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Using Resource Consumption Accounting to determine Customer Cost of Banks

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Abstract

The Purpose of this Research show gap between a Normal Cost System and Resource consumption Accounting Applied in AL-Rafidin Bank.

The Research explore that, how the idle capacity can be determined under resource consumption accounting, discuss the possibility of employing these energies. The Research also viewed how costs can be separated to Committee and Attribute. Resource Consumption Accounting assists managers in pricing services or products based on what these services or products use from each Source.

This Research has been proven that Resource consumption Accounting is more Normal Costing System accurate a In allocating indirect costs, especially in banks, because they are high. This Research provide an insight into the measurement of idle capacities quantitative and money within the Service sector generally, and Banks especially. The most important conclusions of this research that Resource consumption Accounting helps General Management of the Bank to exploiting unused capacity to contribute to reducing the prices of products or service.

Keywords: Traditional Costing System, Resource Pool, Resource Consumption Accounting, Cost of Product, Idle Capacity, Credit Department

1.Introduction

Undoubtedly, the main objective of the economic units is (the optimal utilization of resources) and in line with the changes that occur in the competitive business environment, as research on administrative accounting has become ineffective for managers in terms of cost and material management at the same time and established systems such as the distribution of costs under the Activity Based Costing (ABC) unable to assist management in achieving its objectives Therefore, the recommendations to follow the resource consumption accounting system came to the fact that it is the result of the aggregation of two useful systems, namely the Activity Based Costing (ABC) and Grenzkosten system(GPK)[1], as this system helped in providing quantitative and financial data, which facilitates the process of making decisions of more benefit to the organization.

It entered into force in many facilities by the year 2002, and after several years, specifically in 2008, an institute was established under the name" RCA Institute" that adopts this system and will be a reference in presenting the private practices emanating from this system, and after one year has passed since the establishment of this institute, that is in 2009 the Federation International Accountants (IFAC) RCA System within the Manual of Good Practice for Cost Management.

2. Literature Review

2.1 Definitions of Resource Consumption Accounting

" RCA is dynamic since the model is able to adjust to changes in the consumption relations. It is integrated because it is usually practicing section of an enterprise resource planning (ERP) system's that aim to reached the best mix of the cost management principles that are applied in an integrated manner to provide superior information that is completely about all the department of the firm over different reporting and planning systems"(Al-Qady , 2013 : 58).

"IFAC[2] define Resource Consumption Accounting as a Improve costing style that can the opportunity of proportional costing in expenses incurred and benefits from Activity Based Costing"(OKUTMUS , 2015:47).

"The Institute of Resource Consumption Accounting define formally as a dynamic, completely integrated, based on comprehensive management accounting this approach helps the managers to provide information with decision support for enterprise optimization"(RCA Institute , 2008).

" One of the cost management tools provide suitable information about how to efficiently use available resource and to employ unused capacity by contribute to growing productivity, Rationalization cost of product and therefore increase the enterprise profits and keep up its competitive situation" (Al-Rawi & al-Hafiz , 2018 : 34).

The researcher believes that (a system for calculating the costs of each resource based on the principle of causation and according to a quantitative model prepared for the distribution of costs in a proportional manner for the elements of each resource and the distribution on a quantitative and monetary

[1] Marginal cost accounting is called (German cost accounting) and symbolized by the symbol "GPK", also known as (flexible cost analysis of planning And accounting).

[2] International Federation of Accountants

basis and what these quantities or amounts are consuming from the resource inputs provided that the outputs are the size of the energy that they consumed Input from resources).

2.2 The issues treatment by the Resource Consumption Accounting System

The Resource Consumption Accounting System dealt with many issues that were not addressed by the systems that preceded it. The distribution of costs on cash depended and neglected the focus on quantities, which led to a lesser accuracy in the decision-making process by management because they neglected them on any resources that activities consumed more, if the most important The issues addressed by the resource consumption accounting system, as follows:

1- This system focuses overall on resources, but can also include product costing and resource planning (Al-Qady, 2013: 58).

2- Resource planning was estop because shortage to simulation cost Provided by this system(Sally & Douglas"B",2004,12)

3- the resource run in enterprise and their reacts to support each other to make product or services to sale (Khodabakhsh,2014,200).

4- Present more details about resource pool that made data more accurate for use when strategic decisions are made. This system give greater homogeneity than Clopay could achieve by using division that include a different of costs (Sally & Douglas"A", 2004, 12).

2.3 Benefits of Resource Consumption Accounting

1.**Focusing resource consumptions give insights about the resources, resource capacity, and size from resource consumption (Ozyapici & Tanis , 2016 : 649).**

2.**provides vision to manage of resource capacity and cost of capacity, not only input to evaluation or calculate it (White, 2009:76).**

3.**Also realized need for"diversity cost diversity purpose" and deploys different concept to obviously identify information to decision support (Merwe, 2011:1).**

4.**It's present a obviously insight about the causal relationships among resources In terms of quantity and cost (Abbas & Wagdi, 2014: 4).**

2.4 Result of Resource Consumption Accounting

1.**Resource Consumption Accounting removes the costs by allocating them as proportional and fixed according to their source consumption forms (Çopuroğlu & Korkmaz, 2018:15).**

2.**The logical element for assigning cost informed the big different in result afer and before using the Resource Consumption Accounting The reason for this as the recognition of causal relationship between support department based on consuming objects (Sally & Douglas"B",2004,12).**

3.**criterion thoroughness and grasp of cost interpretation deeper. that throwback in following side: major Accounting Object under this tool informed by resources & to Measure Resource Consumption depends both Money & Quantities (Yijuan & Ting, 2017:408).**

3. Implementing of Resource Consumption Accounting in Bank[3]

- **Step One : Current System In Bank**

AL-Rafidin Bank is one of the Iraqi bank , this study target the credit activity specific.

[3] All Amount In the search in Iraqi Dinar.

the direct cost allocated directly to the product and the overhead cost assigned to cost objects based on the number of Customers in credit activity, showed that in Table 1 and 2 , as follow :

Table (1) Direct Cost of credit activity Products

Acc. No	Account Name	Total Cost	Loan	Advance	Letter of Guarantee	Overdraft Account
3111	Salary	341,696,788	138,814,320	106,780,246	32,034,074	64,068,148
3114	Bonuses	14,087,089	5,722,880	4,402,215	1,320,665	2,641,329
3119	Other Allowances	3,000	750	750	750	750
3141	Unity share of retirement	17,227,749	6,998,773	5,383,672	1,615,101	3,230,203
3344	General Communication	430,000	175,000	135,000	40,000	80,000
3421	Saving Accounts Interest	5,111,514	4,038,096	408,921	102,230	562,267
3464	Production Incentive	353,870,525	143,759,901	110,584,539	33,175,362	66,350,723
Total		924,791,653	446,642,180	246,014,424	73,064,853	159,070,196

Table (2) Indirect Cost of credit activity

Acc. No	Account Name	Total Cost
322	Fuel & Oil	45,802,825
323	Spare Tools	10,801,070
3251	Supplies & Equipment's	36,316,557
3252	Stationary Expenses	25,843,277
3271	water	116,364
3272	Electricity	4,253,820
3312	Buildings Maintenance	12,332,459
3314	transportation Maintenance	3,749,821
3316	Furniture Maintenance	297,516
3331	Advertising Expenses	1,216,145
3332	Publication Expenses	2,956,865
3354	Rent of transportation	1,993,981
3361	Subscriptions	562,598
3362	Insurance expenses	45,229,266
3363	Benefits for non-workers	23,906,207
3366	Bank Charges	10,297,508
3368	Audit Fees	1,400,000
372	Depreciation on Building	990,314,105
376	Depreciation on Furniture	35,438,808
Total		1,252,829,191

- **Step Two : Specific indirect cost to Resource Pool**

Because resource consumption accounting focuses primarily on indirect costs, considering that resource consumption of these costs depends on the theoretical energies of resource pools and then the distribution of indirect costs of

resource pools that are identified in the table (3) and Classified to (credit resource pool - risk management resource pool - Information technology resources - and the [4]General Administration resource pool), as follow:

Table (3) Cost Pool of Credit Activity

Acc. No	Account Name	Total Cost	Driver Resource Pool[5]
322	Fuel & Oil	45,802,825	Generated operating hours
323	Spare Tools	10,801,070	
3251	Supplies & Equipment's	36,316,557	Direct workers hours
3252	Stationary Expenses	25,843,277	
3271	water	116,364	
3272	Electricity	4,253,820	
3312	Buildings Maintenance	12,332,459	Computer operating hours
3314	transportation Maintenance	3,749,821	
3316	Furniture Maintenance	297,516	
3331	Advertising Expenses	1,216,145	number of customer for per product
3332	Publication Expenses	2,956,865	
3354	Rent of transportation	1,993,981	Direct workers hours
3361	Subscriptions	562,598	
3362	Insurance expenses	45,229,266	
3363	Benefits for non workers	23,906,207	
3366	Bank Charges	10,297,508	
3368	Audit Fees	1,400,000	
372	Depreciation on Building	990,314,105	
376	Depreciation on Furniture	35,438,808	
Total		1,440,322,827	1,252,829,191

- **Step Three : Collected Resource Pool**

In this step will explain the cost of per resource pool cost through distribution direct cost to resource pool refer to driver of resource pool mention in table (3), as follow:

[4] which includes all the remaining sections and divisions

[5] All Drivers are Calculated on a Theoretical Base

Table (4) Drivers Resource Pool Base

Driver resource pool / Resource pool	Generated operating hours	Direct work hours	Computer operating hours	number of customer for per product
credit	413	836	4,680	65
risk management	367	594	1,800	45
Information technology	305	3,630	1,584	20
General Administration	2,706	10,780	3,600	372
Total	3,791	15,840	11,664	503

Table (5) Distribute the indirect cost to resource pool

Driver resource pool / Resource pool	Generated operating hours	Direct workers hours	Computer operating hours	number of customer for per product	Total
credit	2,389,800	93,923,340	4,482,920	1,206,940	102,003,000
risk management	2,168,880	35,860,930	3,313,180	892,010	42,235,000
Information technology	1,072,260	60,765,980	1,552,720	418,040	63,809,000
General Administration	6,354,074	1,005,222,263	26,162,189	7,043,666	1,044,782,192
Total	11,985,014	1,195,772,513	35,511,009	9,560,656	1,252,829,192

➢ **Step Four : Separating resource pools into Committee and Attributability[6] Costs**

Will separate between costs into committee and attribute cost, in table (5). To help managers making decision refer to the result coming from this separate, and including each group several accounts within it, as follows:

Committee Cost [7] (Fuel & Oil, water, Electricity, Subscriptions, Insurance expenses, Bank Charges).

Attributability Costs [8] (Other Allowances, Spare Tools, Supplies & Equipment's, Stationary Expenses, Buildings Maintenance, transportation Maintenance, Furniture Maintenance, Advertising Expenses, Publication Expenses, Rent of transportation,

Benefits for non-workers, Audit Fees, Depreciation on Building, Depreciation on Furniture).

[6] The responsiveness of inputs (and hence their costs) to decisions that change the provision and/or consumption of resources. (Adapted from Shillinglaw) (CAM-I Blue Book, 2002: 44)

[7] costs that must be paid and committed.

[8] The responsiveness of inputs (and hence their costs) to decisions that change the provision and/or consumption of resources. (Adapted from Shillinglaw) (CAM-I Blue Book, 2002: 44

Table (6) Separate the Committee & Attributability cost

type of cost / Resource pool	Committee Cost	Attributability Costs	Total
credit	79,811,698	22,191,302	102,003,000
risk management	28,253,556	13,981,444	42,235,000
General Administration	909,705,587	135,076,605	1,044,782,192
Total	1,072,762,955	180,066,237	1,252,829,192

➢ **Step Five : Determine the Cost Consumption from Resource to Activity**

After finished the interviews with specialist in bank, determine nineteen activity the credit activity needs it to finish to complete the customer transaction The Attributability costs will be distributed accordingly, as follow:

Table (7) Drivers Activities Base

Ref. No.	Activity	Generated operating hours	Direct work hours	Computer operating hours	number of order for per Activity[9]
1	Receiving requests from clients	39	3456	99	13
2	Study the credit application	163	10368	251	13
3	Follow up on credit grants according to plan	59	4320	163	13
4	Check the information of the credit grant form	82	6048	141	13
5	Prepare credit statistics and present them to the Board of Directors	32	3456	183	13
6	Preparing work policies and procedures	70	2592	110	6.25
7	Preparing a credit risk matrix	23	864	176	6.25
8	Checking the presence of the bank's accepted guarantees upon granting	107	4320	163	6.25
9	Define methods for measuring and analyzing risks and reducing them	58	2592	141	6.25
10	Testing and repairing technical equipment and devices	47	14688	110	4.4
11	Oversee data backup and system security	33	27648	176	4.4
12	Manage installations and upgrades of the hardware and software used	21	40608	163	4.4
13	Maintenance and improvement of its networks and servers.	16	47520	141	4.4
Ref. No.	Activity	Generated operating	Direct work	Computer operating	number of order

[9] Difficult to separate it distributed equally among the Activities.

		hours	hours	hours	for per Activity[10]
14	Fix the credit value of each customer on the computer	67	19872	590	4.4
15	Approval of credit granting	805	52704	3740	10
16	Auditing all customer transactions	155	58752	1944	10
17	Analysis and evaluation of economic feasibility studies submitted by customers	508	44064	1505	10
18	Provide legal opinion and advice	320	109728	1290	10
19	Follow up the payment of credit installments	422	140832	2200	10

Table (8) Distribute the Attributability cost to activity

Ref. No.	Activity	Amount	Resource Pool
1	Receiving requests from clients	962,522	credit Resource Pool
2	Study the credit application	2,792,283	
3	Follow up on credit grants according to plan	1,206,090	
4	Check the information of the credit grant form	1,545,749	
5	Prepare credit statistics and present them to the Board of Directors	962,717	
6	Preparing work policies and procedures	1,084,824	Risk Management Resource Pool
7	Preparing a credit risk matrix	398,274	
8	Checking the presence of the bank's accepted guarantees upon granting	1,767,507	
9	Define methods for measuring and analyzing risks and reducing them	1,066,084	
10	Testing and repairing technical equipment and devices	404,574	Information Technology Resource Pool
11	Oversee data backup and system security	596,051	
12	Manage installations and upgrades of the hardware and software used	791,133	
13	Maintenance and improvement of its networks and servers.	875,002	
14	Fix the credit value of each customer on the computer	471,099	
15	Approval of credit granting	9,671,146	General Administration Resource Pool
16	Auditing all customer transactions	8,096,820	
17	Analysis and evaluation of economic feasibility studies submitted by customers	6,513,149	
18	Provide legal opinion and advice	12,624,905	

[10] Difficult to separate it distributed equally among the Activities.

Ref. No.	Activity	Amount	Resource Pool
19	Follow up the payment of credit installments	16,608,457	
Total		68,438,384	

➢ **Step Six : Identify the Idle Capacity**

After the resource pools and activity costs are determined for each resource pool, the idle capacity will begin, as follow:

Table (9) Cost of Idle Capacity under RCA

Details	Total resource pools cost	Cost under RCA	Idle Capacity
credit	102,003,000	87,281,058	14,721,942
risk management	42,235,000	22,303,070	19,931,930
Information technology	63,809,000	47,247,692	16,561,308
General Administration	1,044,782,192	793,535,890	251,246,302
Total	1,252,829,192	950,367,710	302,461,482

➢ **Step Seven : Calculate The cost of products under RCA**

The total costs of each product will be determined by adding the costs of the activities calculated according to the RCA to the direct costs of the products, As follow:

Table (10) Cost of Idle Capacity under RCA

Details	No. of Customer	Direct Cost	Allocated Cost under RCA	Total
Loan	252	446,642,180	476,128,554	922,770,734
Advance	220	246,014,424	415,667,786	661,682,210
Letter of Guarantee	2	73,064,853	3,778,798	76,843,651
Overdraft Account	29	159,070,196	54,792,572	213,862,768
Total	503	924,791,652	950,367,710	1,875,159,362

• **The difference will be shown in calculating the customer's costs under the Traditional system and under the system of costs calculated according to RCA to know the difference between the customer's costs in both cases, as follow:**

Table (9) Result of Normal Costing system & Resource consumption Accounting

Details	Traditional System	RCA
Direct Cost	924,791,652	924,791,652
Details	Traditional System	RCA
Total cost	2,177,620,843	1,875,159,362
No. of Customer	503	503
Cost Per Customer	4,329,266.09	3,727,951.02

Looking at the table (11) notice The Resource Consumption Accounting contribute to reduction the cost about 14%, This is by excluding the costs of idle capacity and allocating costs only to the capacity used.

4. Conclusion

The necessity of applying the system of resource consumption accounting to indicate the volume of idle energy and work to employ or remove it, because its presence leads to an increase in the cost and consequently an increase in the price of the service provided to the customer, which all negatively affects profits.

By applying the quantitative model to resource consumption accounting, which determines the causal relationships between resources on the basis of quantity and value, it provides information for decision-making at any level and this information cannot be provided with any cost-management technique.

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استعمال محاسبة استهلاك الموارد لتحديد تكاليف زبائن المصرف[11]

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المستخلص

يهدف هذا البحث الى بيان الفروقات بين احتساب التكاليف في ظل نظام التكاليف التقليدي ونظام محاسبة استهلاك الموارد ، وبتطبيق ذلك على مصرف الرافدين.

ويبين البحث كيف يمكن تحديد الطاقة العاطلة في ظل محاسبة استهلاك الموارد، وبحث إمكانية توظيف هذه الطاقات. وأظهرت ايضا كيف يمكن فصل التكاليف الى ملزمة وتناسبية. إن محاسبة استهلاك الموارد تساعد المدراء في تسعير المنتجات استنادا الى ما استهلكه هذه المنتجات من كل مورد.

لقد أثبت البحث ان استعمال محاسبة استهلاك الموارد أكثر دقة من نظام التكاليف التقليدي في تخصيص التكاليف غير المباشرة وخاصة في المصارف لكونها مرتفعة. يقدم هذا البحث نظرة ثاقبة حول قياس الطاقات غير المستخدمة من الناحية الكمية والنقدية للوحدات الاقتصادية بشكل عام، والمصارف بشكل خاص.

ان أهم استنتاجات هذا البحث بينت بإن استعمال محاسبة استهلاك الموارد تساعد الإدارة العامة للمصرف على استغلال الطاقة غير المستغلة للمصرف للاستفادة منها في تخفيض اسعار المنتجات او الخدمات.

الكلمات المفتاحية:

نظام التكاليف التقليدي، تجمع الموارد، محاسبة استهلاك الموارد، تكلفة المنتج، السعة الخاملة، إدارة الائتمان

[11] **بحث مستل من أطروحة دكتوراه.**