

Determinant of Innovation and its Impact on Foreign Direct Investment: Context of Europe

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ABSTRACT

Foreign direct Investment (FDI) is the main drivers for economy and innovation and technology are involving a strong resemblance to economic activities. The five components of innovation is taken in this research is from the world innovation index 2017. After this the literature try to explain this component. We applied the multi regression analysis on each predefined innovation component. This research tested the twenty innovation's independent determinant. The dependent variable taken in this research is FDI. Area of this research is EU32.

Keywords: Foreign direct investment, Innovation.

INTRODUCTION:

Innovation has interlinkage explanations it can be something new ideas, method, process and device. Each discipline's innovation definition is overlapped. (Kahn, 2018) tried to combining several specializations approach to define the innovation. First definition dictate Innovation as an outcome and the second definition present innovation as process. (McAdam, 2000) suggested number and the range of different current definition of innovation create more than one interpretation and confusion to defined the exact meaning of innovation. In innovations, we look for original contributions that attempt to find answer new questions or make available true understanding and relative importance of recent advances in innovation. A new idea or even a new question can be just as valuable in this regard as a new device (Neff & Moss, 2011). (Korobeynikov, O.P., Triflova, A.A., Korshunov, 2000) explained innovation is a new retrofittable, technology or upgradable product, created using novelty and introduced into production, management or being marketable and other activities. Kantorovich assumes that innovations are scientific discoveries (inventions) with the practical use that correspond to the social, economic, political demands and bring results in certain activities (Kantarovich, 1986). Shifting production abroad for sake of bigger market tax rebate and cheap labor FDI typically generates technology due to spillovers through demonstration effects.

According to world Innovation Index, there are five pillars which enables the innovation activity Institution, infrastructure, business sophistication, human capital and research, market sophistication enables national economy to innovative activity. There are two outer pillars knowledge and technology output and creative output. This research took the five pillars of Innovation first Institution Effectiveness (IE), Knowledge Intensive (KI), Human resource science and technology (HRST), Creative output (CO) and Internet communication and technology infrastructure (ICTI) institution effectiveness (IE)

Past literature explores that there is the linkage between FDI, innovation, creativity, knowledge and ICT literature didn't provide the information which determinant contribute to FDI and innovation. This research trying to examine which Innovation determinant has an influence on FDI. Foreign

direct Investment is the main factor for economy. Innovation and technology are involving a strong resemblance to economic activities. The effect of Foreign Direct Investment (FDI) is unblurred for technology transfer and innovation activities important from the perspective of the long-term and able to be upheld growth of rising economies (Wancio, 2015). FDI has been recognized as a capacity to develop in the future channel for technology transfer both in theory and in empirical research (Teece D.J, 1977). Domestic institutions constructively effect on innovation, but FDI shown insignificant effects (Yi Qu and Yingqi Wei, 2017). FDI contributing to economic growth directly and Indirectly (Almfraji & Almsafir, 2014). The FDI and Innovation linkage with FDI is well established question in the theory of international economics .

Innovative activities determined by a knowledge economy era, and global activity greatly jolted to local economies since the late 1980s. Product, process, strategic, managerial and marketing innovations are complimentary for knowledge intensive (KI) business (Landry Réjean, 2009) . In research, KI dwells the innovation impact and diffusion's output. KI factor consists number of Enterprises in high-tech sectors, employment in KI activities, scientific and technical journal article published. (Collins & Smith, 2006) examined the theory how HRST practices affect the social climate of an organization that facilitates combination of resultant firm performance and knowledge exchange. HRST dwells four predictors job-to-job mobility of human resource science and technology by age, total R&D personnel by sectors of performance and employed HRST enterprise R&D personnel in high-tech sectors. The creation and acquisition of knowledge are highly determined by R&D activities which encourage innovation, especially in the area of science and technology.

Highly skilled human resource (HR) essential for development and flow of knowledge and play crucial role between technological progress and economic growth, environmental well-being and social development (Eurostat). Creative output (CO) is describe by four predictors patent applications to the EPO enterprises and using CRM to analyses information percentage of enterprises co-patenting at the EPO according to applicants, European union trade mark registrations and registered Community designs. (Amabile, 200AD) analyzed 120 innovators working in R & D and identified the factor that promoted the personal creativity and personal character of one group related to creativity. Creativity and innovation relate to the process of constituting and applying new knowledge (Gurteen, 1998). (Nigel Bassett-Jones, 2005) argues that diversity is a recognizable source of innovation and creativity that can make adequate preparation for a basis for competitiveness and put in a favorable or superior position.

Creativity and innovation contributions to understanding of leadership as a process (Rickards & Moger, 2006). Many authors linkage the innovation and creativity together. Information and communication technology infrastructure (ICTI) focus on three predictors rate at which ICTI occurs over a particular period of computer user, ICT goods percent of total import and ICT education by labor status. (Añón Higón & Driffield, 2011) studied the impact of ICT on innovation activities focused on the role that information and communication technologies (ICT) play in the innovation performance of UK small and medium-sized enterprises (SMEs). From the past literature five pillars are successfully defined the Innovation.

Research analyses the EU 32 region and selected on the literature basis twenty variables country level data. For the analysis, we used stepwise multi-regression method

LITERATURE REVIEW:

Past researchers had been discovered that internal and external factors would influence innovation capability, which in turn of great significance way to worthy to take attention relating to innovation performance (Romijn & Albaladejo, 2002). This study tried to investigated there is any relationship between technological activities of foreign investors in innovation advancement. Literature shows that the FDI cause the economic growth. Some literature put forward for consideration that positive consequences of FDI on innovation while the another hand some city evidence in support of an idea that no linkage between FDI and innovation. (Erdal & Göçer, 2015) studied the effect of the FDI on innovation contribute positive to R&D and innovation condition that enable host countries to produce value-added products and help to make rise in the national income via export from high-tech products. FDI inflows reckoned after the liberalization efforts and introduced in the era of 1980s. Intellectual property system had risen FDI flow to Turkey. International trade is no longer given

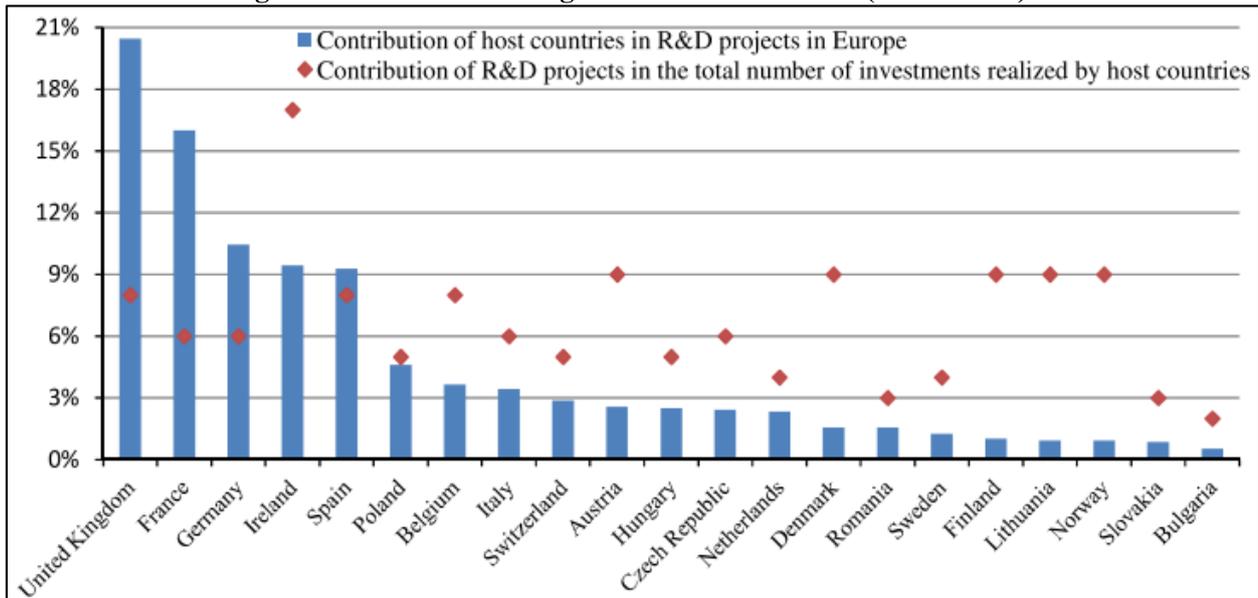
assistance to carried out by the state, but MNCs yield new high technology which compose and draw up them more accomplishing desired and aim in the global market (Dixit & Stiglitz, 1977). National innovation system moderate FDI spillover effect on firm performance in early analysis on OECD developed countries put forward for consideration that there is established facts for significant spillovers and increased export performance from the existence of inward FDI. FDI-induced R&D spillovers, and therefore governments institution will find it worthwhile to attract FDI, technological followers have much to gain while those in the technologically advanced economies need to weigh the costs and benefits of FDI carefully. (M. Osano & W. Koine, 2016) in analysis found new technology in the country to local investors through sharing of knowledge in new innovation led to increased competition in trading which follow as the consequence in efficiency and successful to produce a desired result for the industry.

Global production network likely influences the domestic firms to positive advantage from linkages and spillovers in the form of remodeling and taking everything in account value chain (Pavlínek & Žížalová, 2016). There is having positive effects of FDI on the number of patents in China. More than ninety percent of these MNE's labs do not apply for patents to keep away disclosure of the technology, eighty percent of the foreign firms do not have any plan to cooperate traitorously with indigenous labs or firms or universities. Most of the foreign R&D labs in China are not subject to wholly foreign-owned for better protection of intellectual property rights. Creativity happens mainly at the beginning stages of innovation the processes with innovation and with the effect of execution and later creativity put hindered. Whereas come to realize the threat, uncertainty or other high levels of continuing in a prolonged and peremptory requested aid the implementation of innovation. The diversification of knowledge and skills is a dominant predictor of innovation (Stollberger, West, & Sacramento, 2017).

Innovation output scaled by the number of patents granted to domestic applicants per ten thousand population, qualified scientists, availability of Labour force ,skills engineers and staff directly involved in R&D activities, are another widely recognized critical factor that contributes to firm innovation performance (Hoffman, Parejo, Bessant, & Perren, 1998). FDI can contribute significantly to the overall regional innovation capacity .The R&D expenditures, scientific research, and skilled technical personnel are known to be the most significant determinants of innovation (Hsu, Judy & Tiao, Yu-En, 2015). (Cheung and Lin, 2003) discovered empirical and drawn the information about positive spillover effects of FDI on domestic patent applications in China. This study examined the marked influence of R&D by foreign MNCs on total productivity and patent application in Chinese domestic industry. They found spillover effects which mostly grew from foreign MNCs' R&D activities that promote patent application and total productive factor. (Chen, 2007) correlation between FDI and regional innovation capacity (RIC) is insignificant statistically is influenced by FDI on RIC is inappreciable. The regions which favors of increased FDI have not the higher RIC. Only just when the volume of FDI resembles the stock of human capital and technological capabilities to each other and the RIC can be developed and enhanced. Second, the results of the statistical model indicate that investment in R&D activities is the most important factor to enhance the innovation capabilities. FDI has positive spillover effects to some extent but has no significant effect to increase creative inventions and indigenous innovation capabilities. Third, FDI has no direct significant effect on the level of entrepreneurship. The more of FDI will not inevitably bring the higher innovation spirits and entrepreneurial level. (Mariko Sakakibara and Lee Branstetter, 2001) found validate that FDI stimulate the development of technology spillovers through subsidiaries bringing technology from their countries of origin and through MNCs to make easier learning of foreign technologies.

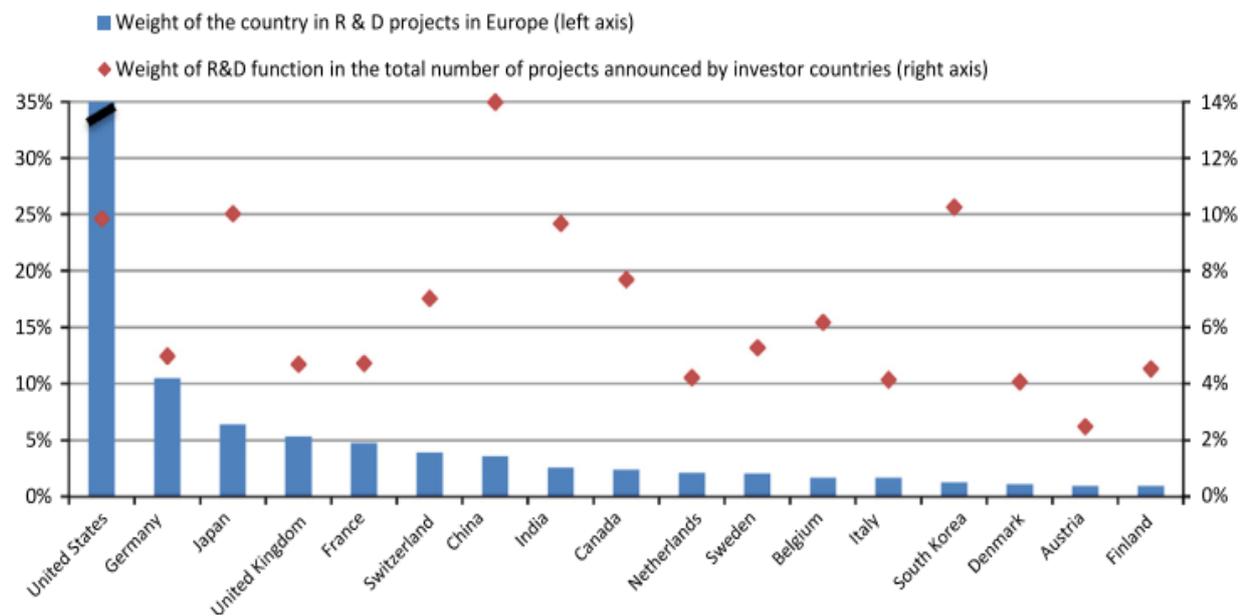
EU region from the fig-1 the FDI in R & D was more concentrated to the UK, France, Germany, Ireland and Spain, Foreign firm flow the investment R&D in European region. Concluded innovation activity possess the globalization process. In the research they analyzed 1281 foreign investment decisions from production and innovation activity all over the Europe. Due to agglomeration effect European countries tries to attract the foreign investment. Skill labor in R&D has the high influence on investment decision. Result explained to attract the high skilled Labour company change the policy. frequently. From Fig-2 after the United States in European region Germany has most share of R&D project in Europe.

Figure 1: Location of foreign investment in R & D (2007-20012)



Source: European observatory IFA 2013

Fig. 2: Origin of foreign investment projects in the R&D function (2007–2012)



Source: Europe observatory IFA,2013

FDI have a significant level of effect on innovation only countries with a high level of economic development and circumstance that puts one in a favorable in terms of innovation increase the level of FDI (Loukil, 2016). The results highlight that advantages of foreign direct investments are not automatic. (Sergio Albertini, 2016) pointed out that organizational belief would affect the innovation activities. The limits of the successful technology transfer from MNC also exist on the side of the host country. (Nonaka & Takeuchi, 1995) innovation capability is one of the key factors that have power and influence over a business’s future competitive advantages in a favorable condition that bring up competitiveness. Innovation is not a luck by chance event of technology it involves process of developing or being developed phenomena. It is a series of actions interaction for something new output. (Papaioannou & Dimelis, 2007) FDI has unchanging positive significant innovation effect. In his research he took the forty-three countries over the period 1993-2001 and used panel data and the arellano bond formula. The study emphasized across the developing and developed countries were reciprocal influence of FDI. (Albulescu & Tămășilă, 2014) recognized that FDI is having power and influence over others channel for R&D spreading more widely in OECD countries with its great significance of being

higher than that of trade. He roughly calculated the innovation effects from ICT. (Sanjeev Dewan Kenneth L. Kraemer, 2000) in his research they said mainly developed countries have detected an advantage from the use of ICT and benefitted in the innovation. Effect from ICT is therefore not diminishing the doubt or disagreement to accordance with many other studies in the literature that have unsuccessfully explained the productivity absurd and contradicted the statement and concluded that the developed countries take delighted substantial gains and successfully bring to increase their output by the use of ICT. (Fu, Pietrobelli, & Soete, 2011) investigates the impact of FDI on the development of regional innovation capabilities using a panel dataset from China. Research suggested R&D spending is only one of the important inputs of innovation in many cases. Huge R&D spending has been input into innovation activities but does not generate sufficient innovation output as we have expected.

(Loukil, 2016) FDI on innovation in developing countries has a positive effect in research in research he considered panel threshold model on a sample of fifty-four developing countries for the 1980-2009 period. In result he found the visible presence of nonlinear change and consequence of accord of FDI and innovation. His research Findings show that foreign investment gives the necessary time to arousing interest to innovation only in countries with a high level of technological development. The effect of FDI on innovation and capability displaying absorptive capacity. Number of theoretical contributions give special importance to the beneficial effect of foreign investment on innovation and, ultimately, economic growth (Berger & Revilla Diez, 2006). Majority of the research provide the literature between innovation and economic growth. This research trying to examine which innovation determinant has significant impact on FDI.

RESEARCH METHODOLOGY:

Research Area:

The research tries to investigate the effect of Innovation determinants on FDI using Stepwise multiple regression in European 32 countries namely; Countries that are taken for samples Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.

Data Collection:

Innovation pillars	Number of Determinant	Samples on each IV
Institution Effectiveness (IE)	4 IV	128
Knowledge intensive (KI)	3 IV	128
Human resource in science and technology (HRST)	4 IV	128
Creative output (CO)	6 IV	128
ICT Infrastructure (ICTI)	3 IV	128
FDI	DP	128

Perform analysis each determinant has sufficient samples. Data was collected from the open source database World Bank, UNCTAD, World Innovation Index, OECD, and Eurostat. Data was collected for the thirty-two European countries. Innovation parameter were decided according to World Innovation Index 2017 there are five pillars for innovation. Institute Effectiveness (IE), Knowledge Intensive (KI), Human resource in science and technology (HRST), Creative output (CO), ICT Infrastructure. The data for Innovation is taken from Eurostat's science and technology section, digital society and innovation section. Since the data had some missing observation to solve this problem and enhance the efficiency of research. This research selects the research duration 2008 to 2011 four-year data. Which has less number of missing observation. The data has less than 1.2% missing data. Overcome this limitation research used MI technique to handle the missing data. Michael G. Kenward, 2015 referred multiple regression analysis and examined in large numbers missing data on that research 46 % of values were missing. He concluded that multiple imputation improves the efficiency of incomplete and missing data and has negligible effect of interest. Concluded that missing data has adverse effect in few cases Imputation method can be considered to increase the efficiency. So missing observation didn't effect our research efficiency and output.

Model Specification:

Variable Selection:

Determining the precise Innovation variables are highly important. So, we used the already defined variable in World Innovation Index (WII) 2017. First we use the five WII pillars and under these five pillars. Twenty variables is selected based on past literature and WII index. This variable is explained and defined in this research introduction part on the basis of past literature. These innovative variable influences the region having ability to create or design new things and process. The area with higher advanced and valuable creation and capacities has higher technical work force. Creativity devote to significantly to the comprehensive regional innovation and city is the part of innovation which can be belonging to the properties of the product and process. Human resource in organization eagerly applied in innovation and change the business environment and thrive the result to increase the individual level of Innovation behavior. Institutional elements deem important in innovation system (Audretsch & Feldman, 1996). (Baptista & Swann, 1998) performed the empirical research and tried to investigate the mixture of economic activities within a fixed region and has an impressive impact on innovative output through such externalities or knowledge spillovers, but the results have been contrasting and inconsistent so far. Remarkably the institutional budget on R&D has positive influence on innovation. Innovations in the ICT sector and beyond were made possible by broadband networks. It is therefore no wonder that the European Commission (European Commission, 2017) put innovation incentives towards the top of its regulatory agenda for telecommunications.

From table-1 analyses the data we used the stepwise multiple regression analyses on version SPSS 25.00. First divided the data in to five category and apply the stepwise regression one by one on five category IE, KI, HRST, CO and ICT. Where the dependent variable (DV) is net FDI inflow and Independent variable (IV) from table-1 IE, KI, HRST, CO and ICT has 4,3,4,6 and 3 res. variable per category, each variable has 128 samples.

Table 1

Institution Effectiveness (IE)	Government Budget Appropriations on Research and Development million euro	GBAORD
	Total public expenditure on education million euro	TPEE
	R&D expenditure by sectors of performance and type of R&D activity million euro	GERD
	Business expenditure on R&D UNIT Euro per inhabitant	BERD
Knowledge intensive (KI)	Number of Enterprises in high-tech sectors	NEHT
	Employment in knowledge-intensive activities thousand	EPKI
	Scientific and technical journal article publish	SCIJP
Human resource in science and technology (HRST)	Job-to-job mobility of Human resource science and technology by age by age by 25 to 60 years	HRSTV
	Total R&D personnel by sectors of performance	RDHRST
	Employed HRST UNIT thousand	EPHRST
	Business enterprise R&D personnel in high-tech sectors	BRDHTS
Creative output (CO)	Patent applications to the EPO	PTEPO
	Enterprises using CRM to analyses information percentage of enterprises	ICTCRM
	Co-patenting at the EPO according to applicants	COEPO
	European Union trade mark registrations	EUTM
	Registered Community designs	RCD
	Feature film produced	NFP
ICT	ICT Frequency of computer user percentage	ICTUF

Infrastructure (ICTI)	ICT goods percent of total import	ICTGI
	ICT education by labor status UNIT thousand	ICTE
FDI inflow	In flow of Foreign direct investment million dollar	FDI

The basic model;

$$FDI = \beta_0 + \beta_1 X_i + \beta_2 X_j + \dots + \beta_n X_n + \epsilon$$

H0: $\beta_1 = \beta_2 = 0$ (no overall relationship between X and Y)

H1: β_1 and/or $\beta_2 \neq 0$ (there is a relationship between X and Y)

FDI =different Country's FDI value on given year

Where different parameter for innovation are Institute Effectiveness (IE), Knowledge Intensive (KI), Human resource in science and technology (HRST), Creative output (CO) and Capacity in information and communication technology (ICT) Infrastructure

FINDING AND DISCUSSION:

Model Summary:

Table 2

Model Summary ^f					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
IE	.597 ^a	.357	.351	16539.46518	1.889
KI	.640 ^c	.410	.399	15863.80176	2.031
HRST	.676 ^d	.456	.452	15135.16274	2.043
CO	.664 ^e	.441	.431	15220.77009	1.967
ICTI	.653 ^f	.426	.416	15848.21165	1.848

a. Predictors: (Constant), TPE. b. Predictors: (Constant), SCIJP, EPKI.
 c. Predictors: (Constant), HRST. d. Predictors: (Constant), NFP, ICTCRM.
 e. Predictors: (Constant), ICT_E, ICT_U. f. Dependent Variable: FDI_FLOW

Table-2 shows the multiple linear regression model summary and overall fit statistics. We find that the adjusted R² of our model is 0.351, 0.399, 0.452, 0.431 and 0.416 with the R² = 0.357, 0.410, 0.456, 0.441 and 0.426 for IE,KI,HRST,CO and ICTI respectably . Remarkably our linear regression model explains 35.7%, 41%, 45.6%, 44.1% and 42.6% of the variance in the data. The Durbin-Watson d = 1.889,2.031,2.043,1.967 and 1.848, which is between the two critical values of 1.5 < d < 2.5. Accordingly, we can conclude that there is no first order linear auto-correlation in our multiple linear regression data. All the f-test was significant with less than 0.000 value for all five modals. So we considered that the all model IE, KI, HRST, CO and ICTI explains a significant amount of the variance for FDI.

Table 3: Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
IE	(Constant)	4348.588	1850.697		2.350	.020					
	TPEE	.392	.048	.597	8.121	.000	.597	.597	.597	1.000	1.000
KI	(Constant)	3498.204	1847.341		1.894	.061					
	SCIJP	1.334	.426	1.676	3.129	.002	.624	.282	.226	.018	54.936
	EPKI	-6.053	3.053	-1.062	-1.983	.050	.599	-.183	-.143	.018	54.936

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
	B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
HRST (Constant)	3308.553	1714.497		1.930	.056					
HRSTV	104.296	10.614	.676	9.826	.000	.676	.676	.676	1.000	1.000
CO (Constant)	-4157.424	4039.209		-1.029	.306					
NFP	163.142	18.021	.635	9.053	.000	.649	.645	.631	.989	1.011
ICTCRM	465.649	232.891	.140	1.999	.048	.207	.183	.139	.989	1.011
ICT (Constant)	-9312.509	5154.366		-1.807	.073					
ICTE	114.006	12.823	.625	8.891	.000	.627	.637		.625	1.000
ICTUF	235.505	90.490	.183	2.603	.010	.188	.235		.183	1.000

a. **Dependent Variable:** FDI_FLOW

General Modal;

$$Y_i = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \epsilon$$

From Table 1 and 3

$$FDI_x = 4348.588 + 0.392(TPEE) + \epsilon \dots\dots\dots (IE)$$

$$FDI_x = 3498.204 + 1.344(SCIJP) - 6.053(EPKI) + \epsilon \dots\dots\dots (KI),$$

$$FDI_x = 3308.553 + 104.296(HRSTV) + \epsilon \dots\dots\dots (HRST)$$

$$FDI_x = -4157.424 + 163.42(NFP) + 465.649(ICTCRM) + \epsilon \dots\dots\dots (CO)$$

$$FDI_x = -9312.509 + 114.006(ICTE) + 235.505(ICTUF) + \epsilon \dots\dots\dots (ICT)$$

FDI_x = FDI value for different countries from time period 2008 to 2011

From Table-3 and Equation IE, KI, HRST, CO and ICTI we can interpret: for every 1-unit increase in TPEE we will see 0.392 increase in FDI respectably for other variable also with table-3.

Table 4

Model	Variable	Impact
IE	1.TPEE	+
KI	1.SCIJP	+
	2.EPKI	-
HRST	1.HRSTV	+
CO	1.NFP	+
	2.ICTCRM	+
ICT	1.ICTE	+
	2.ICTUF	+

Table-4 show employment in knowledge intensive activity has negative Impact on FDI. Every one unit increase in EPKI -6.053 unit decrease in FDI. Employment in knowledge intensive activity adversely affect the FDI. This due to the employer in knowledge intensive sector move from developing nation to the developed nation when the foreign investment come to host country. (Yoo & Reimann, 2017) Investigated the impact of host country knowledge-based assets (such as human and technology) and host country IPR safeguard on FDI flows from developing to developed countries. He found that FDI flows from developing countries are higher to developed countries that have a high stock of knowledge-based assets and relatively weak IPR protection regulation, with a particularly strong effect if the two factors coincide. (Dunning, 1993) find that the opportunity of knowledge-based assets in developed countries is a driver. Studies have tried to find evidence that the composition FDI flow from developing countries lends big support.

CONCLUSION:

This study we investigated the effect of innovation determinant on FDI in EU 32 countries. Further we light on how these determinant impact on FDI. We found that innovation determinant TPEE, NFP, HRSTV, SCIJP, ICTCRM, ICTI and ICTUF is positively related with FDI while EPKI is negatively related to FDI.

Furthermore, our finding show that for knowledge intensive sector we tested three variables from table-1 Government Budget Appropriations on research and development, total public expenditure on education, R&D expenditure by sectors of performance and type of R&D activity Business expenditure on R&D UNIT Euro per inhabitant. We find that expenditure on education has positive impact on FDI. Therefore, more educated society directly cause the increment in FDI.

Second, Finding suggest that scientific publication output has positive impact on foreign investment. While the other variable employment in knowledge intensive activity has adverse effect on FDI. (Yoo & Reimann, 2017) found that FDI flows from developing countries are greater in developed countries that have a more stock of knowledge-based assets. So, this is due to because of foreign investor insource the employer to host country.

Third our finding shows that human resources mobility has positive impact on FDI. (Erdal & Göçer, 2015) shows that FDI contribution on economic growth has been determined by a significant clear relation between human capital and developed countries that have a high labour force.

Fourth finding, creativity is very hard and has limitation to measure all determinant we uses in this research six variables patent applications to the EPO, Enterprises using CRM to analyses information, co-patenting at the EPO, European union trade mark registrations and registered community designs. We found that increase in number of feature film increase the FDI. Reason behind this every feature film project directly increase the foreign tourism. It brings the lot of foreign investment. Another variable uses of CRM platform increase the FDI. Increase in CRM increase in work manageability. (Yunis, Tarhini, & Kassar, 2018) found decision makers to sufficiently fathom how the ICT embrace by the company can integrated into the various processes and applications in the company. (Yazdan & Hossein, 2013) present that growth impact of ICT is positive and significant on productivity.

Fifth the frequency of computer user is defined as how frequently samples use the computers and another determinant knowledge and awareness of ICT education between labour attract newly fresh foreign investors. Industries need the computer educated workforce. ICTUF and ICTE has positive Impact on FDI. (Almfraji & Almsafir, 2014) found ICT adoption in Norwegian teenage homes, revealed two major hypotheses: regarding the prerequisite for adopting ICT and the correlations between embrace of ICT characteristics and existence of willingness among potential users.

IMPLICATION:

This research sufficiently explained the relation between the innovation determinant with FDI. Policy makers in EU32 countries can consider this innovative determinant to understand how these determinant impacts the FDI and policy maker can improve on this area to attract FDI.

LIMITATION:

The definition of innovation is not perfectly defined. But in broader way it can be new idea and process. So, to check the all determinant innovation research is hard. So, this research check the few of the innovation determinant. We suggested for the further check of other new innovation determinant.

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