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The Relationship Among Activity Based Costing, Unlimited Improvement and Performance: A Study in Libya

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Abstract

The growth of companies depends not only on the amount of products or services they provide, but also on the costs they incur. This means that a company sells a lot of products and satisfies their customers. However, companies will not be able to grow if their costs exceed their revenues. Reducing costs is the first priority of all companies in this sense. Thus, companies must implement successful plans to reduce costs.

The aim of the research is to evaluate the relationship between activity-based costing and unlimited improvement and business performance. As a result of the study, it was determined that there is a relationship between the variables.

The activity-based costing system provides accurate information about the activities on which the costs depend, which helps to determine the importance of the activities. It is expected that the findings obtained as a result of the research will contribute to the managers taking sound decisions according to their goals at every stage.

Keywords: Activity-based costing, unlimited improvement and performance.

JEL Code: M11

Faaliyet Tabanlı Maliyetleme ile Sınırsız İyileşme ve Performans İlişkisi: Libya’da Bir Araştırma

Öz

Şirketlerin büyümesi sadece sağladıkları ürün veya hizmet miktarına değil, aynı zamanda katlandıkları maliyetlere de bağlıdır. Bu, bir şirketin çok fazla ürün satması ve müşterilerini memnun etmesi anlamına gelir. Ancak maliyetleri gelirlerini aşarsa firmalar büyüyemeyecektir. Maliyetlerin düşürülmesi bu anlamda tüm şirketlerin birinci önceliğidir. Böylece şirketler maliyetleri azaltabilmek için başarılı planlar uygulamalıdır.

Araştırmanın amacı, faaliyet tabanlı maliyetleme ile sınırsız iyileşme ve iş performansı ilişkisini değerlendirmektir. Çalışma sonucunda değişkenler arasında bir





ilişkinin varlığı tespit edilmiştir.

Faaliyet tabanlı maliyetleme sistemi, faaliyetlerin önemini belirlemeye yardımcı olan maliyetlerin bağlı olduğu faaliyetler hakkında doğru bilgiler sağlamaktadır. Araştırma sonucunda elde edilen bulguların, yöneticilerin her aşamada amaçlarına göre sağlam kararlar almasına katkı sağlaması beklenmektedir.

Anahtar Kelimeler: Faaliyet tabanlı maliyetleme, sınırsız iyileşme ve performans.

JEL Kodu: M11

1. Introduction

The activity-based costing system appeared to solve problems in traditional systems in allocating and distributing indirect costs and then supporting administrative decisions.

Activity-based costing system is that system that is concerned with collecting, analyzing, and calculating costs depending on the performance of each of the company's activities in the cost pools, and then distributing these costs directly to the activities and then to the products, the final product, or the service provided, depending on the causal relationship (Kaplan 1990).

Unlimited improvement is one of the most advanced and important technologies that based on incremental and progressive improvements in production. These improvements are reflected in reduced costs and improved product quality. Thus, unlimited improvement can be defined as "the active pursuit of performance development and quality improvement in order to maximize the benefit achieved by the consumer and reduce the costs to a minimum without compromising quality.

Is it very important to measure the performance of the company, or measure performance standards to know where the organization or company stands? And what should be reviewed? Or add it? And other important decisions.

The most important limitation of the research is that the research data was collected with closed-ended survey questions. In other words, the answers given for the research are limited to the survey questions. Another limitation of the research is that the data was obtained from a single country and from employees in a single sector.

2. Literature Review

The activity-based costing system relies on collecting, analyzing, and





distributing costs depending on the main reason for cost behavior.

The reason for the emergence of the activity-based costing was to the change in the modern production environment, which directly affected the cost structure. This change here is the use of advanced machinery in production, which means dispensing with the human element to a large extent, direct labor decreased to less than 5% and increased Indirect costs reach more than 80% in some industries. (Al-Thalaib, 2002)

Activity-based costing appeared to address problems in traditional methods of allocating and distributing indirect costs and supporting administrative decisions.

The objectives of the activity-based costing system can be summarized in the following points: (Hilton, 1999).

*The activity-based costing system aims to address the problems in the traditional systems for allocating and distributing indirect costs, working on developing areas for distributing and allocating the company’s resources, and charging the costs to the productive units more accurately.

* The activity-based costing system aims to help the company’s management in giving it a clear and accurate picture of the activities that cause costs.

*Activity-based costing system aims to accurately and objectively measure the cost of a unit of activity, as well as a unit cost of products or services.

* The activity-based costing system aims to rationalize administrative decisions, the most important of which are (pricing decisions and purchasing or manufacturing decisions) that help the company in the global competitive market.

* Activity-based costing system aims to control costs through defining activities and collecting costs on the basis of activities that consume the company’s resources and charging them to products on the basis of cost causes and working to get rid of activities that do not add value to the product, and to prevent waste and waste of time, and Good use of company resources.

* The activity-based costing system aims to reduce costs in the future and work to prevent extravagance in the future cost of the product by linking it to the performance of the activity and the cause of the cost.

The advantages of the activity-based costing system can be summarized in the following points (Horngren & Foster, 2009):





* The application of the activity-based costing system leads to improving the quality of decisions in the field of purchasing and pricing, because the cost of the produced unit is a real cost resulting from the actual production processes.

* The application of activity-based costing system helps the company to control the early timing of the activities before the completion of the production of the final products, which leads to the possibility of controlling them before the completion of the production time.

* The application of the activity-based costing system helps the company to develop programs to improve and develop costs, by identifying and excluding activities that do not add value to the product and disposing of them.

* The cost analysis depends on a real relationship between the cost and the cost-causing activity. This relationship is determined in the first allocation stage, from resources to activities, or in the second stage, from activities to outputs.

* The application of the loading helps the company to determine the cost of the product accurately and fairly, which helps it to make production and pricing decisions.

Quality and quality improvement are important for business (Küçük, 2012a). Unlimited improvement is one of the most advanced and important technologies that based on incremental and progressive improvements in production. These improvements are reflected in reduced costs and improved product quality. Thus, unlimited improvement can be defined as "the active pursuit of performance development and quality improvement in order to maximize the benefit achieved by the consumer and reduce the costs to a minimum without compromising quality.

Conceptually unlimited improvement was first introduced to the scientific literature with the study of Küçük (2011 and 2020). The implemented application is the first application of unlimited improvement and supports the theoretical dimension. From now on, further studies will be carried out on this subject and the subject will be taken further. In quality improvement practices, TQM practices cannot be fully achieved, especially in some sectors, due to mined land that cannot be included in the scope of improvement, so to speak (Küçük, 2012b).

Unlimited improvement is a new improvement tool proposed by us, based





on the elimination of all limitations encountered in continuous improvement practices, drawing attention to the problems encountered in TQM practices and the factors that affect or limit the success of TQM. This tool, whose benefits in the real sector have been demonstrated through field research, will make a significant contribution to improving organizational performance when used as a new improvement tool and application (Küçük, 2011).

Is it very important to measure the performance of the company, or measure performance standards to know where the organization or company stands? And what should be reviewed? Or add it? And other important decisions.

Therefore, it is necessary to know or get acquainted with the criteria for measuring performance first, and examples and models of these criteria, for example:

* To measure performance regarding corrective and preventive actions, we use a criterion: Implementation of corrective / preventive actions.

* To measure performance in customer complaints, we use the criterion of the percentage of the number of customer complaints that were resolved in the year out of the total number of complaints.

* In order to measure performance in monitoring non-conforming services or products, we use a criterion: take appropriate action on them

* To measure performance in the process of evaluating suppliers, we use a criterion: continuous evaluation of all supplies / suppliers

It is very important to draw attention to the connection of these standards in measuring performance with the objectives of the company.

There are also some measures that are used in the performance of companies, including (production, costs, restart, delivery on time, reaction speed, quality, customer satisfaction, expected profits). And the performance measure must be linked to each of (aims, strategic plan, work teams, results and achievements, clear and specific verifiable data, accuracy, product activities) (Al-Zawawi 2016)

It is the performance that focuses on the study and understanding of the companies' production processes and aims to improve the company's production capacity. The companies' production performance can be understood through three main points: (Qamra & Merkhi, 2020).





* Productivity: It is the difference between inputs and outputs after the end of the production process.

* Profitability: It is the results achieved by the company compared to the working capital.

* Competence: It is the use of the least possible resources to reach the target production.

Competitive performance of companies.

It is the performance that focuses on the company's ability to continue by obtaining a strong competitive place in the market, and this type of corporate performance can be understood through the following points:

* The market position of the company: It is the market share of the company in the market and is compared to the strongest competition companies.

* Understanding the desires of the company's customers: This is done by measuring their satisfaction by participating in the product design process before the start of the production process.

Develop the participation of employees in the company: This is done by knowing the method used by the company with employees, directly or in directly.

The study is important for the researcher as it will support the researcher's thoughts with important information and data that will help the academic and applied field. The importance of the study also lies in investigating the most important management accounting systems that can be used today. The importance of working in Libyan oil companies, as well as modern management accounting systems in the Libyan education system, lies in the fact that the study is considered one of the primary studies in Libya.

3. Aim of Study and Expected Benefits

The aim of this study is to determine the relationship between activity-based costing, unlimited recovery and performance.

It is expected that the findings obtained as a result of the thesis study will contribute to the sector, economic management and academic researchers, especially students.

Activity-based costing system provides accurate information about the activities on which costs depend, which helps determine the importance of the activities. This helps management make sound decisions based on their objectives at each stage. The activity-based costing system also helps define





the relationship between costs and employees and define responsibilities for handling cost causes. This helps management determine the company's method of controlling personnel cost. Activity costing can be used as a tool to motivate officials to increase activity. Activity-based costing system also helps in determining the optimum mix of products and customers, and activity-based costing system helps in measuring the performance of the company, identifying places where costs are lost and also helps in controlling and managing costs. Additionally, this provides more accurate and affordable cost data for the unit produced or commodity supplied and increases the competitiveness of the company.

4. Data Collecting Instruments and Methodology

A survey form on activity-based costing was prepared to collect research data. The target cost, activity-based costing and cost reduction scales used in the research were prepared using the relevant literature.

Küçük (2020) scales were used to measure unlimited improvement and company performance. The scales were prepared in Likert scale form.

In the research where data was collected by face-to-face survey method (Küçük, 2021 and Çağlayan, 2022a), the general data set and sample mass were determined according to scientific measurements (Çağlayan, 2022b). The questions of the research scales were prepared according to a 5-point Likert scale. Participants were asked to answer the questions as 1: I strongly disagree, 2: I disagree, 3: I have no idea, 4: I agree, 5: I strongly agree.

Research data were analyzed with the help of SPSS 23.0 and AMOS statistical packages.

5. Model and Hypothesis

As can be seen from the research model, in the scope of the study; The relationship between activity-based costing, unlimited recovery and business performance is examined.



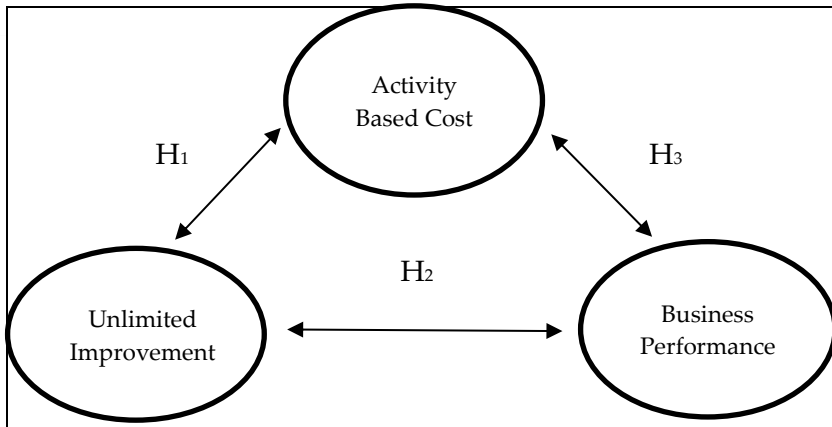


Figure 1. Research Model

The hypotheses of the study, which were created in line with the literature given in the literature review, in line with the research model, are stated below.

H1: Activity-Based Costing statistically significantly affects unlimited improvement in Libyan oil companies.

H2: Unlimited improvement statistically significantly affects firm performance in Libyan oil companies.

H3: Activity-based costing statistically significantly affects firm performance in Libyan oil companies.

6. Data Analysis, Findings and Interpretation

KFA findings for the activity-based costing system scale are presented in Table 1.



Table 1. Activity Based Costing KFA

Items	1	2	3
FT1	,623		
FT3	,745		
FT4	,801		
FT5	,545		
FT6		,570	
FT7		,685	
FT8		,634	
FT9		,604	
FT10		,601	
FT11			,571
FT12			,739
FT13			,566
FT14			,612
FT15			,693
FT16			,616

KMO: ,926 Chi Square: 2613,146 sd:105 Sig: ,000 Eigen Value: 1,165 Total Exp. Var: %58,618

As a result of KFA, a three-dimensional structure was obtained in line with the original structure of the activity-based costing scale. The dimensions of the scale have been determined as 1: accurate measurement of the cost of the product or service, 2: using the cost reasons of the product or service in the cost calculation, 3: using the activities of the product or service in calculating the cost of the product or service. As a result of KFA, the FT2 item belonging to the dimension of accurate measurement of the cost of the product or service was removed from the analysis because the factor loading was low / loaded on different factors.





As a result of KFA, factor loadings are between 0.545 and 0.801 for the dimension of accurate measurement of the cost of the product or service, between 0.570 and 0.685 for the dimension of using the cost reasons of the product or service in the cost calculation, and between 0.571 and 0.739 for the dimension of using the activities of the product or service in calculating the cost of the product or service. has been detected.

Factor loadings are sufficient for analysis. As a result of KFA, the KMO value was found to be $0.926 > 0.60$. These findings show that the sample size is sufficient for analysis (Küçük, 2022a).

KFA findings for the unlimited improvement scale are presented in Table 2.

Table 2. Unlimited Healing KFA

As a result of KFA, a two-dimensional structure was obtained, compatible with the original structure of the unlimited improvement scale. The dimensions of the scale were determined as 1: quality improvement process, 2: quality improvement as a result of employees.





Items	1	2
Si2	,561	
Si3	,691	
Si5	,658	
Si6	,763	
Si7	,791	
Si8	,817	
Si10		,678
Si11		,756
Si12		,612
Si13		,875
Si14		,827
Si15		,612
Si16		,689

KMO:,867 Ki Kare: 2657,249 sd:76 Sig:,000 Öz değ er: 1,778 Toplam Aç k. Varyans: %57,783

As the factor load was low/loaded on different factors as a result of KFA, items SI1 and SI4 belonging to the quality improvement process dimension and items SI9 and SI17 belonging to the quality improvement employee result dimension were removed from the analysis. Factor loadings were obtained between 0.561 and 0.817 for the quality improvement process dimension, and between 0.612 and 0.875 for the quality improvement employee outcome dimension. Factor loadings are sufficient for analysis. As a result of KFA, the KMO value was found to be $0.867 > 0.60$.





Additionally, it was found that the Bartlett test was significant ($\text{sig} < 0.05$) for the chi-square value of 2657.249 and 76 degrees of freedom. These findings show that the sample size is sufficient for analysis. In addition, it was found that the two factors in the scale explained 57.783% of the total variance. This value is above the critical value of 50%.

KFA findings for the company performance scale are presented in Table 3.

Table 3. Company Performance KFA

Items	1
P1	,574
P2	,658
P3	,748
P4	,827
P5	,787
P6	,843
P7	,810

KMO: ,889 Chi Square: 1249,058 sd:21 Sig:, 000 Eigen value: 3,993
Total Exp. Variance: 57.042%

As a result of KFA, a one-factor structure of the scale was reached. Factor loadings of the scale were obtained between 0.574 and 0.843. Factor loadings are sufficient for analysis. As a result of KFA, the KMO value was found to be $0.889 > 0.60$. Additionally, it was found that the Bartlett test was significant ($\text{sig} < 0.05$) for the chi-square value of 1249.058 and 21 degrees of freedom. These findings show that the sample size is sufficient for analysis.

CFA goodness of fit values determined for the scales as a result of CFA are reported in Table 4.

After CFA was performed, it was found that all scales provided values related to acceptable criteria. These findings mean that the scales fit well (Gürbüz, 2019).





Table 4. CFA Goodness of Fit Values

Variable	χ^2	df	χ^2/df	GFI	CFI	TLI	RMSEA	SRMR
Acceptable Criterion			≤ 5	$\geq .90$	$\geq .90$	$\geq .90$	$\leq .08$	$\leq .08$
Cost reducing	137,85	51	2,702	0,947	0,945	0,924	0,068	0,0467
Target Cost	87,188	34	2,564	0,959	0,956	0,939	0,064	0,0443
Activity Based Costing	290,145	86	3,374	0,911	0,920	0,902	0,077	0,0465
Unlimited Healing	181,245	61	2,971	0,936	0,952	0,933	0,075	0,0548
Company Performance	37,016	13	2,847	0,974	0,981	0,969	0,068	0,0284

Reliability Analysis

After testing the validity of the scales, reliability analysis was conducted to determine reliability levels. Analysis findings are presented in Table 5.

As a result of the reliability analysis, Cronbach's Alpha coefficient value was obtained over 0.70 for all scales. This finding means that the scales are reliable (Çağlayan, 2022).

Table 5. Reliability Analysis

Variable	Cronbach' Alpha	Madde Sayısı
Cost reducing	,860	12
Target Cost	,846	10
Activity Based Costing	,911	15
Unlimited Healing	,892	13
Company Performance	,874	7





Regression Analysis

Regression analysis was performed to test the hypotheses H1, H2, H3 and H4. Analysis findings are given in Table 6.

Table 6. Regression Analysis 1

Model	Standardized		Not Standardized	t	Sig.
	B	Std. Hata	Beta		
Fixed Term	-,357	,183		-1,952	,052
Target Cost	,086	,052	,078	1,649	,100
1 Activity Based	,442	,045	,406	9,901	,000
Unlimited Healing	,247	,042	,250	5,936	,000
Company Performance	,227	,041	,223	5,509	,000

Dependent Variable: Cost Reduction

As a result of the regression analysis, it was determined that activity-based costing, unlimited improvement and company performance positively affected cost reduction (sig<0.05). It was found that the target cost did not significantly affect cost reduction (sig: 0.100). As a result of the analysis, H1, H3 and H4 hypotheses were supported, while H2 hypothesis was not supported. The adjusted R2 value was found to be 0.620. This finding shows that 62% of the cost reduction is explained by target costing, activity-based costing, unlimited improvement and firm performance.

7. Result

There is a strong relationship between target cost, activity-based cost, unlimited improvement and corporate performance in Libyan oil companies.

Many employees in Libyan oil companies understand that modern management accounting systems such as cost reduction, target costing, activity-based costing, unlimited improvement and corporate performance ensure the highest quality and on-time production at the lowest cost.

Some employees of oil companies, not knowing that company interests and





scientific research come first, do not provide any information and believe that all the data requested from them for scientific research is not in their personal interest.

Despite the understanding of many employees in Libyan oil companies that modern management accounting systems such as cost reduction, target costing, activity-based costing, unlimited improvement and corporate performance are tools that help companies solve many problems, the situation reveals the fact that not all management accounting practices have reached the level of these systems.

This study has shown that the target costing method is a powerful tool to increase the implementation level of cost management before the start of the production process in Japan, this study also focused on the target costing method and its role in increasing the implementation level of cost management. The use of cost management and method in Japan has led to the conclusion that through value engineering and value chain and integration between them and the target cost system has an important role in enhancing the power of cost management.

8. Conclusion

It means that using a target costing system usually leads to cost reductions. The results of the study showed that target costing and cost reduction were positively associated with increased product quality. In addition, the target cost system aims to produce the product at the highest quality, at the lowest cost and on time. The target cost system can be used as an effective way to reduce costs. This is in line with some international studies (Yoshikawa, 2002) such as (Ellram, 2008).

Where he explains that the role of target cost and value analysis reduces costs and gives the company competitiveness to continue in the market, also the development in the field of communication helps the company to operate in the competitive market and gain customer satisfaction and companies also have to innovate products because in the modern production environment, traditional production is what determines the price As in the environment, it is the cost, not the cost, that determines the price.

The results of the study showed that the activity-based costing system was not applied to Libyan oil companies. (This was obtained by the researcher in an interview with some officials and board members of companies), which is





consistent with one of the Libyan studies conducted on the General Company for Electronics in Libya (Thaleb, 2002).

The ability of companies to compete depends on their ability to offer high quality products and a high level of product functionality at the lowest possible cost, and this can only be achieved by striking a balance between cost, quality and functionality. The results of the study are in agreement with many field studies, and Ben Salah, (2019) is one of the most important of them.

The staff opinion about unlimited improvement and cost reduction provides us with evidence of a positive relationship between unlimited improvement and performance improvement, which confirms and agrees some international studies such as (García and Maldonado, 2017).

The result of the research shows that all questions measuring cost reduction are very important. This means the possibility of cost reduction in Libyan oil companies by relying on unlimited improvements. The results also showed that unlimited improvement has a significant and strong relationship with cost reduction. This means that using an unlimited healing system often reduces cost. The results of the study explained this result, showing that the unlimited improvement and cost reduction system is directly related to improving product quality and achieving the target cost. Both systems also serve the target costing system, which aims to produce the product with the highest quality, lowest cost and on time, depending on the activity-based costing system in distributing indirect costs to final products.

The study also showed that the unlimited improvement system can be used as a good tool to reduce costs, which is consistent with international studies (Ben salah, 2019).

The ability of companies to compete depends on their ability to offer high quality products and a high level of product functionality at the lowest possible cost, and this can only be achieved by striking a balance between cost, quality and functionality. These results coincide with the study of Ben salah (2019) and Saleh and Abu Shafah (2020), which shows that the performance of companies can be used as a good tool to reduce costs and increase the level of implementation of cost management and cost control.





9. Suggestions

Companies should know that the activity-based costing system is not a wholesale change in the costing systems used by companies, but an improvement of traditional costing systems. Only this system uses the causal relationship in allocating indirect industrial costs to products and more detail is done at the centers of activity.

Companies must work on successful selection of cost causes, and this is not difficult to determine the best cause of activity cost and examine the effects and behavior of activities.

To succeed in reducing costs using the activity-based costing system, companies must save a lot of money, effort, and time. Money, effort and time may be some of the reasons why companies do not try to use this system.

To be successful in selecting the causes of the cost, companies must rely on a trained team or an external work team and retrain accounting, engineering and administrative staff.

Companies consider that the cost of implementing an activity-based costing system is generally high. Here, companies must balance between cost and benefit, but in the long run, the system provides high benefits, especially in the field of cost control, improving administrative performance and opening wide areas for cost reduction.

The implementation of an activity-based costing system in companies is a difficult issue in Libyan companies, as it requires a complete administrative change and the implementation of a comprehensive quality management program, while working primarily to achieve customers' requests. But it is necessary to focus on its benefits.

Libyan oil companies must understand the unlimited improvement process and implement it without delay.

Libyan oil companies must provide a large number and variety of products that are of higher quality and lower cost than their competitors' products.

Libyan oil companies must operate with zero defects and prevent errors before they occur.

Libyan oil companies should be prepared for expected problems and work to find solutions to them early.





References

- Al-Zawawi, R. (2016). Measuring the performance of companies and institutions.
- Ben salah, T. (2019). Relationship between Performance Improving and Unlimited Improvement in Libyan Industrial Companies. *The International New Issues in Social Sciences*, 7(1), 75-96.
- Benshina, K. (2018). The relationship between unlimited improvement and business performance. *The International New Issues in Social Sciences*, 6(1), 85-94.
- Çağlayan, Orhan (2022a), Bilimsel Araştırma Yöntemleri, Ankara: Sonçağ Yayıncılık.
- Çağlayan, Orhan, (2023), İşletme Bilgisi ve Yönetimi, 6. Baskı, Ankara, Seçkin Yayıncılık.
- Çağlayan, O. (2022b) (Editor and Author) Scientific Research and Writing Handbook, Sonçağ Yayıncılık, Ankara.
- Ellram, L. M. (2006). *The implementation of target costing in the United States: Theory versus practice*. *Journal of Supply Chain Management*, 42(1), 13-26.
- García-Alcaraz, J. L., Oropesa-Vento, M., & Maldonado-Macías, A. A. (2017). *Kaizen Planning, Implementing and Controlling*. Springer International Publishing.
- Hilton, R. W. (1999). *Managerial accounting*. Boston, MA: Irwin/McGraw-Hill.
- Horn gren, C. T., Datar, S. M., Foster, G., Rajan, M. V., & Ittner, C. (2009). *Cost accounting: a managerial emphasis*. Pearson Education India.
- Horn gren, C. T., Foster, G., Datar, S. M., & Cost, A. C. (2001). *A Managerial Emphasis*. Upper Saddle River, New Jersey: Prentice.
- Küçük, O. (2011). A New Implementation in Total Quality Management: Unlimited Improvement. *Production Research Symposium*. Istanbul.
- Küçük, O. (2012a). *Kalite Kontrol ve Kalite Güvence Sistemleri*. Seçkin Yayıncılık, Ankara.
- Küçük, O. (2012b). *Toplam Kalite Yönetimi*. Seçkin Yayıncılık, Ankara.





- Küçük, O. (2016). *Bilimsel Araştırma Yöntemleri*. Ekin Yayınevi, Bursa.
- Küçük, O. (2020) (Editor ve Yazar) *İşletmecilik, Lojistik ve Toplam Kalite Yönetimi Alanında Teoriler ve Bilimsel Araştırma Ölçekleri*. Sonçağ Yayıncılık, Ankara.
- Küçük, O. (2021) (Editor ve Yazar) *Scientific Method Fundamental Informations*. Sonçağ Yayıncılık, Ankara.
- Küçük, Orhan ve diğerleri (2015), “Toplam Kalite Yönetiminin İşletme Performansına Etkisi: Lojistik Sektöründe Bir Uygulama”, *The Journal of Academic Social Science Studies International Journal of Social Science*, 34(2), 53-67.
- Küçük, Orhan ve diğerleri (2019), “İşletme Performansı Ölçeği Geliştirme Çalışması: Bir Alan Araştırması”, *Uluslararası Erciyes Bilimsel Araştırmalar Kongresi*, 26-28 Nisan 2019, Kayseri, ss. 583-594.
- Qamra, Bousalem, Hakima, El-Aifawy, Salameh, & Merghi. (2020). Accounting disclosure of social responsibility and its impact on the performance of companies in the province of El-Oued.
- Saleh & Abu Shafa. (2020). The importance of applying the ABC system in the National Cement Company as an effective tool for monitoring and evaluating performance. A field study on Al-Marqab Cement Factory.
- Saleh, A. J. (2013). Factors affecting the reduction of the cost of new products. *Business Research Journal*, 35(1), 243-291.
- Talib, F., Rahman, Z., & Qureshi, M. N. (2010). The relationship between total quality management and quality performance in the service industry: a theoretical model. *International Journal of Business, Management and Social Sciences (IJBMSS)*, MultiCraft, 1(1), 113-128.

