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# Relationship between inventory management and profitability evidence from selected manufacturing firms in Sétif

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**Abstract:**

This study aimed to test the relationship between working capital management and the profitability of Algerian small and medium enterprises in the province (wilaya) of Sétif, through a sample of (68) enterprises. The validity of the hypotheses was tested according to the panel data model. Statistically significant results were reached between the variables, as there is a direct relationship between inventory management and the rate of return on assets (ROA).

**Keywords:** working capital; enterprise profitability; inventory turnover rate.

**JEL Classification: L2; G3.**

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**Introduction**

Inventory is a key component of current assets. It makes up about 60% of its total. For smooth operation, every organization needs stock. Stock works as a link between production and distribution. Due to its main composition in current assets, it occupies inventory management A major role in working capital management. Inventories constitute the most significant part of current assets of the business concern. It is also essential for smooth running of the business activities. For most companies, investing in commodity stocks is an important part of the total investment in assets. Therefore, it is expected that the effectiveness of inventory management will affect the results of the activity and the wealth of shareholders. Commodity stocks for industrial establishments often consist of finished products, semi-finished products and raw materials. The stock of finished products is considered a safety margin between the production activity and the sales activity, as the corporation maintains the inventory which leads to reducing the dependence of the buying, selling and production activities on each other. On the other hand, we find that having sufficient stock of semi-manufactured products reduces the dependence of different processes and production stages on one another as the availability of this stock leads to the continuation of the production process despite the interruption of one of the stages for one reason or another.

Through this research, we will seek to study and analyze the warehouse management of small and medium enterprises Sétif, and to find out whether these institutions can enhance their profitability through effective inventory management.

Accordingly, we can raise the following problem:

**Can inventory management affect the profits of small and medium enterprises in Sétif?**

**Objective of study:**

- Examining the relationship between inventory management and the profitability of small and medium-sized industrial enterprises of the city of Sétif.

**Research hypothesis:**

There is a relationship between effective inventory management and enterprise profitability.

**1- Theoretical Framework**

**1-1- Meaning of inventory**

Before we discuss the concept of inventory management, we will get to know the concept of inventory first.

Inventory refers to the value or quantity of raw materials, supplies, work in progress (WIP) and finished stock that are kept or stored for use as need

arises. Raw materials are commodities such as steel and lumber that go into the final product. Supplies include items such as Maintenance, Repair and Operating (MRO) inventory that do not go into the final product. Work in progress is materials that have been partly fabricated but are not yet completed. Finished goods are completed items ready for shipment. (Prempeh & Kwadwo Boateng, 2015, p2)

Inventory means a physical stock of finished goods, stock of work in progress and stock of material in store maintained to meet the expected demand as and when they arise. It is necessary to have physical stock in the system as nonavailability of materials will lead to delays in production or services delivered. (george, 2019, p. 757)

Inventory is the monetary value of physical assets which are included directly or indirectly into produced goods in the production system and which are kept for future or with the intention of selling. (G. Sekeroglu & M. Altan, 2014, p.1699)

**1-2- Types of Inventories**

Inventories are goods held for eventual sale by the firm and the raw materials or other components being used in the manufacturing of such goods. A retailer keeps an inventory of finished goods to be offered to customers whenever demanded by them. On the other hand, a manufacturing concern has to keep a stockpile of not only the finished goods it is producing, but also of all physical ingredients being used in the production process.

The common types of inventories for most of the business firms may be classified as finished goods, work-in-progress and raw materials.

- **Finished goods**: These are completed products awaiting sale. They are the final output of the production process in a manufacturing firm. In the case of wholesalers and retailers, they are generally referred to as merchandise inventory.
- **Work-in-process**: It refers to the raw materials engaged in various phases of production schedule. The degree of completion may be varying for different units. The work-in-progress refers to partially produced goods. The value of work-in-process includes the raw material costs, the direct wages and expenses already incurred and the overheads, if any.
- **Raw materials**: These are goods which have not yet been committed to the production process in a manufacturing concern. They may consist of basic raw materials or finished components.

The quantity and value of the above three kinds of inventories differ depending upon the nature of the business. For example, a manufacturer will have levels of all the three kinds of inventories. While a retailer or a

wholesaler will have a high level of inventories of finished goods but will have no inventories of raw materials or work-in-process. Moreover, depending upon the nature of the business, inventories may be durable or non-durable, valuable or inexpensive, perishable or non-perishable etc. ((B.B.A), pp. 218-219)

**1-3- Meaning of management inventory**

Inventory management is the art and science of maintaining stock levels of a given group of items incurring the least cost consistent with other relevant targets and objectives set by management. (Prempeh & Kwadwo Boateng, 2015, p.2)

Inventories are assets of the firm, and as such they represent an investment. Because such investment requires a commitment of funds, managers must ensure that the firm maintains inventories at the correct level. If they become too large, the firm loses the opportunity to employ those funds more effectively. Similarly, if they are too small, the firm may lose sales. Thus, there is an optimal level of inventories and there is an economic order quantity model for determining the correct level of inventory. ((B.B.A), p. 218)

- The dictionary meaning of the inventory is stock of goods or a list of goods. In accounting language, inventory means stock of finished goods. From a manufacturing point of view, inventory includes raw material, work in process, stores, etc… (Subramanian, 2009, p. 166)
- Inventory management is the effective and efficient use of material and stock in the organization to maximize performance. Effective inventory management is essential in the operation of any business. (ahmed, 2016, p. 3182)
- Inventory management refers to the process of ordering, storing and using a company's inventory. This includes the management of raw materials, components and finished products, as well as warehousing and processing such items. (HAYES, 2020)

**1-4- Objectives of Inventory Management**

The objectives of inventory management may be viewed in two. They are

- Operational: the operational objective is to maintain sufficient inventory, to meet demand for product by efficiently organizing the firm’s production and sales operations
- Financial: financial view is to minimize inefficient inventory and reduce inventory carrying costs.

These two conflicting objectives of inventory management can also be expressed in terms of costs and benefits associated with inventory. The firm should maintain investment in inventory implies that maintaining an inventory involves costs, such that smaller the inventory the lower the

carrying cost and vice versa. But inventory facilitates (benefits) the smooth functioning of the production. An effective inventory management should:

- ensure a continuous supply of raw materials and supplies to facilities uninterrupted production
- maintain sufficient stocks or raw materials in periods of short supply and anticipate price changes
- maintain sufficient finished goods inventory for smooth sales operation and efficient customers services
- minimize the carrying costs and time and control investment in inventories and keep it at an optimum level

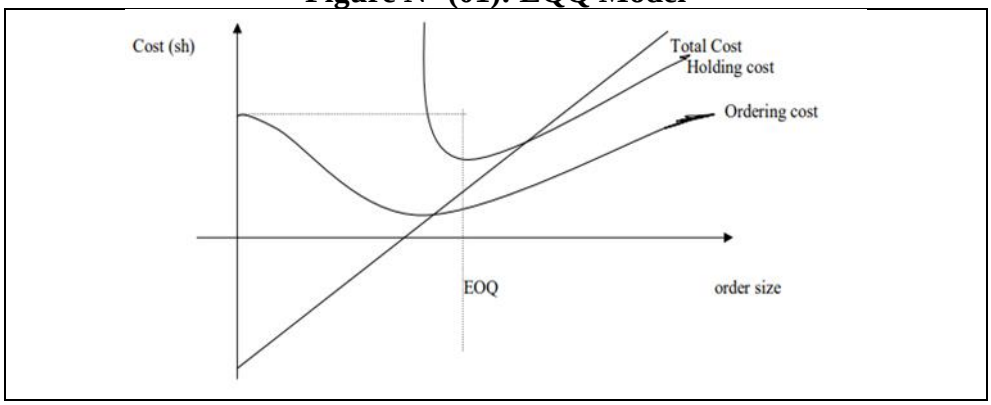
Apart from the above, the following are also objects of inventory management. Control of materials costs; elimination of duplication in ordering by centralization of purchasers; supply of the right quality of goods of reasonable prices; provide data for short-term and long-term for planning and control of inventories. Therefore, management of inventory needs careful and accurate planning so as to avoid both excess and inadequate inventory in relation to the operational requirement of a firm. To achieve higher operational efficiency and profitability of a firm, it is essential to reduce the amount of capital locked up in inventories. This will not only help in achieving higher return on investment by minimizing tied up working capital, but will also improve the liquidity position of the enterprise. (Financial management, 2013, p. 91)

**1-5- Theory of Economic Order Quantity (Wilson EOQ Model)**

Mathematical models have been developed within the scope of operations management to determine the optimal inventory level. The most widely used model is the EOQ model. This model was developed by F.W.Haris in 1913. But still R.H. Wilson is given credit for his early in- depth analysis of the model (Arsham, 2006). The model is also known as the Wilson EOQ model. According to this model, some costs (ordering costs) decline with inventory holdings, while others (holding costs) rise and that the total inventory-associated cost curve has a minimum point. This is the point where total inventory costs are minimized.

The economic order quantity is the level of inventory that minimizes the total of the inventory holding cost and ordering cost. (winston, Patrick Boniface, Nebat Galo, & Virginia Kirigo, 2013, p.76) The graphical representation of EOQ model is shown in figure 1 below:

**Figure N° (01): EQQ Model**




**Source:** Timothy Lwiki and Others, The Impact of Inventory Management Practices on Financial Performance of Sugar Manufacturing Firms in Kenya, p.77.

## 1-6- Profitabilité

### 1-6-1- Meaning

According to the Finance Dictionary, "Profitability is defined as the potential of a company to exceed its overall revenue from its total expenses which results in profit generation". (AsareAndOthers, 2017, p. 2)

Profitabilité is an ability to make profit from all the business activities of an organization, company, firm, or an enterprise. It shows how efficiently the management can make profit by using all the resources available in the market. Profitability is also the ability of a given investment to earn a return from its use. (Dave, 2012, p. 124)

### 1-6-2-Profitabilité Ratio

Profitability ratio helps to measure the profitability position of the business concern. Some of the major profitability ratios are given below.

**Table N° (01) shows profitability ratios**

| S.NO | RATIO | FORMULA |
|---|---|---|
| 1 | Gross profit ratio | $\frac{gross\ profit}{net\ sales} \times 100$ |
| 2 | Net profit ratio | $\frac{net\ profit\ after\ tax}{net\ sales} \times 100$ |
| 3 | Operating profit ratio | $\frac{operating\ net\ profit}{sales} \times 100$ |
| 4 | Return in investment | $\frac{net\ profit\ after\ tax}{shareholder\ fund} \times 100$ |

**The reference:** C Paramasivan and T Subramanian, Financial Management, Reference already mentioned, p.22

**1-7- Performance measures of inventory management and the relationship between profitability**

In an enterprise, the efficiency level of inventory management is determined according to a set of performance measures. These performance measures grouped under five headings:

❖ Customer Satisfaction: It is measured by customers should find products whatever they want, whenever they want and how much they want. For these performance measures, various ratios can be used;

- Fulfilled Request/Demand: If this ratio is higher, it means that inventory management is efficient.
- Inventories/Sales: If this ratio is lower, it means inventory management is efficient.

❖ Inventory Turnover Ratio: How many times inventories are transferred within a year. If inventory turnover ratio is high, inventory management is efficient and while it reduces storage costs, profitability increases.

❖ Inventory holding time: How long inventories are holding in the warehouses. The higher waiting time, the higher inventory carrying cost is. If inventory holding time is short, it indicates that inventories are managed efficiently.

❖ Return/Total Demand: If this ratio is high, it is an indicator of not meeting customers demand and it indicates inventory management is inefficient and it affects profits in a negative way.

❖ Customer Complaint Ratio: It is the ratio of total number of complaints from customers to total customer. If this ratio is high, it means inventory management is in efficient and it affects profits negatively.

According to above listed performance measures, it has been found that if a business efficiently manages inventories, its profits are high. Especially the relationship between profitability ratios (gross profit margin, net profit margin, return on assets, and return of equity ratio) and inventory turnover ratio is used in effective inventory management. Thus, in this study an analysis was done with these efficiency ratios. (G. Sekeroglu & M. Altan, 2014, 1700)

**2- Review of literature:**

**2-1 The first study**

Elsa George, A study on the impact of inventory management on profitability of firms with special reference to steel industry, Posted in UGC Approved Journal, May 2019. Volume 9 Number 5. In this research the

research tries to analyse whether the inventory management has any direct impact on the net profits of the company. Five years of financial data of five selected companies were considered for the study. Tools such as ratio analysis, trend analysis and correlation analysis have been used for analysis of the data. The study showed that inventory conversion cycle is directly related to the net profits of the company. While comparing the trends in net profit ratio and inventory turnover ratio it is seen that net profit margin will be more for firms with higher inventory turnover and lower for firms with lower inventory turnover ratio. When comparing the relation between inventory conversion days and net profits it was seen that a negative correlation exists between net profits and inventory conversion period in case of all firms which means that there exists an inverse relationship between the two. When one increases the other decreases.
Available via the website:
http://www.pragatipublication.com/assets/uploads/doc/30b05-756-762.16759.pdf

**2-2 The second study**

LYDIAH MWANGI, the effect of inventory management on firm profitability and operating cash flows of Kenya breweries limited, beer distribution firms in Nairobi country. A Research Project Submitted in Partial Fulfillment of the Requirements for the Award of the Degree of Master of Science in Finance, School of Business, University of Nairobi, OCTOBER, 2016, this study sought to examine effect of inventory management on firm's profitability and operating cash flows of Kenya Breweries Limited beer distribution firms in Nairobi County. The study employed a descriptive research design. Population of the study involved six Kenya Breweries Limited beer distribution firms in Nairobi County thus the study carried out a census of the six firms in Nairobi County. Inventory management measured through inventory conversion period was used as the independent variable whereas firm profitability and operating cash flows formed the dependent variable while management efficiency, firm growth and size formed the control variables. Complete data was obtained from all six the Kenya breweries beer distribution firms in Nairobi County using a data collection sheet. The study used secondary data, which was collected using a data collection sheet from six firms for a period of 10 years from the years from 2006-2015. The data collected was analyzed using ordinary least squares in the form of regression equations via the statistical package for social sciences. The study concluded that inventory management significantly influences firm profitability and operating cash flows of Kenya Breweries beer distribution firms in Nairobi County, Kenya. The study recommended that the management of Kenya breweries ltd beer distribution firms in Nairobi County

should adopt effective inventory management practices like just in time and material requirement planning. This is because such inventory management practices would improve their profitability and operating cash flows.
Available via the website:
https://pdfs.semanticscholar.org/0c1f/fd11e0ecdc70640e13251f9dd8126a03319d.pdf

**2-3 The third study**

Seungjae Shin and Kevin Ennis, A STUDY OF RELATIONSHIP BETWEEN INVENTORY MANAGEMENT EFFICIENCY AND PROFITABILITY: U.S. MANUFACTURING INDUSTRY, posted in Inventory Management Efficiency and Profitability, Mississippi State University, Meridian. This paper examines financial statements for U.S. manufacturing companies. The relationship between inventory management efficiency and companies' profitability is investigated. A regression analysis shows that lower inventory-sales-ratio is associated with higher profit margin. This study used the Compustat database to obtain annual financial statements for U.S. manufacturing companies, including balance sheets and income statements. The final sample includes a total of 1,289 firms. Profitability is used for measurement of company's profitability and inventory-sales-ratio (ISR) is used for measurement of inventory management efficiency. This study used both cross-sectional and time-series panel data. As a cross-sectional data, the values of variables such as inventory levels and profit ratios were collected for 1,289 U.S. manufacturing companies. As a time series data, the values of the variables were collected for three consecutive years. The total number of observations is 3,867. The initial result leads us to examine the relation between profitability and inventory management efficiency, and we find that better inventory management efficiency is positively related to firm profitability.
Available via the website:
https://decisionsciences.org/wp-content/uploads/2019/06/p584174.pdf

**2-4 The fourth study**

Samuel Tabor ENOW, Pradeep BRIJLAL, The effect of working capital management on profitability: The case of Small Medium and Micro Enterprises in South Africa, This study examines the effect of working capital management on profitability by using 15 small and medium enterprises in South Africa from 2008 to 2012, using multiple regression analysis. The results showed that there is a positive relationship between the number of days receivable and the number of stocks today, and a negative relationship between the number of days payable and the cycle of cash spending, thus

reducing the working capital and reducing the cash transfer cycle increases profitability and hence the value of shareholders. Due to the nature of the research question, only secondary data was used in this study. The database was obtained from ALTx (a market developed for businessmen who run small, medium and high-growth businesses) and the websites of different companies. The audited annual data for each organization was obtained: income and budget data. The financial statements covered a period of 5 years from 2008 to 2012 because it is the period that includes the most recent available data. Incomplete institutions data has been deleted and thus a few institutions appeared in the study. Profitability was measured by Return on Assets (ROA) as a dependent variable which was defined as the ratio of pre-interest earnings and tax on total assets, working capital as a separate variable, in addition to control variables measured by company size, leverage, and sales growth.

Available via the website:
https://pdfs.semanticscholar.org/205f/2c078ed4d18af08e5cff79e801c51a09fc69.pdf?_ga=2.199492782.1805466488.1596339748-2096687095.1596339748

**3- A field study on small and medium enterprises in the state of Sétif**

**3-1 Study variables**

After we discussed in the past various concepts related to inventory management, and various indicators of profitability - and after reviewing a set of previous studies in the research in both Arabic and foreign languages. We can define our own research variables which are:

inventory management as an **interpreted variable**, which is in the form of raw materials or finished or semi-finished goods, which has been measured as follows:

**(Average inventory / cost of goods sold) x 365**

**With:** Average Stock = (Stock for Year N + Stock for Year N-1) / 2

enterprise profitability that will be measured by ROA as a **dependent variable**. It shows the efficiency of management in using the assets (assets) in generating profits that will be measured through the return on assets (ROA), which is the rate of return on assets equal to the net profit (net result) on total assets.

**Figure N° (02): Study variables**


**Source:** Researcher

**Table N° (02)**: **Calculation and coding of variables**

| Variable type | Coding | Variable | calculation method |
|---|---|---|---|
| Dependent Variables | ROA | Profitability | (Average inventory / cost of goods sold) x 365 |
| Independent Variable | DRS | Inventory Management | the rate of return on assets = to the net profit (net result) /total assets. |

**Source:** Researchers

**Table Number (02) shows**That is why we will try, through this axis, to use these variables and subject them to practice in practice on a group of small and medium enterprises in the state of Sétif.

**3-2 Study Population and Sample:** The study population is represented in a sample of small and medium enterprises operating in the industrial sector consisting of 68 institutions. The period covered by the study is three years extending from the year 2015 to the year 2017. The reason for its limitation to this period is due to the availability of its financial data.

**3-3 Sources of data collection:** The financial data of the institutions under study, which are represented in (the budget and the result calculation table), were obtained from the National Center for Commercial Registry.

**3-4 Descriptive analysis of the institutions under study:**

Through the following table, we explain some statistical characteristics of the sample under study, which we summarize in the following table:

**Table N° (03): shows the Descriptive analysis of the institutions under study**

| | Average | Mediator | Max | Min | Standard dev |
|---|---|---|---|---|---|
| **DRS** | 187.23 | 139.5 | 165 | 0 | 194.38 |
| **ROA** | 0.02 | 0.02 | 0.24 | -0.26 | 0.065 |

**Source:** Eviews9 software output

**Table Number (03) shows**the descriptive statistics of the study variables, as it shows the mean, the median, the maximum value, the lowest value, and the standard deviation of the variables, and through it the following can be observed:

The average inventory turnover was 187 days, and the median value was 139.5. With a maximum value of 1,651 and a minimum value of zero, the standard deviation is 194, meaning that the variance in the inventory turnover ratio is very large.

The average return on assets (ROA) was estimated at 0.027, or 2.7%, and the median value of 0.02, where the maximum value was 24% and the

lowest value was -26%, and the standard deviation was 0.06, indicating that the variance on return on assets is not large.

Test the relationship between study variables:

After collecting the data and calculating the various ratios, the stage of exploiting them comes through the use of time-sectioned data packages, which come in three main forms: the common constant method, the fixed effect method, the fixed effects and the random effects method using the Eviews9 statistical analysis program.

**3-5 Correlation between variables**

**Table N° (04): Correlation between variables.**

Covariance Analysis: Ordinary
Date: 01/18/21 Time: 14:11
Sample: 2015 2017
Included observations: 204

| Correlation<br>t-Statistic<br>Probability | DRS | ROA |
|---|---|---|
| DRS | 1.000000<br>-----<br>----- | |
| ROA | -0.176231<br>-2.544541<br>0.0117 | 1.000000<br>-----<br>----- |

**Source:** Eviews9 software output

**Table Number (04) shows**The inventory turnover ratio DRS is negatively related to the rate of return on assets and the correlation coefficient between them is estimated at -0.176231

Hasio test:

**Table N° (05): Hasio test**

Specification Tests of Hsiao (1986)

H1 = Null Hypothesis : panel is homogeneous vs Alternative Hypothesis : H2
H2 = Null Hypothesis : H3 vs Alternative Hypothesis : panel is heterogeneous
H3 = Null Hypothesis : panel is homogeneous vs Alternative Hypothesis : panel is partially homogeneous

| Hypotheses | F-Stat | P-Value |
|---|---|---|
| H1 | 2.134996 | 0.000343 |
| H2 | 1.132868 | 0.304648 |
| H3 | 2.943054 | 5.30E-08 |

**Source:** Eviews9 software output

**Table Number (05) shows** that the Hasio test for homogeneity shows us that the second hypothesis is the most important and the probabilistic value of the Fisher statistic corresponds to a value greater than the degree of significance 5%, which indicates the presence of total homogeneity in the Panel data, that is, both the inventory turnover and ROA coefficients for institutions are subject to the study is not different from each other.

**3-6 Model estimate**

After selecting the variables, the study hypotheses must be tested by using the financial and accounting data of the industrial establishments under study. In the current study, a simple regression method was used to test the relationship between the dependent variable and the independent variable as shown in the following relationship:

$$ROAi = \alpha 0 + \alpha 1\ DRSi + \varepsilon i$$

Where: i represents the number of institutions from 1 to 68.

For the comparison between the models, we will rely on the following table:

**Table N° (06): Shows the general framework for forms and tests**

| Common effect model | Common effect model | Fixed effect model |
|---|---|---|
| **Random effect model** | **Fixed effect model** | **Random effect model** |
| LM-test<br>$H_0$: select CE ($p>0.05$)<br>$H_1$: select RE ($p<0.05$) | CHOW TEST<br>$H_0$: select CE ($p>0.05$)<br>$H_1$: select FE ($p<0.05$) | HUSMAN TEST<br>$H_0$: select RE ($p>0.05$)<br>$H_1$: select FE ($p<0.05$) |

**Source:** Prepared by researchers.

And by using the E-views9 statistical analysis program, we obtained the results, which came as follows:

**Table N° (07): shows the parameters of the study model estimated using the three models.**

| **The dependent variable is the Return on Assets ROA = Net result/Total assets** | | | |
|---|---|---|---|
| **Period: 2015-2017 T=3 N= 68 Total Panel views: 204** | | | |
| **Random Effect Model** | **Fixed Effect Model** | **pooled effect model** | **explanatory variables** |
| 5.353681<br>0.0000 | 6.782906<br>0.0000 | 6.034473<br>0.0000 | **Constante** |
| -3.031940<br>0.0027 | -2.959328<br>0.0036 | -2.544541<br>0.0117 | **DRS** |
| 204 | 204 | 204 | **Total Panel views** |
| 0.043619 | 0.606141 | 0.031057 | **R-Squared** |
| 0.038885 | 0.407753 | 0.026261 | **Adjusted R- squared** |
| 0.002719 | 0.000000 | 0.011689 | **Prob (F- statistic)** |

**Source:** Prepared by researchers based on results from Eviews9

**3-7 Analysis of the results**

**the first model the pooled effect model (PEM):**

From the previous table, the equation is as follows:

$$ROA_i = 0{,}038 – 5{,}98\ DRS_i$$

For R-squared, the independent variable explains 0.031 change in ROA.

Which is shown by the determination coefficient and the probability attached to the Fisher statistic, equal to 0.01, which indicates the existence of a statistical significance for the model as a whole.

Note that the DRS (Inventory Turnover Ratio) is equal – 5,98. Also note that the table shows the standard error std.error of inventory turnover equal to 2.35. Dividing the coefficient by the standard error, we get the T-statistic, which is -2,54 for the inventory turnover rate and has a probability of 0.0117. Here we say that the independent variable is expressed in the field of 0.05, and therefore it is expressive and explains the value of profitability of enterprises.

The value of F-statistics was estimated at 6.47, and its probability of 0.011, meaning that the model is subject to analysis.

**the second model: the Fixed Effect Model (FEM)**

From the previous table, the equation is as follows:

$ROA_i = 0{,}042 – 8{,}03\ DRS_i$

According to the model, we notice that the explanatory power of the controlling variable indicating the rate of inventory turnover has a relationship to the profitability of economic institutions and is statistically significant. For the comparison between the two models (the combined effect model and the fixed or random effect model) The table number 5 was approved:

The Eviews program provides the results of the Fisher test as shown in the following table:

**Table N° (08): Fisher test result**

| Fisher test | explanatory variables |
|---|---|
| 6.034473<br>0.0000 | **Constante** |
| -2.544541<br>0.0117 | **DRS** |
| 204 | **Total Panel views** |
| 0.031057 | **R-Squared** |
| 0.026261 | **Adjusted R- squared** |
| 0.011689 | **Prob ( F- statistic)** |

**Source:** Prepared by researchers based on results from Eviews9

**Since Table Number (08)** Since Pf is less than 5%, therefore the null hypothesis H0 is rejected and H1 is accepted. Hence, the fixed effects model

is better than the combined effect model. Here we move to the next step, which is estimating the random effect model.

**the third model: the Random Effect Model**

From the previous table, the equation is as follows:

$ROA_i = 0{,}040 – 6{,}95\ DRS_i$

For the comparison between the FEM and REM regression models, we rely on the Hausman model, and the Eviews program presents the results of this test as mentioned in the following table.

**Table N° (09): Hausman test result**

| test value (Chi-Square.Statistic) | P-Value |
|---|---|
| 0.554882 | 0.4563 |

**Source:** Prepared by researchers based on results from Eviews9

Through Table No. 05, and Through the test results in the previous table, the probability attached to a distribution equals 0.4563. It is greater than 5%, so we accept the hypothesis H0, meaning that the REM model is preferable.

Based on the results of the REM model that is best suited to the study data after conducting the Hausman test, the model shows that the interpreted variable has an explanatory capacity for ROA profitability of 4.3%

**Conclusion**

Through this study, we touched on a very important topic in the field of financial management, given the high time and effort it requires from the financial manager. As for the applied part, we devoted it to a case study of a group of fasting industrial establishments in the state of Sétif, estimated at 68 establishments for three consecutive years (2015-2016-2017), and we obtained various data from the National Center for the Commercial Register. The study was carried out using Eviews 9 software and using the Panel Data method.

The results showed that the inventory turnover rate is expressed in the area of 5%, that is, it affects the profitability of the institutions under study, and therefore it can be said that the small and medium enterprises under study can increase their profitability only if they reduce the storage period of goods, which means increasing sales and increasing the inventory turnover rate, as the Maintaining large quantities of inventory for long periods leads to increased expenses, which leads to lower profits. Although maintaining high quantities of inventory reduces the risk of running out of stock, it will lead to a reduction in available cash.

**Research Suggestions:**

- The insured under study should be concerned with managing working capital (current assets and liabilities) in more effective and efficient ways by

increasing the efficiency of collection processes, which leads to increased profitability;

- The insured under study must keep each component of the working capital within its optimum limits;
- Continuing scientific and academic research on the impact of working capital management on the profitability of economic institutions, provided that this is done by expanding the study sample to include many institutions in different sectors.

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