The Potential Role of Exports-Imports in Income Diversification and Sustainable Development of Kuwait

Abstract
This paper uses a CEO survey of exporting and importing firms with regards to the effect of exports and imports on growth. The majority of CEOs think that exports have a positive effect on economic growth through increased investment and imports. The literature suggests that relationship between exports and growth is reciprocal. Exports have a positive effect on economic growth through increased investment and imports, while economic growth leads to export expansion and diversification by increasing imports used as inputs for exports. This paper utilizes a field survey of CEOs from export-import firms to explore the trade-diversification-growth nexus and address Kuwait’s goal of economic diversification from the perspective of firm CEOs. The answers were given by 154 CEOs of exporting-importing companies in Kuwait to the 46 questions drawn from the Public Authority of Industry records. Most CEOs believe that manufactured exports and imports contribute to Kuwait's economic diversification and drives to attract skilled labor. Exporting firms have an edge in terms of innovation. Most of the CEOs appreciate the role of exports and imports in enhancing the use of technology in their business operations. Capture the perspective of the private sector on the effect of export-import on growth relationship in Kuwait. Effective national policies can help firms to swiftly export their products and can direct them to high value-added niches. Innovative firms are the engine of economic growth, and the majority of these firms are exporters. Therefore, an effective national innovation system can contribute to the success of those firms.

Keywords: Exports, Imports, Diversification, Growth, Transformation.

JEL classification: F140, O24, O38.
Introduction

A recent UN report uses merchandise export revenues to classify world economies into three types: the first is "strongly commodity dependent", which receives more than 60% of export revenues from commodities; the second is "commodity dependent" where up to 60% of export revenues are generated by commodity exports; and the third is "not-commodity dependent". In 2018-2019 about 64% of developing countries were commodity-dependent compared with 13% of developed countries that are commodity dependent. With the rapid penetration of technology and innovation, the report, acknowledging the long time and the very slow rate of country mobility outside the commodity dependence, explores the question of the role of new technology and innovation in fostering the drive of countries to escape from the trap of "commodity-dependence" (Nkurunziza, 2021). With more than 90% of its revenues derived from crude oil exports, Kuwait belongs to the group of countries the UN classifies as "strongly commodity dependent" economies. The profile of Kuwait’s exports, oil versus non-oil, has remained quite rigid over the past fifty years. Commodity, oil, and exports represent about 95% during the1970s. Fifty years later, in 2019, oil export revenues represent about 89% to 90% of total revenues-truly minute mobility outside the commodity trap. The concentration of Kuwait’s exports on oil and a few commodities triggers high external demand volatility, which translates into high-income instability, which in turn provokes high growth volatility. Country experiences suggest that a plausible escape path away from commodity traps may be carved around enhanced human capital, structural changes, elevated labor and total factor productivity (Nkurunziza, 2021).

Similarly, the IMF indices of export diversification suggest that Kuwait’s export diversification remains largely unchanged throughout the long term, with spells of improvement occurring mostly during the 1980s. However, Kuwait’s export deteriorated Following Iraq's brutal invasion and subsequent liberation during 1990-1991(IMF, 2021).

To escape from the trap of heavy dependence on commodity exports revenues, Kuwait must succeed in undertaking structural changes that lead to enhanced labor productivity and elevated sustainable economic growth. Elsewhere, it was noted that despite realizing steady economic growth, Kuwait’s per-capita income deteriorated steadily from KD 48,000 in 1970 to nearly KD 24,000 in 2019 (Al-Qudsi and Al-Fulaij, 2022). The culprit is the low and declining labor productivity. Therefore, realizing sustainable economic growth requires persistent elevation of
human capital and a tenacious increase in labor productivity, leading to Kuwait’s non-oil products that successfully penetrate international markets.

In other words, increased labor productivity growth can become the driver for achieving more diversified exports, higher wages and higher standards of living. Export diversification in this setting can create a more stable income inflow. More stable and sustainable income may be realized through spillovers in the economy due to having a more diversified production structure (Brenton et al., 2009).

Earlier analysis conducted by LSE details how Kuwait’s trade, manufactured exports and imports are conducive to trade and economic diversification and to raising overall economic growth (Kalaitzi, 2021). The analysis, while robust and statistically sophisticated and that the findings are reliable, is exclusively focused on Kuwait’s time series trade and growth data and abstracts away from the port’s role, on top of institutional and related competitiveness specs. To give it additional "contemporaneous" credence and address it from different perspective, we use empirical data to validate the aforementioned results by polling opinions of business leaders who currently are engaged in the very acts of exports and imports.

Therefore, an important and outstanding policy question pertains to the perceptions and visions of business leaders regarding the potential role of exports and imports in creating a series of changes that contribute to trade and economic diversification and enhance the prospects and trajectories of sustainable development. Seeking validation of the findings, the analysis conducted in this paper utilizes formal polling and field survey analysis to gauge the views, the perceptions, and the assessments of the CEOs involved in the manufacturing and supply chains of products and services, and their movement across international borders.

Key questions in the survey are developed to address the causal relations between foreign trade and income diversification. The questions include those questions to CEOs such as “Do you think exporting helps Kuwait diversify its sources of income?” and some other similar direct questions related to the export and import impact on trade and investment. Moreover, the relationship between technology, innovations and economic growth are also investigated.

**Background**

**Trade-Economic Growth Nexus**

It was argued in the 1940s that import substitution policies to restrict imports of manufactured goods through tariff and non-tariff means were the best trade
strategy for promoting industrialization and economic growth. However, ten years later, economists started questioning those policies due to the poor results when applied to developing countries (Irwin, 2021). Policies to promote trade growth imply, inter alia, emphasis on the development of local capacities and the quality of seaports since the quality of port infrastructure has a positive effect on seaborne trade and yields higher economic growth (Munim and Schramm, 2018).

In the late 1970s and throughout the 1980s and 1990s, openness became the development policy of choice for growth, innovation, technology transfer, talents, and inflows of foreign direct investment (Walde and Wood, 2004). With the WTO establishment in 1995, the trade liberalization and bilateral and multilateral trade agreements were highly valued. Yet, prominent economists such as Dani Rodrick argued against it, observing the effect of empowering a different set of rent-seeking interests and politically well-connected firms—international banks, pharmaceutical companies, and multinational firms. They might serve to internationalize the influence of these powerful domestic interests, and therefore, trade agreements could also produce purely redistributive outcomes under the guise of "freer trade" (Rodrik, 2018).

Export expansion increases investment in the exporting sector, improving the level of technology and raising the rate of economic growth. Moreover, an increase in exports raises the inflow of foreign exchange, allowing the expansion of imports, which is essential to improving productivity and economic growth (Gylfason, 1999; Chenery, 1967; McKinnon, 1964).

Siswana and Phiri (2021) investigate whether export diversification or export specialization has a larger effect on economic growth in BRICS (Brazil, Russia, India, China and South Africa) countries. Using annual data for the period 1995-2017, they find that export diversification promotes economic growth for China while Brazil and South Africa benefit from a specialization policy. In another study by Herzer et al. (2006), analyzing annual data for the period 1962-2001 for Chile suggests that export diversification has promoted economic growth in Chile. Finally, Hesse (2009) estimates an augmented Solow growth model to investigate the relationship between export diversification and economic growth using data for 99 countries over the period 1965-2001. Hesse (2009) finds that countries with more diversified exports have higher per capita income. This result is robust even when OECD countries are excluded from the model.

Within the context of Kuwait’s economy, three studies have investigated the causality between exports on economic growth (El-Sakka and Al-Mutairi, 2000; Al-Yousif, 1997), but only one of them has examined the effect of disaggregated
exports (Merza, 2007), while the effect of disaggregated imports has not been examined. Al-Yousif (1997) investigates the existence of a long-run relationship between exports and economic growth in four of the GCC countries, including Kuwait, over the period 1973-1993. The empirical analysis shows that there is no long-run relationship between exports and economic growth in Kuwait, while exports positively affect economic growth in the short run. El-Sakka and Al-Mutairi (2000) investigate the relationship between exports and growth in Arab countries, including Kuwait, using bivariate Granger causality tests.

The third study within the Kuwaiti context conducted by Merza (2007) investigates the causality between exports and economic growth by disaggregating exports into oil and non-oil exports and provides evidence that a bi-directional causality exists between oil exports and economic growth, while a unidirectional relationship runs from non-oil exports to economic growth.

However, other studies find a positive relationship between oil exports and GDP growth via the route of oil revenues (which come from exporting oil) (Burney et al., 2018; Esfahani et al., 2014). Yet, their results do not imply that the volatility of oil prices does not impede growth.

**Export, Growth, and Innovation**

The previous section focuses on the relationship between trade and growth, which is relatively well established at the macro-economic level, including the referenced studies on oil-producing countries. However, the firm-level pieces of evidence are so important, especially since such microeconomic level relationship has only been established recently with different views and perspectives (Wagner, 2007), with the inclusion of innovation. Moreover, with the availability of firm-level data and the advancement in econometric estimation techniques, the nexus between growth and trade has been debated more recently at the micro-level. In this context, the literature is concerned with whether firms that export tend to be more productive or that more productive firms are more likely to export. On the theoretical side, Melitz (2003), and Bernard et al. (2003) provide theoretical foundations for the connection between firm heterogeneity and trade.

A plethora of empirical literature has sought to establish this connection and the direction of the causality. Some of the notable studies include (Hussain and Shah, 2022; Esaku and Krugell, 2020; Baccini et al., 2017; Temouri et al., 2013; Kox and Rojas-Romagosa, 2010; Lu and Beamish, 2006; Arnold and Hussinger, 2005; Bernard and Jensen, 2004). Bernard and Jensen (2004) study the relationship
between productivity and exporting in US manufacturing using micro-level data from the annual survey of manufacturers from 1983 to 1992. Using variables such as TFP, employment, exporting status, and other controls, Bernard and Jensen (2004) conclude that there is no evidence of faster productivity of exporting firms. They suggest that higher productivity firms are more inclined to enter foreign markets.

Arnold and Hussinger (2005) investigate the nexus between growth and exports using a sample of 389 German manufacturing firms and find out that the more productive the firms are the more likely to be exporters. Lu and Beamish (2006) use firm-level data on 164 Japanese SMEs found that exporting induces SME growth, yet it has a negative effect on firm profitability. Kox and Rojas-Romagosa (2010) find out that exporting firms are more productive than non-exporting firms, and Temouri et al. (2013) find out that exporting firms are more productive and pay higher wages than non-exporting firms are.

Exporting can enable firms to learn about new technologies that they are exposed to throughout the process of exporting and interacting with international stakeholders. This learning-by-exporting approach can improve the firm’s productivity growth, but it is not conclusive, and it depends on the assumption of export experiences (Manjon et al., 2013).

The empirical results of linking innovation activities of firms and their propensity to start exporting have been mixed and seem to depend on the type of innovation measures used, countries analyzed and methodologies used (Van Beveren and Vandenbussche, 2010). For instance, Becker and Egger (2013) explore empirically the effects of new product versus process innovations on export propensity at the firm level using a panel data set. The results show that both innovation modes are expected to raise a firm’s propensity to export. However, product innovation is relatively more important since it enables the firm to enter the export market, whilst process innovation helps secure its position. According to the result of specific surveyed studies by Love and Roper (2015), a strong positive association between innovation and exporting is also observed in SMEs. An SME study using firm-level data from the lower-middle-income country of Nigeria explores the individual and collective impacts of technological and non-technological innovations on export performance. It shows that the joint effects of product, process, and marketing innovations are significant, albeit with heterogeneous impacts on the export performance (Edoh et al., 2020). According to a study that uses the Community Innovation Survey in Poland, such complementarities between various types of innovation can increase new product export intensity (Lewandowska et al., 2016).
Linking innovation to a firm’s performance and exporting is very appealing, and many studies investigate this relationship, as has been discussed above. However, there is a relationship between imported inputs and the export performance of firms. According to Mazzi and Foster-McGregor (2021), technological capabilities and the quality of imported inputs benefit firms directly and, most importantly, complement each other in enhancing the ability to export.

Methodology

CEO Survey Philosophy and Objectives

The research team design a field survey instrument, CEO Survey, to address the primary research question of this study, "what are the potential contributions of (manufactured) exports and imports of goods and services to firm-level and overall macro-level economic diversification and ultimately to temporal development?". The survey builds on the concept that sets of chain causality work through a compendium of driving forces singly and through their joint interactive effects. The first probable causal factor pertains to the potential knowledge and tech know-how transfers that are imparted from the imports and exports of Kuwaiti CEOs from and to diverse international markets. The second source of causal forces obtains from the cut-throat competition that trade, imports and exports require. Such competition begets further competition for top talent and higher tech-savvy human capital assets in base countries, including Kuwait, to effectively deal with the changing administration and physical requirements that imports and exports dynamically embed. The third potential trade-diversification-growth causality driver is the improved infrastructure, including the development, upgrading, and transformation of modern seaports that are an integral part of the development process. Fourth, the handling of exports to international markets entails stiff competition with global peer suppliers, thereby necessitating top efficiency standards, which, besides technical efficiency, entail keen knowledge of such variables as consumer tastes and producers’ knowledge of the market segmentations. They also require keen knowledge of differential country tariffs and tax codes and the ability to forge bilateral relationships with interest groups within trading partners. Fifth, the long arrays of export-import activities have helped concerned firms to advance firm-level technology, including, technologies that enhance the accuracy and precision of products and services.

Finally, there is the direct impact of trade on the impetus to innovate, improve, and adapt to the attributes of the goods and services to ensure higher market shares.
among trading competitors. Innovations are not only restricted to enhanced competitiveness amongst local producers, but also sway them to the design, packaging and marketing techniques demonstrated by firms in internationally-traded commodities, which creates a process of cumulative improvement arising from emulations, imitations and copying by local producers. This way, trade serves to elevate the local processes of production, packaging and marketing of locally produced and consumed goods and services, such as traditional foods, and makes them all patterned after the know-how embodied in the contents or processes of imported goods or even in an international franchise operation such as fast food, just to name a few.

**Survey Structure and Firms’ Selection**

The survey is structured to probe a set of questions addressed to a sample of manufacturing companies engaged in manufacturing exports. The sample of 100 CEOs is drawn up from records of the Public Authority for Industry (PAI), that is companies primarily engaged in manufactured exports. However, the sample also includes other companies for comparison purposes, including fifty-four companies specializing in importing a wide range of products and services.

The objective of the survey is to gather info and data on the views and perceptions of CEOs regarding the role exports and imports have played in the advancement, innovation, creativity and evolution of the company. As well, CEOs are probed to assess the impact of their companies on other local producers in Kuwait in terms of emulation and copying of new processes or methods pioneered by the exporting company. CEOs are asked to assess the impact of their activities on Kuwait’s overall economic diversification and development in the broadest sense of the word. The survey instrument designed by KISR covers 46 specific questions; most of them are closed with multiple possible answers delineated and an open optional spec for respondents to determine and detail. The actual survey is communicated (with proper training and debated exchanges) to a specialized and well-known local Pollster. The Pollster conducts an initial pilot survey in order to assess the response rate, which initially is found to be too low (25 firms) partly because the survey is designated as an electronic survey with little follow-up initially. Subsequently, the research team mobilize official communication on two occasions with the support of KISR management and PAI, addressing firms by name. In the final analysis, 100 companies respond to the survey, which took nearly five months from start to finish, with additional company interviews listed for further probing and data collection purposes.
Since we wish to assess the view that importers have a different perspective regarding the impact of imports on diversification, we augment our sample and increase its size by adding 54 firms from 100 CEOs to 154 CEOs. This will enable us to compare the responses of importers against similar responses of exporters and hence provide an inferential indication of the possible differential in the import-diversification versus export-diversification impacts. However, it is worth mentioning that the survey remains a representation and an opinion-based approach of the industry which reflects their views. Although such views can be subjective, but they add a different perspective and additional dimension to the topic we discuss in the literature review, Kuwait’s context in particular.

Results

Exports-Imports Firms

In terms of export shares of various industrial niches, the CEO survey results suggest that the distribution of firms is as follows: about 16% of exporting firms in 2019 are engaged in food production (Figure 1). Companies which export various chemical products with a share of 15% come close second, followed by companies engaged in exporting industrial equipment by 8%, while 4% are in the business of exporting furniture products. The remaining 57% of exporting companies are classified under the category of "Other" industrial niches.

![Diagram showing export shares](image-url)
About 72% of the polled companies were established prior to 2000; only 28% since 2000. Some twelve percent of sampled companies were established during the 1960s and earlier. Approximately 60% of export-imports companies were formed over decades since the 1970s onwards. Accordingly, Kuwaiti import-export companies included in KISR’s sample seem to be quite experienced and well-seasoned, with an age structure of capital or vintage effect that is well-spread and scattered over time; 39% representing an "older vintage", i.e. they were established prior to the 1980s. Newer vintage companies, established since 2000 represent 28% of all sampled companies. Nearly one third, 33%, was established between 1980 and 1999. In economics, the age structure of capital, gauged by establishment year, has important implications for measuring total factor productivity (Gittleman et al., 2006).

Kuwaiti companies managed to make headways in the export markets in the early years of their establishment. About 36% of companies started exporting manufactured products in the first five years since formation and 39% after ten years. In the period 1970-1989, Kuwait enjoyed a prosperous time. The interviewed firms established during this period happened to be more innovative than those established after the Iraqi invasion in 1990. Those firms have the lion’s share of innovations (about 40% of all innovations). For instance, only about 12% of all innovations were made by companies established during 2010-2020. (Figure 2).

Figure 2: Percentage of Innovative Firms by Establishment Date.
About 37% of the sampled firms have paid-up capital exceeding KD 1 million, which shows that our sample is intensive with a capital I. In fact, 10% of the interviewed firms have paid up capital of KD 5 million or more. Hence, these firms are capable of attracting high-skilled labor and advanced technology investments. Furthermore, the sampled companies indicated that the great majority, 85% of all companies, made innovations during the last three years. In terms of sales, an indication of the firm’s financial ability as well, about 37% of the companies have annual sales volume ranging between KD 1-5 million; and 23% have annual sales volume of KD 5 million or more per year.

Drawn up from the records of PAI, the majority of the included companies are export-oriented, that is 52% of the companies export on an annual basis KD one million or more. On the other hand, about 19% of the companies have smaller exports, less than KD 0.50 million annually.

Considering the time dynamic, 25% of the surveyed companies have experienced increase in imports over the past few years. In comparison, 36% report that imports do not change, and only 10% indicate a negative figure for the volume of imports. However, those trend figures may be caveated due to the confounding impact of the shocks that are triggered over time. Most recently, the outbreak of the coronavirus pandemic ravaged production, sales, employment and exports patterns of many companies since February 2020.

The quality of imports can significantly benefit local firms; it can help improve the production systems and increase the quality of inputs, thereby improving the finished products. Almost half of the surveyed firms agree with this argument and appreciate the vital role of imports. Interestingly, the quality of imports has recently improved according to 43% of Kuwaiti CEOs, while a sizeable group, 39%, hasn’t noticed any changes. The Hotelling statistical test shows that the means of the three answers are statistically different from each other for the question “How do you rate the quality of imports over the past years “increase, decrease, no change” (Hotelling T^2 = 7.74, Hotelling F (2,87) = 3.83, Prob > F = 0.0256). Therefore, those comparative responses suggest that trade (imports) may induce a positive spillover impact on local producers of goods and services oriented towards Kuwait’s domestic market.

The above conclusion resonates with a positive response to the following key interview question: "Did the technology you use in your import-export operations undergo any changes?". The great majority, 68%, ticked the "yes" answer relative to 23% of CEOs who encircled the "no" answer, and 9% abstained. Again,
positive responses are higher for companies whose output is earmarked for "exports" markets relative to companies whose primary business line is not export-oriented. Likewise, about 75% of responding Kuwaiti CEOs indicate that the processes of imports and exports contribute positively to elevating the technical know-how in Kuwait. Only 13% indicate that trade does not elevate the technical know-how while 12% refrain from answering the question. The Hotelling statistical test shows that the means of the answers are statistically different from each other for the question “Did exports (imports) increase the level of technology in Kuwait: yes, no” (Hotelling $T^2 = 85.75$, Hotelling $F (1,87) = 85.75$, $\text{Prob} > F = 0.0000$). An overwhelming agreement, 93%, of CEOs believe that exporting industrial products is a key driver to develop the workforce and employ highly educated and trained staff, which imply the significance of the human capital factor.

CEOs believe that the quality of imports tend to improve over time. However, a relatively larger percentage of CEOs engaged in manufactured exports tend to ascertain the time-rising quality of imports, 48% relative to the total responding CEOs, 43% in the sample (Figure 3). As well, 75% of all sampled CEOs indicate that imports and exports contribute to enhancing the role of technology used in their firms. The corresponding proportion, 79%, is discernibly higher in the case of CEOs whose companies specialize in manufactured exports.

![Figure 3: Rating the Quality of Imported Goods during the Past Years](image)

When categorized across technology improvement and/or across company operations, product, process, marketing or administration regulations more
CEOs of manufactured products for exports believe that innovation affects product development more than process or marketing operations, with respective ratios of 65%, 57% and 45%. In comparison, 27% score improvements in administration and regulations, and the remaining 13% do not respond or have any innovations. The Hotelling statistical test shows that the means of the answers are statistically different from each other for the related question (Hotelling T2 = 29.72, Hotelling F (3,82) = 9.67, Prob > F = 0.0000).

Kuwaiti CEOs who are engaged in manufactured exports and consider that exports increase overwhelmingly the level of technology use, believe that trade in manufactured exports does contribute to diversifying the sources of income in the economy. Also, they overwhelmingly consider that manufactured exports are a strong causal force for employing higher-level human capital in terms of increased education and elevated experience. This is consistent with the recent empirical findings (Nkurunziza, 2021), which indicate that mineral commodity dependence is associated with low levels of labor productivity, low productivity growth, high volatility of productivity growth and a high frequency of adverse productivity shocks. About 72% of CEOs believe that imports are highly conducive to sustainable economic growth in Kuwait, but 21% indicate that imports do not lead to income diversification and 7% of CEOs refrain from voting on this issue. The Hotelling statistical test shows that the means of the answers are statistically different from each other for the related question (Hotelling T2 = 39.57, Hotelling F (1,92) = 39.57, Prob > F = 0.0000).

**The Larger Sample: Companies Specialized in Imports**

The above descriptive discussion focusses on CEOs of firms and establishments engaged in manufactured exports. The results from the CEO survey of exporting and importing firms suggests that exports might have increased diversification and economic growth. In the remainder of this section, we address the full trade sector by incorporating CEOs of firms engaged in imports, firms and establishments engaged in the importation of products and services, e.g. manufactured, processed foods, capital goods, raw materials, or consumer goods.

One note from Table 1 is that most companies engaged in imports and exports tend to report their annual company sales as less than KD 2 million. Only 10% of the companies of the 154 samples declare that their annual sales are KD 20 million or more. This suggests that companies in the trade sector are fairly small to medium size when compared to peer companies in other country settings. The fact
that one of three government companies reports sales of KD 20 million or more and one reports sales in the range of KD 2 million to less than 5 million is also noteworthy, and especially the last (third) company opts not to declare the sales volume.

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<th>Annual Sales</th>
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<td>Half million - less than a million</td>
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<td>1 million - less than 2 million</td>
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<td>2 million - less than 5 million</td>
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<td>5 million - less than 10 million</td>
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<td>10 million - less than 20 million</td>
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<td>20 million or more</td>
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<td>No Response</td>
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<td>Grand Total</td>
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An indication of the progress that companies make over time is discerned from the reported change in the paid-up capital since the date the company was established; some 34% of the total CEOs engaged in trade as exporters or as importers declare their paid-up capital rises while 41% indicate it remains unchanged.

The full sample of importers and exporters, 154, reveals that they engaged in innovation activities over the past three years. The innovation activity splits between importing and exporting companies in favors of exporters; 60% of innovating companies are engaged in exporting activities while the smaller share, 40%, is for companies that do not export, i.e. they are involved in various types of importations. This statistic might lead to suggest that innovation is more likely to occur if the company exports internationally, implying that the learning and adoption from international peers are wider leading to more innovative activities that are known as the "learning by exporting" effect (Salomon and Shaver, 2005).

Finally, as summarized in figure 4, firms engaged in the exporting of manufactured goods tend to innovate most in the product aspect of their businesses (65%), followed by process-types of innovation 54%, similar to the results reported by Becker and Egger (2013). Export-oriented companies innovate in marketing (46%)
and administration regulations (24). By contrast, as portrayed in Figure 4, companies that do not export tend to innovate most in Admin regulations (45%) followed by marketing innovations (44%). The close third is the companies that innovate in processes and the fourth is non-exporting companies that innovate in the product aspect of their businesses (40%). When compared to importing firms, exporting firms are more innovative in product and process innovation while they are very similar in marketing innovation and less in admin regulations.

![Figure 4: Distribution of Companies that Made any Innovations during the Last Three Years by Innovation Type and Export Status](image)

**Discussion and Conclusion**

It is argued that trade is a key driver for growth and economic advancement with a plethora of empirical studies as well as government policies such as export-led growth, promotion of free trade, trade agreements, and others that support this argument. The literature draws its evidence from the macrodata by relating trade, exports or imports (or all of them) to GDP or production, in addition to the microdata (firm-level), especially with the advancement in econometric estimation techniques the nexus between growth and trade. In this paper, we focus on the firm-level studies, as disused in the literature review. The debate continues to remain whether high-productivity firms self-select into exporting, hence more production leads to exporting, or trade causes growth.
According to our survey results, it seems that there is a consensus of sorts among Kuwaiti CEOs that trade transmits positive effects. Specifically, they agree that there are positive spillover effects from international imports and exports to producers of local goods and services. Moreover, gleaned CEO responses indicate that companies engaged in manufactured exports are more likely to experience export diversification benefits than those engaged in imports only. The implications are that catering to external export markets embeds efficiency and broadens exporters’ awareness of potential additional products and market shares that could be cultivated and harvested in global markets relative to those offered by the more homogeneous and smaller local markets.

Also, findings reveal that manufactured exports require augmented and elevated human capital, which exerts upward pressure on market wages of highly skilled and specialized professional workers to upgrade their capabilities. This concurrently triggers policymakers to design programs for augmenting human capital, especially in tech-savvy niches and professions.

Effective industry policies at the national level can help firms and startups in particular, which are capable of advancing their capabilities swiftly to export their products and services. In addition, such policies can direct firms to high-value added niches and optimize the allocation of resources and technology selection to those highly productive sectors. However, policies supporting industrial development are not enough, and a well-functioning business environment with rigorous regulatory processes and mechanisms is critical. Moreover, the institutional arrangements between government authorities and regulators play a pivotal role in creating a conducive business environment.

Innovative firms are the engine of a dynamic private sector and contribute significantly to economic growth, and the majority of those firms are usually engaged in export activities, as shown in our results. Therefore, promoting R&D and innovation through dedicated national policies as part of an effective national innovation system can contribute to the success of those firms. This should include specific policies and programs regarding upgrading STI infrastructure, designing education for innovation, and effective collaboration between academia and industry.


References


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الملخص

الدور المحتمل للصادرات والواردات في التنمية المستدامة

وبثبوط الدخل في دولة الكويت

أحمد العوضي، شيخة الفيظ، سليمان القدسي

حسام عثمان

معهد الكويت للإبحاث العلمية

تستخدم هذه الدراسة مسحاً ميدانياً لاستجابات مديرية شركات مصنوعة أو مستوردة بخصوص تأثير الصادرات والواردات على النمو في الكويت. بيئة كثيرة من الدراسات أن هناك علاقة تبادلية ما بين الصادرات والنمو الاقتصادي؛ حيث إن للصادرات تأثيرًا إيجابيًا على النمو الاقتصادي من خلال زيادة الاستثمارات والاستيراد؛ بينما يمكّن للنرم أن يؤدي إلى التوسع في التصدير والتنويع الاقتصادي عن طريق زيادة القابلية لتمويل الواردات لستخدم مدخلات في إنتاج الصادرات.

تستخدم الدراسة مسحاً ميدانياً أيضًا لاستجابات مديرية شركات مصنوعة أو مستوردة لاستكشاف آرائهم حول أثر التجارة على التنويع الاقتصادي والنمو الاقتصادي في الكويت. وقد صمم استبانة تضم 46 سؤالًا متعلقًا بموضوع الدراسة. وتم مسح عينة من 154 مديرًا من مديرية شركات تعمل في مجال التصدير والاستيراد تم الحصول عليها من سجلات الهيئة العامة للصناعة.

يعتقد معظم المدرسين بأن الصادرات والواردات تسمى بشكل إيجابي في التنويع الاقتصادي في الكويت وتتفاعل نحو جذب عمالاء ماهرة. بالإضافة إلى أن الشركات المصنعة تمتاز بكونها أكثر ابتكارًا مقارنةً بيغيرها من الشركات. عبر معظم المدرسين عن أهمية دور الصادرات والواردات في تحسين استخدام التكنولوجيا في أعمال الشركات.

وأستخدم الدراسة بيانات على مستوى الشركات؛ مما يسمح بتعرف وجهة نظر القطاع الخاص.

في العلاقة ما بين الصادرات–الواردات والنمو الاقتصادي.

تشير نتائج الدراسة إلى أهمية وجود سياسات وطنية فعالة لمساعدة الشركات على التصدير وتوجه هذه الصادرات إلى فرص ذات قيمة مضافة عالية. إن الشركات المبتكرة هي بمثابة المحرك للنمو الاقتصادي وأكثر هذه الشركات تقوم بالتضمن، ولذلك يجب أن يكون هناك نظام وطني لرعاية الابتكار؛ مما يساعد على نجاح هذه الشركات.
Ahmad Alawadhi is an associate research scientist at the Techno-Economics Division of the Kuwait Institute for Scientific Research (KISR). He holds a PhD in Economics from the University of Southampton in the UK. He led and participated in research projects. He also led and co-authored refereed journal articles in the areas of applied macroeconomics, energy, trade and economic development. (aawadhi@kisr.edu.kw)

Shaikha Al-Fulaij is a principal research associate at the Techno-Economics Division of the Kuwait Institute for Scientific Research (KISR). She holds a B.Sc. in computer engineering summa cum laude from Kuwait University. Her main area of specialization and interest includes database management, object oriented design, and software development. She led and participated in numerous research projects in the areas of data analysis and modeling, information technology and economics. (sfulaij@kisr.edu.kw)

Sulayman Al-Qudsi is a principal research specialist at the Techno-Economics Division of the Kuwait Institute for Scientific Research (KISR). He earned his PhD in economics from UC Davis-USA in 1979. Recently, he led a number of research projects aiming to transform Kuwait from an oil-based country into a digitized knowledge economy following the COVID-19 pandemic era. He is a prolific author and recipient of numerous awards. (squdsi@kisr.edu.kw)

Husam Arman is an associate research specialist at the Techno-Economics Division of the Kuwait Institute for Scientific Research (KISR). He obtains his PhD in Operations Management from the University of Nottingham in the UK. He has lead projects and major tasks in work related to improving Kuwait’s national competitiveness and the national innovation system and SMEs development. His published research is in technology management, SMEs, innovation and R&D management. (harman@kisr.edu.kw)
Appendix

Business Owners and Company owners’ Questionnaire

The Role of the Import and Export Sector in Diversifying Sources of Income and Sustainable Development

Introductory information about Establishment:

1. **Business Sector:**
   - [ ] Government sector
   - [ ] Joint sector
   - [ ] Private sector

2. **Establishment Name:**

3. **Main activity for the establishment:**
   - [ ] Industry
   - [ ] Construction
   - [ ] Trading
   - [ ] Financial services
   - [ ] Non-financial services

4. **Detailed activity for the establishment:**
   - [ ] Pharmacies and selling medical devices
   - [ ] Agriculture
   - [ ] Institutions artistic such as production or the acting or the drawing or the art with all its types
   - [ ] Carpentry
   - [ ] Bank or investment company
   - [ ] Cleaning services
   - [ ] Cement industry
   - [ ] Consulting and finance services
   - [ ] Construction
   - [ ] Garage
   - [ ] Food industry
   - [ ] Hotels
   - [ ] Club healthy
   - [ ] Insurance
   - [ ] Accounting and legal institutions
   - [ ] Metal industry
   - [ ] Internet and information technology
Ahmad Alawadhi, Shaikha Al-Fulaij, Sulayman Al-Qudsi and Husam Arman

☐ Computers, cell phones and electronics  ☐ Medical services
☐ Pharmaceutical industry  ☐ Petrochemical industry
☐ Research and consulting  ☐ Real estate
☐ Security services  ☐ Restaurants
☐ Textile industry  ☐ Tailor
☐ Retail  ☐ Wholesale trade
☐ Travel agency  ☐ /Transportation and storage
☐ Other....................

5. Established Year.............................

6. Annual Sales:
☐ less than 0.5 million  ☐ 0.5-less than 1 million  ☐ 1- Less than 5 million
☐ 5- Less than 20 million  ☐ 20- Less than 50 million  ☐ 50 million or more
☐ I don't know/refuse to answer

7. The number of employees in the establishment on 31 Dec 2019:

<table>
<thead>
<tr>
<th>Employees</th>
<th>1-9</th>
<th>10-49</th>
<th>50-99</th>
<th>100-149</th>
<th>150-249</th>
<th>250 and 249 and over</th>
<th>I don't know/refuse to answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kuwaiti</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Kuwaiti</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8. Paid up capital of the firm when it was established:
☐ less than 0.5 million  ☐ 0.5-less than 1 million  ☐ 1- Less than 5 million
☐ 5- Less than 20 million  ☐ 20- Less than 50 million  ☐ 50 million or more
☐ I don't know/refuse to answer
9. Paid up capital of the firm during 2017-2019:

☐ less than 0.5 million  ☐ 0.5-less than one million  ☐ 1- Less than 5 million

☐ 5- Less than 20 million  ☐ 20- Less than 50 million  ☐ 50 million or more

☐ I don't know/refuse to answer

10. Has the company made any innovations during the last three years? As follows

(possible more than one choice)

☐ Product (good or service)

☐ Process

☐ Marketing

☐ Administrative regulation

☐ I don't know/refuse to answer

The impact of the coronavirus pandemic on the establishment:

11. Compared to 2019, what is the cumulative impact of the coronavirus pandemic on the progress of the operations of your facility?

The cumulative effect rate from January to the beginning of September is in increase or decrease (percentage) in the total volume export:

☐ Increase  ☐ Decrease  ☐ not change

☐ Not applicable (the company imports and does not export)

☐ I don't know/refuse to answer

in the rate of:

☐ 1-4%  ☐ 5-9%  ☐ 10-19%  ☐ 20-40%  ☐ More than 40%

12. Compared to 2019, what is the cumulative impact of the coronavirus pandemic on the operations of your facility

The cumulative impact rate from January to early September is in increase or decrease (percentage) in the total volume of import:

☐ Increase  ☐ Decrease  ☐ No change

☐ Not applicable (the company imports but does not export)

☐ I don't know/refuse to answer
in the rate of:

☐ 1-4%    ☐ 5-9%    ☐ 10-19%    ☐ 20-40%    ☐ More than 40%

13. In your opinion, the degree to which the Kuwaiti economy was affected by the coronavirus pandemic was:

☐ Very severe
☐ Medium effect
☐ Low effect
☐ It did not affect the Kuwaiti economy
☐ I don't know/refuse to answer

14. What is the probability that your facility will produce goods and products that are currently imported from abroad?

Please choose the appropriate number for the degree of probability, where 1=high 2=medium 3=low.

<table>
<thead>
<tr>
<th>Goods and products</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>Do not apply</th>
<th>I don't know/refused to answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic raw materials</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Machines and devices</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information and communication systems</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other supplies</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Information about the establishment's export field:

15. Does your company export?

☐ yes    ☐ No (Go to question 22)

16. The company started exporting.........
17. When the company started its export business, the value of the export invoice was:
(Million dinars)
☐ less than 0.5 million       ☐ 0.5-less than 1 million     ☐ 1- Less than 5 million
☐ 5- Less than 10 million    ☐ 10- Less than 20 million    ☐ 20 million or more
☐ I don't know/refuse to answer

18. When the company started its export business, the value of the export invoice was:
(Million dinars)
☐ less than 0.5 million       ☐ 0.5-less than 1 million     ☐ 1- Less than 5 million
☐ 5- Less than 10 million    ☐ 10- Less than 20 million    ☐ 20 million or more
☐ I don't know/refuse to answer

19. Countries to which the company exports (more than one can be selected)

<table>
<thead>
<tr>
<th>When the company started its export business</th>
<th>Australia and New Zealand</th>
<th>South America</th>
<th>North America</th>
<th>Asian countries</th>
<th>European countries</th>
<th>African countries</th>
<th>Arab countries</th>
<th>Gulf countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

20. Types of goods that the company exported at the beginning of its activity (it is possible to choose more than one):

☐ Food commodities
☐ Furniture
☐ Household appliances and equipment (washing machines... dryers... ovens... TVs...)
☐ Computers, printers, and related equipment
☐ Smartphones and the internet
☐ Automobiles, tractors, bicycles and other land vehicles, their parts, and accessories
☐ Pharmacy products
☐ Clothes, fabrics, and accessories (shoes, handbags...)
☐ Various chemical products
☐ Other devices and equipment
☐ Other
21. Types of goods exported by the company in 2019

☐ Food commodities
☐ Furniture
☐ Household appliances and equipment (washing machines… dryers… ovens… TVs…)
☐ Computers, printers, and related equipment
☐ Smartphones and the internet
☐ Automobiles, tractors, bicycles and other land vehicles, their parts, and accessories
☐ Pharmacy products
☐ Clothes, fabrics, and accessories (shoes, handbags…)
☐ Various chemical products
☐ Other devices and equipment
☐ Other

Information about the import field for the establishment:

22. When the facility started its business, the value of the import invoice was:
(Million dinars)

☐ less than 0.5 million  ☐ 0.5-less than 1 million  ☐ 1- Less than 5 million
☐ 5- Less than 10 million  ☐ 10- Less than 20 million  ☐ 20 million or more
☐ I don't know/refused to answer

23. Estimation of the value of imports in 2019: (Million dinars)

☐ less than 0.5 million  ☐ 0.5-less than 1 million  ☐ 1- Less than 5 million
☐ 5- Less than 10 million  ☐ 10- Less than 20 million  ☐ 20 million or more
☐ I don't know/refuse to answer
24. The countries from which the establishment imports (more than one selection)

<table>
<thead>
<tr>
<th>When the company started its import business</th>
<th>Australia and New Zealand</th>
<th>South America</th>
<th>North America</th>
<th>Asian countries</th>
<th>European countries</th>
<th>African countries</th>
<th>Arab countries</th>
<th>Gulf countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

25. Types of goods imported by the company at the beginning of its activity (You can choose more than one.)

- Food commodities
- Furniture
- Household appliances and equipment (washing machines... dryers... ovens... TVs...)
- Computers, printers, and related equipment
- Smartphones and the internet
- Automobiles, tractors, bicycles and other land vehicles, their parts, and accessories
- Pharmacy products
- Clothes, fabrics, and accessories (shoes, handbags...)
- Various chemical products
- Other devices and equipment
- Other

26. Types of goods imported by the company in 2019 (You can choose more than one):

- Food commodities
- Furniture
- Household appliances and equipment (washing machines.. dryers.. ovens... TVs...)
- Computers, printers, and related equipment
- Smartphones and the internet
Ahmad Alawadhi, Shaikha Al-Fulaïj, Sulayman Al-Qudsi and Husam Arman

☐ Automobiles, tractors, bicycles and other land vehicles, their parts, and accessories
☐ Pharmacy products
☐ Clothes, fabrics, and accessories (shoes, handbags...)
☐ Various chemical products
☐ Other devices and equipment
☐ Other

The role of import and export in achieving sustainable development within the Kuwaiti society:

27. In your opinion, the Kuwaiti port services and their capacity during the period 2000-2021 may:
☐ Improve
☐ Reduce
☐ No Change
☐ I don't know/refuse to answer

28. How do you rate the quality of imported goods during the past years?
☐ Increased and improved
☐ Worse over time
☐ Stable
☐ I don’t know/refuse to answer

29. Have the imported goods affected local producers in the sense that they have led to the development of production processes and contributed to the improvement of the quality of products, packaging, and marketing.......?
☐ Yes
☐ No
☐ I don’t know/refuse to answer

30. Has technology you used in the import-export operations changed?
☐ Yes
☐ No
☐ I don’t know/refuse to answer

31. Did importing/exporting increase the level of technology used in Kuwait?
☐ Yes
☐ No
☐ I don’t know/refuse to answer
32. Did importing/exporting contribute to creating competition among local producers?
☐ Yes  ☐ No  ☐ I don't know/refuse to answer

33. Do you think that importing helps Kuwait diversify its sources of income?
☐ Yes  ☐ No  ☐ I don't know/refuse to answer

34. Do you think that exporting helps Kuwait diversify its sources of income?
☐ Yes  ☐ No  ☐ I don't know/refuse to answer

35. Which of the following export commodities do you think help improve quality?
☐ Manufactured goods  ☐ Semi-finished goods  ☐ Raw materials  ☐ Re-exported goods  ☐ I don't know/refuse to answer

36. Does exporting the following commodities help diversify sources of income in Kuwait?

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Yes</th>
<th>No</th>
<th>I don't know/refuse to answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raw materials</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industrial goods</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Re-exported goods</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other goods</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

37. Which of the following import commodities do you think help diversify the sources of income in Kuwait?
☐ Agricultural commodities  ☐ Industrial goods
☐ Essential consumer goods  ☐ Raw material commodities
☐ Phones  ☐ Computers
☐ I don't know/refused to answer  ☐ Construction equipment

38. Exporting industrial products helps develop the workforce and employ educated and experienced workers
☐ Yes  ☐ No  ☐ I don't know/refuse to answer
39. Which of the following export commodities do you think help increase the employment of educated and experienced workers?

☐ Manufactured goods
☐ Semi-manufactured
☐ Raw materials
☐ No effect
☐ I don't know/refuse to answer

40. In general, do you think that the foreign trade sector helped Kuwait march towards sustainable development?

☐ Yes, strongly
☐ Yes, weakly
☐ Yes, well
☐ No, it didn't help
☐ I don't know/refuse to answer

41. Do you think that the establishment by virtue of its work in import and export helped encourage more investment to achieve sustainable development?

☐ Yes, strongly
☐ Yes, weakly
☐ Yes, well
☐ No, it didn't help
☐ I don't know/refuse to answer

42. Do you think that the facility helped contribute to encouraging local industries and raising the rate of economic development?

☐ Yes, strongly
☐ Yes, weakly
☐ Yes, well
☐ No, it didn't help
☐ I don't know/refuse to answer
43. Do you think that the establishment helped contribute to increasing the local economic competitiveness through the goods it exported?
   □ Yes, strongly
   □ Yes, weakly
   □ Yes, well
   □ No, it didn’t help
   □ I don’t know/refuse to answer

Future Expectations:

44. What are your expectations about the future economic conditions in the State of Kuwait?
   □ Positively trending upwards
   □ Negatively trending downwards
   □ Neutral (such as it is)
   □ I don’t know/refuse to answer

45. What are your expectations about your future economic conditions?
   □ Positively trending upwards
   □ Negatively trending downwards
   □ Neutral (such as it is)
   □ I don’t know/refuse to answer

46. What are your long-term expectations for the use of technology and the growth of the Kuwaiti economy?
   □ Positively trending upwards
   □ Negatively trending downwards
   □ Neutral (such as it is)
   □ I don’t know/refuse to answer