

Informative Global Community Development Index of Intelligent City

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Abstract: - Informative Global Community Development Index (IGC) is an analysis method that looks at the development of the community currently residing in a intelligent city. From the understanding method, the development of intelligent cities based on a deontological ethics, the process of developing an intelligent city has to return maximum interest to the majority of the residing community in terms of hardware and software. The enhancement of IGC has become vital as the mile mark in developing Malaysia into a developed nation by the year 2020. In conjunction to that the method of cumulative index analysis IGC development has been used in this research as the main method in measuring the development of IGC. About 127 middle class families in Subang Jaya Smart City were chosen as research respondents in order to measure the IGC development index in Subang Jaya. All the variables are covered under ability component (humanware), management component and information supervision (infoware), components of ownership and communication and information technology usage (technoware), as well as the usage value of ICT and cyber ethics (valueware). The IGC development Index which was used utilized the Rogers scale which looked at levels of innovation, pre-acceptance, pre-majority, final majority and final scale. The analysis showed that most of the residents in Subang Jaya only achieved IGC development in the pre-acceptance, pre-majority and final majority scale. This meant that there weren't any of the residents in Subang Jaya which achieved the final scale.

Key-Words: - Informative Global Community Development Index and Intelligent City

1 Introduction

From a point of sociologist idea IGC refers to societies that has become the main focus to the development of intelligent cities. There fore the main purpose for urban development or intelligent city development is to develop race and human resources, The relation of this development can be seen based on the connection of Intelligent cities with the changes in Behaviour and Humanistic changes [1]. The sociological understanding emphasizes that IGC development is very much needed in order to sustain the development of an Intelligent City. This meant that the development of Intelligent Cities does not hang completely on the advances made in technology or the sophistication in technology alone but rather how it has affected the society within it. Whether or not the society has grown or develop which would later transform them into Informative Global societies [2]. Who is IGC? IGC refers to the community which has developed creativity and innovation which can be proved

through the development of their own technology. IGC is a society in an Intelligent City that is capable of learning, managing their town, high level of integrity and proactive towards a more holistic development [3]. For that purpose, the development of ICG in Intelligent Cities are more objective and subjective as well as being quantitative and qualitative because it also involves development process, development ethics and a variety of variables.

Intelligent City refers to a city that has all the infrastructure and infostructure of information technology, the latest technology in telecommunications, electronic and mechanical technology. The completion of all infrastructure and infostructures were used in order to unite, promote, acquire and higher circulation of information and quality of living all together. Also to develop a healthy relationship between man and man, man and his surroundings and man and his creator. The development of the Intelligent City is also based on a variety of electronic network topology which

gives priority to service and the well being of people. An electronic network completes everyday usage which are more completes such as socio-economic, socio-culture and everyday life. Other cities which has applied the concept of intelligent city other than Putrajaya and Cyberjaya in Malaysia includes Singapore (Intelligent Islands), San Jose City, Silicon Valley, California, America, Sunderland City in UK, Bangalore Software City in India, Ennis City in Ireland, Calgary in Canada and Seoul in South Korea [4]. Post Intelligent City refers at looking at the development of intelligent city and the effects of its growth on the surrounding community be it physically, economically, surroundings, socially, culturally, value and attitude of people that are materialistic and non materialistic. After ten years the concept of the intelligent city was introduced to Malaysia, it is only fair to assume that the effectiveness of the intelligent city development needs reviewing. Therefore, post intelligent city is to view the effects of developing an intelligent city in terms of physical development, human development, management and administration. This means that Post Intelligent City will look at as a whole the technological advancement, physical, surroundings, economical, social, cultural and development of ICG [5].

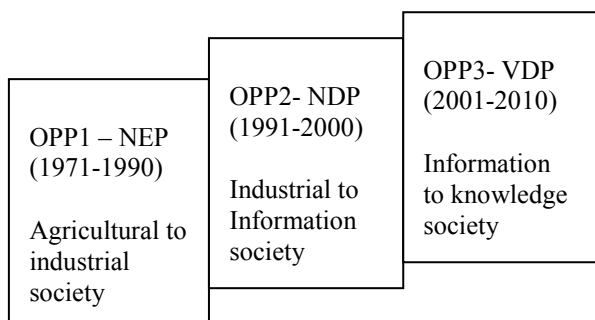
2 Index and Deontological Ethics of Intelligent City Development and ICG

Generally, the development of intelligent city and ICG before this were viewed from a utilitarian ethic [6]. Utilitarian ethics of development of intelligent city and ICG meant that it gave the most benefits to the majority of the society overall. These clusters of utilitarian ethics has a tendency to lean towards usage science that gives focus towards the final product of development. This particular ethic is very teleological which looks at the moral and ethics based on how far is the end product, aspirations, targets, purpose, final purpose and final decision development. Ethics of teleological egoism for example looks at morale determination based on the individuals happiness and prioritizes the rationale of loving ones self. While the teleological utilitarian ethics of John Stuart Mill (1806-1873) looks at moral and ethics which can be determined through how far and action allows for maximum benefits and allows for happiness for the majority of the human race. In this research the ethics of urban development using utilitarian ethics specifically the intelligent city and ICG is contrary to a teleological

view and rather adopts a more deontological point of view. Deontological ethics for the development of intelligent cities and ICG is based on Kantianism which was founded by Immanuel Kant (1724-1804) which states that development should be based on responsibility, morality, commitment, self esteem and pureness of self. Kantianism looks at development as not only as a final product or final target but rather looks at the whole process bad or good as well as the ends of means. This ethics was summarized in the ethics of hyper cyber ethics as been explained in the components and variable of the coming index [7].

The deontological Kantianism ethics believes that every action and efforts towards the development of the intelligent city and ICG has to within moral limits and abide to a specific sets of rules. Morales and rules in the development is understood to be universal meaning that it emphasizes truthfulness and fairness. This means that the development of intelligent cities and ICG including its effects has to have the specific processes which can be concluded through stating what, why, how, when and who. Refer the Diagram 1, the development of intelligent cities and ICG is a long process which involves certain sets of activities involving input, throughput (process), output and outcome. This long process also meant that the emergence and the development of intelligent cities and ICG in Malaysia had to go through development phase which began in Outline Perspective Plan - OPP1 (New Economic Policy), later in OPP2 (National Development Policy) and finally OPP3 (Vision Development Policy). These processes are further clearly by the Malaysian Plans (MP) which began within MP2 to MP9. In that tenure, morally and ethically, the emergence of intelligent cities and ICG was first began through the emergence of agricultural societies, industrial societies, and now ICG. The development process was motivated by globalized moral and ethical achievement (universal) that later adopted to local needs (Glocal). It was meant for the development of economy and race development which was to be provided for all while generating competitiveness globally. The process of developing an intelligent city and ICG will continue to the extent that it will be able to develop and generate its knowledge and local technology. From the ethics and moral point of view also the development of intelligent cities and ICG will continue through a structures process until it reaches its outcome which is ICG fully developed by the year 2020.

Diagram 1: Malaysian Economic Policy and Development Changes



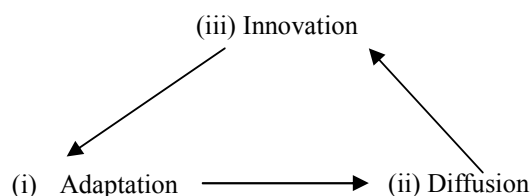
Outcome also refers to how far ICG has been able to move towards a knowledgeable society and a civil society that acquires information and knowledge as well as being able to develop and create new valuable knowledge. In order to view that achievement, this discussion will only look to how far the development of ICG in Intelligent Cities specifically Subang Jaya who is famous for the smart city concept “Business Town, Dream Home”. The method of measurement regarding the development of ICG which is used in the ICG development index method. The development index measurement method is a method which is growing in popularity used in local levels as well as internationally recognized.

3 Changes in IGC Socio-Technology Theory

In correlation with the deontological Kantianism ethic and diagram 1, past researches regarding the development of ICG has gone through a process of socio-technological changes. Which refers to the changes within the scope of humanity ICG derived from intelligent city development. Changes in Socio-Technology that is being highlighted is the changes in aspects of disciplines of knowledge, method to acquiring knowledge, methods for management and administration as well as changes in self-ability and everyday life value. As a matter of fact the socio-technological changes is also supported by outside factors such as how far does the governing body ensure economic stability, political stability, and infrastructural development such as ICT in local, national, federal and global level.

IGC socio-technological change is mostly based on their will, act, behaviour and attitude (behaviourism). IGC is a doer or actor and as human, they have natural positive habit to catch on progress [8]. Having a positive attitude is essential because; first, all IGC acts are spurred by their will to achieve objective and life target that they hope for. Second, every IGC individual needs a high degree of freedom to choose alternative action in accepting progress. Third, cognitive achievement is IGC basic need apart from material achievement. Fourth, IGC life depends on value shared and same noble purpose which is universal and competitive behaviour (Diagram 2).

Diagram 2: ICTs Acceptance Process and IGC Socio-Technological Change



IGC capability to think makes them able to choose self and community progress pattern. The choice of progress pattern that IGC want depends on time, method and participation in development [9]. This means, socio-technological change can happen whether forming instrumentalist IGC identity or participation formed IGC identity. However, socio-technology change depends on each capability. Suppose the IGC capability not only as consumer but also as new technology producer. In this case, it needs motion power of ownership, production and technological innovation. All the motion powers exist from results of IGC planning, control system and leadership effort in the root level. Good education system for example can make IGC progress balanced and also produce human capital that can developed own technology. After developed human capital in OPP3, Malaysian focus developing on social capital such as social networking to produce knowledge value for science and technology.

IGC Socio-technological change is also linked with society social change, value change, economical change and political change [10]. In the actual

words, socio-technological change creates more opportunity for IGC to keep on progressing towards with condition of having adaptation, diffusion and high innovation technology capabilities. From the angle of Kantianism ethics, technological development can only be achieved if human value formation process, moral, effectiveness, practicality, equality, freedom, democracy, nationalism, patriotic, competitiveness and stability of individual appearance in IGC are always assured. If there are none of the above values, it is hard to successfully achieve intelligence city development and IGC.

IGC socio-technological change can even happen because of excellence of structure and society social system function. Involvement of IGC structure and social agency for example can move new ideas to bring the mentioned socio-technological change. Through modern educational system can increase adaptation, diffusion and technological innovation as a result of learning process force, social, communication and creativity. Subsequently, technological diffusion process in IGC is given serious attention to increase the ability to use and produce technology. The result is IGC are able to choose the best technology for their life progress [11]. This means socio-technological change starts from civil level which is ruling party and later grows into social level which is publics. The intended change approach was by top down, bottom-up and collaboration [12].

IGC socio-technological change is close related with religion devotion, philosophy, aesthetics, law, society, history and its education. Normally, the technology itself has divided human live whether 'less modern', 'modern', or 'most modern' depending on how high each technological development level [13]. This means, IGC socio-technological change factor also depends on humanitarian factor and does not necessarily bind with existing system and structure [14]. Studies have shown that in pursuing progress, human just depends 10% to inspirational factor such as mind stimulation, creativity thinking, innovative and knowledgable. Whilst 90% depends on effort factor and attempt by themselves [15]. In this context, this shows that IGC development has different achievement level and hierarchy in accordance to the will and ability.

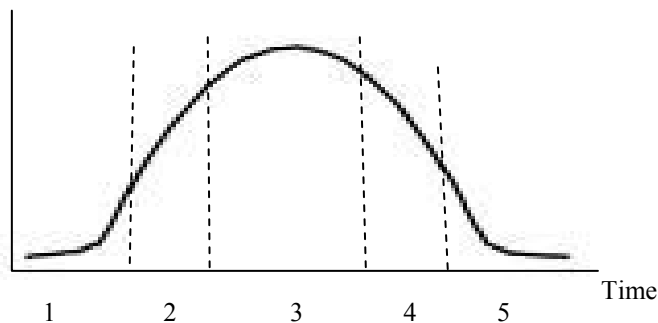
The difference of IGC socio-technological change is also caused by evolutionary process of various way of thinking change namely (cyberurbanism) [16]. IGC *cyberurbarnism* thought evolutionary change in

intelligence city is caused by their imbalanced in achievement of ICT informative skills. The result is there are five levels of *cyberurbarnism* thought change among doers or actors. The first level is ability to understand situation, problems and live needs in IGC era. Second level is those who have skills in data collection from situations and the needs. Level three is those who can work on data to become information. Level four is those who can translate the information to become new and useful knowledge. Whilst the last level is wisdom level namely those who are intelligent in using new knowledge to face various changes in IGC era [17].

IGC socio-technological change will go through three main processes. First, technological acceptance and changes (adaptation). Second, preparation in absorbing ICTs technological culture in live (diffusion) including having *cyberurbanism* thought. Third, interested and able to improve ICTs technology (innovation) for local needs. They are contributors to local technological growth (Diagram 2). Those who achieve progress in innovative level can be recognized as individual who has perfect IGC identity [18]. IGC who achieve innovative ability is considered to be in global thought level and is included in criteria of IGC with high knowledge [19]. Three main factors that influence IGC innovation force are as shown in Diagram 2. First factor is how far the innovation can decrease technological development cost including decreasing existing technological production cost. Second factor is how far the complexity of ICTs technology to be innovated, whether to simplify system or original technology package. Third factor is how far the spirit and society's motivation to innovate ICTs for the sake of contributing to societies growth.

Innovative IGC is an affect of highest socio-technological change in intelligent city. For that reason, the IGC socio-technological change has continuum and its certain growth properties. In addition has five continuum divisions of IGC socio-technological change [20]. Diagram 3 shows normal curve of five continuum phases IGC socio-technological change in intelligent city. The five continuum will refer ability of IGC if they as a accommodation, adaptation, assimilation, diffusion and innovation. Process of development from the input, throughput, output, outcome and impact is the push factor to generate socio-technological change. Subsequently, affect for development with the normal curve position of IGC socio-technological change.

Diagram 3: Continuum Normal Curve Position of IGC Socio-Technological Change



Phase 1 is IGC who achieve innovative level namely perfect progress achievement where the individual and its society achieve wisdom level. They are brave to try ICTs innovation whether proactively or silently. They also dare to take risk and have high quality of self growth value; they possess high level of ability, adaptation capacity and also ICTs diffusion.

Phase 2 is early recipient who is considered as almost closer to IGC. At this phase, individual and its society have ability and capacity from adaptation and diffusion levels approaching ICTs innovative level. They are able to master ICTs knowledge for self and family life needs.

Phase 3 is in early majority level which is approaching IGC. At this phase, the individual and society are still in adaptation ability to diffusion. Innovative ability is not yet seen and they need time to be someone innovative. Technological ability is mostly influenced by factors of environmental and social influence. Also at this phase, doers or actors start to have ICTs diffusion force in their everyday live. However, features as innovator is still weak.

Phase 4 is end majority level namely society is still in early stage to progress as IGC. They can be said as still have lack of confidence with self ability especially in increasing diffusion and ICTs innovative ability. Their ability is still in ICTs adaptation stage.

Phase 5 is late phase and left behind in approaching progress as IGC. They are left behind as IGC which is whether they are still agricultural society, industrial society or mass society (Diagram 1). At this phase, there are individual or society that is still shy, technological blinded, pessimist towards ICTs,

technophobia and left behind from recent ICTs growth.

4 Components, Variables and IGC Development Index

Four main components and 36 variables were identified can measure IGC development index post-intelligence city whether in levels of innovative, early recipient, early majority, end majority and late. The components and variables are as followed:-

4.1 Humanware Component

Humanware component involves measurement of all measurement aspects that are related with capability and human skills whether in term of physical, spiritual, cognitive, creativity and psychology. This component focus on actor's effort and intelligence in referring to creativity, analytical and practical aspects, for example, how far are their skills in computer usage, computer software and computer maintaining experience. All these depends on the doer's effort whether to become a user who adapts ICTs, or diffuse in their everyday activities, or to become one who is innovative and high skilled in ICTs field. The variables are; X1- Ability to use computer, X2- Ability to use software, X3- Ability to create Web page, X4- Computer innovative capability, X5- Computer maintaining and servicing capability, X6- Computer virus detection capability. The capacity to detect computer virus as threat to computer system is the biggest asset for doer in IGC development. Variable X7- Ability to notice cyber criminal, X8- Computer skills and software course attendance, X9- Information Management course attendance [21].

4.2 Technoware Component

Technoware component has variables that are related to ICTs facilities. *Technoware* consists of infrastructure and infostructure variables that are important to intelligence city development and IGC. *Technoware* is very essential because it is basic equipment to IGC development whether in shape of hardware or software. The variables are; X10- Computer quantity per household, X11- Computer capacity per household, X12- Modem capacity per household, X13- Internet facility connection, X14- Alternative internet facility, X15- Telephones quantity per household, X16- Handphones quantity

per household, X17- TV property per household, X18- Radio property per household, X19-Fax machine property per household [22].

4.3 Inforeware Component

Inforeware component is a component that involves all activities of collection, management, processing and info dissemination. All the activities use ICTs infrastructure and info structure facilities such as computer, compact disc, internet and e-mail. It is up to individual intelligence in using them. The variables are; X20-Newspapers purchase per household, X21- Educational reads purchase per household, X22- Magazines purchase per household, X23- Frequency referring to info in Internet, X24- Frequency of communication via e-mail, X25- Frequency observing market and share commodity in ICTs, X26- Quantity channel types of TV satellite, X27- Frequency of communication with international friends and X28- Activeness in dissemination and sharing info [23].

4.4 Valueware Component

Valueware component is value achievement aspect (axiology). Value said here is the value that does not contradict with local value. Although it is universal value but the use of ICTs infrastructure and info structure can be accepted in local level. The variables are; X29- Sensitive and careful with global changes, X30- Having netropolitan thought namely informative need from ICTs, X31- Technopreneur, innovative and creative Behavior, X35- Activeness and readiness in sharing information, X36- Cooperate in reducing cyber and computer crimes [24].

4.5 IGC Development Index Method

Five levels measurement of IGC development socio-technology changes by Rogers above use IGC progress index method. Index analysis is community development measurement method which shows social stratification [25]. Index classification also is the best method to measure individual achievement in IGC socio-technology change progress [26]. The vital of this socio-technology change classification index is it can contribute new knowledge and new approach in seeing strata society socio technology change in individual level. Classification index analysis gives basic knowledge to review contents of latest technology change in individual level. All the actions with hope to give suggestions on how to study a technology impact to individual. It also

gives space to use of other analytical techniques such as diagnostic technique, cost and interest analysis and strength analysis, weakness, opportunity and threat faced by IGC.

Important matter here is classification analysis IGC socio-technology index change not only looks at technology aspect but also at humanitarian aspect [27]. This means impossible for technological progress to ignore ability and humanistic values. Therefore, technological progress must start from human progress in aspects of knowledge, thinking and their civilization mastery [28]. This is professed by index studies which were done by masters like Mackay [29], Cloke & Edwards [30] and Johnston [31].

This study used one of the simplest index techniques which is IGC cumulative index analysis model. The formula was as followed:-

$$\text{IndxMGB} = \frac{\text{Sum } n_1 - n_n}{\text{Sum } N_1 - n}$$

Where:-

Indx IGC = IGC Cumulative Index Value

Sum $n_1 - n_n$ = Cumulative score value for each respondent (Achievement value)

Sum $N_1 - n$ = Total cumulative score value (fixed value)

To determine IGC continuum (IndxMGB) value will determine whether IGC position level is late (left behind), end majority (developing IGC), early majority (towards IGC), early recipient (close to IGC) and innovative (IGC). The determination depends on index score value which is gained by every respondent mainly as followed:-

Below @ equal to 0.20 =	late and left behind
0.21– 0.40	= end majority (developing IGC)
0.41 – 0.60	= early majority (towards IGC)
0.61 – 0.80	= early recipient (close to IGC)
0.81- 1.00	= innovative (IGC)

5 IGC Development Index in Subang Jaya City Council (SJCC)

IGC Development Index position in SJCC is a systematic process result, suitable, just like its connection with Kantianism deontological philosophy and socio-technology theory of change which is discussed. A number of 127 respondents from middle class group are chosen as case study by using Yamani sample method [32]. In term of background aspect, most respondents are from Chinese race which is 51.2%, Malay race 32.3%; Indian race 14.2%, Bumiputera 0.8% and the rest are from other races which is 1.5%. This is because majority residents in SJCC are Chinese. In terms of age, respondents in group 20-30 years (41.7%), age between 41-50 years old (26.7%), age above 51 years old (8.7%). Group of age between 20-30 years old is the highest as most of the middle class in SJCC are newcomers. They have bought houses or renting in SJCC area. In term of gender, majority respondents are male (59.1%) followed by female which is 40.9%.

Regarding education level, majority respondents in SJCC have Degree (37%), followed by Diploma (18.1%) and then SPM (26.0%). That shows the middle class group which are chosen to be respondents in SJCC have high educational background which is Degree and Diploma levels. Qualified SPM respondents is a middle class group that long appeared because of promotion, long service of work and achieve career advancement in highest level. As in job field, majority of the respondents in SJCC works as professional members (32.2%) and management (20.4%) and remainder in other categories such as support (19.0%) and technical (12.6%). Among professional career and management field that are plunged are as engineer, architect, accountant, bankers and own company manager. What is important is majority of

the respondents in SJCC work in private sector (86.6%) and those who work in government sector was amounted 13.4%. Majority SJCC respondents work in private sector because local company and MNCs companies are often found in Subang Jaya, USJ Town and Sunway Town.

On one month household income, majority respondents in MPSJ have one month income between RM1000 - RM2000 (44.9%), second majority between RM2001-RM3,000 (23.6%). If viewed monthly income between RM1000-RM2000 as if considered a low-income group in town. This is because town average monthly income for low-income group at national level was RM1155 [33]. But if compound with total household monthly income between husband, wife and other family members, they are actually in group of middle class because exceeding RM1155 income just now. This is because to get total information on household monthly income is pretty hard because it depends on respondent kindness. In connection with that, this study only records roughly monthly income as permits by respondent. Nevertheless, cumulatively respondents who have more than RM4000 income is fairly high 21.3%. The highest respondent monthly income in SJCC was RM17000. While minimum respondent monthly income was RM1000. Whereas respondents average monthly income was RM3026.50. This means respondent purchasing power in SJCC is still high when this study is made.

Table 1 shows results of IGC index analysis according to Rogers scale. Analysis result has found that no respondent successfully achieve IGC innovative progress. However, respondents successfully achieve IGC progress in early recipient level (2.4%), early majority (63.0%) and end majority (34.6%). Also, no respondent progress decrease to left behind or late group. This means based on Diagram 3, decision shows abnormal loop. This abnormal loop is produced because respondents are chosen only from middle class group. They have nearly identical ability and opportunity and not much difference. Analysis results also shows respondent in SJCC is heading towards and developing as IGC. SJCC have future plan to developed IGC through smart city concept from bottom-up approach by resident needs. For example non governmental organisation such as local community group set up their own training programme to learn ICT for their children.

Table 1: Comparison of IGC Index Position According to Rogers Scale in SJCC

Index Position	Subang Jaya	
	Quantity	Percentage
Innovative	-	-
Early recipient	3	2.4
Early majority	80	63.0
End majority	44	34.6
Left behind	-	-
TOTAL	127	100.0

Based on index position in Table 1, to determine significant IGC variable, 36 variables correlation analysis were made. Method used was multiple correlation analysis where index value as dependent variable and 36 variables as independent variable. As a result, only five variables have significant correlation relationship to determine IGC respondent progress index in SJCC. The five mentioned variables were:-

1. X_1 - Capacity to use computer from *humanware* component (correlation value 0.535). This variable focus how respondent effort and intelligence in referring to creativity, analytical and practical aspects, for example, how far are their skills in computer usage, used internet and used computer software experience.
2. X_{23} - Frequency referring to information in internet from *inforware* component (correlation value 0.512). This variable focus all respondent activities used the information from the internet, computer data based, compact disc, and web mail. It is up to respondent intelligence in used the information and transform to their life activities such as for business purpose and social network. The most important respondent can transform the information from internet for better social impact such as value added their quality of life and social relation.

3. X_{30} - Having *netropolitans* thought which is informative needs of ICTs from *valueware* component (correlation value 0.582). The need of *netropolitans* is universal value but respondent used of ICTs infrastructure and info structure can be accepted in local level. *Netropolitans* means respondent accept of information need from cyber space such as from blogs, face book, online exhibitions, art shows, artwork, digital art, exhibitions, exhibitions online, galleries, galleries online, graphics, mixed media, museum without walls, online galleries, architecture, architects, painters, photographers, photography, prints, public art, sculptors, sculpture, video, video artists, etc. All the informative needs will be benefit to everyday life for instance to design and art activities. Also they are known about global technological trend and move to creative society.
4. X_{32} - Understand knowledge culture and valuable application from *valueware* component (correlation value 0.718). Respondent from SJCC have very active to create knowledge value. They are used the internet to get some current knowledge such as psychology and environment to discuss with his friends. Almost SJCC residential aware of knowledge environmental consideration for instance how to solve the polluting areas, how to get empathy for old generations and disable people.
5. X_{35} - Activeness and readiness to share information from *valueware* component (correlation value 0.539). Many respondents are believe that very important to share information with family, friends, abroad and other group. This is good practice for IGC when they share information for instance security information, neighbourhood activities, local council informative, political issues, social gathering, etc.

This means majority variables from significant *valueware* component determines IGC respondents progress index in SJCC compared to other components. Meanwhile, not even one variable from *technoware* component that is significant. This matter occurs because middle class respondents that are chosen have the same capability and opportunity to have ICTs facility. Hence in the case of capacity to own ICTs facility, it had no clear distinction.

Majority variables from significant *valueware* component have allowed that philosophy of Kantianism ethics and moral has relation with IGC development process post-intelligent city (Figure 1). IGC mission and development objective could be achieved provided have continuously input process, throughput, output and outcome. Similarly in term of Kantianism ethics and moral, IGC's developments must be developed in all sectors namely social, economy, and physical and its culture because it mutually related (hybrid centric).

Further discussion; reasons why the above variable are significant because first, Subang Jaya via SJCC has conducted E-community program which was launched in year 1999 such as Residential Organisation (RO), portal project RO, E-neighbourhood watch and USJ.com. E-neighbourhood watch and USJ.Com are portals developed on residents initiative while RO portal by SJCC. This proves that factors of perseverance and initiative of Subang Jaya civil society are very important in contributing to IGC development progress apart from development by SJCC.

Second, IGC progress in Subang Jaya is caused by diversity of educational background and also respondents job as professional member and management whether in private sector, MNCs and own business. Experience acquired while working somewhat motivate them to catch up progress as IGC. High education standard, 55.1% respondents in Subang Jaya are educated in degree and diploma also influences their awareness of ICTs use and interest. Through neighbourhood activity under residents associations for example, they organize computer programs for kids, elderly citizen and youth group.

Third, respondent's capability to have ICTs facility is high and not much difference. This is because with one month household average income which is more RM3000, their purchasing power to have ICTs is in ablest level. Fourth, just like background info of respondents in Subang Jaya, they are a plural society and exposed to global culture. SJCC area is also populated by international community. In term of human capital and social capital aspects, respondents have chance to mix with international community especially those who work in MNCs. The mingle effect is they are exposed much faster to ICTs progress and global changes. Hence majority of the respondents in Subang Jaya are developing as and heading towards IGC.

6 Conclusion

In conclusion, IGC respondents' progress is developing and heading towards IGC. No respondent reaches innovative progress level and none are left behind or late as IGC. Most factors or significant constant that affects IGC respondents' progress in Subang Jaya is from *valueware* component. The importance from *valueware* component shows that development progress according to Kantianism philosophy is needed for IGC development. This is because from ethic and moral aspects, IGC development has certain processes which involve roles of an individual, group, society, country and also engage many sectors (Diagram 1). However in reality, respondents in Subang Jaya have not yet achieved innovative IGC which contribute to ICTs growth. They are just IGC who successfully adapt, assimilate and diffuse ICTs in life for personal and family growth. Therefore, strategic steps need to be implemented by society and institutions in Subang Jaya to produce innovative IGC for the sake of reaching society growth by year 2020.

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