



Global Innovation Index in Jordan, Considering Main Intellectual Property Rights: Patents, Design & Trademark

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Objectives:

1. To Review Jordan Global Innovation Index.
2. To determine the strength and weakness the Innovation Sub Inputs & Sub Outputs components.
3. Presenting the main indicators of the Intellectual Property Rights in Jordan (Patents, Design and Trademark) evolution in Jordan

Methodology and Data Source:

Descriptive Analysis, Data Sources are from Official Sites, Local and Regional.

Expected Outcome: Constructing Indicators in Order to Provide Recommendation Targeting Researchers, Policies & Decision Makers.

Global Innovation Index (GII)

"The Global Innovation Index is an annual classification sharing **(131)** of world countries based on the capabilities and capacities that stimulate innovation in such countries, and this report is issued by **CORNELL** University ,**INSEAD** Institute, and **WIPO** ¹, Innovation can be considered as one of the most important linked topics to the economic and social in the context at the

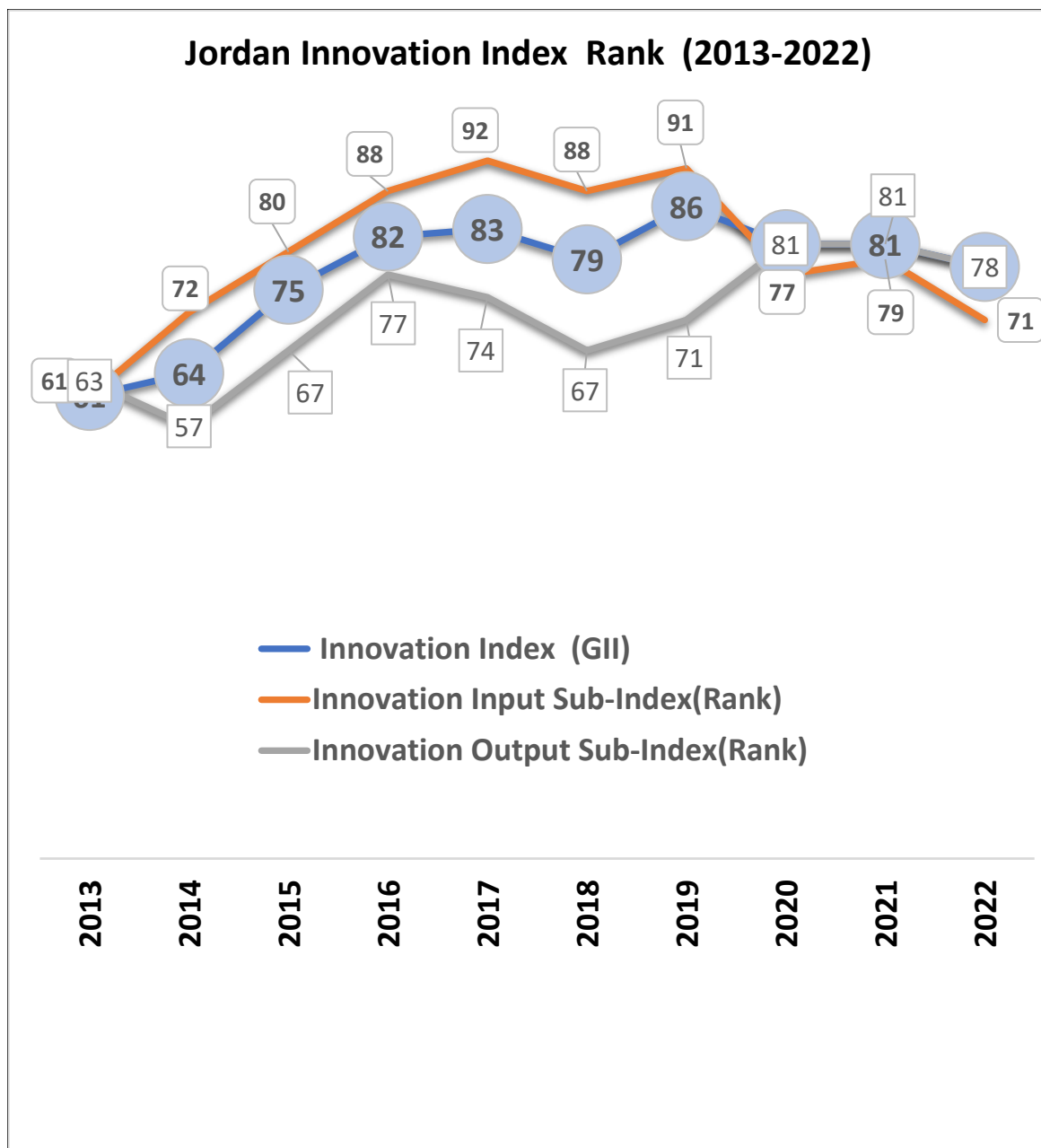
¹ **World Intellectual Property Organization (WIPO) /**
<https://www.wipo.int/portal/en/index.html>

local and global levels, due to the economic challenges such as creating New Jobs , Productivities, Business Opportunities and Improving SMEs Ecosystem. Therefore, policies which are capable to support innovation environment can secure new feasibility techniques that address the above challenges” Shammout, A., et al,2021.

Jordan Ranking

Figure No.1 indicate that Jordan Global (GI) is improving its rank since 2019 ; from rank **86** to rank **78** year 2022. While the Sub indicators (input & output) are still slightly fluctuation during the same above period (2019–2022).

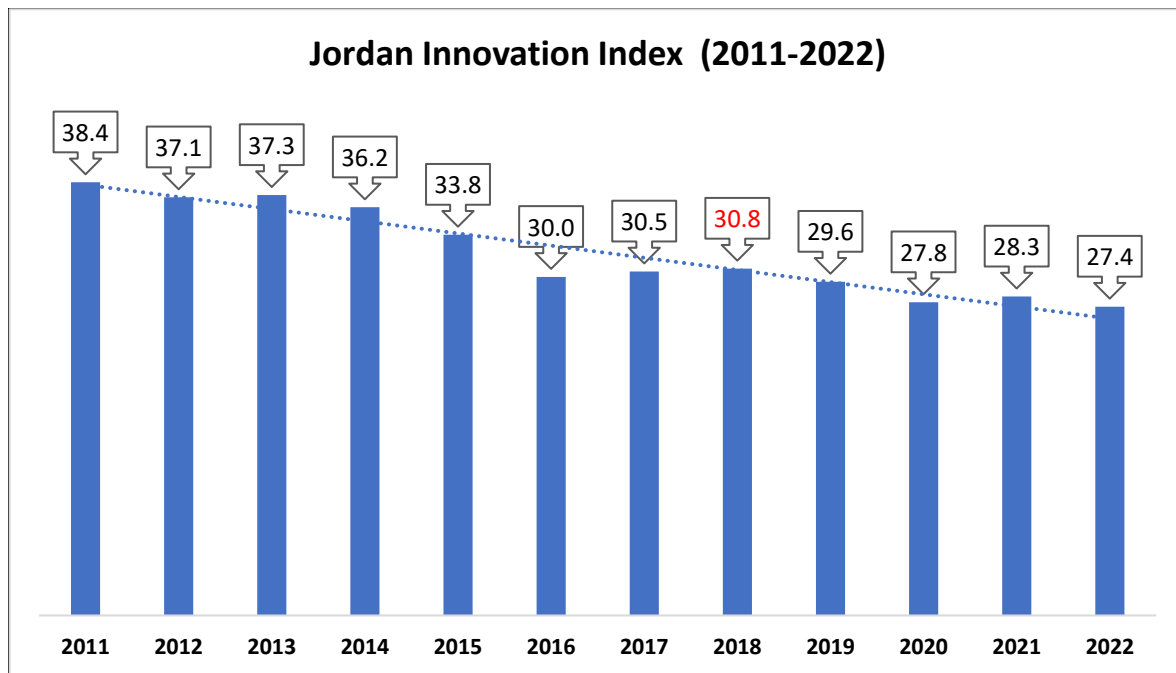
Figure No. 1



Source : <https://www.globalinnovationindex.org/analysis-indicator>

Figure No 2. shows a decrease in the general trend of the Global Innovation Index (GII) indicator of Jordan over the time period (2011–2022), the index reached about **38.4** in the year 2011 and then decreased slowly until it became recently **27.4** in year 2022.

Figure No. 2

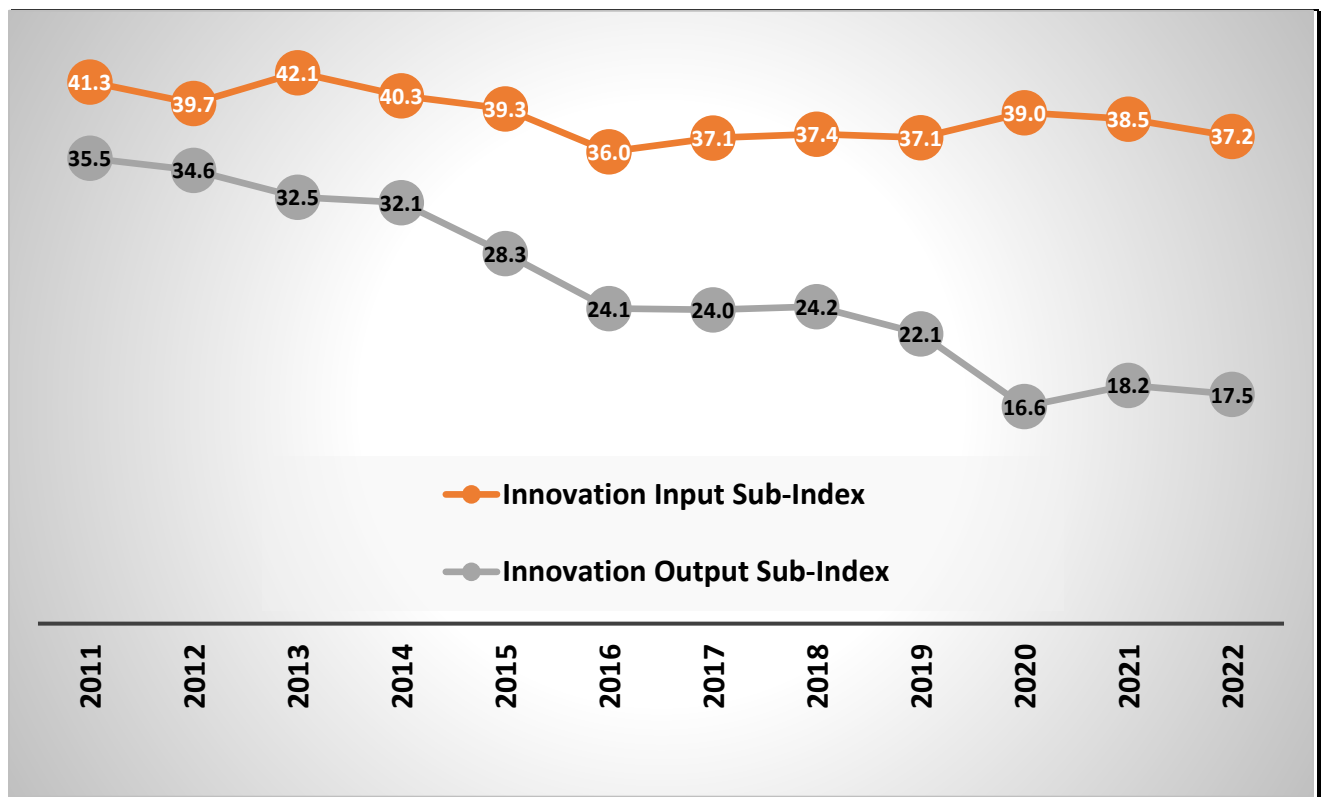


Source : <https://www.globalinnovationindex.org/analysis-indicator>

Jordan Innovation Sub-Index (Inputs, Outputs)

Figure No 3. shows a slight decrease of the trend in the Innovation sub- inputs while it shows a sharp decrease in the trend of the Innovation sub- outputs over the time period (2011–2022). The gap between the two sub-indicators became increasingly wide during the above period (from 5.8–point year 2011 up to 19.7–year 2022).

Figure No. 3

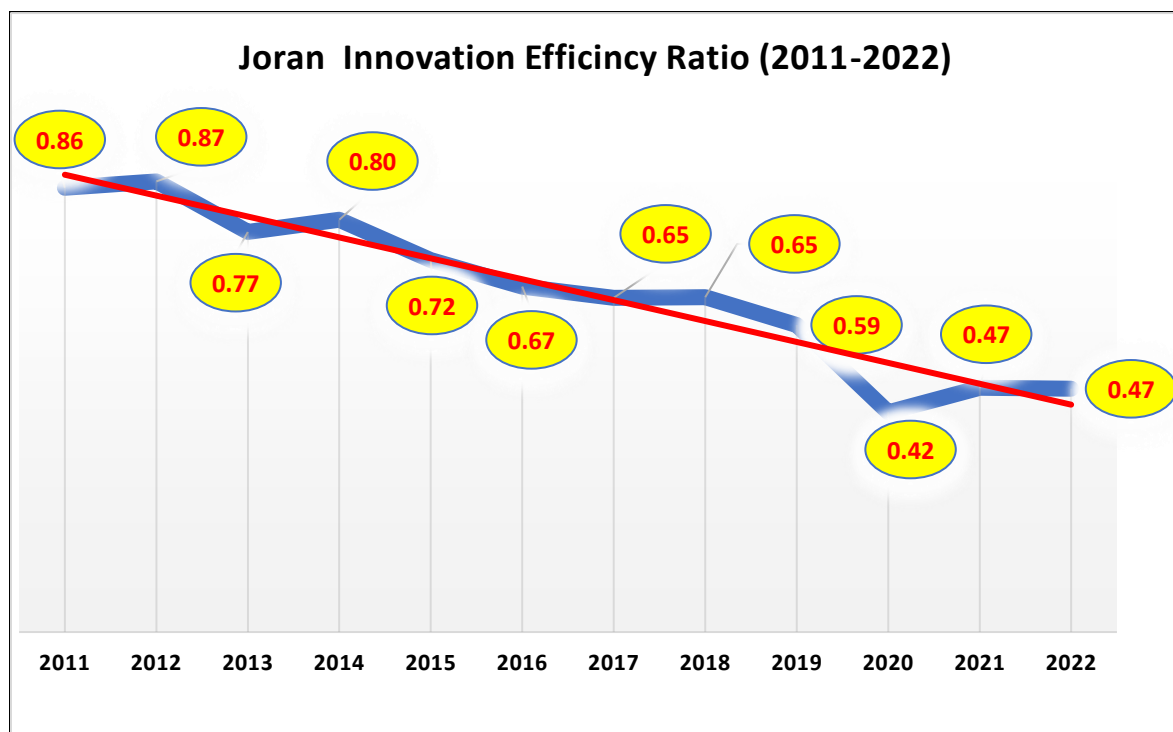


Source : <https://www.globalinnovationindex.org/analysis-indicator>

Jordan Innovation Efficiency Ratio

The efficiency ratio is calculated by dividing the (Innovation output sub-index) on the (innovation inputs sub-index). Figure No 4. shows a decrease in the trend of the innovation efficiency ratio of Jordan over the time period (2012–2020), this ratio reached about **0.87** in year 2012 and then decreased slowly until it became recently **0.47** in year 2022.

Figure No. 4



Source : <https://www.globalinnovationindex.org/analysis-indicator>

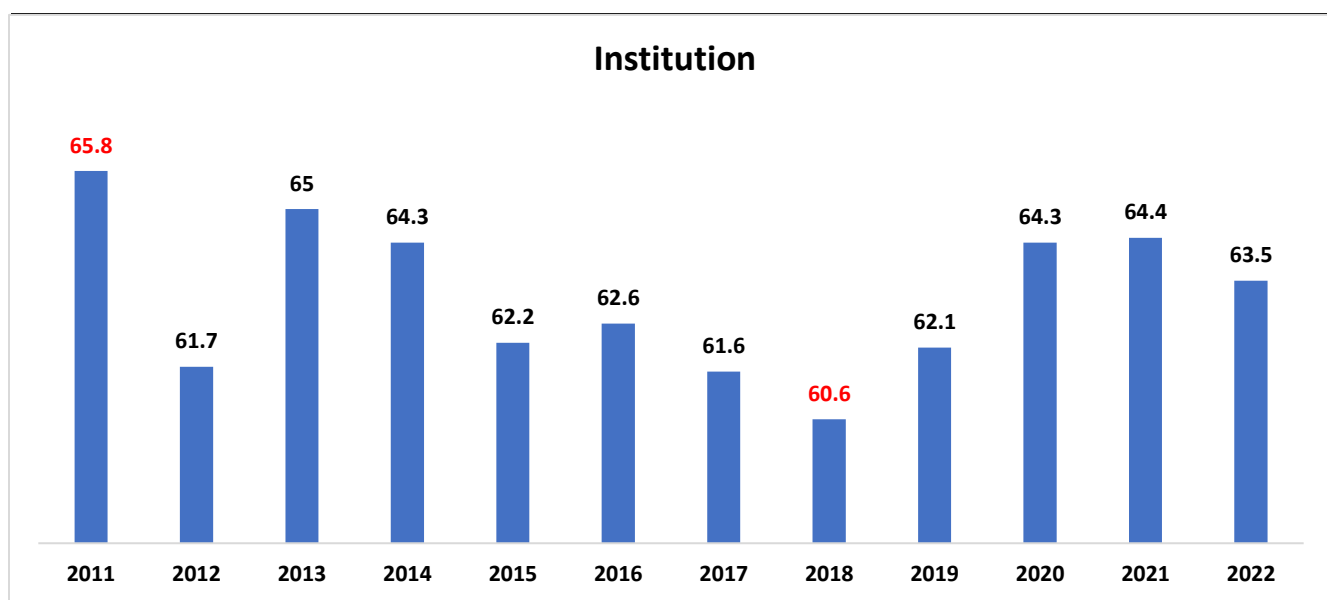
Jordan Innovation inputs sub-Index – Main Components (2011–2022)

Five Innovation input sub-index are presented as the following:

Institution

Figure No.5 showed the innovation input sub index (Institution) which took a volatility shape during the period (2011–2020), the peak reached about **65.8** in the year 2011 while it was on the bottom and reached about **60.6** in the year 2018. Then reach 63.5 year 2022.

Figure No. 5

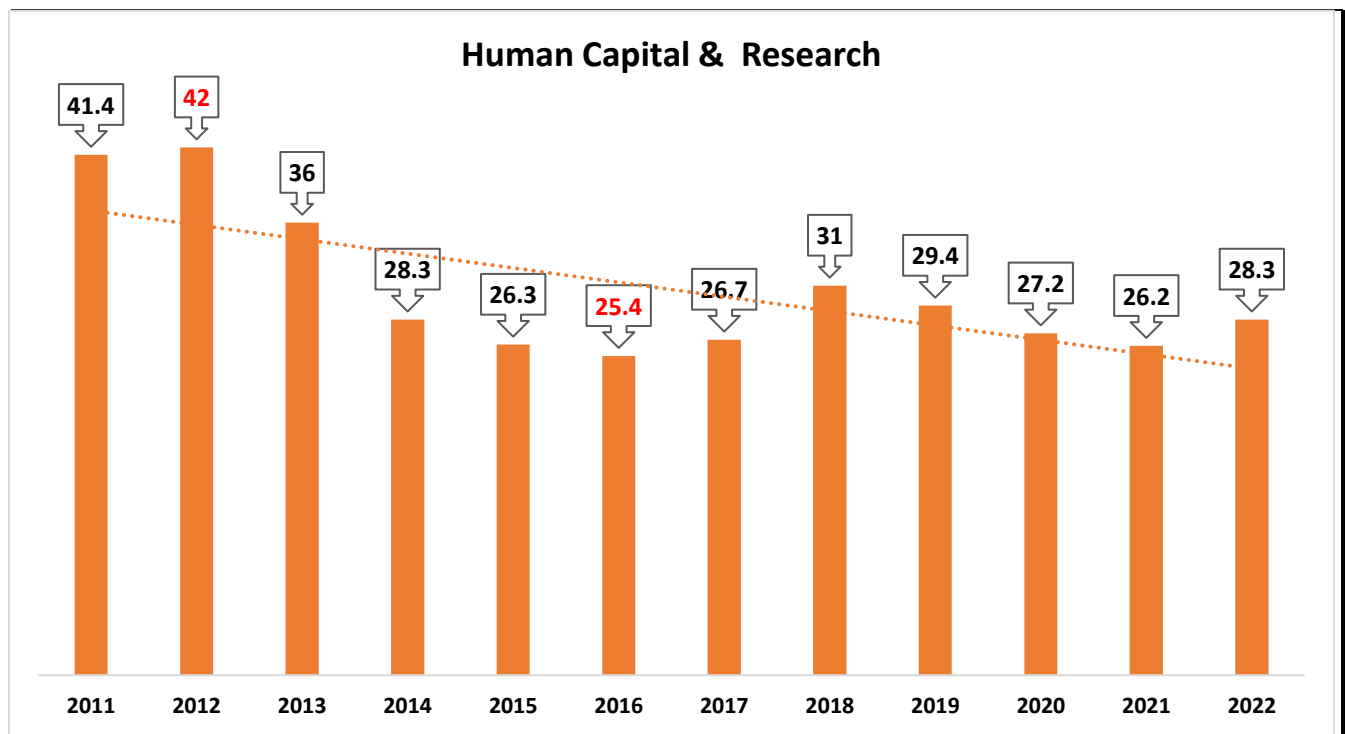


Source : <https://www.globalinnovationindex.org/analysis-indicator>

Human Capital & Research

As it is observed in figure No. 6 The general trend of the (Human Capital & Research) inputs sub index had been decreased during the period (2011–2022). It reached its peak in the year 2012 up to 42 , While it reached the bottom at 25.4 in the year 2016. And not more than 28.3 year 2022.

Figure No. 6

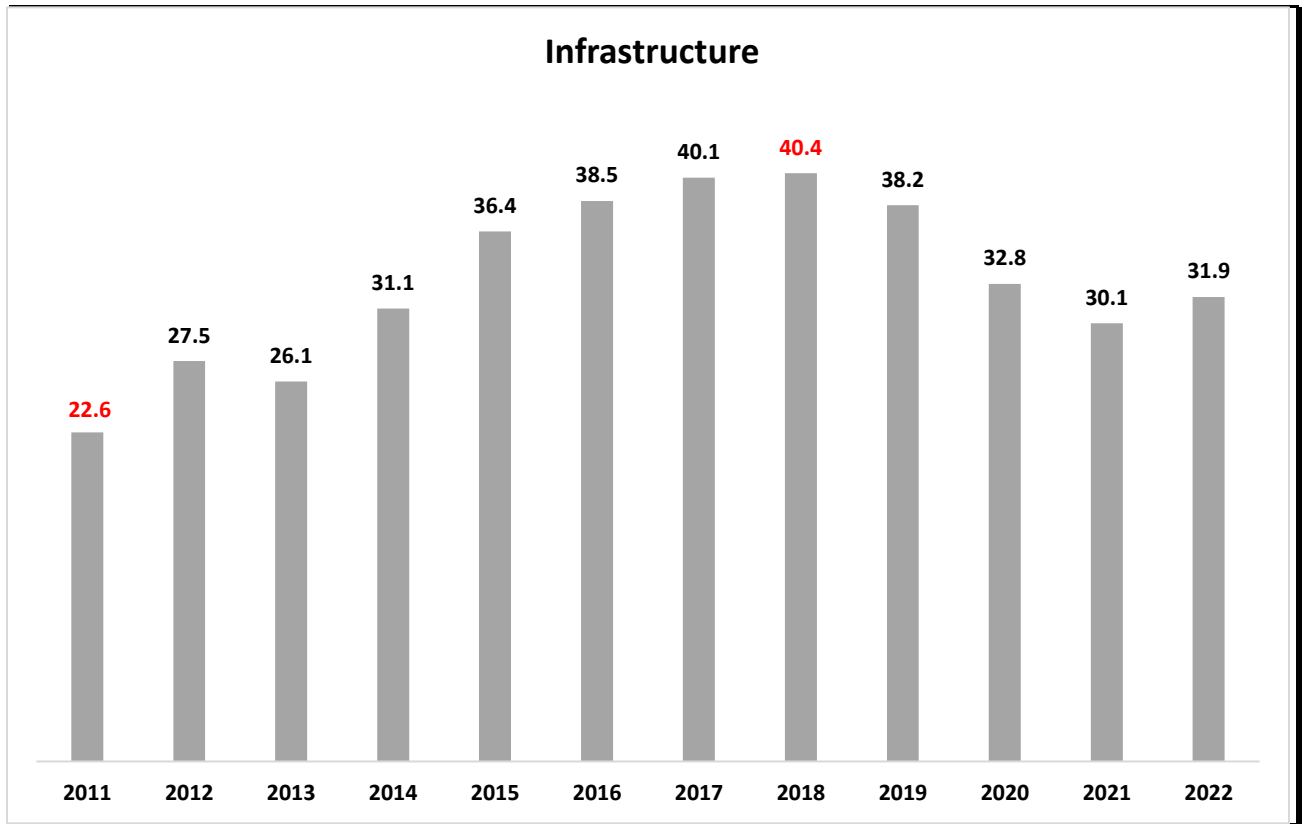


Source : <https://www.globalinnovationindex.org/analysis-indicator>

Infrastructure

As it is observed in figure No. 7 The general trend of the (Infrastructure) as an inputs sub index had been increased during the period (2013–2018) until it reached its peak about **40.4** in the year 2018, followed by a decrease to **30.1** in the year 2021.

Figure No. 7

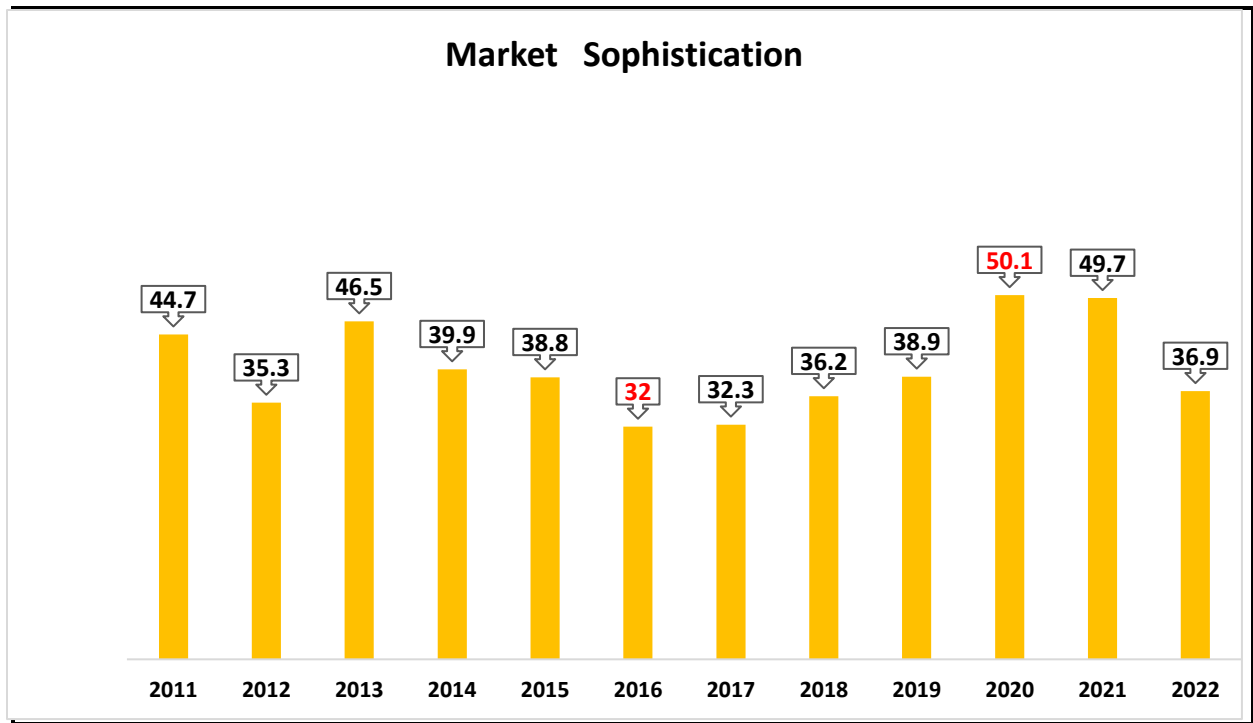


Source : <https://www.globalinnovationindex.org/analysis-indicator>

Market Sophistication

Figure No.8 showed the innovation input sub index (Market Sophistication) which took a volatility shape during the period (2011–2022), the peak reached about **50.1** in year 2020, while it decreases until **36.9**–year 2022.

Figure No. 8



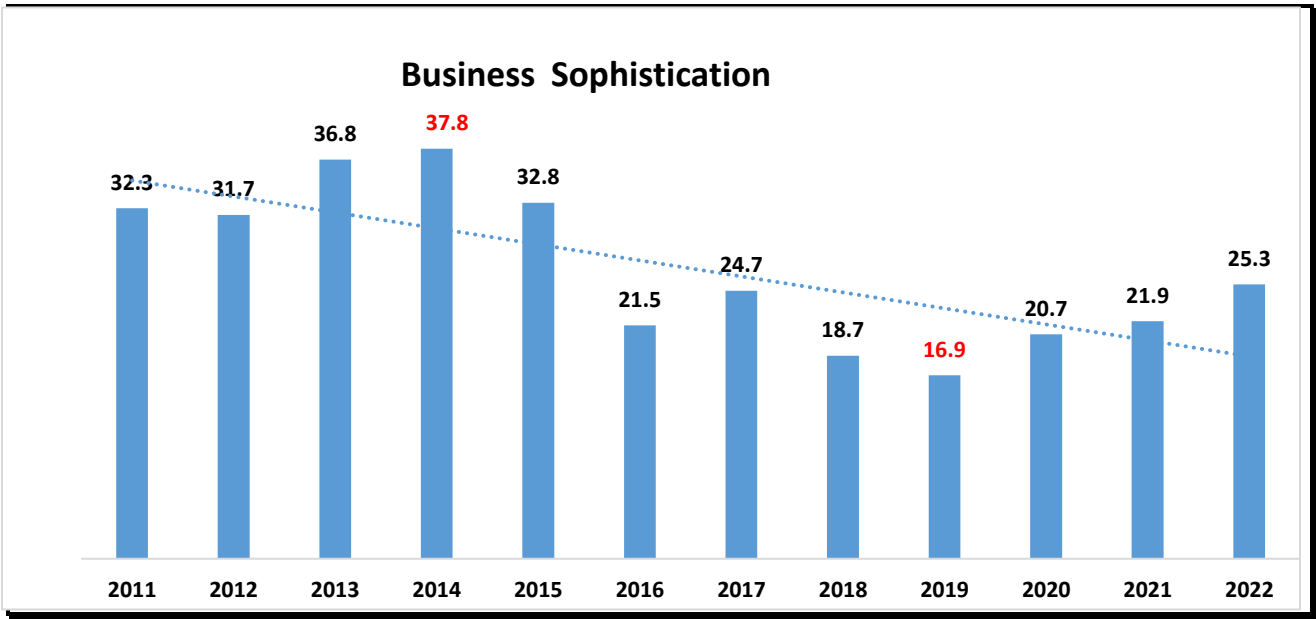
Source : <https://www.globalinnovationindex.org/analysis-indicator>

Business Sophistication

As it is observed in figure No 9. The general trend of the (Business Sophistication)

inputs sub index had been decreased during the period (2011–2019). It reached the peak up to **37.8** in the year 2014, while it was on the bottom and reached about **16.9** in the year 2019. Then increased slightly up to **25.3** in the year 2022.

Figure No. 9

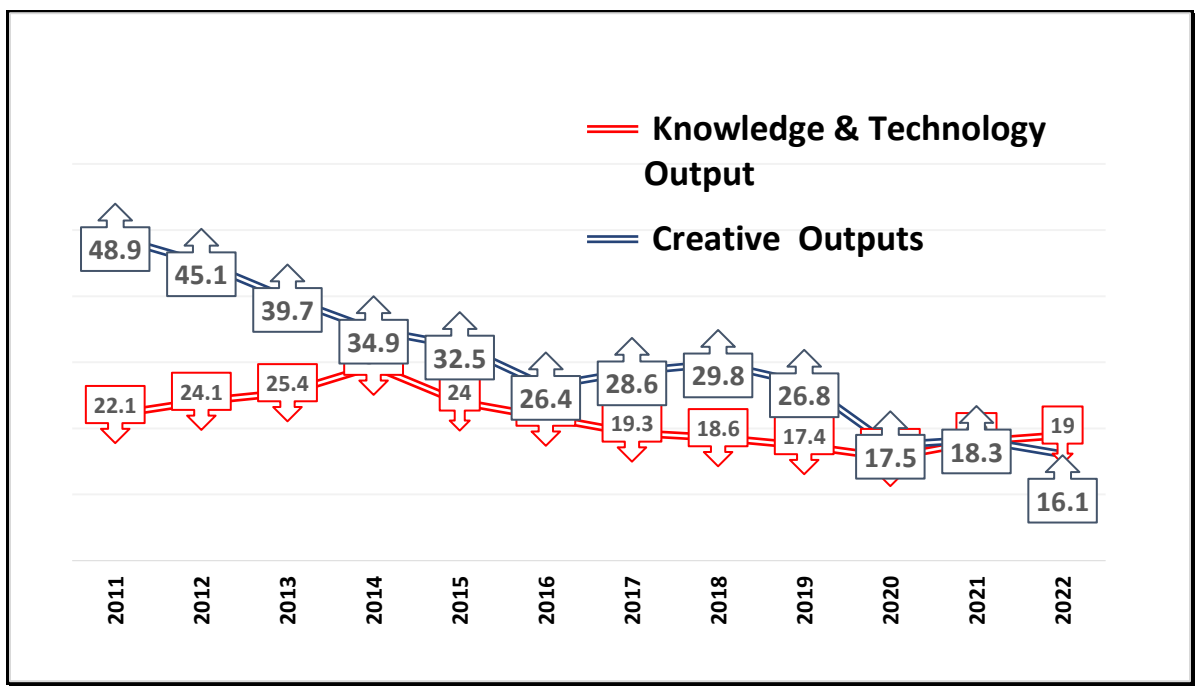


Source : <https://www.globalinnovationindex.org/analysis-indicator>

Jordan Innovation Outputs Sub-Index (2011–2020)

The components of the innovation outputs sub-index are (Knowledge & Technology) and (Creative). In spite of (Creative index) is higher than (Knowledge & Technology) during the period (2011–2022), the general trend index for both were decreasing during the same period, the gap became narrow during the above period; from 26.8 point year 2011 to 0.3 point year 2021, Then 2.9 year 2022 as it shown in figure No.10.

Figure No. 10



Source : <https://www.globalinnovationindex.org/analysis-indicator>

Intellectual Property Rights

The main indicators of the Intellectual Property Rights in Jordan (**Patents, Design and Trademark**) were presented in this paper work.

Figure No.11 shows that Jordan **Patent Application Rank** among countries in the year 2021 as the following:

Global Rank : 106

Resident : 81

Abroad : 105

Figure No.11 shows that Jordan **Design Application Rank** among countries in the year 2021 as the following:

Global Rank : 79

Resident : 66

Abroad : 67

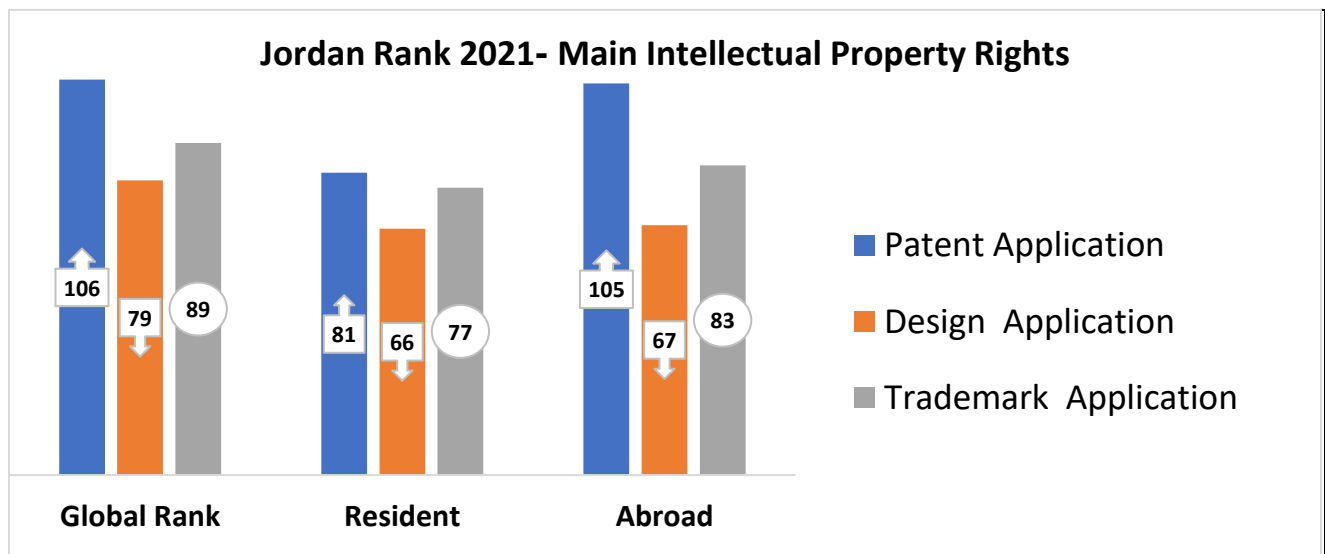
Figure No.11 shows that Jordan **Trademark Rank** among countries in the year 2021 as the following:

Global Rank : 89

Resident : 77

Abroad : 83

Figure No. 11

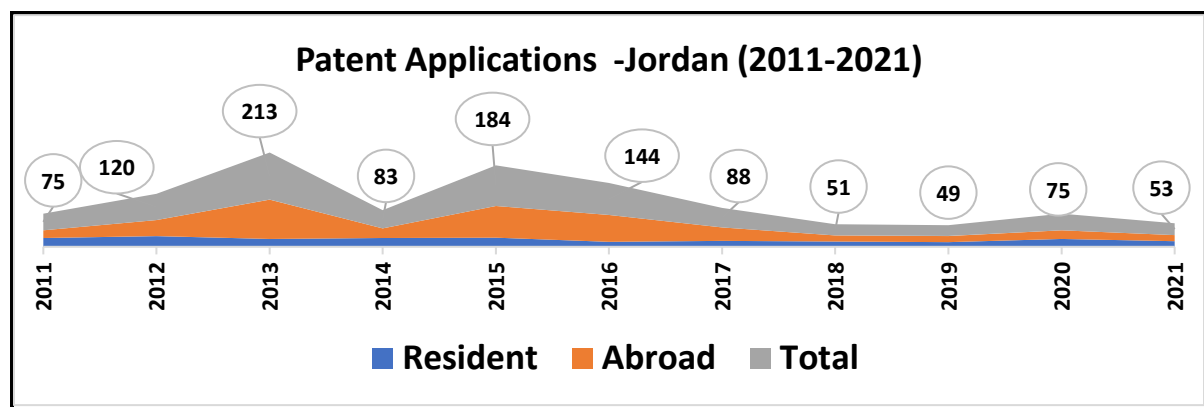


Source : <https://www3.wipo.int/ipstats/keyindex.htm>

Patent Application

Figure No. 12 Indicate that the Total number of Patent application reach its peak about 213-year 2013, while the trend decreases from 184-year 2015 to 53 year 2021.

Figure No. 12

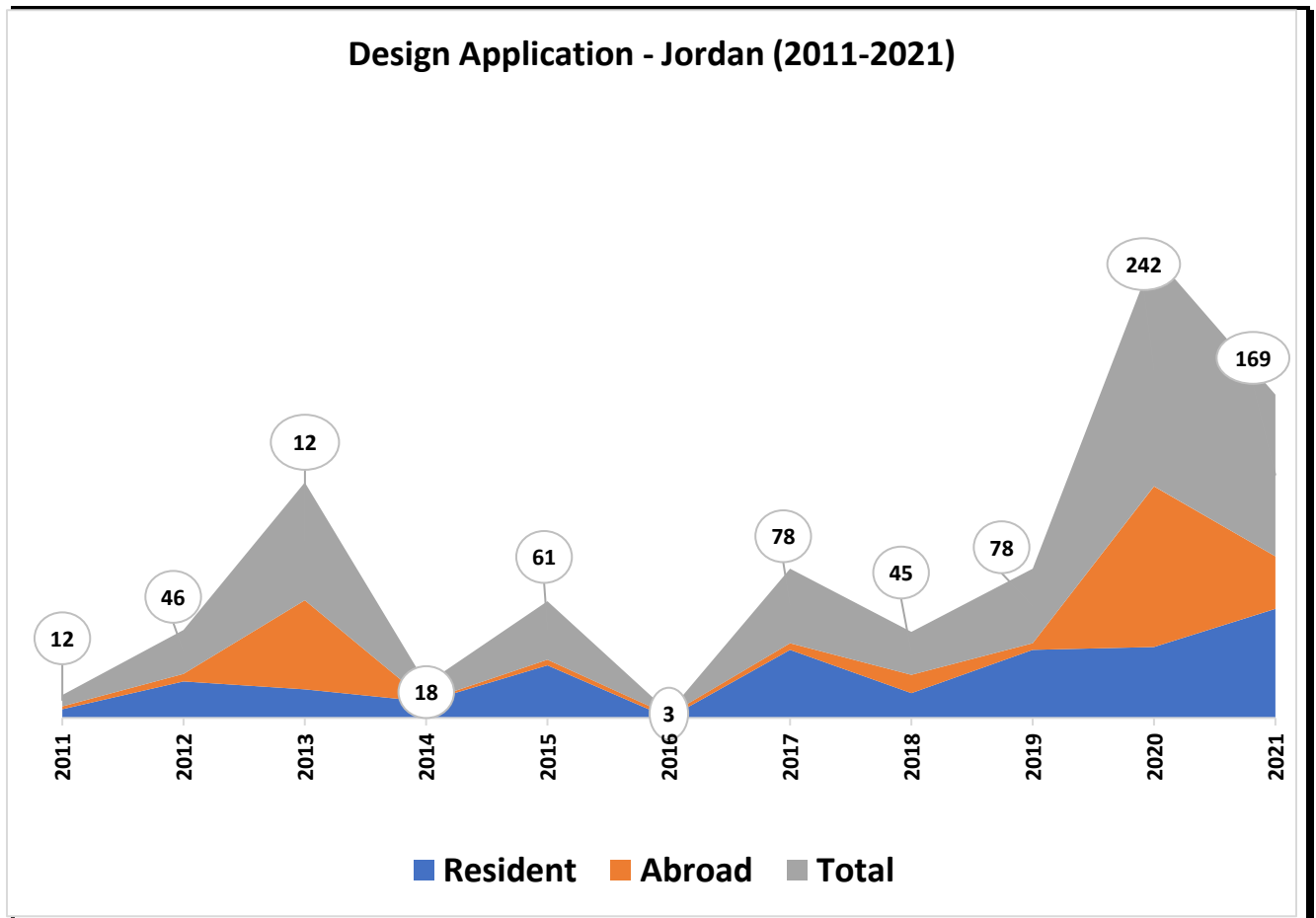


Source : <https://www3.wipo.int/ipstats/keyindex.htm>

Design Application

Figure No. 13 Indicate that the Total number of Design application increased from the year 2018 until it reached to the peak 242–year 2021, while decrease again slightly to 169–year 2021.

Figure No. 13

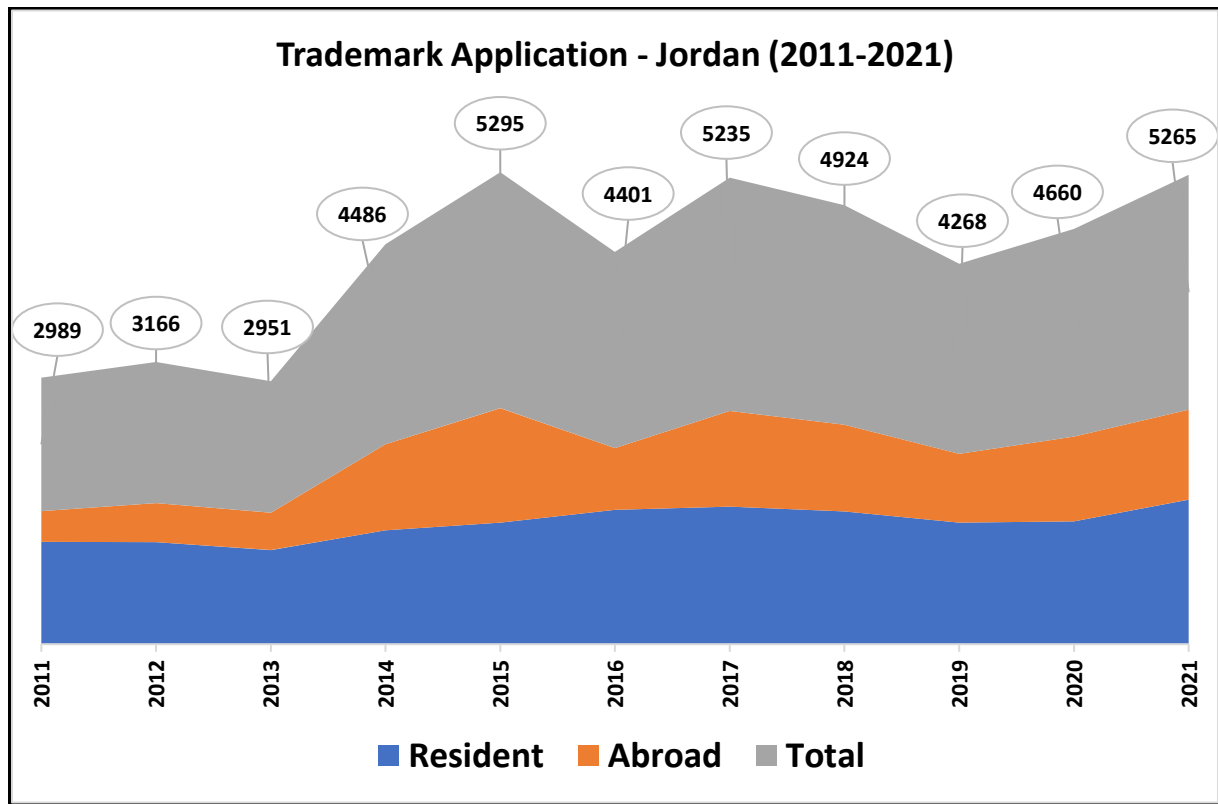


Source : <https://www3.wipo.int/ipstats/keyindex.htm>

Trademark

Figure No. 14 Indicate that the Total number of Trademark application reach its peak about 5295–year 2015, The trend increases recently from 4268–year 2019 up to 5265 year 2021.

Figure No. 14



Source : <https://www3.wipo.int/ipstats/keyindex.htm>

Residential Percentage to the Total

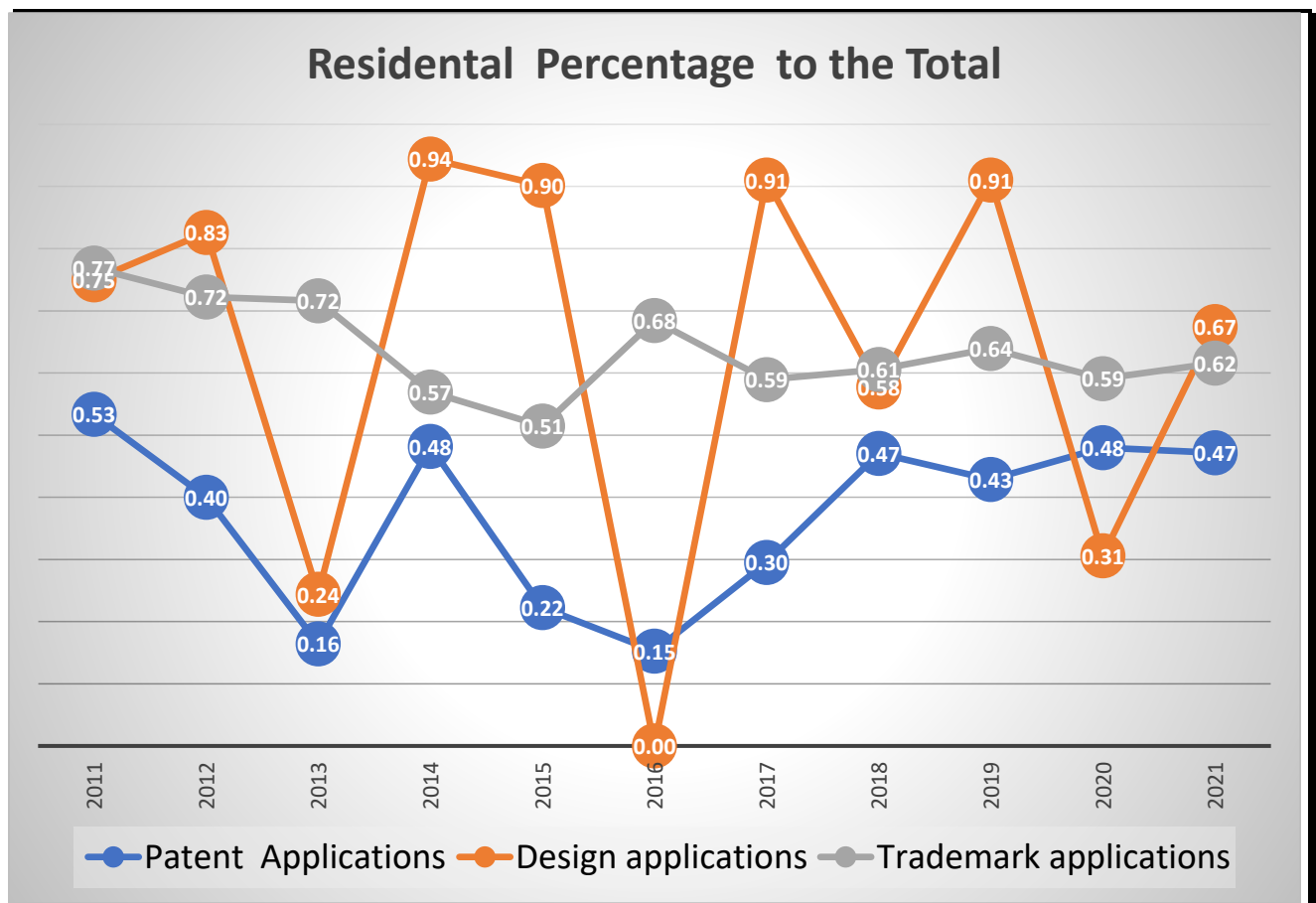
Figure No. 15 shows the Residential Percentage to the Total during the period (2011–2021) as the following:

Patent Application : Increasing from the year 2016 (0.15) up to (0.47) year 2021.

Design Application : **fluctuation** during the years (2011-2021)

Trademark Application : Almost stable during the years (2011-2021) .

Figure No. 15



Source : <https://www3.wipo.int/ipstats/keyindex.htm>

Conclusions & Recommendations

Jordan Global (GII) is improving its rank since 2019 ; from rank 86 to rank 78 year 2022. While the Sub indicators (input & output) are still slightly fluctuation during the same above period (2019–2022).

The efficiency ratio is calculated by dividing the (Innovation output sub-index) on the (innovation inputs sub-index). Indicate that trend of the innovation efficiency ratio of Jordan is decreasing over the time period (2012–2020), this ratio reached about 0.87 in year 2012 and then decreased slowly until it became recently 0.47 in year 2022.

Total number of Patent application reach its peek about 213–year 2013, while the trend decreases from 184 year 2015 to 53 year 2021.

The Private and public sectors are recommended to participate in order to promote Innovation output components that are (Knowledge &Technology) and (Creative) which can both play a vital role in order to enhance productivity in Manufacturing industries in Jordan. More depth studies (Cause–Effect) are also recommended in order to investigate and explorer (Innovation Input and Output) component's effects on Innovation and Intellectual Property Rights considering various expected factors in Jordan economies (Shammout,a., et al,2021).

References:

Cornell University, INSEAD, & WIPO; The Global Innovation Index

<https://www.globalinnovationindex.org/analysis-indicator>

<https://www.wipo.int/portal/en/index.html>

<https://www3.wipo.int/ipstats/keyindex.htm>

Shammout, A., Al-Satel. R., and Al- Zu'bi, B (2021).Exploring Analysis of the Global Innovation Index Considering Manufacturing Industry in Jordan (2011-2020). Journal of al-Quds Open University for Administrative & Economic Research and Studies Vol- No (16).

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