Numerical Analysis of Export Products and Services Vocational Secondary Education on Other Parts of Manufacturing and Non-Productive

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Abstract: The goal of this paper is Numerical analysis of export products and services Vocational Secondary education on other parts of manufacturing and non-productive in Iranians Education services. We used three theories about exporting services educations that are favorable theory (classic, neo classic, absolute profited Edam Emit, Ricardo absolute profile), Converse theory (such as Fredric theory, Raul perish, Hans singer) and the finally was export development and import replacement. The results showed that products and service vocational secondary education utilized relatively high. To increased export of products and service vocational secondary education decreased import of products and service vocational secondary education about 0.486772536 million rial. Also increased export of products and service vocational secondary education decrease import of educational service vocational secondary education approximately 0.074252676 million rial.

Key words: Numerical analysis • Export • Education • Vocational Secondary • Non-productive parts • Iran

INTRODUCTION Export Development and Import Replacement: 1950-1970

There are innovations in shape and size of tables, which is connected to public tables; this has been expanded using this technique for presenting analysis and huge country politics. The experience of providing tables in Iran and other countries shows that its preparation is expensive and time consuming. Countries like US (1978), Canada (1980) England (1992), Australia (1998) had proceeded in usage of this table. In addition, some international organization, such as labor international organization, money international case, development and economic cooperation organization, the united nation economic commission for Europe are performed activities in this field. There are various the orgies about exporting services educations are following:

Favorable Theory: Favorable theory including the classic, neo classic, absolute profited Edam Emit, Ricardo absolute profile.

Converse Theory Such as Fredric Theory, Raul Perish, Hans's Singer: Input-Output technique is one of tools that are used in some of countries for analysis economic. This analysis showed the economic of a country region and even manufacturing company that is based on tables.

Export Development and Import Replacement: 1950-1970 was the years of following protect and informing of growth models based import replacement. In 1980, structure changes are recommended for developing guidelines, which its major element was to decline commercial barriers and to free foreign trade. Some Economists emphasized that we should receive at least development in order to use export profiles and said that foreign commercial guidelines have not advantage for developing country [1-5].

Others asserted that growth export is declined the effect of foreign changes on internal economic and is helped in manufacturing capital commodities and finally is led to grow economic quickly. Also, based on the other researches, the expense of export industrial commodity is decrease by competition with foreign and we can say that cause and effect relation is production to export when internal request growth is more slow than productions growth [5-6].

Some stated that export has facilitated economic growth by good effect on usage, allocation of resource, used capacity increasing. This said that export growth has important effect on import growth and some concluded that export development has superior to import replacement as development guidelines [6-9].
Production Export Development and Services Applied Education: Study and inter play effects of above crisis is good reason for showing this article. In addition to relating cases to sensitiveness of departments of services vocational secondary education in Iran, the best usage is important in vocational secondary. Other cases include the followings items:

- Economic connection of export production and services vocational secondary with other parts of manufacturing and non-productive.
- Population growth and high request for continuing education in applied majors.
- Use of new technology in vocational secondary education.
- High environment for vocational secondary education.
- The best a sage of export product and service vocational education.
- Confusing managers in export product and service vocational education.
- Our requirement to planning in development of vocational education and services.
- The sensitiveness of third world education to lot, it means, country is dependent to external word vocational education. [10-15].
- Foreign commercial (analysis as regards global In equation (1), AX intermediate request would show as whole and if includes internal (intermediate request and intermediate import request where:

\[ X = AX + F + E - M \] (1)

Matrix \( A \) shows potential relation or parts technology not real technology relations, so matrix \( A \) is included two parts: \( A^d \), \( A^n \) that \( A^d \) is internal matrix and \( A^n \) is intermediate import matrix. Thus, we have (2):

\[ A = A^n + A^d \] (2)

We use equation (3) for accounting direct and indirect relations:

\[ (I - A)^{-1} - (I - A^d) = TLI \] (3)

In (3), \( (I - A)^{-1} \) is shown potential connections. It means, how much will be the needed data quantity for increasing of commodity price. Also, \( (I - A^d)^{-1} \) is shown internal connections. It means that How much will be the needed internal data quantity for increasing of commodity price. Matrix \( TLI \) is shown that for increasing of one, for example, consumption or export and means How will be
the quantity of direct and indirect import? Using matrix TLI, we can account data of direct and indirect import for export then we have (4):

\[
TE_i = [TIL_i][\hat{E_i}]
\]

(4)

\( \hat{E_i} \) is export diameter matrix and it’s like (5):

\[
\hat{E_i} = \begin{bmatrix} E_1 & 0 & 0 \\ 0 & E_2 & 0 \\ 0 & 0 & E_3 \end{bmatrix}
\]

(5)

**Accounts Formula for Export:** Laspirze formula is used for accounting of industrial products price (6):

\[
I = \sum_{k=1}^{m} \frac{p_k^t q_k^0}{p_k^{t-1} q_k^0} \times 100
\]

(6)

The reasons of formula (6) are the following items:

- Its applicability, it means that needed data would obtain for accounting commodity price and services in year \((p_k^0 q_k^0)\) easily.
- Indicator account is economical with this method because weight is fixed.
- It’s intelligible for public, it means that price index would compare the price of specific commodity and services.
- The use of this has been recommended in international reports.
- The change of year is performed using this formula.

By passing time would happen in products property, which have been chosen in base term. Some entirely have been existed market and or is entered new product to market. In result, comparison price is difficult. Thus, this formula would give proper solution for exiting commodity instead of another, determining new commodity, omission of commodity.

In this, price in base year is related to slightly term (7).

\[
I'_i = \sum_{k=1}^{m} \frac{p_k^{t-1} q_k^0}{p_k^0 q_k^0} \frac{p_k^t}{p_k^{t-1}}
\]

(7)

Where:

- \(I'_i\) = Price index manufacturing in \(I\) activity in \(t\) terms.
- \(p_k^t\) = Product price \(k\) in \(t\) terms.
- \(p_k^{t-1}\) = Product price \(k\) in base term.
- \(p_k^t q_k^0\) = Product price \(k\) in previous term \((t-1)\).
- \(p_k^t q_k^0\) = Product quantity \(k\) in base term.
- \(p_k^{t-1} q_k^0\) = Product value \(k\) in base term.
- \(p_k^t q_k^0\) = Product quantity value \(k\) in time term.
- \(\frac{p_k^t}{p_k^{t-1}}\) = Ratio of product price in time term \((t)\) to time term \((t-1)\).
- \(i\) = Industrial activity index.
- \(k\) = Product index.
- \(m\) = The number of product in industrial activity.

It is essential three factors to account price index of product that are the following items:

- Price ratio (8):

\[
p_k^t = \frac{p_k^t}{p_k^{t-1}} \times 100
\]

(8)

- Coefficient of importance (9):

\[
q_k^0
\]

(9)

Current value is \(p_k^t q_k^0 = (p_k^{t-1} q_k^0) R_k^t\). Price ratio of production in current term is shown price change percent of product toward previous term. It means, price ratio would obtain by division two mean prices in continuous term (10):

\[
R_k^t = \frac{p_k^t}{p_k^{t-1}} \times 100
\]

(10)

We use arithmetic mean of price (RA) for accounting relatively price. This formula is known as data formula. In this, first, arithmetic mean of received prices in each term is accounted and then prices mean in two terms are divided together (11):

\[
R_{RA} = \frac{1}{n} \sum_{i=1}^{t} \frac{1}{i} \sum_{i=1}^{t} p_i^t
\]

(11)

Multiplication table is similar to homolographic table of commodity in commodity or part in part in a framework. This table is presented direct needs to primary and intermediate data for manufacturing of one product. It means, each column is given commodities level and
needed services for manufacturing of one product. Technical multiplications table is one of matrix that in preparation of homolographic table in math way is obtained before homolographic table. Thus, it is possible that technical multiplication table accounted before preparation of homolographic. However, in export product and services vocational secondary education for following reasons:

- The quantity of export services public secondary education equal 567291 million Rial.
- The quantity of export product and services state vocational secondary education equal 520019/75 million Rial.
- The quantity of export product and services private/public vocational [11-15].

Presenting of Model and Analysis of Export Product and Services Vocational Secondary Education on Other Parts of Manufacturing and Nonproductive: Industrial investments in part of product and services vocational secondary education in each country created two kinds of intermediate demand for mentioned country that are: internal data intermediate demand and intermediate import demand. Internal data intermediate demand would show by internal economic and latter would provide by another country. In equation (1), Ax internal demand would show as whole and it includes internal intermediate demand and intermediate import demand where Matrix A expresses potential relation (technology relation) of units but not actual technological relation. So matrix A consist of two parts, \( A^c \). So it given by (12):

\[
A = A^c + A^d
\]  

That \( I - A \) generally show potential connection. It means that when reclamation investment increases for a unit of goods of final demand of variables, then how much data we need. Similarity, \( (I - A)^{-1} \) show internal connection when reclamation investment increase for a unit of goods of final demand of variables, thus how much I internal data we need calculating the technical coefficients of production matrix is the most important and first stage to achieve the aims. Economical units needs two sources to supply needed requirement of each other which one of them is internal product and the other is intermediate product. In other words, \([A_i] \) matrix consists of \([a_{ij}^c]\) and \([a_{ij}^d]\).

We change investment amount in reclamation investments unit like gravel sand and woody products to do quantitative analysis for effect of this investment on stagnation and resolving recession of other units. After calculation of effect of development of service vocational secondary education on other non-productive and productive units, we have following results. Results of effect of increasing export of products and service vocational secondary education by 10,000 and 20,000 million Rial on productive and non-productive units (Table 1).

Table 1: Technical multiplications table about changing import for increasing products and service vocational secondary education by 10,000 & 20,000 million rial respectively

<table>
<thead>
<tr>
<th>Unit</th>
<th>Change imports for increasing products and service vocational secondary education by 10,000 million rial</th>
<th>Changing import for increasing products and service vocational secondary education by 20,000 million rial</th>
</tr>
</thead>
<tbody>
<tr>
<td>1  Coal</td>
<td>-0.009171219</td>
<td>-0.018342438</td>
</tr>
<tr>
<td>2  Petroleum</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3  Electricity</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4  Copper, aluminum, And glass</td>
<td>-0.00659522</td>
<td>-0.01319044</td>
</tr>
<tr>
<td>5  Steel industry</td>
<td>-1</td>
<td>-1.821750987</td>
</tr>
<tr>
<td>6  Oil productions</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>7  Chemical products</td>
<td>-1.028823303</td>
<td>-2.057846607</td>
</tr>
<tr>
<td>8  Metal products</td>
<td>-0.049667722</td>
<td>-0.099354444</td>
</tr>
<tr>
<td>9  Educational household goods</td>
<td>-0.045844149</td>
<td>-0.091688299</td>
</tr>
<tr>
<td>10 Sporting and free time service</td>
<td>0.11728039</td>
<td>0.023456078</td>
</tr>
<tr>
<td>11 Post and banking service</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>12 Handcraft industry</td>
<td>0</td>
<td>-0.006968653</td>
</tr>
<tr>
<td>13 Products and service vocational secondary education</td>
<td>-0.243386268</td>
<td>-0.243368268</td>
</tr>
<tr>
<td>14 Educational vocational device</td>
<td>-0.037126338</td>
<td>-0.037126338</td>
</tr>
</tbody>
</table>
CONCLUSION

- With respect to report of petroleum is very high compare with export of products and educational service, according to calculation concluded that changes in export of products and educational service have no significant effect on petroleum. However increased export of products and educational service by 200,000 million rial result in decrease in import of coal to 0.018342438 million rial.
- Changes in export of products and service vocational secondary education are independent of electricity cost. But increased export of products S.V.S education significantly decrease import of paper (by 1.821750987 million rial) and have weak influence on industry of copper, aluminum, glass and steel (0.01319044 million rial)
- There is no change in import of petroleum production due to change in export of products and service vocational secondary education.
- If export of products S.V.S education increase, import of chemical products and metal products will increase by 2.057846607 and 0.099335444 respectively. So there is a high relationship between productions, S.V.S education and chemical products.
- If increasing import of educational household goods change due to equal increasing in export of productions and S.V.S education, import of electrical device will quadruple. Import of educational household goods and electrical devices in crease by 0.091688299 million rial and 0.023456078 respectively.
- There is a meaningful relation between export of production, S.V.S education and official, fiscal, accounting machinery. Above relation is a demonstrative quantity to application manufacturing productions do official, fiscal and accounting works decreasing import of official, fiscal and accounting machinery to 3.054486413 million rial when export of S.V.S education and productions increased. In other words, now majority of our official, fiscal and accounting machinery are import.
- Import of medical equipments is affected by export of service vocational secondary education and products. Many products and service vocational secondary education have medical application. Increasing export of products and service vocational secondary education result in decreasing import of medical equipments about 0.13937306 million rial however decreasing post and banking service approximately 0.001595003.
- Products and service vocational secondary education utilized relatively high. To increased export of products and service vocational secondary education decreased import of products and service vocational secondary education about 0.486772536 million rial. Also increased export of products and service vocational secondary education decrease import of educational service vocational secondary education approximately 0.074252676 million rial [15-21].

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REFERENCES