations: In view of the conclusions reached by the researcher, we can recommend the following:

1- The necessity of applying the method of accounting for the consumption of resources when it has positive returns on the research sample lab.

2- In order to complete the first paragraph, it is necessary to create a department for costs, in order to preserve the sources of the plant and make good use of them.

3- To complement the above two paragraphs, it is necessary to provide and train cadres on modern methods of cost and administrative accounting.

4- The necessity of following a clear price policy by the factory management in light of the specified costs, taking into account the permanent customers.

5- Take the appropriate decision about the untapped energy and its investment by the plant management.

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Conflict of interest

I hereby Declare that there is no conflict of interest between the authors of this article

Contributions

author 1

- Researching
- Writing
- Proof reading

author 2

- Review of the article