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How the relationship between Information Technology, Entrepreneurship, and International Trade lead to the International Relations?

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Abstract

Key words:

Information technology capability, internet capabilities, international proactiveness, international innovativeness, entrepreneurship promotion, international trade, international relations.

In the current competitive global market, the international relations have key importance for the nations. Particularly, international relations related to the economic activities are increasing among different nations. Therefore, the objective of this study is to examine the role of information technology (IT), entrepreneurship and international trade in international relations. The relationship between IT capabilities, internet capabilities, international proactiveness, international innovativeness, entrepreneurship promotion, international trade and international relations was examined. This relationship is considered in relation to the comparison between Malaysia and Jordan. By using a quantitative research approach, cross-sectional research design was employed. Population of the study is the business organizations dealing with the international trade activities in Malaysia and Jordan. Respondents of the study are the employees of these organizations. 500 questionnaires were distributed in Malaysia and Jordan. Results of the study was obtained by using Structural Equation Modeling (SEM). It is concluded that; IT capabilities has positive role to promote internet capabilities. Promotion of internet capabilities has positive influence on international proactiveness and international innovativeness. Furthermore, international proactiveness and international innovativeness has positive effect on entrepreneurship promotion and international trade. Finally, international trade strengthens the international relations.

Introduction

In the highly competitive environment ([Jaleel et al., 2021](#); [Shapovalova et al., 2021](#)), the role of international relations has vital importance for the nations to promote economic activities. In the world of business, international relations play a valuable role to increase the collaboration in business activities. Therefore, to compete in a competitive world market, the international relations could be a possible tool to survive and achieve higher business performance. Countries require support from other countries in business activities. For instance, the import and export business relations among nations has key importance for different countries ([Restivo et al., 2020](#)).

The relationship between developing countries ([Muhammad et al., 2021](#)) for business activities has vital importance. Because the developing countries always requires better relations to promote economic activity which could be helpful for the wellbeing of the people. To set a good position in the business market globally, the relationship between nations is most important. Malaysia and Jordan ([Ahmad Mousa, 2012](#)) are also in the list of developing countries which require important relationship with other nations to promote business activities. The promotion of business activities can enhance economic development which further lead to the economic growth. Hence, the importance of international relations in Malaysia and Jordan has vital importance for the promotion of business activities along with the economic development.

In this direction, the international trade has major importance to support international relations. International trade has key importance for all the countries (Ryazantsev et al., 2019). International trade cooperation between countries has significant importance for the economic growth. Particularly, the trade between the neighboring countries has vital importance. For Malaysia, the relationship with Thailand is most important in relation to the economic activities. The Malaysian relationship with Singapore is also most important (Cheah et al., 2018). Therefore, Malaysia can promote the relationship between these countries to enhance the economic activities. The increase in the trade between countries lead to the better international relations. In addition to this the relationship of Jordan with other nearby countries also has key importance. To enhance the trade between countries, entrepreneurship activities have key importance. Currently, international entrepreneurship activities are growing globally (Glinkowska-Krauze et al., 2020; Tabares et al., 2021) which has central importance to enhance international relations among countries. Various business organizations deal with the businesses working across the border which causes to develop good relations between nations. Most of the nation's relate to the help of business dealing which has significant contribution to the economic development. To promote economic development, it is important to promote international trade which lead to the economic international relations. Both entrepreneurship and international trade could be promoted through information technology. Better information communication technology is required to deal business activities across the border. Generally, information technology supports internet capabilities which lead to the better business relations.

Therefore, objective of this study is to examine the role of information technology, entrepreneurship, and international trade in international relations. For this purpose, the relationship between information technology capabilities, internet capabilities, international proactiveness, international innovativeness, entrepreneurship promotion, international trade and international relations was examined. Several previous studies have examined international relations (Al-Fawwaz, 2019; Bagang, 2019), however, these studies have not examined the role of information technology capabilities in international relations. Studies also examined international trade and international relations (Doornich et al., 2020), however, the relationship between international trade and international relations is not examined in the presence of IT capabilities. Most importantly, the relationship of entrepreneurship promotion with international trade and international relations is not examined by the previous studies. Therefore, the current study has vital importance for the literature as it has major contribution to fill the literature gap.

Literature Review

International relations are the study of the interaction of nation-states and non-governmental organizations in fields such as politics, economics, and

security. The current study is dealing with the non-government organizations and their relationship across the board related to the economic activities. In the current market conditions, the role of international relations has key importance in which international trade is playing a vital role. International trade is playing important role in business activities (Nathaniel et al., 2021). Malaysia has important relations with countries and dealing with the economic activities to strengthen the economic development.

Malaysia's foreign policy is officially grounded on the belief of neutrality as well as maintaining peaceful relations with all countries, irrespective of their ideology or political system, and to further advance the relations with other countries in the region. Malaysia has relationship with the Thailand and dealing with the several business activities. The import and export of business between Thailand and Malaysia is also a huge volume (Montes et al., 2020). Along with the Thailand, Malaysia has important relations with Indonesia and volume of trade is increasing significantly which has major benefits to both countries. In addition to this, Malaysian economic relations with Singapore are also vital for Malaysia in respect to the business development. Therefore, Malaysia is promoting intrapreneurial activities with other countries to enhance the business activities for the development of economy. Furthermore, Jordan is trying to promote business relationship with other countries. As shown in the Figure 1, Jordan has important relationship with the United States (US), Saudi Arabia, India, UAE and various other countries in relation to the economic activities.

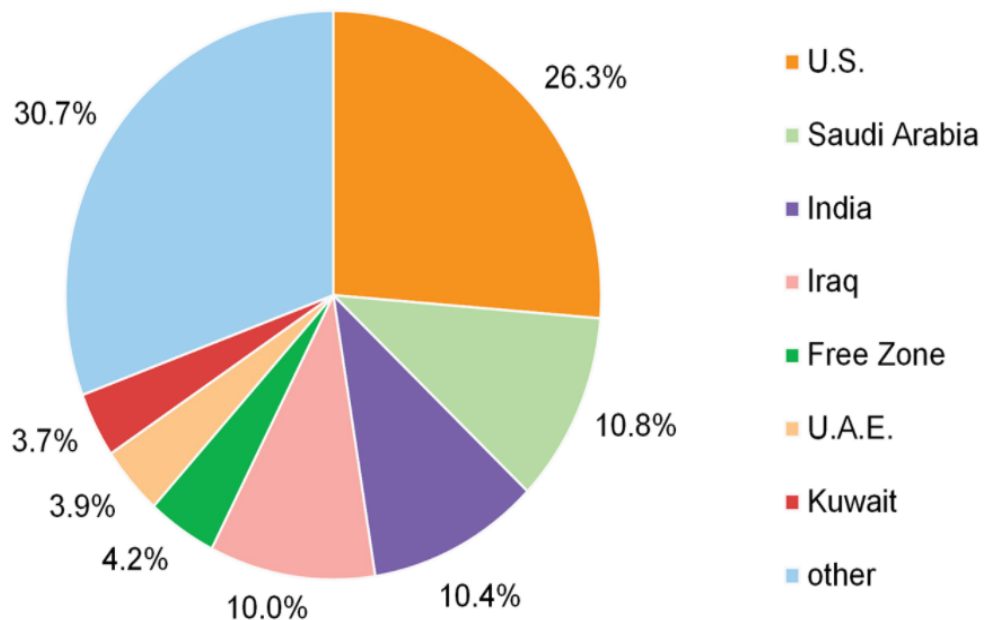


Figure 1. Economic relations of Jordan and share of trade with different countries

Source: *Encyclopædia Britannica, Inc.*

The relationships of Jordan with other countries have key importance for the economy of Jordan. Jordanian economy is majorly based on the economic relationship with aforementioned countries (Alabed et al., 2021).

A large volume of important and exports are carried out with these countries which has positive role in the economic development. Jordan has major trade relations with the US which is contributing to the economy. Along with the US, Jordan has economic relations with the Saudi Arabia and India as well. These relations are playing a key contribution to the economic development in Malaysia and Jordan. Therefore, international relations of Malaysia and Jordan with other world in relation to business activities has vital importance in the growth of economy.

In this direction, the role of international trade has key importance in international relations (Ikram et al., 2020). According to the current study, international trade can be promoted through various entrepreneurship activities among business organizations. The promotion of entrepreneurship activities (Bagheri et al., 2017; Vossenber, 2013) by business companies in various other countries can increase the international trade having vital relationship to build relations. Therefore, the relationship between entrepreneurship activities promotion and international trade has key importance to foster international relations of Malaysia and Jordan. Furthermore, the role of IT capabilities (Yeh et al., 2015) cannot be neglected in international trade, entrepreneurship and international relations. With the cross-border transactions, the importance of IT capabilities cannot be neglected. IT capabilities can strengthen the internet capabilities which further lead to the international proactiveness and international innovations. Therefore, the relationship between IT capabilities, internet capabilities, international proactiveness, international innovativeness, entrepreneurship promotion and international trade can promote international relations. The relationship between IT capabilities, internet capabilities, international proactiveness, international innovativeness, entrepreneurship promotion, international trade and international relations is given in Figure 2.

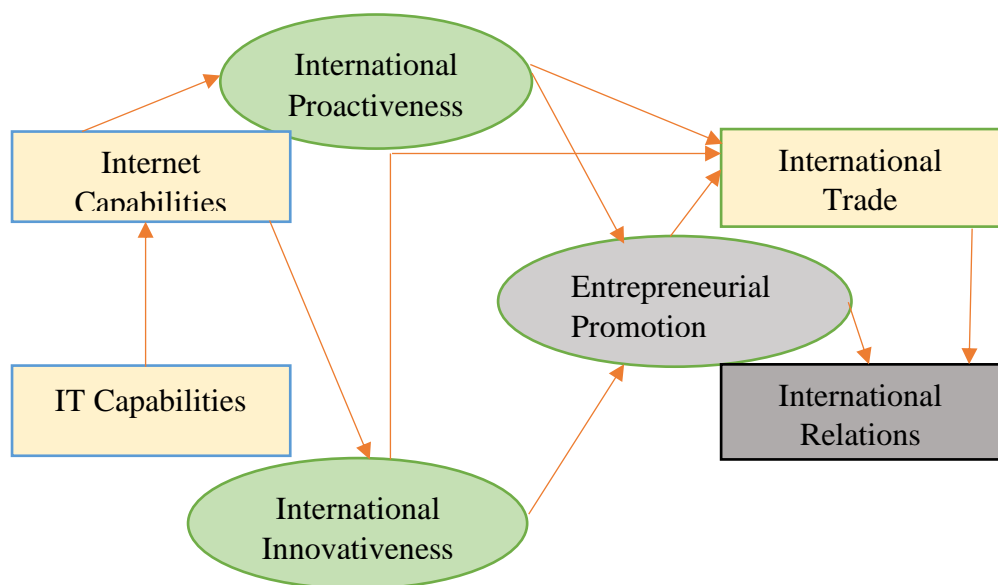


Figure 2. Theoretical framework of the study showing the relationship between IT capabilities, internet capabilities, international proactiveness,

international innovativeness, entrepreneurship promotion, international trade, and international relations

Information Technology (IT) Capabilities and Internet Capabilities

Information technology (IT) is the use of any computers-based system, storage of data, networking as well as other physical devices, infrastructure, and procedures to create, store, process, secure as well as exchange all forms of electronic data. IT has key importance among the business activities. For instance, IT is required to carry out various operations electronically. In the fast business environment, IT can play significant role to manage business operations (Craighead et al., 2011). IT Capability denotes to an organization's capability to classify IT meeting business requirements, to arrange IT to advance business procedure in a cost-effective manner, and to avail long-term maintenance requirements as well as support for IT-based systems. IT capabilities are helpful in business because it provides better platform to enhance the collaboration between organizations. Especially, while dealing internationally, the better system is key to the successful business deal. Collaboration is the major element of successful business dealing internationally. Furthermore, it provides better infrastructure to enhance the business activities (Queiroz et al., 2020). Better IT capability such as quality system can minimize the risk in business dealing which also causes to effect positively on business transactions. Therefore, the IT knowledge, IT management and IT learning for the business organizations is most important to handle entrepreneurship activities, international trade, and interactions relations. Moreover, internet capabilities have key importance in business activities. Internet capabilities are most important because the internet gives businesses the competence to spread different types of information in relation to the business products or services directly in front of the business customers. Where print as well as television ads are publicized at any arranged times, the information about business products put on the Internet is accessible from the moment it is published. Previous studies also reported that internet capabilities has key importance for the business (Glavas et al., 2014). Internet capabilities has the possibility to promote business information through different way. The marketing activities are majorly based on the internet activities. In the recent business environment, the role of internet marketing has key importance and most of the companies are trying to promote their products with the help of internet marketing. Therefore, to promote business at international forum, it is important to promote business activities through internet. As it provides easy access to the customers along with the low marketing cost. Literature also demonstrated that strong network of the organizations through internet is one of the major strengths of the organizations which can play a positive role to enhance the business activities on internet. Most of the world population is working on internet-based activities (Al-Abdallah et al., 2021), therefore, the strong internet capabilities of the

companies have vital importance which can lead to the higher business performance at national and international level.

There is relationship between IT capabilities and internet capabilities. Internet capabilities required better IT system. To setup a good internet system for the business activities, IT capability has key role to play. As highlighted in the previous investigations that IT capabilities has relationship with the internet capabilities (Chen et al., 2021). In the fourth industrial revolution, the internet of things (Spaulding et al., 2019) has completely based on the IT capabilities. Better IT capability of the company lead to the better management of internet of things. Therefore, while examining the international business, IT capability has key importance to promote internet capabilities. Thus, the above discussion shows that; IT capabilities has positive role to promote internet capabilities which lead to the following hypotheses.

Hypothesis 1. IT capabilities have positive effect on internet capabilities.

Internet Capabilities, International Proactiveness and International Innovativeness

Internet capabilities has relationship with international proactiveness. International proactiveness narrates to aggressive posturing relative to competitors, with a focus on the execution as well as follow-up of tasks in relation to the firm's international objectives. The previous investigations propose that firms involved proactively in international business events in an online space are more likely to attain gains beyond financial outcomes, including first-mover advantages. While remain proactive in online business activities, the role of internet capabilities has vital importance. The proactive behavior of the companies is required to get success in a highly competitive business environment. To promote the proactive behavior, opportunity identification has key importance. To enter in the market earlier to the competitors, the internet capabilities are required to identify the business opportunities. Better capability of the organization can better identify various opportunities in the business market and earlier identification help the companies to enter in the market. According to the literature, proactiveness in business has central importance (Al-Omouh et al., 2020; Dai et al., 2014) which lead to the higher business success. In this direction, the internet capabilities are important to get market information. The information from the market along with the information of competitors is most important before to enter any international market. To gather all this information, the quality internet-based system is required for the business organizations. High quality internet capabilities are required to explore international market for the better decision making after gathering information. This whole process leads the companies be proactive and gain the first mover advantage. Finally, it is evident that; internet capabilities have positive role in international proactiveness which lead to the following hypothesis.

Hypothesis 2. Internet capabilities have positive effect on international proactiveness.

Along with the positive role of internet capabilities on international proactiveness, it also has positive role in international innovations. Innovation is a process of developing new idea which could be applied to develop new products at less time, improved quality, and low cost. In other words, it is the application of new idea based on the new process, quality, and cost of the product as well as service. Generally, companies engaged in various innovative activities for an online environment to compete with the competitors. For instance, international innovativeness in an online environment comprises; new product development in an online context and opening of new markets via the Internet. Therefore, international innovations are required internet. Better internet capabilities are required to promote international innovativeness. To compete in highly competitive market, the role of innovativeness at international level is most important. That is the reason, most of the companies are trying to engage in international innovative activities to capture the market share for the better performance.

In the current business competition, the role of innovation cannot be neglected. Innovation is the key to the business success. Both in the service and manufacturing sector, it is important to innovate new products as well as services. Customers also required changes in the products for improvement of the quality. The companies try to innovate something new in the international market generally remain successful. However, to promote innovativeness internationally, the role of internet capabilities shows key importance. The internet is the basic requirement for the international innovativeness. Therefore, a good quality internet system is required for the companies to enhance the international innovativeness. While doing business in foreign market, the internet is important to manage the business operations online and to find out business opportunities in the market. As highlighted in the previous studies that internet and innovativeness have key relationship ([Alalwan et al., 2018](#); [Park et al., 2007](#)). Therefore, above evidence show that; internet capabilities have key importance for international innovation. To promote international innovations, the role of internet capabilities has key importance. Therefore, below hypothesis is proposed.

Hypothesis 3. Internet capabilities have positive effect on international innovativeness.

International Proactiveness, International Innovativeness and Entrepreneurial Promotion

In the business activities across the border, the role of entrepreneurship activities has vital importance. The promotion of entrepreneurship activities is required to get success in international business activity. Promotion is the first stage for proceeding to the constancy as well as

formation of the any business. This is one of the stages in which the idea of opening an industry arises in the mind of a businessman or entrepreneur which require inquiries as well as investigations. Companies engaged in entrepreneurship activities can enhance the overall business activity. In this way, the opportunity identification for the entrepreneurship activities has vital role. While remain proactive in entrepreneurship activities has positive role to capture the market. For the cross border entrepreneurship activities (Loures et al., 2019), the role of proactiveness is important. After the start of an entrepreneurship activity at international level, its promotion is key to the success. At international level, higher performance achievement is required to promote entrepreneurship activities in which proactiveness is most important. Hence, it is hypothesized that.

Hypothesis 4. International proactiveness has positive effect on entrepreneurship promotion.

Furthermore, in addition to the proactiveness, the role of international innovation has same importance. To promote the entrepreneurship activities at international level, the performance of innovations has major role. Increase in innovativeness among entrepreneurship activities can increases the entrepreneurship promotion. As it is highlighted in several previous studies, innovation has important relationship with entrepreneurship (Couger et al., 1990; Daniels et al., 2021). In the recent decade, the innovative performance among companies is increasing to compete with the competitors, therefore, it is important to promote entrepreneurship activities. Hence, international innovation has positive role in entrepreneurship promotion which lead to the following hypothesis.

Hypothesis 5. International innovativeness has positive effect on entrepreneurship promotion.

International Proactiveness, International Innovativeness and International Trade

Both the international proactiveness and international innovations has influence on international trade. International trade majorly linked with the business activities among the nations. Increase in the business activities between various nations increases the international trade. In this direction, both the international proactiveness and international innovations has the potential to enhance the business activities positively. The increase in business activities lead to the international trade promotion. International innovation has direct relationship with the international trade as highlighted in several previous investigation on international trade and international innovations (Ali et al., 2021; Khan et al., 2020). Similarly, international proactiveness has important relationship with the international trade and it has the potential to enhance international trade. Thus, following hypotheses are proposed.

Hypothesis 6. International proactiveness has positive effect on international trade.

Hypothesis 7. International innovativeness has positive effect on international trade.

Entrepreneurial Promotion, International Trade, and International Relations

International trade can be described as the exchange of capital, various goods, and different services across international borders or different territories due to the need of goods or services. The fulfilment of needs of any nation includes the profit orientation. These activities require entrepreneurship activities because the promotion of entrepreneurship activities is important in international trade. In most countries, such trade represents a significant share of gross domestic product. For the promotion of international trade, the involvement of business organizations in international entrepreneurship activities is required. The entrepreneurship activities at international level can promote the international trade. Literature also shows a relationship between entrepreneurship and international trade (Pierson et al., 2019; Sifneou et al., 2012). Therefore, international trade is influenced by the entrepreneurship promotion. The entrepreneurship promotional activities lead to the international trade which has significant role to develop international relations. Along with the positive effect of entrepreneurship promotion on international trade, it also has positive effect on international relations. The relationship between the business organizations in relation to the entrepreneurship activities can promote international relations. As the entrepreneurship related activities among business organizations can develop long term relationship in other fields as well. Better entrepreneurship relations led to the higher-level relations between government to government. It is justified in previous studies that international entrepreneurship activities have important role in relationship development (Elo et al., 2018; Etemad, 2015). Therefore, both the international trade and international relations are influenced by the entrepreneurship promotion which lead to the following hypotheses.

Hypothesis 8. Entrepreneurship promotion has positive effect on international trade.

Hypothesis 9. Entrepreneurship promotion has positive effect on international relations.

Furthermore, the direct effect of international trade cannot be neglected in development of international relations. International trade is the most important instrument to promote international relations between various nations. International trade relations are increasing among the countries (Basso et al., 2017) which has key role to develop positive business attitude between countries which may lead to the welfare of both nations. It is not

easy to survive in international competitive market; it requires better relations with other nations. Relations among the business organizations to enhance the economic activity shows positive role to enhance the relations at higher level. In both the cases of Malaysia and Jordan, the relationship development with other countries is based on the international trade with other countries. While doing international trade, both the nations take benefits and fulfill their needs which increases the strength of international relations. Hence, international trade relations (Sysoeva et al., 2018) are most important in the development of international relations. Hence, it is hypothesized that.

Hypothesis 10. International trade has positive effect on international relations.

Indirect Effect

This study considered the indirect effect of international proactiveness, international innovations, entrepreneurship promotion and international trade. The indirect effect is considered by following the instructions of Baron et al. (1986). The indirect effect of international proactiveness is considered between internet capabilities and entrepreneurship promotion. The indirect effect of international innovations is also considered between internet capabilities and entrepreneurship promotion. Furthermore, the indirect effect of entrepreneurship promotion is considered between international proactiveness and international trade. The indirect effect of entrepreneurship promotion is considered between international innovation and international trade. Finally, the indirect effect of international trade was examined between entrepreneurship promotion and international relations. Hence, following indirect effect are proposed.

Hypothesis 11. International proactiveness mediates the relationship between internet capabilities and entrepreneurship promotion.

Hypothesis 12. International innovativeness mediates the relationship between internet capabilities and entrepreneurship promotion.

Hypothesis 13. Entrepreneurship promotion mediates the relationship between international proactiveness and international trade.

Hypothesis 14. Entrepreneurship promotion mediates the relationship between international innovativeness and international trade.

Hypothesis 15. International trade mediates the relationship between entrepreneurial promotion and international relations.

Research Methodology

Research Design

Selection of research design is based on the nature of the study. The current study is examined the relationship between information technology capabilities, internet capabilities, international proactiveness, international innovations, entrepreneurship promotion, international trade, and international relations. The nature of this relationship is based on the primary data. Therefore, this study used primary data which was collected by using the cross-sectional research design. Cross-sectional research design is widely used in various studies related to the international relations and entrepreneurship. Therefore, cross-sectional research design is most suitable to examine the relationship between these variables.

Sample Size and Sampling Technique

Sample size of the study is based on the population of the study. Population of the study is the business organizations dealing with the international trade activities in Malaysia and Jordan. Respondents of the study are the employees of these organizations. Only those employees were considered which were directed relationship with the international trade activities. Literature reported that 300 sample size is satisfactory ([Comrey et al., 1992](#)). By following the recommendations of previous studies, this study used 500 sample sizes for the current study. For the data collection purpose, this study used cluster sampling technique which is most favorable in current study. As the cluster sampling is important while covering the population spread on a wide area ([Hameed et al., 2019](#)).

Instrumentation

This study designed a survey questionnaire to examine the relationship between information technology capabilities, internet capabilities, international proactiveness, international innovations, entrepreneurship promotion, international trade, and international relations. Therefore, survey questionnaire was designed to collect data from the employees of business organizations. Questionnaire was divided into two major sections. The first section was based on the questions related to the profile of respondents. The second section was based on the scale items related to the IT, internet capabilities, international proactiveness, international innovations, entrepreneurship promotion, international trade, and international relations.

Data Collection Procedure

As the current study is based on the cluster sampling, therefore, total population was divided into different clusters for data collection. Data were collected separately from the Malaysia and Jordan. 500

questionnaires were distributed among the business organizations in Malaysia. Similarly, 500 questionnaires were distributed among the business organizations in Jordan. Only those business organizations were selected which were dealing in international trade. Data were collected by using the online survey. Emails were generated for data collection from the employees of business organizations. From Malaysia, 171 questionnaires were received and used in data analysis. On the other hand, from Jordan 157 valid responses were received and used in data analysis. Before the data analysis, this study examined the data to remove the errors. Errors may include missing value (Aydin et al., 2018), outlier in the data and normality of the data. Data statistics are given in appendix (Table 1).

Data Analysis

The current study preferred to analyze the data with the help of Partial Least Square (PLS) (Joseph F. Hair et al., 2012; Hair Jr et al., 2017; Hameed et al., 2021). First, confirmatory factor analysis (CFA) was carried out to check the factor loadings. Factor loadings are given in Table 1. Figure 3 shows the CFA or measurement model for Malaysia and Figure 4 shows for Jordan. Factor loadings both for the Malaysia and Jordan is given in Table 1. IT capabilities is measured with the help of four scale items and all the scale items have factor loadings above 0.8. Internet capabilities is measured through five scale items with factor loadings above 0.5. International proactiveness is measured by using four scale items and all the items have factor loadings above 0.9. Furthermore, international innovativeness is measured by using five scale items and CFA shows that all the items have factor loadings above 0.5. Entrepreneurship promotion is measured through four scale items; however, one item was deleted due to the low factor loadings. All the items have factor loadings above 0.8. One item was deleted while measuring international trade. Total two items were used to measure international trade with factor loadings above 0.9. Finally, international relations are measured through five items with factor loadings above 0.9.

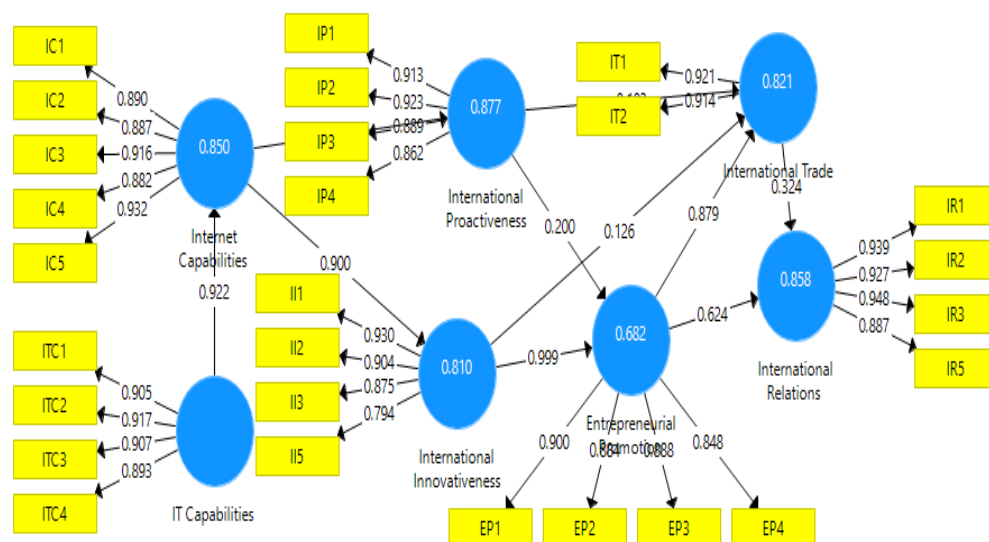


Figure 3. Measurement Model (Malaysia)

After the assessment of factor loadings, composite reliability (CR) was assessed while CFA. For the CR, 0.7 minimum threshold level was considered (J.F. Hair et al., 2021; Hair Jr et al., 2017). CR is given in Table 2 for both Malaysia and Jordan. It is evident that; CR is above 0.7 for IT capabilities, internet capabilities, international proactiveness, international innovativeness, entrepreneurship promotion, international trade, and international relations. Furthermore, convergent validity is examined by using average variance extracted (AVE). AVE must be above 0.5 to achieve the minimum level of convergent validity.

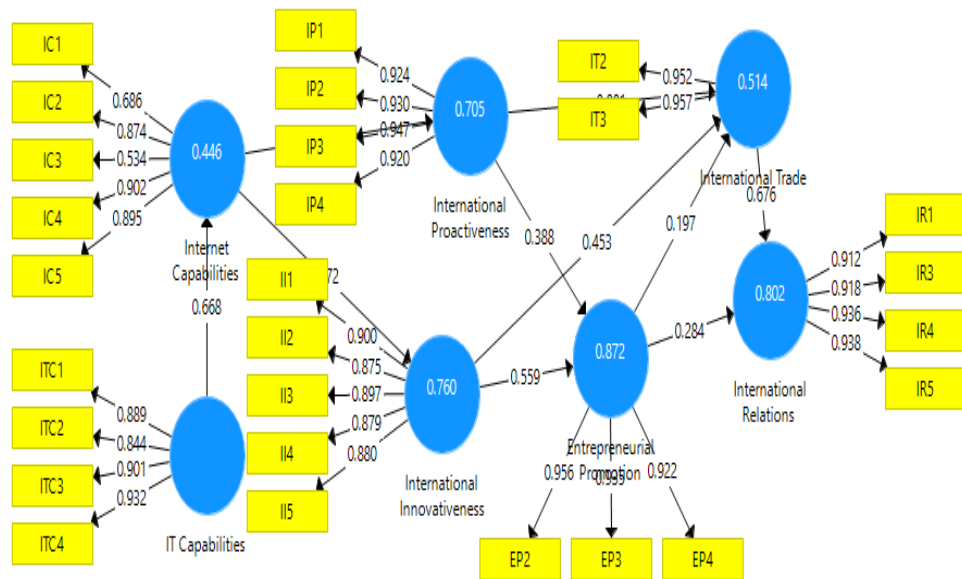


Figure 4. Measurement Model (Jordan)

Table 1. Factor Loadings***Malaysia***

	Entrepreneurial Promotion	IT Capabilities	International Innovativeness	International Proactiveness	International Relations	International Trade	Internet Capabilities
EP1	0.9						
EP2	0.884						
EP3	0.888						
EP4	0.848						
IC1		0.89					
IC2		0.887					
IC3		0.916					
IC4		0.882					
IC5		0.932					
II1			0.93				
II2			0.904				
II3			0.875				
II5			0.794				
IP1				0.913			
IP2				0.923			
IP3				0.889			
IP4				0.862			
IR1					0.939		
IR2					0.927		
IR3					0.948		
IR5					0.887		
IT1						0.921	
IT2						0.914	
ITC1							0.905
ITC2							0.917
ITC3							0.907
ITC4							0.893

Jordan

	Entrepreneurial Promotion	IT Capabilities	International Innovativeness	International Proactiveness	International Relations	International Trade	Internet Capabilities
EP2	0.956						
EP3	0.935						
EP4	0.922						
IC1		0.686					
IC2		0.874					
IC3		0.534					
IC4		0.902					
IC5		0.895					
II1			0.9				
II2			0.875				
II3			0.897				
II4			0.879				
II5			0.88				
IP1				0.924			
IP2				0.93			
IP3				0.947			
IP4				0.92			
IR1					0.912		
IR3					0.918		
IR4					0.936		
IR5					0.938		
IT2						0.952	
IT3						0.957	
ITC1							0.889
ITC2							0.844
ITC3							0.901
ITC4							0.932

Table 2. Reliability and Convergent Validity
Malaysia

	Cronbach's Alpha	rho_A	Composite Reliability	AVE
Entrepreneurial Promotion	0.903	0.905	0.932	0.775
IT Capabilities	0.927	0.928	0.948	0.82
International Innovativeness	0.899	0.899	0.93	0.77
International Proactiveness	0.919	0.921	0.943	0.805
International Relations	0.944	0.947	0.96	0.857
International Trade	0.812	0.813	0.914	0.842
Internet Capabilities	0.942	0.944	0.956	0.813

Jordan

	Cronbach's Alpha	rho_A	Composite Reliability	AVE
Entrepreneurial Promotion	0.931	0.932	0.956	0.879
IT Capabilities	0.914	0.922	0.94	0.796
International Innovativeness	0.932	0.932	0.948	0.785
International Proactiveness	0.948	0.949	0.963	0.866
International Relations	0.945	0.945	0.96	0.858
International Trade	0.902	0.903	0.953	0.911
Internet Capabilities	0.844	0.88	0.89	0.627

Discriminant validity is also important to achieve (Henseler et al., 2015) before hypotheses testing. There are various methods to achieve discriminant validity. For instance, cross-loadings, AVE square root and HTMT_{0.85} ratio. The current study used latest method to examine discriminant validity. HTMT_{0.85} is important and latest approach to confirm discriminant validity. It is given in Table 3.

In the next step of data analysis, the relationship between IT capabilities, internet capabilities, international proactiveness, international innovativeness, entrepreneurship promotion, international trade and international relations was examined. In this process, PLS bootstrapping was used to assess the PLS structural model (F. Hair Jr et al., 2014; Joseph F Hair et al., 2013; Henseler et al., 2009). Total 15 hypotheses were proposed to achieve the study objective. T-value 1.96 was considered a minimum threshold level to accept the hypotheses. Figure 5 shows the structural model for Malaysia and Figure 6 shows the structural model for Jordan.

Table 3. HTMT_{0.85}**Malaysia**

	Entrepreneurial Promotion	IT Capabilities	International Innovativeness	International Proactiveness	International Relations	International Trade	Internet Capabilities
Entrepreneurial Promotion							
IT Capabilities	0.758						
International Innovativeness	0.807	0.776					
International Proactiveness	0.757	0.843	0.783				
International Relations	0.789	0.743	0.789	0.819			
International Trade	0.551	0.73	0.684	0.784	0.711		
Internet Capabilities	0.755	0.785	0.579	0.605	0.786	0.741	

Jordan

	Entrepreneurial Promotion	IT Capabilities	International Innovativeness	International Proactiveness	International Relations	International Trade	Internet Capabilities
Entrepreneurial Promotion							
IT Capabilities	0.734						
International Innovativeness	0.691	0.738					
International Proactiveness	0.572	0.726	0.602				
International Relations	0.799	0.739	0.789	0.778			
International Trade	0.751	0.73	0.776	0.744	0.843		
Internet Capabilities	0.698	0.724	0.658	0.616	0.703	0.679	

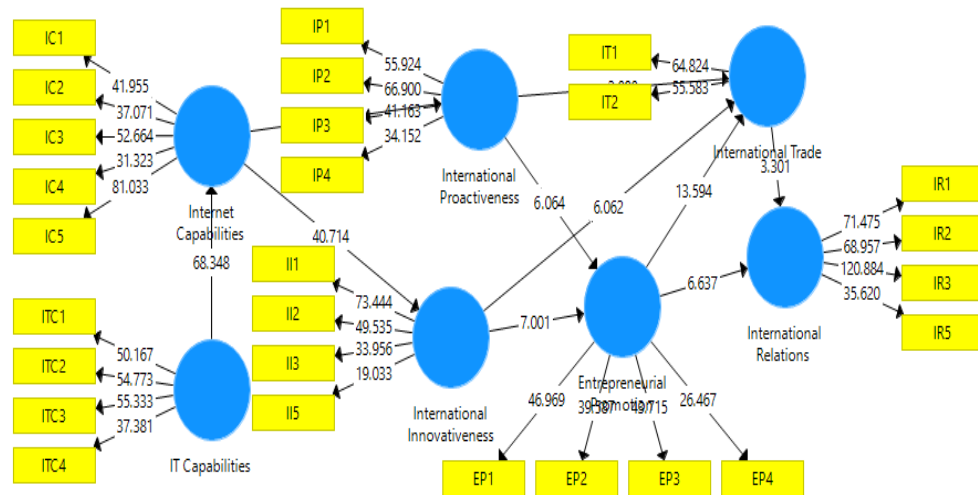


Figure 5. Structural Model (Malaysia)

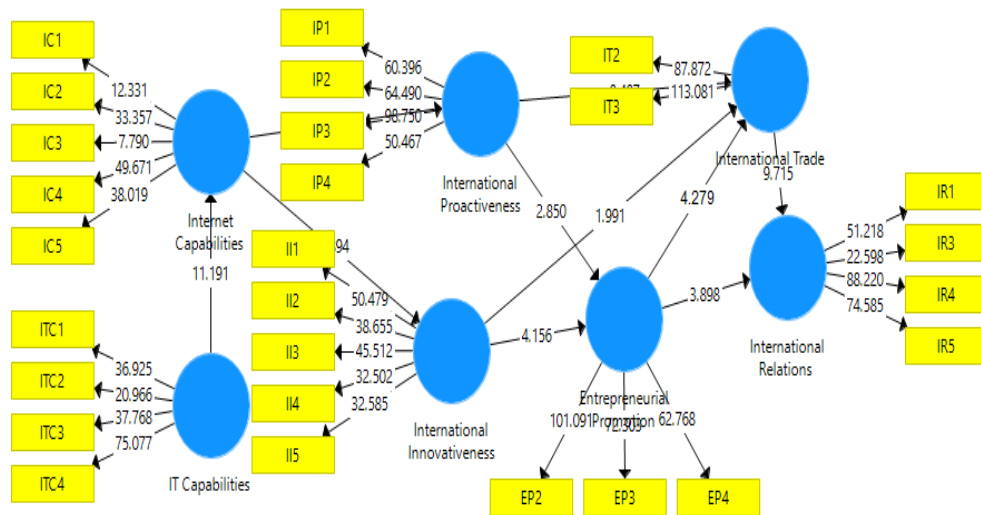


Figure 6. Structural Model (Jordan)

Direct effect results are given in Table 4. It shows that IT capabilities has significant relationship with internet capabilities. Internet capabilities also has significant relationship with international proactiveness's and international innovativeness both for Malaysia and Jordan. Furthermore, in case of Malaysia, it has significant relationship with the entrepreneurship promotion and international trade for Malaysia. For Jordan, international proactiveness's and international innovativeness has relationship with entrepreneurship promotion. However, international proactiveness's has no relationship with international trade. On the other hand, international innovativeness has relationship with international trade for Jordan. Finally, entrepreneurship promotion and international trade both has significant relationship with international relations. Thus, all the 10 direct hypotheses are supported in case of Malaysia. However, one hypothesis is not supported in case of Jordan.

Table 4. Direct Effect Results
Malaysia

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Entrepreneurial Promotion -> International Relations	0.624	0.627	0.094	6.637	0
Entrepreneurial Promotion -> International Trade	0.879	0.872	0.065	13.594	0
IT Capabilities -> Internet Capabilities	0.922	0.921	0.013	68.348	0
International Innovativeness -> Entrepreneurial Promotion	0.999	1.005	0.143	7.001	0
International Innovativeness -> International Trade	0.126	0.111	0.126	6.062	0
International Proactiveness -> Entrepreneurial Promotion	0.2	0.206	0.2	6.064	0
International Proactiveness -> International Trade	0.183	0.174	0.088	2.09	0.037
International Trade -> International Relations	0.324	0.321	0.098	3.301	0.001
Internet Capabilities -> International Innovativeness	0.9	0.899	0.022	40.714	0
Internet Capabilities -> International Proactiveness	0.937	0.935	0.012	77.63	0

Jordan

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Entrepreneurial Promotion -> International Relations	0.284	0.286	0.073	3.898	0
Entrepreneurial Promotion -> International Trade	0.197	0.185	0.197	4.279	0
IT Capabilities -> Internet Capabilities	0.668	0.664	0.06	11.191	0
International Innovativeness -> Entrepreneurial Promotion	0.559	0.551	0.134	4.156	0
International Innovativeness -> International Trade	0.453	0.476	0.228	1.991	0.047
International Proactiveness -> Entrepreneurial Promotion	0.388	0.396	0.136	2.85	0.005
International Proactiveness -> International Trade	0.081	0.061	0.198	0.407	0.684
International Trade -> International Relations	0.676	0.673	0.07	9.715	0
Internet Capabilities -> International Innovativeness	0.872	0.873	0.027	32.894	0
Internet Capabilities -> International Proactiveness	0.84	0.842	0.033	25.263	0

Table 5. Indirect Effect Results
Malaysia

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Internet Capabilities -> International Innovativeness -> Entrepreneurial Promotion	0.899	0.904	0.134	6.699	0
Internet Capabilities -> International Proactiveness -> Entrepreneurial Promotion	0.187	0.193	0.176	1.059	0.29
International Innovativeness -> Entrepreneurial Promotion -> International Trade	0.623	0.632	0.142	4.376	0
International Proactiveness -> Entrepreneurial Promotion -> International Trade	0.125	0.131	0.125	0.998	0.319
Entrepreneurial Promotion -> International Trade -> International Relations	0.285	0.278	0.083	3.417	0.001

Jordan

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Internet Capabilities -> International Innovativeness -> Entrepreneurial Promotion	0.487	0.481	0.118	4.128	0
Internet Capabilities -> International Proactiveness -> Entrepreneurial Promotion	0.326	0.334	0.117	2.793	0.005
International Innovativeness -> Entrepreneurial Promotion -> International Trade	0.159	0.156	0.051	3.111	0.002
International Proactiveness -> Entrepreneurial Promotion -> International Trade	0.11	0.115	0.054	2.026	0.043
Entrepreneurial Promotion -> International Trade -> International Relations	0.133	0.126	0.105	1.272	0.204

Table 5 demonstrates the mediation effect or indirect effect. The indirect effect of international proactiveness's, international innovativeness, entrepreneurship promotion and international trade was considered. Total five indirect hypotheses are proposed in the current study. Indirect effect of international innovativeness between internet capabilities and entrepreneurship promotion is significant in both cases of Malaysia and Jordan. Indirect effect of international proactiveness is not significant for Malaysia, however, it is significant for Jordan. The indirect effect of entrepreneurship promotion is significant in both cases of Jordan. However, not significant between international proactiveness and international relations in case of Malaysia. Finally, the r-square value for international relations is 0.858 for Malaysia and 0.802 for Jordan. In both cases, r-square value is strong (Chin, 1998).

Discussion and Conclusion

The objective of this study was to examine the role of information technology (IT), entrepreneurship and international trade in international relations. Therefore, the relationship between IT capabilities, internet capabilities, international proactiveness, international innovations, entrepreneurship promotion, international trade and international relations was examined. Data were collected from Malaysia and Jordan to carry out a comparative analysis between both countries. Finally, statistical software was used for data analysis. Results of the study fulfilled the objectives of the study.

Total 10 direct hypotheses are proposed both for Malaysia and Jordan. It is evident that IT capabilities has positive effect on internet capabilities both for Malaysia and Jordan. Among the business organizations, internet capabilities have major importance which can be promoted with the help of IT capabilities. It is also given in the literature that IT capabilities and internet capabilities have relationship with each other's (Lyytinen et al., 2003). Internet capabilities also has positive effect on international innovativeness and international proactiveness. It shows that increase in internet capabilities can increase the international innovativeness and international proactiveness. As innovation and entrepreneurship has important relationship with each other's (Cunningham et al., 2019; Azam et al. 2021). The direct effect of international innovativeness and international proactiveness is examined on entrepreneurship promotion. In both cases of Malaysia and Jordan, international innovativeness and international proactiveness has positive effect on entrepreneurship promotion. These results are consistent with previous studies, as previous also highlighted a positive relationship between entrepreneurship and innovation (Kraus et

al., 2018). Furthermore, international innovativeness has positive effect on international trade in both cases. Therefore, international trade can be increased by increasing the international innovativeness. International proactiveness has positive effect on international trade in case of Malaysia. However, in case of Jordan, international proactiveness has no effect on international trade. Thus, increase or decrease in international proactiveness has no effect on international trade. Furthermore, increase in entrepreneurship promotion increases the international trade and international relations. Thus, promotion of entrepreneurial activities can enhance international trade along with international relations both for Malaysia and Jordan.

Moreover, the indirect effect of international proactiveness is considered between internet capabilities and entrepreneurship promotion. This indirect effect is significant for Jordan; however, it is not significant for Malaysia. The indirect effect of international innovations is also considered between internet capabilities and entrepreneurship promotion. This indirect effect is significant for both countries. Furthermore, the indirect effect of entrepreneurship promotion is considered between international proactiveness and international trade. This not significant for Malaysia, however, significant in case of Jordan. The indirect effect of entrepreneurship promotion is considered between international innovation and international trade which is significant for Malaysia and Jordan. Finally, the indirect effect of international trade was examined between entrepreneurship promotion and international relations. This is significant for Malaysia, however, insignificant for Jordan. Thus, the results of the study highlighted that IT capabilities and internet capabilities has key importance to promote international proactiveness and international innovativeness for Malaysia and Jordan. Both the international proactiveness and international innovativeness has the potential to enhance entrepreneurship activities which lead to the international trade and international relations.

Implications of the Study

The current study has several theoretical implications. As the current study examined the relationship between IT capabilities, internet capabilities, international proactiveness, international innovations, entrepreneurship promotion, international trade, and international relations. This relationship is not explored by the previous studies. Especially, the integration between IT capabilities, entrepreneurship, international trade, and international relations are not considered together in a signal research study. Therefore, this study has key implications for the literature. Additionally, this study introduced three variables, namely, international innovativeness, international proactiveness and international trade as mediating variables. The indirect effect of these variables is considered first time in the literature. Furthermore, this study has valuable practical implications. Practically, this study is helpful for the government and non-

government firms to enhance international trade which will lead to the international relations.

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APPENDIX

Table 1. Data Statistics
Malaysia

	No.	Missing	Mean	Median	Min	Max	Standard Deviation	Excess Kurtosis	Skewness
ITC1	1	0	4.984	5	1	7	1.875	-0.543	-0.718
ITC2	2	0	5.359	6	1	7	1.762	-0.446	-0.841
ITC3	3	0	5.26	6	1	7	1.85	-0.039	-0.999
ITC4	4	0	5.047	6	1	7	1.821	-0.621	-0.691
IC1	5	0	5.062	6	1	7	1.897	-0.573	-0.727
IC2	6	0	4.99	5	1	7	1.729	-0.652	-0.593
IC3	7	0	4.76	5	1	7	1.962	-1.042	-0.437
IC4	8	0	4.885	5	1	7	1.802	-0.575	-0.672
IC5	9	0	4.766	5	1	7	1.826	-0.844	-0.347
IP1	10	0	4.984	5	1	7	1.886	-0.796	-0.555
IP2	11	0	4.75	5	1	7	1.834	-0.901	-0.356
IP3	12	0	5.177	6	1	7	1.826	-0.211	-0.912
IP4	13	0	5.151	6	1	7	1.809	-0.651	-0.685
II1	14	0	4.938	5	1	7	1.822	-0.547	-0.688
II2	15	0	4.943	6	1	7	1.798	-0.464	-0.722
II3	16	0	4.88	5	1	7	1.774	-0.511	-0.675
II4	17	0	3.87	4	1	7	1.882	-1.12	0.261
II5	18	0	5.339	6	1	7	1.691	0.272	-0.973
EP1	19	0	5.302	6	1	7	1.718	-0.187	-0.838
EP2	20	0	5.276	6	1	7	1.774	-0.016	-0.926
EP3	21	0	5.292	6	1	7	1.723	-0.422	-0.811
EP4	22	0	5.292	6	1	7	1.75	0.113	-0.971
IT1	23	0	5.25	6	1	7	1.72	-0.143	-0.839
IT2	24	0	5.078	6	1	7	1.817	-0.46	-0.758
IT3	25	0	4.01	4	1	7	1.86	-1.07	0.132
IR1	26	0	4.969	5	1	7	1.825	-0.677	-0.466
IR2	27	0	5.193	6	1	7	1.776	-0.536	-0.699
IR3	28	0	4.875	5	1	7	1.749	-0.793	-0.402
IR4	29	0	4.078	4	1	7	1.805	-1.114	0.075
IR5	30	0	5.109	5	1	7	1.684	-0.242	-0.681

Jordan

	No.	Missing	Mean	Median	Min	Max	Standard Deviation	Excess Kurtosis	Skewness
ITC1	1	0	5.068	5	1	7	1.705	-0.779	-0.494
ITC2	2	0	5.089	6	1	7	1.779	-0.514	-0.661

ITC3	3	0	5.078	5	1	7	1.765	-0.473	-0.624
ITC4	4	0	5.245	6	1	7	1.716	-0.372	-0.722
IC1	5	0	4.953	6	1	7	1.902	-0.82	-0.619
IC2	6	0	4.943	6	1	7	1.934	-0.525	-0.771
IC3	7	0	3.979	4	1	7	1.939	-1.25	0.22
IC4	8	0	5.099	6	1	7	1.875	-0.393	-0.809
IC5	9	0	5.13	6	1	7	1.817	-0.586	-0.673
IP1	10	0	4.995	6	1	7	1.978	-0.713	-0.701
IP2	11	0	5.026	5	1	7	1.894	-0.77	-0.608
IP3	12	0	4.844	5	1	7	1.983	-0.88	-0.508
IP4	13	0	4.948	5	1	7	1.92	-0.931	-0.513
II1	14	0	4.906	5	1	7	1.969	-0.841	-0.57
II2	15	0	4.776	5	1	7	1.813	-0.922	-0.428
II3	16	0	4.797	5	1	7	1.927	-0.771	-0.562
II4	17	0	4.922	5	1	7	1.82	-0.744	-0.547
II5	18	0	5.005	6	1	7	1.855	-0.614	-0.713
EP1	19	0	4.125	4	1	7	1.978	-1.312	0.065
EP2	20	0	4.844	5	1	7	1.957	-0.876	-0.472
EP3	21	0	5.057	5	1	7	1.877	-0.929	-0.565
EP4	22	0	4.729	5	1	7	1.876	-0.825	-0.451
IT1	23	0	3.776	4	1	7	1.957	-1.113	0.204
IT2	24	0	4.974	5	1	7	1.85	-0.719	-0.634
IT3	25	0	4.875	5	1	7	1.993	-0.905	-0.55
IR1	26	0	4.87	5	1	7	1.923	-0.854	-0.549
IR2	27	0	2.75	2	1	7	1.614	-0.158	0.727
IR3	28	0	4.797	4	1	11	1.986	-0.707	-0.166
IR4	29	0	4.833	5	1	7	1.998	-0.958	-0.502
IR5	30	0	4.792	5	1	7	1.822	-0.809	-0.4