

Internet Usage among Malaysian Youth and Its Effects on Positive Youth Development

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Abstract

The process of youth development is positively encouraged with the aid of Internet. The present study was an attempt to find the relationship between the purpose of using Internet, attitudes towards Internet, and age with the 5Cs (connection, competence, character, caring, confidence) of Positive Youth Development (PYD). Furthermore, the mediation effect of Internet use gratification was studied throughout the research. Religion and the level of participants' education were also considered as moderators in the PLS model. A quantitative survey method was used to collect data from a total of 440 undergraduate and post-graduate students (142 male and 298 female), from University Putra Malaysia using stratified random sampling. The findings of the study revealed that the relationship between age and all dimensions of positive youth development (except for character) is statistically meaningful. There is no impact between attitudes towards Internet and 5Cs except for character. There is not any significant relationship between the purpose of using Internet and the 5Cs, except for connection. However, the relationship between purpose of using Internet and gratification of using Internet is significant. Significant relationship is also found between gratification of using Internet and all dimensions of PYD except for connection. There is no moderator effect for undergraduate and post-graduate, however, there is moderator effect between Muslim and non-Muslim groups. Implications of the study are also discussed.

Keywords: Purpose of Internet Usage; Attitudes towards Internet Usage; Religion; Educational Level; Age; Positive Youth Development; 5Cs; Gratification of Using

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Introduction

Internet literacy of people in the creation of new tasks and activities might have an effect on online opportunities. According to Geraldine, Salvadorian and Hamid (2009), famous governmental actors in Malaysia have active participation in forming different plans and programs about Internet and youth development. Ministry of Youth and Sports Malaysia, and The Institute of Youth Development Research Malaysia, are examples of such governmental organizations which also coordinate entrepreneurship programs in the country to grow entrepreneurship potentials among youth. Positive youth development proved to be important in various fields such as education and developmental psychology.

Early studies showed that youth is a time of overflow of emotions and stress which are vital elements of maturation [1]. Considering Darwin's views, Hall reflected maturation in the way people transformed from primitive man to civilized one; he also contends

that teenage years are so critical in man's social life. Later Freud (1969) talked about emotional disruptions among young adults and their private life. Erikson (1959) discussed the adolescents' identity crisis in which people seek for a more sensible reflection of self. Theokas & Lerner (2006) believed that there should be permanent continuation in the social organism of adolescence in order to promote the five Cs of PYD.

Developmental feedbacks to the youth by their parents or teachers for instance, should be in the same line in order to build a collaborative group for the youth [2,3]. Successively, people who work in youth-serving programs should be in harmony with parents' values as well.

Therefore, the present study attempts to suggest a more comprehensive perception of using Internet through the mediation effects of Internet use gratification on positive youth development, focusing on the following research questions:

1. What is the mediating effect of Internet use gratifications in

the relationship between purpose of using Internet, attitudes towards Internet, age and selected dimensions of positive youth development?

2. What is the moderating effect of Internet use gratifications in the relationship between educational level, religion and selected dimensions of positive youth development?

Literature Review

Purpose and Attitude of Internet Usage, and Internet use Gratification

According to Binder and Niederle (2006), attitudes are people's points of views on a concrete subject; they are acquired during life and are not fixed. Lau & Yeoh (2008), in another study illustrated that people's attitudes are essential in their life and women proved to be more meticulous in academic Internet research. Female teachers are also more enthusiastic to use and develop Information Communication Technology (ICT).

Abedalaziz, Jamaluddin, and Leng (2013), found that people, regardless of their gender, know the importance of computer and Internet in daily life. They also found that field of study, and ethnicity, do not influence people's attitudes; and postgraduate student's attitudes about computer and Internet usage is age dependent. Furthermore, Othman and Nordin (2005) concluded that undergraduates students in Malaysia, specifically from the Faculty of Computer Science and Information Technology are more likely to use the Internet only for downloading software and games while other students tend to use the Internet for other purposes.

Hong, Ridzuan, and Kuek (2003) also found positive attitudes among university students. Asan & Koca (2006) revealed that university students value using Internet for their academic purposes. In 2018, 81.2% of Malaysian Internet users were older than 15 years old, and the number of people using Internet increased to 97.9%. 96% of online activities pertains to social networks, 83.1% pertains to seeking online information, 81.7% pertains to music, videos and image downloads, 76.5% is related to software and application downloads, and finally 74.8% of online activities includes sending and receiving electronic mails [4].

Malaysian youth used the Internet mostly for sending messages and browsing through social networking sites and applications. Young people normally need to interact with others to establish their identity; Internet is of great help in this regard. Internet use among Malaysian youth has also led to the emergence of cybercrimes in the country [5]. According to Ayub, Hamid, & Nawawi (2014), university students used the Internet mostly for doing their projects and assignments, research and learning activities; they also concluded that computer-majored students used e-mails more often than other students to communicate with their teachers.

Considering Uses and Gratification Theory, Karimi et al. (2014), studied students from different countries and found that their purposes of joining social media networks were dissimilar; however, the basic motivations of using social networking sites

included attending discussions, receiving others' approvals, being a part of a group, expressing feelings and thoughts freely, receiving feedbacks, getting to know new people and helping others. Another study conducted in China and Japan (typical of Far-East culture), investigated the reasons of using social networking sites and confirmed the application of U&G theory [6]. In other words, the U and G theory functions as the core for the society regarding social media usage in different cultural backgrounds.

Age, Religion, Educational Level and Internet use Gratification

Hussin (2017) observed that modern technologies facilitate learning processes and education. Khairuddin et al. (2014) discovered that Malaysian students preferred to read Islamic texts for their spiritual value as well as their knowledge. Teaching English language can also be facilitated through Islamic Website materials. Salman et al. (2013), perceived that to raise Internet use gratification, technological motives and Internet competency need to be developed. However, there are some instances that Internet use gratification is rather low such as online shopping. In addition, Internet offers countless advantages for young users; using Internet is a supportive way to excel at work. In addition, Internet offers countless advantages for young users; using Internet is a supportive way to excel at work. Internet has also facilitated global trading to a great extent [7].

Recently, Internet has become an important part of higher education as most universities are equipped with modern technological devices for teaching and researching [8]. Students have quick access to loads of information as well as being encouraged to critical thinking. Internet is used in different places and for various purposes [9]. According to a study conducted in Hong Kong, Internet users' educational levels has remained constant for nine years, and about half of the users have associate or high school degrees, however, users with higher levels of education showed dramatic increase in using Internet [10].

Positive Youth Development

PYD outlook is established on the notion of "Five Cs" which is: Competence, Confidence, Connection, Character, and Caring (Richard M. Lerner et al., 2005). According to the related theories, those young people whose lifestyle is integrated in these five aspects are located in the path of development which in turn results in the emergence of the "Sixth C" that is Contributions to self, family, and community. When young people accept that they need to contribute to themselves and their society, they will progress in their own and their community positive development [12,13].

Furthermore, Lerner (2004) stated that if youth's lives do not include sufficient amount of Five Cs, they are in a vulnerable position for themselves and their society and are exposed to behavioural troubles and complications. Hamzah (2007) discovered that people lacking sufficient amount of the 5Cs are also exposed to school failure, unemployment, and similar social crises. He suggested external and internal assets for the youth in which external assets (family, friends, school, media and the society) contribute to the development of internal assets (positive

values, and social competencies) [14]. Internal and external assets need to be integrated with the youth developmental needs. External assets have deeper connections with the five categories and the internal assets have essential ties with school related issues Hamzah, (2007). In addition, Hamzah (2007) reported that supportive family connections correlate positively with risk behavior categories (drug abuse, sexually related behavior, breaking the law, school-related and social boundaries). It is noteworthy to realize the important role of a caring society and school in the reduction of social threats for the youth.

Therefore, the present study attempts to find the relationships between following independent variables (age, attitude toward Internet, and the purpose of Internet usage), and positive youth development 5Cs. The mediation effect of Internet use gratification was examined throughout the research. Level of education and religion are also considered as moderator variables. The search framework of the study is shown in Figure 1.

Methodology of the Research

Location and Sampling

Local male and female students of UPM participated in this study, their age between 18 to 40 years old from three major races of Malay, Chinese, and Indian who were doing their Bachelor, Master and PhD at this university. The age of the respondents was between 18 to 40. The reason is that Malaysians define youth as people aged between 15 and 40 [15]. The total number of 13726 undergraduate students and 7444 postgraduate students were considered as the population. The result of Israel Formula was 392; however, we collected more data. We collected the data from 440 students from 16 faculties of University Putra Malaysia (UPM). This study is part of a larger study measuring the impact of Internet usage on negative and positive youth development among university students.

Participants

The design of the study required the data to be collected from local students from three major races of Malay, Chinese, and Indian who were doing their Bachelor, Master and PhD in this university. Questionnaires were distributed among UPM students. A random sample of undergraduate and postgraduate students was asked to participate in taking the short form of the positive youth development survey addressing topics such as purpose of using Internet, attitudes toward Internet and age. Other questions addressed demographic of the respondents such as age, educational level and religion. Descriptive statistics were used to summarize the sample. The inclusion criteria consisted of ages between 18 to 40 based on the definition of the youth in Malaysia. Furthermore, questionnaires were distributed among students whose age was below 40. 79.3% of them were undergraduates 79.3% and 20.7% were postgraduates.

Measurement

We asked undergraduate and postgraduate students to participate in taking the short form of the positive youth development survey addressing such topics as purpose of using Internet, attitude towards Internet and positive youth development dimensions.

Other questions addressed demographic of the respondents such as age, religion and educational level. The study included a set of items for measuring IVs and DVs using 136 items. 'Purpose of using Internet' consisted of 23 items. We measured the purpose of using Internet with five response alternatives which were designed from 1= "Not at all" to 5 = "Very Frequent". The range of the score is from 23 to 115. This construct was operationalized as interval measurements.

The attitude towards Internet was measured by 19 items, with a five-point Likert scale. Respondents were asked for their opinions and attitudes about using the Internet ranging from 1= "Strongly Disagree" to 5= "Strongly Agree" for each statement. The range of score for this dimension is from 19 to 95. If a student gets the higher score this means that he/she has positive attitudes toward Internet. This scale was operationalized as an interval measurement. All the items included positive and negative attitudes towards Internet such as "endless freedom on the Internet", "exchange culture", "fastest way to get knowledge" and some negative statements such as "destroy society", "creates cultural dilemmas", "force people alone", and "creates addiction".

The gratification of using Internet was measured by 23 items, on a five-point Likert scale, respondents were asked for their gratification of using the Internet ranging from 1= "Strongly Disagree" to 5= "Strongly Agree" for each statement. Range of score for this dimension is from 23 to 115. This scale was operationalized as an interval measurement. It was divided into five dimensions namely cognitive (6 items), personal integration (5 items), escape, social integration, and affective with 4 items each.

Positive youth development was measured by 68 items form institute for applied research in Positive Youth Development (PYD) which is developed by Lerner (2010) on a 5 point- Likert scale. This scale was operationalized as an interval measurement. It was divided into five dimensions namely Confidence, Competence, Character, Caring and Connection. Confidence was measured by 9 questions which were divided to two parts; self-worth by 3 questions ranging from 1= "never true" to 5= "always true") and positive identity by 6 questions (ranging from 1= "Strongly disagree" to 5= "Strongly agree"). Competence was measured by 10 questions, and it was divided into four categories, including academic competence (3 questions), grade (1 question), physical competence (3 questions) and social competence (3 questions). Character was measured by 18 questions, which were categorized by personal value (5 questions), social conscience (6 questions), value of diversity (4 questions), and conduct behavior (3 questions). Caring was measured by 9 questions related to sympathy disadvantaged, loneliness, unfortunate, pain and rejection. Connection was measured by 22 questions, which was divided into family (6 questions) university (7 questions), community (5 questions) and peers (4 questions). 32% percent of the respondents were male and 67.7% were female.

Data Analysing

This study used Partial Least Square (PLS) as the most important motivations are exploration and prediction, which is recommended in an early stage of theoretical development in order to test and

validate exploratory models. It is also suitable for prediction-oriented research. Thereby, this methodology is helpful for the explanation of endogenous constructs. In addition, descriptive analysis was employed to determine purpose of using Internet, attitude towards Internet, age and positive youth development and demographic of the respondents (level of education, religion and age) by using frequency, percentage, mean and standard deviation.

Dependent variable is positive youth development (PYD) with five dimensions such as competence (social competence, physical competence, academic competence and grade), confidence (positive identity and self-worth), connection (family, community, school, peer), character (social conscience, conduct behavior, value of diversity and personal value), and caring. PLS analysis was employed for the regression analysis for mediating effects of level of education with positive youth development. PLS analysis was employed for the regression analysis for the mediating effects of gratification of using Internet. For measuring validity and reliability of the instrument a pilot test was conducted among 30 respondents.

Result and Discussion

Attitudes towards Internet

Internet is the fastest way to research knowledge" was a dominant opinion about the use of the Internet ($M=4.47$, $S.D=0.77$), followed by "Internet is a universal library" ($M=4.41$, $S.D=0.81$). The statements, "Internet is a way to provide learning for the people in order to do research", "It is exciting to get information from the Internet" and "Internet provides endless freedom to people" were also three major opinions about the Internet. The item "Internet makes people alone" got the lowest mean ($M=3.01$, $S.D=1.09$); the next low mean was related to the item "Internet destroys societies" ($M=3.05$, $S.D=0.97$).

Therefore, it can be concluded that the respondents had a positive attitude toward the impact that Internet brings to people's lives. They believed that Internet is the fastest way to obtain knowledge and Internet is a way to provide learning for the people in order to do research. Graphics and Center (1998) in a ninth survey that was conducted in America established that the number of people to whom the Internet is indispensable is getting bigger and bigger. Findings that were obtained from the earlier studies were consistent with the results of this research concerning those students who had positive attitudes toward the Internet [15-19].

Purposes of Internet usage

Regarding the purposes of using the Internet by the respondents, "Checking my Facebook" was the highest mean ($M=4.50$, $S.D=0.87$) followed by "Finding information relevant to research" ($M=4.22$, $S.D=0.82$), and "Shopping (e-commerce)" is the lowest mean ($M=2.36$, $S.D=1.20$). This results are consistent with Aldesardottir's (2000) study that showed this trend and also previous studies reported that searching information is the most important purposes among users Giffiths, (2008) and Horrigan (2006), José-Marie and Donald, (2008), Riahinia and Azimi, (2008), Lau and Sim (2008), Chou et al., (2010a).

Gratifications of Using Internet

In the cognitive dimension, "to get information about something" had the highest mean ($M=4.38$, $S.D=0.70$). In the affective dimension, "because it's entertaining" ($M=4.12$, $S.D=0.76$) had the highest mean. The item "I can do things in my own space" ($M=4.09$, $S.D=0.80$) had the highest mean in personal integration dimension in gratification of Internet usage. In escape dimension "To relax and unwind" ($M=4.21$, $S.D=0.74$) had the highest mean. In the social integration dimension, "to keep in touch with people" had the highest mean ($M=4.15$, $S.D=0.73$). Cognitive dimension was the highest dimension among all gratification of Internet usage dimensions ($M=4.18$) and social integration was the lowest ($M=3.79$).

Positive Youth Development

Confidence of positive youth social development is divided into two categories: positive identity and self-worth. Positive identity has the highest mean 21.99 in the confidence dimension. In the positive identity dimension, "when I am an adult, I'm sure I will have a good life" had the highest mean ($M=4.41$, $S.D=0.84$) and "at times, I think that I am no good at all." ($M=2.81$, $S.D=1.20$) had the lowest mean.

In self-worth dimension "some students are pretty pleased with themselves" ($M=3.61$, $S.D=0.83$) had the highest mean and "some students do like the way they are leading their life" ($M=3.54$, $S.D=0.85$) had the lowest mean. In the confidence dimension, positive identity had the highest mean ($M=3.66$) and self-worth had the lowest ($M=3.58$).

In the confidence dimension "when I am an adult, I am sure I will have a good life" had the highest mean which showed that they are optimistic about future. In the self-worth dimension, "students are pretty pleased with themselves" had the highest mean due to this fact that they are immune from some diseases such as depression, anxiety, hopeless. In addition, they are immune from some abnormal behavior such as suicide, inferiority complex that causes many problems in the society. This study was supported by the previous findings of [20,21].

Competence dimension was divided to four dimensions, academic competence, social competence, physical competence and grade. In the academic competence dimension, "Some students can remember things easily" had the highest mean ($M=3.68$, $S.D=0.89$) and "Some students can almost always figure out the answers" ($M=3.54$, $S.D=0.81$) had the lowest mean. In physical competence dimension, "Some students don't feel they can play as well" ($M=2.49$, $S.D=0.87$) had the highest mean and "Some students don't feel that they are very good when it comes to sports" ($M=2.33$, $S.D=0.88$) had the lowest mean. In the social competence dimension, "some students don't have many friends" ($M=2.57$, $S.D=0.94$) had the highest mean and "some students usually do things by themselves" ($M=2.35$, $S.D=0.91$) had the lowest mean.

In the competence dimension, academic competence was the highest mean ($M=3.63$) and physical competence was the lowest ($M=2.40$). In the academic competence dimension "students pay attention to their course" and "it is important for them", had the

highest mean. Because of this reason some students remember things easily. In the physical competence dimension, "Some students don't feel they can play as well" had the highest mean because they had high self-confidence and their motivations are high to start new activities. In the social competence dimension "some students don't have many friends" had the highest mean because perhaps they are shy or had depression so other students should encourage them to communicate more and participate in group activities. With regard to grade achievement, the highest percentage of the grade was related to the "half B and half A", grade 48.8 followed by "mostly B" 18.5 percent. Most of the respondents had good grade which is very good because it helps them increase their self-confidence, find better jobs in future, continue their studies at higher levels or in other countries.

Character dimension had four parts, namely personal value, social conscience, the value of diversity and conduct behavior. In the personal value dimension "accepting responsibility for my actions when I make a mistake or get in trouble" was the highest mean ($M=3.94$, $S.D.=0.77$) and "doing what I believe is right, even if my friends make fun of me" ($M=3.79$, $S.D.=0.86$) was the lowest mean. The findings showed that huge intensity censuses because responsibility is one of the most important behavior for future including job performance, family management, and in general living in society. In social conscience dimension "speaking up for equality (everyone should have the same rights and opportunities)" ($M=3.82$, $S.D.=0.84$) was the highest mean and "giving time and money to make life better for other people" ($M=3.47$, $S.D.=0.84$) was the lowest mean.

The results showed that people tend to have freedom of speech and to participate in decision-making in the society. For this reason, speaking up for equality had the highest mean. In the value of diversity dimension, "respecting the values and beliefs of people who are of a different race or culture than I am" ($M=3.96$, $S.D.=0.78$) had the highest mean and "knowing a lot about people of other races." ($M=3.59$, $S.D.=0.78$) had the lowest mean.

The findings showed that respecting the beliefs of other people with different races had the highest mean because Malaysia is a multicultural country and respecting religious and cultural diversity is important among young people. In the conduct behavior dimension, "Some students usually do not do things that get them in trouble" ($M=3.65$, $S.D.=0.91$) had the highest mean and some students hardly ever do things they know they shouldn't do" ($M=3.49$, $S.D.=0.78$) had the lowest mean. In the character dimension, personal value had the highest mean ($M=3.88$) and conduct behavior had the lowest mean ($M=3.59$).

"Students do not do things that get them in trouble" had the highest mean because students as educated members of society respect people, rules and regulations. The findings of the current study are supported the previous study [20, 21]. In the caring dimension, "when I see another person who was hurt or upset, I feel sorry for them" ($M=4.03$, $S.D.=0.84$) had the highest mean, and "I feel sorry for other people who don't have what I have" ($M=3.56$, $S.D.=0.98$) had the lowest mean. The results showed that feeling sorry for the person who is hurt or upset had the highest mean because the youth care about other people, and their feelings lives were important for them. The findings support

previous studies [21].

Connection was divided into four parts, namely family, community, university and peer connection. In family connection dimension, "my parents give me help and support when I need it" ($M=4.49$, $S.D.=0.66$) had the highest mean and "talk to your parents if you have an important concern about drug, alcohol, sex" ($M=3.02$, $S.D.=1.45$) had the lowest mean.

In the community dimension, "I'm given lots of chances to make my town or city a better place in which to live" ($M=3.71$, $S.D.=0.90$) had the highest mean and "In my town or city, I feel like I matter to people" ($M=3.32$, $S.D.=0.87$) had the lowest mean. 26% of the respondents sometimes talk about drug, alcohol, sex to their parents and 21.5% of the respondents never talk about these issues to their parents.

In the University dimension, "I care about my University that I go" ($M=3.94$, $S.D.=0.82$) had the highest mean and "my lecturers really care about me." ($M=3.45$, $S.D.=0.80$) had the lowest mean. In the peer dimension the highest mean was related to the statement "My friends care about me." ($M=3.89$, $S.D.=1.07$) and lowest mean was related to the statement "I trust my friends" ($M=3.66$, $S.D.=1.05$). Connection dimension had the highest mean, family ($M=4.05$) and community had the lowest mean ($M=3.47$).

In the family dimension, families who give support to their children when they need it had the highest mean because usually families care about and support routine and simple matter of their children's life such as school and relationship problems. However, as regards serious problems such as drug usage, alcohol usage and sexual issues family members tend not to discuss these matters perhaps because of conservative culture or parents' lack of knowledge.

In the community dimension, giving the chance to build better city had the highest mean which shows higher responsibility among the youth to build the society in future and develop their country. The fact that one quarter of the respondents talk to their parents about sex, alcohol and drug usage is alarming. The reason is that if the youth do not share their problems with their parents, they might look for wrong solutions by talking to their friends.

In the University dimension, the youth care about their university as they can choose their university, and their field. This means that they are satisfied with their university. In the peer dimension, "my friends care about me" had the highest mean. It showed that they had good relationship with their friends which in turn prevented some conditions such as depression, anxiety etc. The findings of the current study support previous findings of the investigation on the positive youth social development [22].

Measurement model

The measurement model requires the rules to display how the latent variables are measured in terms of the observed variables, and it describes the measurement properties of the observed variables.

Convergent validity

As a general rule of thumb the (standardized) outer loadings must be 0.708 or higher [23]. Indicators with very low outer

loadings (below 0.40) should always be removed from the scale [24]. Commonly, indicators with outer loadings between 0.40 and 0.70 should be considered for removal from the scale only when omitting the indicator leads to a substantial increase in the composite reliability and AVE [25].

Table 1 shows the outer loadings of all items for all variables in the initial and modified measurement model. They show all outer loadings except the following items: in 5Cs, Confidence indicator SW3, in caring indicator, CAR8,9, connection indicator CONNF6, CONNS7, in gratification of using indicator

GRAT1,3,4,7,12,13,17. In attitudes toward Internet indicator, ATTITUDE 8,9,11,12,13,14,15,16,17,18,19, in purpose indicator PUR1, 8, 10, 12, 13, 14, 16, 21,22,23 were eliminated from initial measurement model due to low loading factor which were less than 0.5, that confirmed their low contribution to related constructs. Regarding to the findings of this study, the Composite Reliability (CR) ranged between 0.742 and 0.936 and AVE ranged between 0.33 and 0.779. In addition, to measure collinearity at the indicator level, the variance inflation factor (VIF) was used. Results indicated that all values were below 5, which means there is no collinearity issue (**Table 1**).

Table 1: The result of Convergent Validity.

Construct	Item	Factor Loading (>0.5)	Cronbach's Alpha (>0.7)	Composite Reliability	Average Variance Extracted (AVE) (>0.5)	Collinearity Statistics (VIF)
Competence	—	—	0.553	0.742	0.536	—
Social competence	—	—	0.62	0.794	0.563	1.281
—	Versocialcon1	0.728	—	—	—	1.152
—	Verssocialcon2	0.78	—	—	—	1.326
—	Verssocialcon3	0.743	—	—	-	—
Academic Competence	—	—	0.764	0.864	0.68	—
—	AC1	0.851	—	—	—	1.633
—	AC2	0.768	—	—	—	1.418
—	AC3	0.853	-	—	—	1.725
Physical Competence	—	—	0.601	0.788	0.555	—
—	VersPHY1	0.784	—	—	—	1.135
—	VersPHYS2	0.766	—	—	—	1.198
—	VersePHYS3	0.681	—	—	—	1.187
Character	—	—	0.893	0.91	0.369	—
Conduct Behavior	—	—	0.771	0.868	0.686	—
—	ConductBehavior1	0.832	—	—	—	1.616
—	ConductBehavior2	0.814	—	—	—	1.511
—	ConductBehavior3	0.839	—	—	—	1.628
Personal Value	—	—	0.868	0.905	0.656	—
—	Personalvalue1	0.786	—	—	—	2.018
—	Personalvalue2	0.839	—	—	—	2.394
—	Personalvalue3	0.838	—	—	-	2.164
—	Personalvalue4	0.796	-	-	-	1.991
—	Personalvalue5	0.788	-	-	-	1.903
Social Conscience	-	-	0.867	0.901	0.603	-
-	SConscience1	0.736	-	-	-	1.281
-	SConscience2	0.776	-	-	-	1.152
-	SConscience3	0.773	-	-	-	1.326
-	SConscience4	0.822	-	-	-	2.383
-	SConscience5	0.839	-	-	-	2.622
-	SConscience6	0.705	-	-	-	1.709
Value of Diversity	-	-	0.703	0.818	0.53	—
-	VofD1	0.64	-	-	-	1.159
-	VofD2	0.75	-	-	-	1.446
-	VofD3	0.729	-	-	-	1.446
-	VofD4	0.785	-	-	-	1.531
Confidence	-	-	0.602	0.742	0.361	-
Positive Identity	-	-	0.727	0.846	0.648	-
-	PI1	0.856	-	-	-	1.629
-	PI2	0.781	-	-	-	1.435
-	PI3	0.775	-	-	-	1.36

Construct	Item	Factor Loading (>0.5)	Cronbach's Alpha (>0.7)	Composite Reliability	Average Variance Extracted	Collinearity Statistics (VIF)
					(AVE) (>0.5)	
Self-Worth	-	-	0.717	0.876	0.779	-
	SW1	0.891	-	-	-	1.454
	SW2	0.875	-	-	-	1.454
	SW3	0.041	-	-	-	1.007
Connections	--	-	0.892	0.908	0.386	-
Peer			0.909	0.936	0.786	
-	CONN1P1	0.858	-	-	-	2.748
-	CONN1P2	0.91	-	-	-	4.408
-	CONN1P3	0.91	-	-	-	4.117
-	CONN1P4	0.868	-	-	-	2.605
School			0.842	0.884	0.56	
-	CONN1S1	0.736	-	-	-	1.744
-	CONN1S2	0.807	-	-	-	1.994
-	CONN1S3	0.74	-	-	-	1.765
-	CONN1S4	0.67	-	-	-	1.574
-	CONN1S5	0.777	-	-	-	2.016
-	CONN1S6	0.753	-	-	-	1.827
Family			0.864	0.902	0.648	
-	CONN1F1	0.721	-	-	-	1.926
-	CONN1F2	0.812	-	-	-	2.254
-	CONN1F3	0.811	-	-	-	1.955
-	CONN1F4	0.862	-	-	-	2.408
-	CONN1F5	0.813	-	-	-	1.939
Community	-	-	0.89	0.921	0.701	-
-	CONN1COMM1	0.686	-	-	-	1.417
-	CONN1COMM2	0.839	-	-	-	2.299
-	CONN1COMM3	0.885	-	-	-	3.049
-	CONN1COMM4	0.89	-	-	-	3.404
-	CONN1COMM5	0.868	-	-	-	2.873
Caring	-	-	0.827	0.87	0.491	
-	CAR1	0.578	-	-	-	1.345
-	CAR2	0.717	-	-	-	1.884
-	CAR3	0.744	--	-	-	1.969
-	CAR4	0.617	-	-	-	1.499
-	CAR5	0.717	-	-	-	1.701
-	CAR6	0.739	--	-	-	1.938
-	CAR7	0.77	-	-	--	2.06
Gratification in Using Internet	-	-	0.914	0.925	0.423	-
-	Grat1	0.633	-	-	-	1.82
-	Grat10	0.625	-	-	-	1.986
-	Grat11	0.622	-	-	-	1.59
-	Grat14	0.525	-	-	-	1.526
-	Grat15	0.651	-	-	-	1.977
--	Grat16	0.718	-	-	-	1.937
-	Grat18	0.689	-	-	-	2.032
-	Grat19	0.665	-	-	-	1.755
-	Grat2	0.591	-	-	-	1.746
-	Grat20	0.584	--	-	-	1.734
-	Grat21	0.754	-	-	-	2.323
-	Grat22	0.71	-	-	-	2.128
-	Grat23	0.726	-	-	-	2.429
-	Grat5	0.662	-	-	-	1.832

Construct	Item	Factor Loading (>0.5)	Cronbach's Alpha (>0.7)	Composite Reliability	Average Variance Extracted	Collinearity Statistics (VIF)
					(AVE) (>0.5)	
-	Grat6	0.689	-	-	-	2.08
-	Grat8	0.572	-	-	-	1.528
-	Grat9	0.597	-	-	-	1.853
Purpose of using Internet	-	-	0.835	0.863	0.33	-
-	Purpose11	0.566	-	-	-	1.327
-	Purpose15	0.546	-	-	-	1.339
-	Purpose17	0.502	-	-	-	1.58
-	Purpose18	0.584	-	-	-	1.707
-	Purpose19	0.486	-	-	-	1.674
-	Purpose2	0.577	-	-	-	1.491
-	Purpose20	0.471	-	-	-	1.477
-	Purpose3	0.589	-	-	-	1.438
-	Purpose4	0.662	-	-	-	1.564
-	Purpose5	0.531	-	-	-	1.281
-	Purpose6	0.72	-	-	-	1.779
-	Purpose7	0.602	-	-	-	1.416
-	Purpose9	0.584	-	-	-	1.383
Attitudes towards Internet	-	-	0.884	0.908	0.553	-
-	Attitudes1	0.726	-	-	-	1.882
-	Attitudes10	0.713	-	-	-	1.621
-	Attitudes2	0.785	-	-	-	2.317
-	Attitudes3	0.726	-	-	-	1.81
-	Attitudes4	0.724	-	-	-	1.882
-	Attitudes5	0.703	-	-	-	1.787
-	Attitudes6	0.785	-	-	-	2.096
-	Attitudes7	0.782	-	-	-	1.99

Discriminant Validity

Discriminant validity demonstrates the extent to which a construct is empirically distinct from another construct. The Heterotrait-Monotrait (HTMT) ratio of correlation is a new criterion for measuring discriminant validity in PLS - SEM models [26]. For Hair et al. (2010) the HTMT value had to be less than 0.85, meaning that two constructs were distinct. In this study all the variables demonstrated that the measurement model used meets and exceeds the requirements for establishing discriminant validities except for attitudes towards Internet, connection, gratification of using Internet and purpose of using Internet (**Table 2**). 1. Age 2. Attitudes towards Internet 3. Caring 4. Character 5. Competence 6. Confidence 7. Connection 8. Gratification of using Internet 9. Purpose of using Internet

Second order model of law oriented

Since perceived value was second order latent variables, in order to evaluate the significant contribution of all first order latent variables were investigated using bootstrap approach. The first stage produces parameter estimations for the components and computes their factor scores. The factor scores for school, family, peer, community (connection), positive identity, self-worth (confidence), physical, academic and social competence and grade (competence), social conscience, conduct behavior, value of diversity and personal value (character) were then used as the scores to compute the higher-order. Hair, Black, Babin, Anderson,

and Tatham (2006) suggest that a higher-order construct should be assessed in a similar manner as in the lower-order construct structure. Therefore, reliability, discriminant and convergent validity were checked again against acceptable threshold values.

Outputs from this stage showed that social conscience, conduct behavior, value of diversity and personal value had significant loading on character ($p < 0.001$). Physical, academic and social competence and grade had significant loading on competence ($p < 0.001$). Positive identity, self-worth had significant loading on confidence ($p < 0.001$). School, family, peer, community had significant loading on connection ($p < 0.001$). The results for character with four subscales were conduct behavior ($\beta = 0.503$, $p < 0.001$) personal value ($\beta = 0.874$, $p < 0.001$) social conscience ($\beta = 0.875$, $p < 0.001$) and value of diversity ($\beta = 0.643$, $p < 0.001$). The results for competence with four subscales were academic competence ($\beta = 0.943$, $p < 0.001$) grade ($\beta = 0.777$, $p < 0.001$) physical competence ($\beta = -0.633$, $p < 0.001$) and social competence ($\beta = -0.38$, $p < 0.001$). The results for confidence with two subscales were positive identity ($\beta = 0.863$, $p < 0.001$) self-worth ($\beta = 0.68$, $p < 0.001$). The results for connection with four subscales were community ($\beta = 0.828$, $p < 0.001$) family ($\beta = 0.721$, $p < 0.001$) peer ($\beta = 0.223$, $p < 0.001$) and school ($\beta = 0.794$, $p < 0.001$) (**Table 3**).

Path model using bootstrap

The path coefficients obtained from this model are consistent. The respective confidence intervals can be obtained by

Table 2: Discriminant validity for all variables.

-	1	2	3	4	5	6	7	8	9
Age	1	-	-	-	-	-	-	-	-
Attitudes towards Internet	0.215	0.744	-	-	-	-	-	-	-
Caring	0.096	0.249	0.701	-	-	-	-	-	-
Character	-0.037	0.281	0.344	0.608	-	-	-	-	-
Competence	0.013	0.169	0.188	0.226	0.732	-	-	-	-
Confidence	0.059	0.233	0.31	0.284	0.369	0.601	-	-	-
Connections	0.111	0.249	0.268	0.26	0.229	0.41	0.621	-	-
Gratification in Using Internet	0.122	0.474	0.402	0.292	0.259	0.442	0.276	0.651	-
Purpose of Using Internet	0.275	0.429	0.265	0.19	0.173	0.271	0.321	0.507	0.575

Table 3: Results of second order model for law-oriented construct.

Character	β	SE	T value	P Values
Character -> Conduct Behavior	0.503	0.059	8.489	<0.001
Character -> Personal Value	0.874	0.016	54.657	<0.001
Character -> Social Conscience	0.875	0.018	49.241	<0.001
Character -> Value of Diversity	0.643	0.043	14.929	<0.001
Competence	-	-	-	--
Competence -> Academic Competence	0.943	0.007	142.839	<0.001
Competence -> Grade	0.777	0.025	31.077	<0.001
Competence -> Physical Competence	-0.633	0.053	11.944	<0.001
Competence -> Social Competence [†]	-0.38	0.055	6.923	<0.001
Confidence	-	-	-	-
Confidence -> Positive Identity	0.863	0.021	41.9	<0.001
Confidence -> Self-Worth	0.68	0.058	11.732	<0.001
Connections	-	-	-	-
Connections -> Community	0.828	0.023	35.57	<0.001
Connections -> Family	0.721	0.036	20.037	<0.001
Connections -> Peer	0.223	0.05	4.461	<0.001
Connections -> School	0.794	0.028	27.883	<0.001

bootstrapping [26]. This step also provides estimates for indirect and total effects. Some inputs have no impact on positive youth development such as the relationship between age and all dimensions of positive youth development except for character ($\beta = -0.114$, $p < 0.05$). There is no impact between attitudes towards Internet and all dimensions of 5Cs except with character ($\beta = 0.198$, $p < 0.05$). There is not any significant relationship between purpose of using Internet and dimensions of PYD except for connection ($\beta = 0.215$, $p < 0.05$). However, the relationship between the purpose of using Internet and gratification of using Internet is positive and significant ($\beta = 0.383$, $p < 0.05$). Significant and positive relationship is found between gratification of using Internet and PYD dimensions except for connection ($\beta = 0.119$, $p > 0.05$) (Table 4).

Effect Size f^2

The change in the R^2 value while a particular independent construct is eliminated from the model can be used to evaluate whether the omitted construct has a basic influence on the dependent construct. This measures indicators the f^2 or effect size. Recommended guideline for assessing effect size is: $f^2 \geq 0.02$, $f^2 \geq 0.15$ and $f^2 \geq 0.35$, respectively representing small, medium and large effect size of exogenous construct (Cohen, 1988). The result of f^2 indicated that effect size of exogenous construct

for gratification of using Internet indicate effect size for caring ($f^2 = 0.092$), character ($f^2 = 0.027$), and competence ($f^2 = 0.047$), for connection ($f^2 = 0.016$), is small, for confidence ($f^2 = 0.137$), is medium. The highest effect size belonged to confidence. For age, the highest effect size belonged to character ($f^2 = 0.013$), and for purpose of using Internet the height effect size belonged to gratification of using Internet ($f^2 = 0.175$) and connection ($f^2 = 0.029$) the highest effect size for attitude towards Internet belonged to character ($f^2 = 0.032$), and gratification of using Internet ($f^2 = 0.175$) (Table 5).

Coefficient of determination (R^2)

In addition, age, attitude towards Internet and the purpose of using Internet were as follows: 16% for caring, 11%, for character 0.08%, for competence 0.09%, 19% for confidence, for connection 12% of the variance of youth positive development. Furthermore, the effect size of Internet use gratification is 0.33% of the variance of youth positive development (Table 6).

Predictive relevance Q^2 of structural model

An important aspect of structural model is its capability to determine the predictive relevance of the model. Blindfolding procedure was employed to establish cross-validated redundancy measurement for each construct. The results revealed that the

Table 4: Results of path model using bootstrap.

Age	β	SE	T value	P Values
Age -> Caring	0.026	0.05	0.52	0.603
Age -> Character	-0.114	0.057	1.988	0.047
Age -> Competence	-0.039	0.05	0.784	0.433
Age -> Confidence	-0.011	0.046	0.24	0.811
Age -> Connections	0.016	0.052	0.313	0.754
Age -> Gratification in Using Internet	-0.054	0.049	1.112	0.266
Attitudes towards Internet				
Attitudes towards Internet -> Caring	0.056	0.062	0.898	0.369
Attitudes towards Internet -> Character	0.198	0.066	3.018	0.003
Attitudes towards Internet -> Competence	0.055	0.051	1.076	0.282
Attitudes towards Internet -> Confidence	0.016	0.081	0.193	0.847
Attitudes towards Internet -> Connections	0.096	0.069	1.387	0.166
Attitudes towards Internet -> Gratification in Using Internet	0.321	0.083	3.867	<0.001
Purpose of Using Internet				
Purpose of Using Internet -> Caring	0.062	0.061	1.01	0.313
Purpose of Using Internet -> Character	0.04	0.069	0.589	0.556
Purpose of Using Internet -> Competence	0.055	0.064	0.859	0.39
Purpose of Using Internet -> Confidence	0.06	0.061	0.974	0.33
Purpose of Using Internet -> Connections	0.215	0.069	3.122	0.002
Purpose of Using Internet -> Gratification in Using Internet	0.383	0.054	7.029	<0.001
Gratification in Using Internet				
Gratification in Using Internet -> Caring	0.341	0.079	4.298	<0.001
Gratification in Using Internet -> Character	0.19	0.073	2.608	0.009
Gratification in Using Internet -> Competence	0.209	0.079	2.662	0.008
Gratification in Using Internet -> Confidence	0.408	0.09	4.53	<0.001
Gratification in Using Internet -> Connections	0.119	0.074	1.62	0.105

Table 5: Results of effect size f2 for endogenous variable.

Exogenous Variable	Endogenous variable					
-	1	2	3	4	5	6
Age	0.001	0.013	0.002	0	0	0.004
Attitudes towards Internet	0.003	0.032	0.002	0	0.009	0.125
Gratification in Using Internet	0.092	0.027	0.047	0.137	0.016	-
Purpose of Using Internet	0.003	0.001	0.003	0.003	0.029	0.175

Table 6: Results of coefficient of determination (R2).

Endogenous Latent Variable	R ²	Adj R ²
Caring	0.17	0.161
Character	0.123	0.113
Competence	0.102	0.092
Confidence	0.201	0.192
Connections	0.134	0.125
Gratification in Using Internet	0.34	0.335

Table 7: Results of predictive relevance (Q2).

Exogenous latent variable	Q ²
Caring	0.073
Character	0.04
Competence	0.032
Confidence	0.064
Connections	0.044
Gratification in Using Internet	0.129

Q2 value of gratification of using Internet (0.129), caring (0.073), character (0.04), competence (0.032), confidence (0.064) and connection (0.044) are larger than zero, recommending that the independent construct have predictive for mediator and dependent construct under the condition in this study (**Table 7**).

Research Question 1. What is the mediating effect of Internet use gratifications in the light of the purpose of using Internet, age, attitudes towards Internet and selected dimensions of positive youth development?

Mediation test of Internet use gratification

There is a mediation effect between gratification of using Internet, attitudes towards Internet, and the purpose of using Internet, with five dimensions of positive youth development. In general, the mediation effect of Internet use gratification in the path model is not significant for age and 5Cs ($p > 0.05$). There is mediation effect between purpose of using Internet, gratification of using Internet, and PYD dimensions of 5Cs except

for connection ($p>0.5$), for competence ($\beta=0.08$, $p<0.05$), for caring ($\beta=0.131$, $p<0.05$), for character ($\beta=0.073$, $p<0.05$), these relationships are positive and significant. The mediation effect of attitudes towards Internet, gratification of using Internet, and five dimensions of 5Cs are positive and significant, for confidence ($\beta=0.131$, $p<0.05$) for competence ($\beta=0.064$, $p<0.05$) for caring ($\beta=0.11$, $p<0.05$) for character ($\beta=0.061$, $p<0.05$) and for connection ($\beta=0.038$, $p<0.05$) (**Table 8, Figure 1**).

Research Question 2: What is the mediating effect of Internet gratifications use as regards educational level, religion and selected dimensions of positive youth development?

Moderator Effects of religion

According to partial least square analysis, there are significant differences between the path coefficient between Muslim and non-Muslim for the entire path coefficient (**Table 9**).

Moderator Effects of level of education

According to partial least square analysis, there is no significant difference between the path coefficient between undergraduates and post-graduates for the entire path coefficient (**Table 10**).

Discussion and Conclusion

The present study was conducted as an attempt to find out the existence of any connections between age, purpose of using the Internet and attitudes towards Internet with gratification of using Internet as an influential factor affecting positive youth development among Malaysian youth based on their educational level and religion.

The first main finding in terms of gratification of using Internet revealed that the highest overall mean belonged to cognitive dimension followed by escape and social integration dimension.

Table 8: Path coefficients results of indirect Effect (Mediation).

Age	β	SE	T value	P Values
Age -> Gratification in Using Internet -> Caring	-0.019	0.017	1.114	0.266
Age -> Gratification in Using Internet -> Character	-0.01	0.011	0.908	0.364
Age -> Gratification in Using Internet -> Confidence	-0.022	0.02	1.129	0.259
Age -> Gratification in Using Internet -> Competence	-0.011	0.011	1.06	0.289
Age -> Gratification in Using Internet -> Connections	-0.006	0.008	0.86	0.39
Purpose of Using Internet				
Purpose of Using Internet -> Gratification in Using Internet -> Competence	0.08	0.033	2.404	0.016
Purpose of Using Internet -> Gratification in Using Internet -> Caring	0.131	0.038	3.404	0.001
Purpose of Using Internet -> Gratification in Using Internet -> Character	0.073	0.028	2.581	0.01
Purpose of Using Internet -> Gratification in Using Internet -> Connections	0.046	0.029	1.563	0.118
Purpose of Using Internet -> Gratification in Using Internet -> Confidence	0.156	0.042	3.73	<0.001
Attitudes towards Internet				
Attitudes towards Internet -> Gratification in Using Internet -> Confidence	0.131	0.042	3.15	0.002
Attitudes towards Internet -> Gratification in Using Internet -> Competence	0.067	0.03	2.271	0.023
Attitudes towards Internet -> Gratification in Using Internet -> Caring	0.11	0.034	3.192	0.001
Attitudes towards Internet -> Gratification in Using Internet -> Character	0.061	0.035	1.765	0.078
Attitudes towards Internet -> Gratification in Using Internet -> Connections	0.038	0.027	1.432	0.152

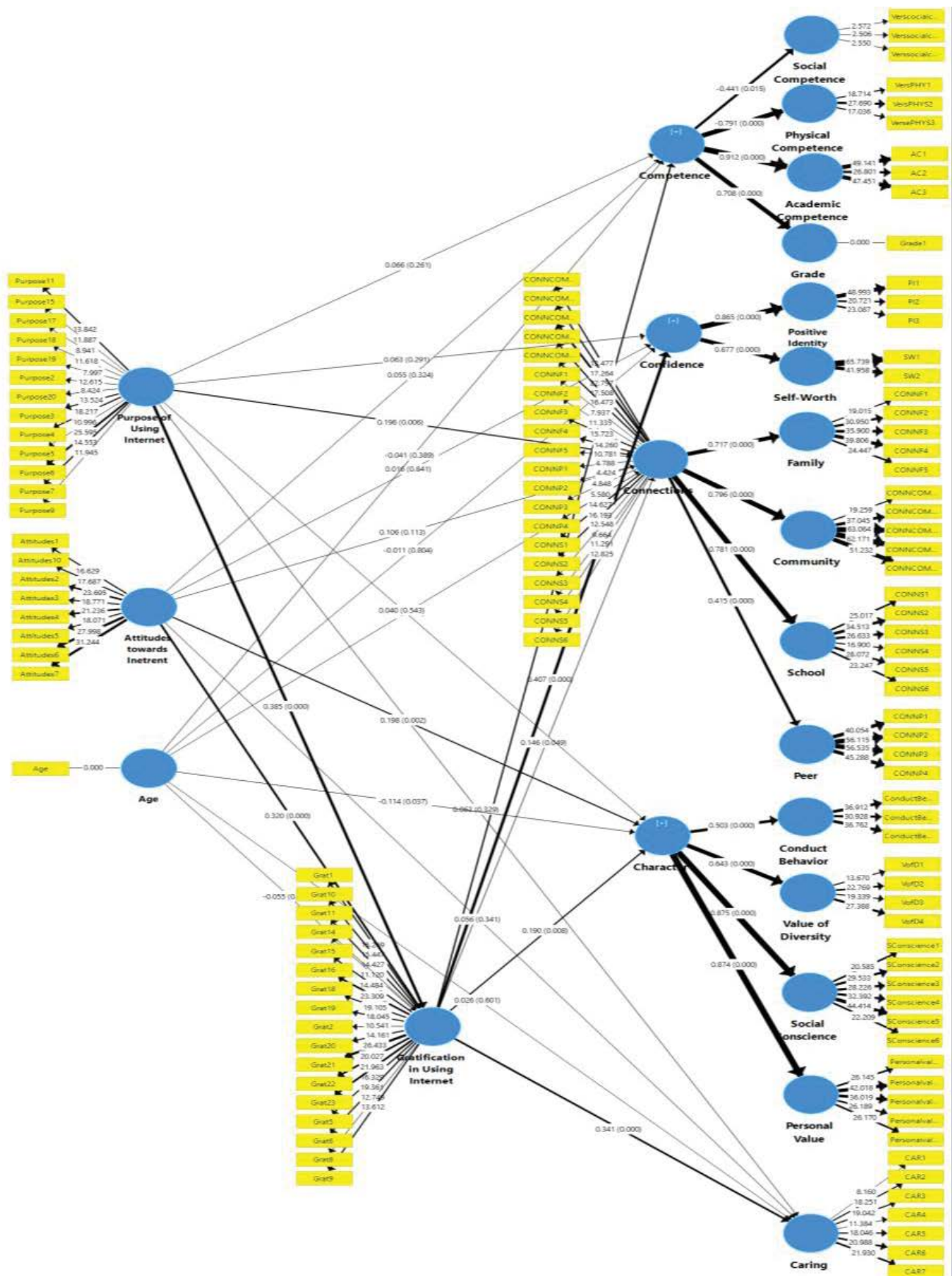


Figure 1 Moderator Effects of religion.

Table 9: Results of path model using bootstrap for religion groups.

Muslim	B	SE	T-Values	P-Values
Age -> Caring	-0.047	0.123	0.383	0.702
Age -> Character	-0.089	0.096	0.921	0.357
Age -> Competence	-0.054	0.138	0.39	0.697
Age -> Confidence	0.038	0.133	0.282	0.778
Age -> Connections	-0.221	0.128	1.724	0.085
Age -> Gratification in Using Internet	-0.178	0.14	1.264	0.206
Attitudes towards Internet -> Caring	0	0.161	0.003	0.998
Attitudes towards Internet -> Character	0.402	0.133	3.028	0.002
Attitudes towards Internet -> Competence	0.191	0.165	1.155	0.248
Attitudes towards Internet -> Confidence	0.047	0.225	0.209	0.834
Attitudes towards Internet -> Connections	0.185	0.163	1.136	0.256
Attitudes towards Internet -> Gratification in Using Internet	0.176	0.248	0.708	0.479
Gratification in Using Internet -> Caring	0.413	0.159	2.59	0.01
Gratification in Using Internet -> Character	0.119	0.149	0.797	0.426
Gratification in Using Internet -> Competence	0.061	0.21	0.291	0.771
Gratification in Using Internet -> Confidence	0.094	0.211	0.443	0.658
Gratification in Using Internet -> Connections	-0.358	0.172	2.078	0.038
Purpose of Using Internet -> Caring	0.241	0.15	1.602	0.109
Purpose of Using Internet -> Character	0.212	0.171	1.243	0.214
Purpose of Using Internet -> Competence	0.101	0.21	0.482	0.63
Purpose of Using Internet -> Confidence	0.224	0.189	1.183	0.237
Purpose of Using Internet -> Connections	0.465	0.161	2.883	0.004
Purpose of Using Internet -> Gratification in Using Internet	0.476	0.177	2.688	0.007
Non-Muslim	B	SE	T-Values	P-Values
Age -> Caring	0.165	0.266	0.62	0.536
Age -> Character	-0.057	0.159	0.36	0.719
Age -> Competence	-0.092	0.147	0.627	0.531
Age -> Confidence	0.056	0.174	0.319	0.75
Age -> Connections	0.15	0.188	0.798	0.425
Age -> Gratification in Using Internet	-0.023	0.139	0.166	0.868
Attitudes towards Internet -> Caring	0.317	0.268	1.183	0.237
Attitudes towards Internet -> Character	0.141	0.148	0.958	0.338
Attitudes towards Internet -> Competence	-0.13	0.167	0.779	0.436
Attitudes towards Internet -> Confidence	-0.247	0.158	1.559	0.119
Attitudes towards Internet -> Connections	0.133	0.167	0.796	0.426
Attitudes towards Internet -> Gratification in Using Internet	0.301	0.141	2.133	0.033
Gratification in Using Internet -> Caring	0.371	0.373	0.995	0.32
Gratification in Using Internet -> Character	0.108	0.186	0.581	0.561
Gratification in Using Internet -> Competence	0.339	0.189	1.798	0.072
Gratification in Using Internet -> Confidence	0.27	0.222	1.213	0.225
Gratification in Using Internet -> Connections	-0.016	0.256	0.064	0.949
Purpose of Using Internet -> Caring	-0.112	0.289	0.389	0.697
Purpose of Using Internet -> Character	-0.134	0.227	0.591	0.555
Purpose of Using Internet -> Competence	0.156	0.184	0.844	0.399
Purpose of Using Internet -> Confidence	0.103	0.221	0.467	0.641
Purpose of Using Internet -> Connections	0.253	0.321	0.786	0.432
Purpose of Using Internet -> Gratification in Using Internet	0.47	0.19	2.473	0.013

Table 10: Results of path model using bootstrap for level of education groups.

Post-Graduate	B	SE	T-Values	P-Values
Age -> Caring	-0.334	0.234	1.43	0.153
Age -> Character	-0.069	0.136	0.505	0.614
Age -> Competence	0.107	0.164	0.653	0.514
Age -> Confidence	-0.019	0.226	0.083	0.934
Age -> Connections	0.114	0.262	0.436	0.663
Age -> Gratification in Using Internet	-0.233	0.214	1.09	0.276
Attitudes towards Internet -> Caring	0.206	0.267	0.772	0.44
Attitudes towards Internet -> Character	0.321	0.209	1.536	0.125
Attitudes towards Internet -> Competence	0.067	0.203	0.33	0.741
Attitudes towards Internet -> Confidence	0.007	0.324	0.022	0.983
Attitudes towards Internet -> Connections	0.001	0.183	0.003	0.998
Attitudes towards Internet -> Gratification in Using Internet	0.291	0.211	1.383	0.167
Gratification in Using Internet -> Caring	-0.363	0.299	1.213	0.225
Gratification in Using Internet -> Character	-0.286	0.262	1.091	0.275
Gratification in Using Internet -> Competence	0.293	0.223	1.315	0.189
Gratification in Using Internet -> Confidence	0.307	0.306	1.004	0.315
Gratification in Using Internet -> Connections	-0.064	0.261	0.246	0.806
Purpose of Using Internet -> Caring	0.421	0.317	1.328	0.184
Purpose of Using Internet -> Character	0.107	0.325	0.33	0.741
Purpose of Using Internet -> Competence	0.132	0.324	0.408	0.683
Purpose of Using Internet -> Confidence	0.19	0.389	0.489	0.625
Purpose of Using Internet -> Connections	0.449	0.305	1.471	0.141
Purpose of Using Internet -> Gratification in Using Internet	0.344	0.447	0.769	0.442
Under graduate	B	SE	T-Values	P-Values
Age -> Caring	0.327	0.23	1.425	0.154
Age -> Character	0.23	0.135	1.702	0.089
Age -> Competence	-0.304	0.193	1.576	0.115
Age -> Confidence	-0.155	0.144	1.073	0.283
Age -> Connections	0.011	0.14	0.075	0.94
Age -> Gratification in Using Internet	-0.245	0.142	1.725	0.085
Attitudes towards Internet -> Caring	-0.003	0.214	0.015	0.988
Attitudes towards Internet -> Character	0.396	0.187	2.118	0.034
Attitudes towards Internet -> Competence	0.138	0.172	0.802	0.423
Attitudes towards Internet -> Confidence	-0.029	0.248	0.115	0.908
Attitudes towards Internet -> Connections	0.16	0.212	0.755	0.45
Attitudes towards Internet -> Gratification in Using Internet	0.078	0.274	0.286	0.775
Gratification in Using Internet -> Caring	0.519	0.253	2.05	0.04
Gratification in Using Internet -> Character	0.363	0.18	2.014	0.044
Gratification in Using Internet -> Competence	0.05	0.238	0.209	0.834
Gratification in Using Internet -> Confidence	-0.043	0.269	0.16	0.873
Gratification in Using Internet -> Connections	-0.311	0.224	1.391	0.164
Purpose of Using Internet -> Caring	-0.231	0.359	0.644	0.52
Purpose of Using Internet -> Character	-0.076	0.217	0.35	0.726
Purpose of Using Internet -> Competence	0.361	0.197	1.828	0.068
Purpose of Using Internet -> Confidence	0.388	0.253	1.535	0.125
Purpose of Using Internet -> Connections	0.627	0.211	2.974	0.003
Purpose of Using Internet -> Gratification in Using Internet	0.556	0.271	2.053	0.04

This is because students make use of Internet to find data and break free from the regular sequence of actions, and keep in touch with other people. Positive youth development was classified into five sub-groups (5Cs) of: confidence, character, connection, caring, and competence. Positive identity had the highest mean in Confidence. Academic competence had the highest mean score in Competence; because achievement in the academic area is most important for the students and their future success. The highest mean scores in the Character sub-group belonged to personal value and social sciences respectively. "When I see another person, who was hurt or upset, I feel sorry for them" had the highest mean score in the Caring sub-group. Indicating that people are concerned about their fellow mankind "family" possessed the highest mean score in the sub-group of Connection.

The outcomes of the present study are in the same line with the previous findings of the next principal outcome regarding 'attitudes toward Internet' is that 'it is the fastest way to research knowledge', followed by 'Internet is a universal library'. Accordingly, the respondents revealed to have a positive attitude toward the impact the Internet brings to people's lives.

The third principal outcome, regarding the purposes of using the Internet by the respondents, revealed that "Checking my Facebook" had the highest mean" followed by "Finding information relevant to research". The outcomes confirmed previous findings of José-Marie and stating that searching information was the most important purpose among users.

The Forth finding showed that age does not have any effects on 5Cs except for character. Attitudes towards Internet have direct

impact on PYD dimensions of 5Cs except for character. There is not any significant relationship between the purpose of using Internet and PYD dimensions, except for connection. However, the relationship between purpose of using Internet and gratification of using Internet is positive and significant. Significant and positive relationship is also found between gratification of using Internet and PYD dimensions, except for connection.

The fifth finding showed that there is a mediation effect between Internet use gratification and the dependents and independent variables (attitudes towards Internet, age, purpose of using Internet, five dimensions of positive youth development). It means that students use Internet and become gratified which has a direct impact on positive development.

Policy makers in society have to prepare plans for student to increase their gratification helping them with positive development. The enhancement of positive development leads to prosperity and a better developed society. In this way people can be safe from the negative sides of the web such as pornography, cybercrime etc. which are harmful for them and society in general. Policy makers have to pay special attention to Z generation who are born with media and are the main users of Internet and social media.

The last finding showed that there is no significant difference between the path coefficient between undergraduates and post-graduates for the entire path coefficient. Therefore, educational level does not have any effect on gratification of using Internet and 5Cs. Furthermore, there is a significant relationship between Muslim and non-Muslim for path coefficient, so religion have effects on gratification of using Internet and 5Cs.

References

- 1 Hall GS (1904) Adolescence its psychology and its relations to physiology, anthropology, sociology sex, crime, religion and education New York: Appleton and Company 2.
- 2 Benson PL, Scales PC, Hamilton SF, Sesma AJ (2006) Positive youth development: Theory, research, and applications. In: R. M. Lerner (Ed.). In Handbook of child psychology. Theoretical models of human development (6th ed.). Hoboken, NJ: Wiley, USA.
- 3 Theokas C, Lerner RM, (2006) Observed ecological assets in families, schools, and neighborhoods: Conceptualization, measurement, and relations with positive and negative developmental outcomes. *Applied Developmental Science* 10:61-74.
- 4 Malaysia L (2018) ICT Use and Access by Individuals and Households Survey Report Malaysia.
- 5 Appudurai J, Ramalingam CL (2007) Computer Crimes: A Case Study of What Malaysia Can Learn from Others? *Journal of Digital Forensics, Security and Law*, 2:1.
- 6 Wenzhen X, TAKAI J, Li L (2018) Constructing the Social Media Uses and Gratifications Scale on Japanese and Chinese Samples: Comparing Content to Western Conceived Scales. *Intercult Commun Stud* 27.
- 7 Kim JU (2008) The effect of a R/T group counseling program on the Internet addiction level and self-esteem of Internet addiction university students. *Int J Real Ther* 27.
- 8 Bashir S, Mahmood K, Shafique F (2016) Internet use among university students a survey in University of the Punjab, Lahore. *Pakistan j infor manage and libraries* 9:35-51.
- 9 Chhachhar A R, Khushk GM, Chachar AA, Qureshi B (2013) Internet usage among university students in Pakistan. *Int Res J Basic Appl* 12:1-9.
- 10 Ching WF (2009) BBA (Hons) Project Internet Users' Attitudes and Beliefs About Internet Advertising: A Case of Hong Kong. Hong Kong Baptist University Hong Kong.
- 11 Lerner, Richard M (2005) Promoting positive youth development: Theoretical and empirical bases. Paper presented at the White paper prepared for the Workshop on the Science of Adolescent Health and Development, National Research Council/Institute of Medicine, Washington, DC: National Academies of Science.
- 12 Dowling EM, Anderson PM (2003) Positive youth development: Thriving as the basis of personhood and civil society. *Appl Dev Sci* 7:172-180.
- 13 Hamzah A (2003) Appropriate programme development for adolescents. In In family and life skills for adolescents. Baghwanprakesh Rakesh (Ed.) New Delhi Commonwealth Youth Programme Asia Region.

- 14 Yunus F (2007) Youth employment and employability in Malaysia. Youth for Nation Building, Malaysian Youth Report 4:1-15.
- 15 Becker KH, Maunsaiyat S (2002) Thai students' attitudes and concepts of technology J Res Technol Educ 13:6-19.
- 16 Chou C, Wu HC, Chen CH (2011) Re-visiting college students' attitudes toward the Internet based on a 6-T model: gender and grade-level difference. Comput Educ 56:939-947.
- 17 Joiner R, Brosnan M, Duffield J, Gavin J, Maras P (2007) The relationship between Internet identification, Internet anxiety and Internet use. Comput Hum Behav 23:1408-1420.
- 18 Luan W S, Fung NS, Atan H (2008) Gender differences in the usage and attitudes toward the Internet among student teachers in a public Malaysian university. Am J Appl Sci 5:689-697.
- 19 Alberts AE, Christiansen EDD, Chase P, Naudeau S, Phelps E, et al. (2006) Qualitative and quantitative assessments of thriving and contribution in early adolescence: Findings from the 4-H Study of Positive Youth Development. J Youth Dev 1:20-32.
- 20 Bloomquist K (2010) Participation in Positive Youth Development Programs and 4-H: Assessing the Impact on Self-Image in Young People. (Master of Science), University of Nebraska-Lincoln.
- 21 Benson PL, Scales PC, Hamilton SF, Sesma Jr A (2007) Positive youth development: Theory, research, and applications. In: R. M. Lerner (Ed.), Theoretical models of human development 1 of Handbook of Child Psychology 894-941.
- 22 Hair Jr JF, Matthews LM, Matthews RL, Sarstedt M (2017) PLS-SEM or CB-SEM: updated guidelines on which method to use. Int J Multivariate Data Analysis 1:107-123.
- 23 Hair JF, Ringle CM, Sarstedt M (2011) PLS-SEM Indeed a silver bullet. J Mark Theory Pract. 19:139-152.
- 24 Henseler J, Ringle CM, Sinkovics RR (2009) The use of partial least squares path modeling in international marketing. In New challenges to international marketing: Emerald Group Publishing Limited 277-319.
- 25 Henseler J, Ringle CM, Sarstedt M (2014) A new criterion for assessing discriminant validity in variance-based structural equation modeling. J Acad Mark 43:115-135.
- 26 Streukens S, Leroi-Werelds S (2016) Bootstrapping and PLS-SEM: a step-by-step guide to get more out of your bootstrap results. Eur Manag J 34:618-632.