The Role of Operating Income on the Internal
Long-Term Financing Decisions

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Abstract
This paper aims to demonstrate the roles and importance of the operating income of the management of Jordanian industrial companies, and the extent to which they depend on it to make the necessary financial decisions in order to meet their long-term needs. The data was collected from the financial reports of companies representing the study community for the period 2012-2016, after being classified by different industrial sectors. The research employed the operating income as an independent variable and long-term internal financial decisions as a dependent variable. The results of the data analysis showed a disparity between the different industrial sectors. The Engineering and Construction industries achieved the highest average of the ratio of long-term internal financing by 0.986, due to the importance of this activity on the Jordanian economy and the size of the high investment in it from the researchers' point of view. The lowest average was shown in the Paper and Cardboard sector by 0.550, due to the lack of investments in it compared to other industrial sectors that are more important to the Jordanian economy. The overall annual average of long-term domestic financing for all sectors was 0.892. The results also showed a statistically significant role for operating income in long-term internal financial decisions by the management of Jordan's public industrial joint stock companies.

Keywords: operating income, long-term financing decisions, internal finance

1. Introduction
Operating income are one of the key components of the list of income, as they represent the performance of management in its activities and expenditure decisions and the degree to which management optimises its earnings and the ability to fulfil its financial needs through its own sources, and are the indicator of the business profits generated by its activities. Managers are continually trying to determine which long-term funding options should be selected, including the most relevant ones.

A 2015 Al-Jagbir study found that Jordan's increased income was used to boost and expand existing properties, while Quaider's (2012) analysis stated the need to use foreign lending to support the companies' needs and to carry on the programme. The effect of long-term financing on firm's profitability has been disclosed in an additional analysis carried out by Al-Afif and Al-Qudah (2016), as indicated by the 2015 Study by Al-Jaghbir on operating profits, but this opinion is being disregarded from the 2012 Quaider study.

The researchers pointed to the absence of studies which highlighted the significance of Jordanian operational income, particularly in relation to internal financing and its effect on the operating income. In view of the need for businesses to finance long-term borrowing to fulfil their development and productivity needs, increase profitability and face challenges in getting funding from external sources in particular.

The administrations should be acknowledged on the value of operational profits, as it has a significant effect on decisions to fund the financial obligations of the business in order to preserve their continuity on the one side and, on the other, to resolve their growth needs. In that way, the more revenue the organization earns, the higher the expense, the more it depends on their willingness to rely directly on the funding of its long-term demands, rather than relying on external funding, which puts added costs on them, which would result in a long-term decline in earnings. The
concern derives from the limited perception and involvement in operating profits and their functions by corporate administrations. Therefore, the following question should formulate the study problem:

In Jordan's collective shareholding firms, can operating revenue play a part in long-term internal funding decisions?

The findings revealed a strong difference between sectors and a significant position for the position of operational revenues in management decision making at the total level of all sectors. This research contributes to the literature review which focuses on operating income and its significant role in helping companies manage their future plans and the need for domestic and external funding. The thesis also encourages researchers to infer the lack of studies in the Jordanian climate in this area.

This paper addressed a literature review to construct the study's methodological context. Chapter 3 concentrated on the issue and intent of the analysis in the research hypothesis, while Chapter four analyzed the methods used to interpret the data and explain the connections of its variables to their conclusion in the report. Chapter 4. Chapter 5 examined the research findings and related them to specific preliminary studies. Description and findings were dedicated to the last chapter.

2. Literature Review

2.1 Operating Income

Operating income is a profitability metric of the business which calculates before paying interest and taxes, the sum of earnings derived from operating firms. Operating income is defined as: Gross profit generated by a corporation from its usual activities, in order for its operating income to fall short of profits, administrative costs and other components of the overall profits and not include interest and income tax in the measurement of operating income nor is non-existent transaction results included (Kieso 2016).

It is also described as representing: Benefit before interest and taxes from activities such that operating income generated from the core business of the firm. In addition, it is measured before deducting non-operating costs including debt and income. (Brigham, 2017). The researchers concluded that the difference in profits and expenses from the daily activities producing daily earnings is the contrast between the core operations of the company and the separate one-time earnings.

2.1.1 Role and Significance of Operating Income

The most significant part of the income list is operating income. In a two-group analysis undertaken by the Financial Accounting Standards Board (FASB), the first represented the financial statements suppository and the second represented financial statements customers. They were asked to determine the basic performance measure they use from the income list data in the light of the following options: a) Net income, Earnings before tax; b) Earnings before interest and tax; c) Earnings before interest, taxes, depreciation and amortization; d) Operating income; and e) Total income. The research resulted in 31% of operating income and 27% profit before interest, tax, depreciation and amortization, from which the income list was extracted.

The value of operating income as a productivity and profitability metric for the organization was also clear. Operating income concepts suggested that it calculates key market gains without any unusual products being taken into consideration. The larger the operating income, the higher the chances of sustainability of the business and the capacity to pay the obligations, which is significant because it gives an understanding of the success of the core operations of the organization to its customers, reputation and external usage, and also offers a good view of how management invests in funds for potential sector aspirations.

The importance of operating income also comes for a number of reasons, including (Brigham, 2017):

1- The managers evaluate the performance of related units.
2- If one company wishes to acquire another company, it will be interested in the value of the company's operations that will be determined by the operating income of the target company.
3- Operating income is usually more stable than total income, as total income can be significantly affected by mortgage-backed bond write-offs and so on; therefore, analysts focus on operating income when they estimate the valuation of corporate shares in the long term.

2.1.2 Steps for Calculating Operating Income

Income demonstrates the company's progress in achieving its targets, using evidence of management's performance in achieving those goals. Benefit attainment allows management to make potential decisions, particularly about
market growth and allocation of incentives to the company's owners; thus, the measurement of profits must be concise and accurate. The general rule for calculating operating income is:

\[
Operating\ income = Gross\ profit - Operating\ expenses
\]

And they are detailed as follows (Kieso, 2016,158):

A. Net sales: Income from sales of goods and services, intended to reach the net amount of sales revenue, and is calculated as follows:

\[
Net\ sales = Sales - Sales\ returns\ and\ Allowance - Allowance\ discount
\]

B. Cost of goods sold: Shows the Cost of the goods sold and is calculated as follows:

\[
Cost\ of\ goods\ sold = First-term\ stock + Net\ purchases - Last-term\ inventory
\]

C. Gross Profit: It represents the difference between Net sales and the Cost of the goods sold.

D. Sales expenses: A sub-part that presents expenses resulting from the company's sales efforts such as packaging, transportation, advertising, sales agents commission, etc.

E. Administrative and general expenses: Include all administrative expenses; such as salaries, wages, water, electricity, etc.

2.1.3 Operating Margins or operating Profit Margins

Operating profit margin is defined as: the percentage that measures the operating income per dinar of operating income (sales), and is calculated by dividing operating income by sales; meaning:

\[
Percentage\ of\ operating\ income\ margin = \frac{Operating\ income}{Net\ sales\ (Operating\ revenue)}
\]

The researchers considered the significance of operating income to be concentrated in the fact that:

A. It is important to cover the investment and financing activities of the company, and expresses the vital centers that represent the focuses of success and failure of any company.

B. Represents what is available to owners before other items; such as dividends and income taxes are paid.

C. It is used to calculate the Interest coverage ratio and Operating margin.

D. Extracted before interest and tax payments, and if the debt burden is high, net income will subsequently be affected by higher interest paid for that debt.

2.2 Long-Term Internal Finance

2.2.1 Financing Concept

Financing usually means: the method of raising funding from suitable sources to satisfy needs. Financing purpose is to meet the financial obligations of the operation, whether related to acquisition or spending, the financial purpose itself or the company's total treasury (Bin Sassy, 2006). Thus, funding decisions are those decisions about how to procure the requisite funds from internal or external sources at the required expense and in a timely manner without incurring any existing or potential costs, usually for more than one year.

2.2.2 The Significance of Financing

The strategy of equipping the business with funds is a core feature of financial management, where financial managers must locate all the resources available for the financing process and decide the source of funding that can be processed with funds, whether for the short or long term (Zubaidi, 2008). Several points may highlight the importance of financing (Quaider, 2012):

A. Liquidity cannot be maintained by the company or be protected from the risk of bankruptcy and liquidation unless through financing.

B. Financing contributes to the achievement of the company's objectives in order to renew or improve the company's fixed capital; such as buildings or replacement of equipment and machinery, and is a quick way used by the company to meet its current needs.

C. Financing increases income by exploiting frozen financial resources by completing idle and new projects.

2.2.3 Sources of Funding

Business in general and financial administration in particular have two primary sources of funding: Owned sources, i.e., so-called internal finance and Lending sources; and so-called external financing. Financial management would
not be in a position to decide the amount of funds required for the financing process and obtaining the appropriate funding source, but rather to determine the optimum scale of the financing system and evaluate the specific parts during which the funds are required.

It is understood that the need for funds of the firm will be relatively transient, as the periodic liquidation of debt and product inventory accounts would produce ample cash to repay short-term obligations and manage regular activities, while capital-investment assets may remain in the business for a long period. It is also the Financial Department's duty to identify the best balance of possible funding sources to accomplish the targets at the lowest funding expense (Zubeidi, 2008). The types of sources of financing are divided in terms of type into: Bank financing obtained from banks and financial institutions; and Commercial financing obtained from traders and suppliers (Hajj, 2016). In relation to terms, financing is divided into: Long-term financing; such as loans and long-term bonds. In terms of source, the funding is divided into: Internal and External financing. For the purposes of this research, the focus will be on internal funding:

2.2.4 Internal Finance

The source of the owners themselves is through the issuance of shares or through the reservation of profits. Internal financing is defined as: The ability of the company to cover its financial needs to pay the obligations and implement capital investments, as well as increase its working capital from the company's own funds; including self-financing on the cash surplus generated from current operations, besides to the price of the sale of fixed assets (Matar, 2016).

3. Research Hypothesis

For the purpose of formulating the research hypothesis, it is worth mentioning a number of studies related to operating income and long-term internal financing, where the study of Al_Afif and Al_Qudah (2016) examined the impact of long-term financing as an independent variable on the risk and profitability of companies as a dependent variable; without addressing the operating income with its recommendation to companies to determine the required level of long-term financing.

Al-Jagbir study (2015) dealt with the impact of operating income as an independent variable, and on liquidity in Islamic and Commercial banks in Jordan as a dependent variable, where the revenue as a whole and not operating income and its impact on liquidity, which is the basis for the continuity of enterprises in general. It has recommended to invest surplus in short-term investments. Ghaniya study (2012) focused on the company's financial structure and sources of funding and the difficulties it faces in selecting sources of funding, because of the many variables and factors that influence financing decision-making. It was recommended that diversification of sources of funding and reducing reliance on external funding.

The Quaider study (2012) highlighted investment projects, and examined optimal financing methods for each project. It has found difficulties in financing from external sources despite the need for them. In the light of what previous studies and recommendations have addressed, the researchers reached the formulation of the research hypothesis in order to answer the main question in the problem of research, and achieve the purpose of the research in the following nihilistic form:

H0: There is no statistically significant role for operating income in long-term internal financing decisions in Jordan's public shareholding companies.

The operating income margin ratio will be used as an indicator for measuring the independent variable (Operating income), the long-term financing ratio index and the long-term internal financing ratio index for measuring the dependent variable (Long-term internal financing decisions).

4. Methodology

This paper uses operational income as an independent variable and long-term internal financing decisions as a dependent variable. The researchers used the descriptive design to describe the research problem and to formulate the theoretical framework of this paper by reviewing the relevant literature. The analytical approach was used to analyze, interpret and explain the relationship between the study's financial statements (2012-2016) and to describe the relationship between the variables of the study.

The study population is made up of all industrial public shareholding companies in Jordan (N=69) according to the companies guide for 2017 issued by the Securities Commission and published on the website of the Amman Stock Exchange (ASE) website (www.exchange.jo). The industrial sectors in Jordan consist of (11) sectors according to the classification of the ASE, while the explanatory information on these sectors was taken from the website of the
Jordan Chamber of Industry (JCI) (www.jci.org.jo). The sample of the study consisted of 51 companies, after excluding 18 companies that did not have the necessary data for the study objective as shown in Table 1.

Table 1. Distribution of industrial companies in the society and sample study

<table>
<thead>
<tr>
<th>Industry Type (Sector)</th>
<th>Number of Companies in The Sector (Community)</th>
<th>Number of Excluded Companies</th>
<th>Number of Companies in Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical industries</td>
<td>8</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Electrical industries</td>
<td>4</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Engineering and construction industries</td>
<td>9</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Food and beverages</td>
<td>11</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>Extractive and mining industries</td>
<td>16</td>
<td>3</td>
<td>13</td>
</tr>
<tr>
<td>Paper and cardboard industry</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Pharmaceuticals and medical industries</td>
<td>7</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Printing and packaging</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Clothing, leather and fabric</td>
<td>7</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Tobacco and cigarettes</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Glass and ceramic industries</td>
<td>1</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>69</td>
<td>18</td>
<td>51</td>
</tr>
</tbody>
</table>

Measures of Centrality (Mean, Median, Standard deviation, and Simple regression coefficient) were used to describe and compare study variables.

4.1 Data analysis

It should be noted that this study is primarily concerned with measuring operational income as an independent variable and its role in making long-term internal financing decisions as a dependent variable, and it requires an analysis of their financial and statistical ratios, and the presentation and interpretation of these results and the indication of how they were calculated.

**Independent Variable:** The Operating Income Margin Ratio Index is adopted to measure it.

**Dependent variable:** The following ratios are adopted as indicators for measuring it:

1. Long-term funding ratio.
2. Long-term internal financing ratio.

Data analysis of independent and dependent variables are set as follows:

**Independent variable:** Using the Operating Income Margin Index; this ratio is used to reflect the ability of operational activity to generate profits, the management's reliance on it in making decisions about the company's ability to finance long-term internal finance, the company's ability to cope with the difficult circumstances that may arise from either the fall in the market price of the product, the high manufacturing expenses of the product and the decline in sales size (Matar, 2016). And is formulated as following:

\[
\text{Percentage of operating income margin} = \frac{\text{Operating income}}{\text{Net sales (Operating revenue)}}
\]

Table 2 shows the results of the analysis of the ratio of operating income margin in the Jordanian industrial sectors.
Table 2. Percentage of operating income margin in all Jordanian industrial sector

<table>
<thead>
<tr>
<th>Sector name</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>The leather, textile and clothing</td>
<td>0.327</td>
<td>0.379</td>
<td>0.344</td>
<td>0.319</td>
<td>0.195</td>
<td>0.171</td>
</tr>
<tr>
<td>The tobacco and cigarette</td>
<td>0.158</td>
<td>0.197</td>
<td>0.155</td>
<td>0.159</td>
<td>0.173</td>
<td>0.168</td>
</tr>
<tr>
<td>Printing and Packaging</td>
<td>0.044</td>
<td>0.047</td>
<td>0.055</td>
<td>0.065</td>
<td>0.103</td>
<td>0.063</td>
</tr>
<tr>
<td>Chemical Industries</td>
<td>0.083</td>
<td>0.077</td>
<td>0.054</td>
<td>-0.066</td>
<td>-0.075</td>
<td>0.014</td>
</tr>
<tr>
<td>Engineering and construction industries</td>
<td>-0.006</td>
<td>-0.099</td>
<td>0.034</td>
<td>-0.073</td>
<td>0.005</td>
<td>-0.028</td>
</tr>
<tr>
<td>Electrical Industries</td>
<td>0.003</td>
<td>0.038</td>
<td>0.013</td>
<td>-0.074</td>
<td>-0.194</td>
<td>-0.043</td>
</tr>
<tr>
<td>The extractive and mining industries</td>
<td>0.02</td>
<td>0.112</td>
<td>-0.068</td>
<td>-0.71</td>
<td>-0.045</td>
<td>-0.138</td>
</tr>
<tr>
<td>Food and Beverage</td>
<td>-0.011</td>
<td>0.054</td>
<td>0.086</td>
<td>0.072</td>
<td>-1.282</td>
<td>-0.216</td>
</tr>
<tr>
<td>Pharmaceutical and medical industries</td>
<td>-0.065</td>
<td>-0.056</td>
<td>-0.16</td>
<td>-0.662</td>
<td>-0.679</td>
<td>-0.324</td>
</tr>
<tr>
<td>Paper and Cardboard Industries</td>
<td>-1.181</td>
<td>-1.121</td>
<td>-0.96</td>
<td>-5.858</td>
<td>-2.732</td>
<td>-2.37</td>
</tr>
<tr>
<td>Average annual operating income margin ratio</td>
<td>-0.063</td>
<td>-0.037</td>
<td>-0.045</td>
<td>-0.683</td>
<td>-0.453</td>
<td>-0.27</td>
</tr>
</tbody>
</table>

Table 2 shows that the highest average operating income margin in the Clothing, Leather and Textile sector was 17.1%, while the lowest average of the operating income margin of the Paper and Cardboard industries sector was -2.370, and the average annual operating margin ratio for all sectors of Jordanian industries was -0.270.

**Dependent variable:** measured using the following two indicators:

1. **Long-Term Financing Ratio:** It is used as a tool to assess the company's ability to formulate its future policies in the long term, and measures the success of the company's financing policies in balancing internal and external financing sources; i.e. how successful the company's management is in balancing internal and external financing sources with the risks of increasing its reliance on external financing sources, assessing the efficiency of the company's financing policies, besides to assessing the success of the company's management in managing assets and liabilities, as it measures the efficiency of the company's management in using the resources available to it in the acquisition of assets; and then its ability to use these assets optimally (Matar, 2016). It also measures the efficiency of management in exploiting its fixed assets effectively to achieve its maximum return, and the higher these rates are, the higher the quality guide; and is expressed in the following formula:

*Long-term financing ratio = (Shareholders' equity + Long-term loans) / Total assets*  

Table 3 outlines the results of the analysis of the long-term financing ratio in Jordan's industrial sectors.

Table 3. Summary of long-term financing ratio in all Jordanian industrial sectors

<table>
<thead>
<tr>
<th>Sector name</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>The leather, textile and clothing</td>
<td>0.737</td>
<td>0.736</td>
<td>0.753</td>
<td>0.756</td>
<td>0.74</td>
<td>0.745</td>
</tr>
<tr>
<td>Engineering and construction industries</td>
<td>0.731</td>
<td>0.749</td>
<td>0.723</td>
<td>0.711</td>
<td>0.71</td>
<td>0.725</td>
</tr>
<tr>
<td>Electrical industries sector</td>
<td>0.71</td>
<td>0.699</td>
<td>0.69</td>
<td>0.676</td>
<td>0.803</td>
<td>0.716</td>
</tr>
<tr>
<td>Paper and cardboard industries</td>
<td>0.639</td>
<td>0.703</td>
<td>0.731</td>
<td>0.727</td>
<td>0.723</td>
<td>0.705</td>
</tr>
<tr>
<td>Printing and packaging sector</td>
<td>0.683</td>
<td>0.703</td>
<td>0.684</td>
<td>0.705</td>
<td>0.701</td>
<td>0.695</td>
</tr>
<tr>
<td>Chemical industries sector</td>
<td>0.649</td>
<td>0.626</td>
<td>0.642</td>
<td>0.675</td>
<td>0.739</td>
<td>0.666</td>
</tr>
<tr>
<td>Food and drinks</td>
<td>0.579</td>
<td>0.678</td>
<td>0.676</td>
<td>0.684</td>
<td>0.681</td>
<td>0.66</td>
</tr>
<tr>
<td>Tobacco and cigarettes</td>
<td>0.696</td>
<td>0.562</td>
<td>0.576</td>
<td>0.583</td>
<td>0.616</td>
<td>0.607</td>
</tr>
<tr>
<td>Extractive and mining industries</td>
<td>0.669</td>
<td>0.608</td>
<td>0.597</td>
<td>0.565</td>
<td>0.576</td>
<td>0.603</td>
</tr>
<tr>
<td>Medicines and medical industries</td>
<td>0.651</td>
<td>0.635</td>
<td>0.572</td>
<td>0.596</td>
<td>0.461</td>
<td>0.583</td>
</tr>
<tr>
<td>Average annual long-term financing ratio</td>
<td>0.674</td>
<td>0.67</td>
<td>0.664</td>
<td>0.668</td>
<td>0.675</td>
<td>0.67</td>
</tr>
</tbody>
</table>

Table 3 shows the highest long-term financing rate in the Clothing, Leather and Textile sector at 0.745, while the lowest long-term financing ratio in the Pharmaceutical and Medical industries was 0.583, and the annual average long-term financing ratio for Jordan's industrial sectors was 0.670.
2- **Long-term internal financing ratio**: This ratio shows the company's ability to exploit its internal surplus resources to finance its long-term activities, and the higher this percentage is, it gives clear evidence of the company's success in generating cash flows that contribute significantly to reducing dependence on external financing and avoiding the burden of fixed interest and risks surrounding the company as a result of its high debt. This ratio is expressed in the following formula:

\[
\text{Long-term internal financing ratio} = \frac{\text{Shareholders' equity}}{\text{Shareholders' equity} + \text{Long-term loans}}
\] (7)

Table 4 summarizes the results of the analysis of the long-term domestic financing ratio in Jordan's industrial sectors.

<table>
<thead>
<tr>
<th>Sector name</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering and construction industries</td>
<td>0.973</td>
<td>0.981</td>
<td>0.99</td>
<td>0.986</td>
<td>0.999</td>
<td>0.986</td>
</tr>
<tr>
<td>Printing and packaging sector</td>
<td>0.973</td>
<td>0.944</td>
<td>0.977</td>
<td>1.000</td>
<td>1.000</td>
<td>0.979</td>
</tr>
<tr>
<td>Electrical industry</td>
<td>0.982</td>
<td>0.991</td>
<td>0.961</td>
<td>0.984</td>
<td>0.881</td>
<td>0.96</td>
</tr>
<tr>
<td>Clothing, leather and textile sector</td>
<td>0.989</td>
<td>0.998</td>
<td>0.933</td>
<td>0.933</td>
<td>0.899</td>
<td>0.95</td>
</tr>
<tr>
<td>Tobacco and cigarettes</td>
<td>0.983</td>
<td>0.999</td>
<td>0.935</td>
<td>0.922</td>
<td>0.853</td>
<td>0.939</td>
</tr>
<tr>
<td>Chemical industries</td>
<td>0.963</td>
<td>0.96</td>
<td>0.936</td>
<td>0.911</td>
<td>0.906</td>
<td>0.935</td>
</tr>
<tr>
<td>Extractive and mining industries</td>
<td>0.942</td>
<td>0.923</td>
<td>0.92</td>
<td>0.927</td>
<td>0.888</td>
<td>0.92</td>
</tr>
<tr>
<td>Pharmaceuticals and medical industries</td>
<td>0.891</td>
<td>0.864</td>
<td>0.922</td>
<td>0.813</td>
<td>0.903</td>
<td>0.879</td>
</tr>
<tr>
<td>Food and beverages</td>
<td>0.895</td>
<td>0.835</td>
<td>0.862</td>
<td>0.85</td>
<td>0.666</td>
<td>0.822</td>
</tr>
<tr>
<td>Paper and cardboard industries</td>
<td>0.59</td>
<td>0.568</td>
<td>0.548</td>
<td>0.526</td>
<td>0.516</td>
<td>0.55</td>
</tr>
<tr>
<td>Average annual rate of internal funding</td>
<td>0.918</td>
<td>0.906</td>
<td>0.898</td>
<td>0.885</td>
<td>0.851</td>
<td>0.892</td>
</tr>
</tbody>
</table>

Table 4 shows that the highest average long-term internal financing ratio in the Engineering and Construction industries sector was 0.986, while the lowest long-term internal financing ratio in the Paper and Cardboard industry was 0.550, and the annual average of the long-term internal financing ratio for Jordan’s industrial sectors was 0.892.

4.2 **Research Hypothesis Testing**

4.2.1 **Description of Study Variables**

The mean and standard deviation have been extracted to describe the study variables, as shown in Table 5.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Average arithmetic</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating income margin</td>
<td>-2.451</td>
<td>0.586</td>
<td>-0.14475</td>
<td>0.60709</td>
</tr>
<tr>
<td>Long-term financing</td>
<td>0.158</td>
<td>0.937</td>
<td>0.65699</td>
<td>0.18268</td>
</tr>
<tr>
<td>Internal funding</td>
<td>0.128</td>
<td>1.000</td>
<td>0.90605</td>
<td>0.167011</td>
</tr>
</tbody>
</table>

Table 5 indicates that the average operating income margin variable was -0.145 and a standard deviation of 0.607, indicating a decrease in operating income of industrial companies in the sample, and the average account for the long-term financing variable was 0.657. With a standard deviation of 0.183, this reflects that industrial companies rely on long-term financing. The average internal finance average of 0.906 and a standard deviation of 0.167, indicating that the industrial companies in the sample rely mainly on internal financing represented by the Property rights in financing.

4.2.2 **Hypothesis Proofing**

The simple regression analysis was used to test the nihilistic study hypothesis that states: "There is no statistically significant role for operating income in long-term internal financing decisions in Jordan's public shareholding companies". Table 6 shows the results of the hypothesis testing.
The results of Table 6 indicate that the value ($r = 0.867$), which means that there is a relationship between the two variables above, and shows that the value of the selection coefficient ($r^2 = 0.753$), meaning that after (operating income) has been interpreted by (75.3%) From the variation in (internal financing decisions) with other factors remaining constant, as it turns out that the value of (F) reached (148.990) at the level of confidence ($\text{Sig} = 0.000$) and this confirms the morale of the decline at the level ($\alpha \leq 0.05$). Coefficients also show that the value ($B = 0.239$) is 0.941, and the value ($t = 12.206$) is at a confidence level ($\text{Sig} = 0.000$) and this confirms the coefficient's morale at the level ($\alpha 0.05$) (see appendix page 92).

Based on the above, it rejects the nihilistic hypothesis and accepts the alternative hypothesis that: “There is a statistically significant role for operating income in long-term internal financing decisions in Jordan's public industrial joint stock companies”.

**5. Discussion**

Through the results of the statistical analysis, the following were noted:

a) Table 2 showed that the highest percentage of operating income margin achieved in the Clothing, Leather and Textile sector, where it was 17.1%, due to the high percentage from the point of view of the researchers to the Jordanian consumer's demand for products in this sector. This is attributed, on the one hand, to its confidence of its efficiency and, on the other, its price moderation relative to manufactured products. The lowest percentage of this margin appeared in the sector of the Paper and Cardboard industries where it reached -2.273%, and it might be due to the competition of this sector on imported goods in terms of quality and price, low prices, and the amount of investment in this sector compared to other industrial sectors.

b) Table 3 also showed the highest average long-term financing ratio in the Clothing, Leather and Textile sector also at 0.745, and the lowest in the Pharmaceutical and Medical industries at 0.583. Researchers claimed that the average ratio in the Textile industry was large for high investment and increased demand for its goods. The average was 0.583 in the pharmaceutical and medical sectors due to the low need for these businesses to grow and stabilize their product’s demands.

c) Table 4 showed the highest average of the ratio of long-term internal financing in the Engineering and Construction industries sector at 0.986, which is one of the large and influential sectors in the Jordanian economy, and the recovery of demand for its products and services, which has generated a cash surplus that contributed to the reduction of the need for external financing to cover the requirements of its expansion. The lowest average was in the Paper and Cardboard industry at 0.550, which, as we have said, suffered from low demand for its products.

d) The analytical findings revealed that the operating income was statistically significant in decisions on long-term financing in Jordanian public industrial firms, which were compatible with the results of the 2016 Al-Afif and Al-Qudah reports as they showed that there were a strong impact on the viability of Jordanian industrial firms in long term funding, which indicates a high percentage of their operating income.

e) The data analysis has also shown that operating income in Jordanian public sector companies has a statistically significant position in long-term internal funding decisions, a finding that correlates to the Al Jagbir report (2015), which indicates that the growth in operating income generated by the Jordanian banks has been abused, even as its existing assets have increased and strengthened. The results from the 2012 Quaider report did not correlate as it indicated that credit should be used to satisfy its needs due to inadequate domestic financing.

A limitation of this study is that there are no researches in international journals ranked Q1 or Q2 that discussed this research problem, and most of the related researches are provided in Arabic language.
6. Conclusions
The study showed the significance of the operating income of the continuity and growth of companies and the weak focus of researchers to show this importance to corporate management, as this paper came to fill part of this gap. The results of the data analysis showed a disparity in the ratios of long-term internal financing between the various industrial sectors according to their importance and role in the Jordanian economy, and the study provided a comparison between the industrial sectors in terms of the ratio of the percentage of operating income achieved, the proportion of long-term financing and the proportion of long-term internal financing. The analytical results also showed a role of operating income in long-term internal financing decisions in Jordan's public shareholding industrial companies.

The results of this work will have a significant impact on the attention of the departments of the Jordanian public joint stock companies to the operating income and its importance in financing their long-term needs; especially companies that rely heavily on external financing, and the impact this has on their profitability. We hope that this paper will serve as an incentive for researchers to conduct further studies by adopting other variables to fill the gaps that the topic requires because of its great significance in the development of the economy in general.

References


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