Students' Acceptance of an Internet Campus Radio: A Test of the Technology Acceptance Model

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ABSTRACT

This study investigates Human Sciences (HS) students' acceptance of IIUM.FM, their newly established online campus radio, by using Technology Acceptance Model (TAM) as the theoretical background. An external variable, knowledge, was added to the original model. A cross-sectional survey design was employed to gather data through a self-administered questionnaire to a sample of 467 undergraduate students to test three hypotheses generated from literature related to TAM. Both listeners (n_1=238) and non-listeners (n_2=229) participated in the study. The findings showed that listeners are highly knowledgeable about IIUM.FM, have positive perceptions of the radio but have a negative attitude towards listening to it. They mostly listened to music programme at night and from their hostels. Moreover, male and seniors were found to listen more frequently to IIUM.FM than female and juniors. Knowledge about IIUM.FM was found to have an influence on actual listening via Perceived Ease of Listening (PEOL), Perceived Usefulness of Listening (PUOL), and attitude towards listening. For the non-listeners, the reasons for not listening were lack of time, reception problems, and lack of knowledge on the existence of IIUM.FM. However, they expressed their intention to listen to it in the future.

Keywords: Internet radio, Technology Acceptance Model (TAM), IIUM.FM, listeners, and non-listeners

BACKGROUND

IIUM.FM is a university radio station broadcasting from Gombak campus of the International Islamic University Malaysia (IIUM). IIUM.FM was founded on April 19, 2010 and officially launched on May 26, 2010 to inform campus community, the public, and IIUM alumni around the world about the university's activities and programmes. It operates from the Human Sciences (HS) building of the Kulliyyah of Islamic Revealed Knowledge and Human Sciences (KIRKHS) under the Department of Communication. This department has a well equipped audio lab which is meant for teaching radio production under the Electronic Media specialization.

IIUM.FM uses live stream to broadcast channel in the Internet in its attempt to reach IIUM community that consists of academic staff, administrative staff, support staff, and IIUM students, who are housed in the university's campuses (Gombak, KL, Petaling Jaya, Nilai, and Kuantan). All IIUM community members are encouraged to tune-in to their campus radio. Additionally, IIUM.FM targets IIUM's alumni in various countries around the world and the public at large to share the latest update of the university's activities and programmes.

The radio is run by practicum students who work daily to prepare and present news, weather forecast, traffic, public services announcements, station playlist, talkshows, and calls to daily prayers (Azan). IIUM.FM uses English as the medium of communication to broadcast 24-hour daily programmes with live broadcasting from 9.00 A.M to 9.00 P.M during weekdays and the rest of the hours is on automated system (www.livestream.iium.edu.my/iiumfm).

IIUM.FM is an Internet-only radio that uses live stream to air its programmes. Internet radio is also known as net-radio, web radio, streaming radio, and e-radio (Baker, 2009). It is defined in the Virginia Law Review (Stockment, 2010) as "a non-interactive audio webcast of a digital audio file via the Internet to one or more persons who listen to the file without downloading it". Internet radio was made possible in 1995 with the arrival of streaming (www.cw.routledge.com/ref/radio/internet). Streaming allows the users to listen to the audio programme as it arrives in real time. This means that users do not have to wait for a complete audio file to download before listening to it as was the case before. According to Baker (2009), Internet radio is popular because of five distinct characteristics of the Internet, namely, (1) It is a multimedia channel; (2) It is interactive; (3) It is a global medium; (4) It provides on-demand

access to a 24-hour database; and (5) It is a network of networks in a close-knit, virtual online community.

Internet connection is a prerequisite for listening to Internet radio. This prerequisite is fully fulfilled since IIUM provides many computer labs with Internet connection to staff and students. In addition, a free wireless connection system was introduced in 2008 and it allows students with Laptops to access the Internet 24 hours a day from anywhere in the campus. Hence, IIUM.FM came into being at a time when the necessary facilities to listen to it are in place. Given this availability of means of access to IIUM.FM, this study investigates the IIUM students' acceptance of the IIUM.FM station. IIUM.FM could be considered as the latest technology introduced to the IIUM community, as such an evaluation of the IIUM.FM is required to gauge the acceptability of the radio programmes. In order to do that, research needs to be done so that improvement can be made to tailor to the needs of the listeners.

The Technology Acceptance Model (TAM) was used as a theoretical framework to find out the extent to which perceived usefulness (PU) and perceived ease of use (PEOU) influence attitude towards listening and actual listening (Davis, 1989). Moreover, since the radio is newly introduced in the campus community, an external construct (knowledge) was added to the original TAM to find out the level of knowledge about IIUM.FM among students. This is because one cannot perceive a new technology as useful or easy to use unless he or she knows about it.

LITERATURE REVIEW

The Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM) is considered as the most influential and commonly employed model for describing an individual's acceptance of information systems (Maslin & Ramlah, 2008). TAM was developed by Davis (1989) and it was adapted from the Theory of Reasoned Action "TRA" (Ajzen & Fishbein, 1980). TRA posits that an individual's willingness, attitude, and subjective norm will affect his/her behavioral intention. Subjective norm refers to an individual's perception that most people who are important to him or her think he or she should or should not perform the behavior in question (Fishbein & Ajzen, 1975). According to TRA, attitude and subjective norm affect intentions.

TAM assumes that an individual's information systems acceptance is determined by two major variables: Perceived Usefulness (PU) and Perceived Ease of Use (PEOU). TAM is under information systems theory that examines how users come to accept and to use a computer-based technology. It explains computer-usage behavior and it also suggests that when users are presented with a new software package, a number of factors influence their decision on how and when to use it. According to TAM, one's actual use of a technology system is influenced directly or indirectly by the user's behavioral intentions, attitude, perceived usefulness of the system, and perceived ease of the system. TAM also proposes that external factors affect intention and actual use through mediated effects on perceived usefulness and perceived ease of use (see Figure 1).

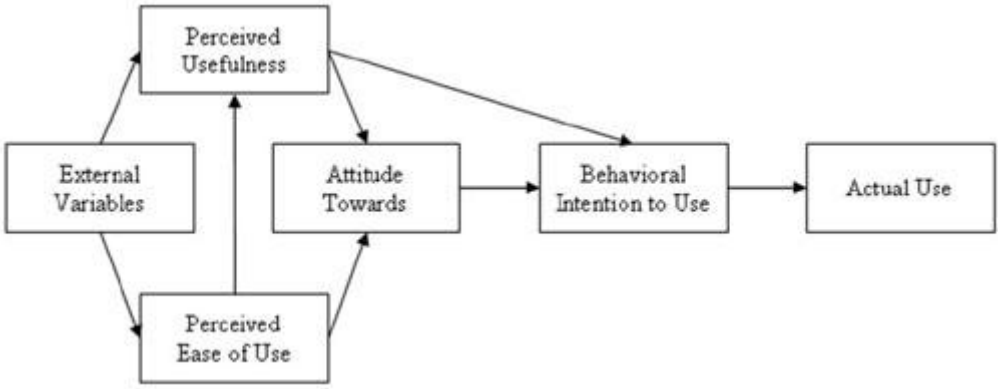

Figure 2.1: Technological Acceptance Model (Davis, 1989)

Internet Radio

Internet radio involves the delivery of audio programming via digital means from one computer to other computers over the Internet. Internet radio streaming can involve both live material and archived clips of audio content recorded earlier. In either case, the user must have special software that matches the software used by the station to encode and transmit the data. The three leading technologies for delivering Internet radio are the RealOne Player, Microsoft Windows Media, and MP3 streaming (www.cw.routledge.com/ref/radio/internet). According to Baker (2009), there are two types of Internet radio, namely, radio online and Internet-only radio. Radio online consists of regulated, traditional radio broadcasting with existing audience, which have

incorporated the Internet as an adjunct service. In contrast, Internet-only radio webcasts exclusively over the Internet and it is generally unregulated.

The first Internet radio station was pioneered by Carl Malamud in 1993 when he set up the first community Internet-only radio station called "Internet Talk Radio" in California (Baker, 2009). However, College radio station, "Radio KJHL" from the University of Kansas in North America, was the first radio online station to webcast 24 hours a day on December 3, 1994. By mid 2006, there were 1659 radio online stations in North America, while Penguin Radio reported that there were about 5000 Internet-only radio stations around the globe by February 29, 2009 (Baker, 2009).

Internet radio listeners are sometimes referred to as "streamies" (www.cw.routledge.com/ref/radio/internet). A study by Arbitron and Edison Media Research shows that by the middle of 2002, 35 percent of Americans had listened to Internet radio, compared with 19 percent in 1998. Another study by Arbitron and Edison in 2010 reveals that the weekly online radio audience in the United States of America amounts to approximately 43 million. About 55 percent of this online radio audience are male with nearly two-thirds (63%) aged between 25-54 years old. Streamies were found to be among the most active group of Internet users, spending more time online than the average Internet users (Arbitron & Edison Media Research, 2010).

In Malaysia, almost all radio stations have radio online. As for college and university-based radio stations, many universities, both public and private, have Internet radio webcasting to their campus communities such as Multimedia University, Limkokwing University, and IIUM.

Knowledge about a New Technology

Knowledge about a new technology or innovation occurs when an individual is exposed to an innovation's existence and gains an understanding of how it functions (Rogers, 2003). The knowledge about an innovation could be gained passively or actively. An individual plays a passive role when he or she becomes aware of an innovation by accident. For example, Coleman et al., (1996) in their study about "medical innovation" concluded that initial knowledge about a new medical drug occurred mainly through communication channels and messages that

physicians did not seek. On the other hand, individuals can gain knowledge about an innovation by actively seeking it through behavior they initiate.

Knowledge in this study refers to knowledge about IIUM.FM among students. However, knowing about an innovation is quite different from using it. For instance, most of people know about many innovations that they have not adopted. In fact, an individual may know about a new technology, idea or innovation but does not regard it as relevant to his/her situation or as potentially useful. Here comes the issue of PEOU and PU of the new technology, idea or innovation.

Perceived Ease of Use (PEOU)

According to Davis (1989) perceived ease of use (PEOU) refers to "the degree to which a person believes that using a particular system would be free of effort" (Davis, 1989: 2). The literature provides evidence of the significant effect of PEOU on usage intention, either directly or indirectly through its effect on perceived usefulness (PU). Lee, Kozar, and Larsen (2003) found that from 84 studies on the technology acceptance model (TAM), only 58 showed a significant relationship between PEOU and intention to use. This indicates that PEOU is an unstable measure in predicting intention to use a system or a technology. In this study PEOU is replaced by perceived ease of listening (PEOL) which is defined as "**the degree to which a student believes that listening to IIUM.FM would be free of effort**".

Perceived Usefulness (PU)

According to Davis (1989) perceived usefulness (PU) is defined as "the degree to which a person believes that using a particular system would enhance his or her job performance" (Davis, 1989: 2). PU is analogous to the relative advantage of perceived characteristics of the Rogers' Innovations Diffusion Theory (Rogers, 1975).

Previous studies seem to have a certain consensus in defining PU as 'the degree to which a person believes that using a particular system would enhance his or her job performance' (Shen et al., 2006). For the purpose of this study, PU is replaced by perceived usefulness of listening (PUOL) which refers to "**the degree to which a student believes that listening to IIUM.FM will be useful for him/her**".

Attitude towards Usage

Ajzen (1991) defines attitude as "an individual's disposition to react with a certain degree of favourableness or unfavourableness to an object, behavior, person, institution, or event". He stated that attitude toward a behavior refers to the degree to which a person has a favorable or unfavorable evaluation or appraisal of the behavior in question. Consequently, the more favorable the attitude with respect to a behavior, the stronger should be an individual's intention to perform the behavior under consideration. Attitude was also defined as an individual's positive or negative feelings (evaluative affect) about performing the target behavior (Maslin & Ramlah, 2008). In this study, attitude is defined and used as "**a student's disposition to react with a certain degree of favourableness or unfavourableness to listening to IIUM.FM**".

Behavioral Intention to Use

Intention refers to the cognitive representation of a person's readiness to perform a given behavior, and it is considered to be the immediate determinant of behavior (Park, 2007). It is an indication of how hard people are willing to try and how much an effort they are planning to exert, in order to perform a given behavior. Thus, behavioral intention (BI) is the subjective probability of one's engagement in any behavior (Fishbein & Ajzen, 1975). The stronger the BI, the more likely is the execution of the behavior. In the TAM, BI to use is defined as a measure of the strength of one's intention to perform a specific behavior, that is, use an information system. BI to use is substituted here by BI to listen and it is defined as "**the strength of a student's intention to listen to IIUM.FM in the future**".

Theoretical Framework

A review of scholarly research on Information Technology Acceptance and usage suggests that TAM has emerged as one of the most influential model in this stream of research (Shen et al., 2006; Moon & Kim, 2000; Lee et al., 2003; Rose & Fogarthy, 2006; Yusliza et al., 2009). In regard to the literature reviewed, the following hypotheses are proposed together with the model of the study (Figure 2):

H_1: Knowledge about IIUM.FM influences perceived ease of listening which in turn influences actual listening.

H_2: Knowledge about IIUM.FM influences perceived usefulness of listening which in turn influences actual listening.

H_3: Knowledge about IIUM.FM influences attitude towards listening which in turn influences actual listening.

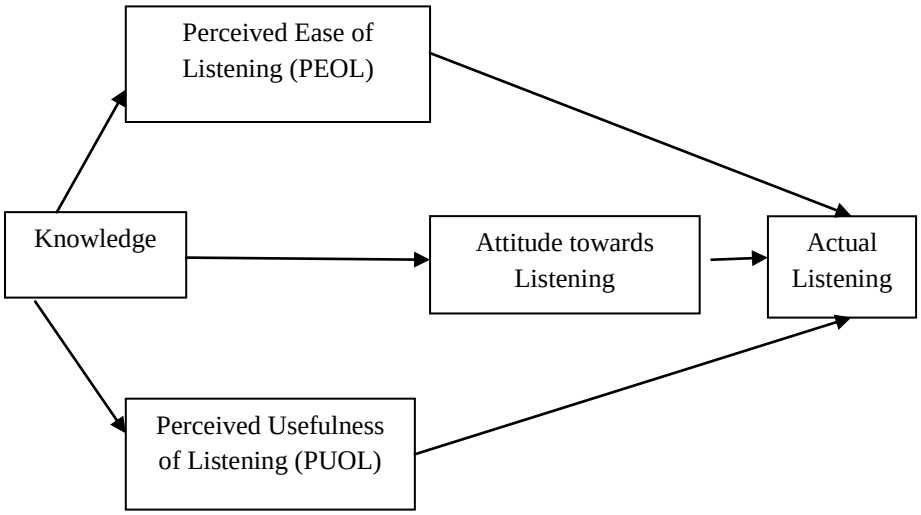

Figure 2.2: TAM for Students' Acceptance of IIUM.FM

METHODOLOGY

Data Collection and Sample: This study was conducted in the main campus of International Islamic University Malaysia (IIUM), situated in Gombak, near Kula Lumpur. The study focuses on undergraduates students enrolled in the Human Sciences (HS) Division of the Kulliyyah of Islamic Revealed Knowledge and Human Sciences (KIRKHS). At the time of data collection, this division has 2487 students registered in six departments, namely, Communication, English Language and Literature, History and Civilization, Political Science, Psychology, and Sociology and Anthropology. The data collection took place from 12 December 2010 until 10 January 2011.

Research Instrument. The study used a cross-sectional survey research design. Surveys allow researchers to generalize from a sample to a population so that inferences can be made about

some characteristic, attitude, or behavior of the population (Babbie, 2001). A questionnaire was employed as an instrument for data collection.

Measurements. The main variables of the study were measured as follows:

Knowledge: was measured with ten items based on dichotomous options with 1 (Yes) and 0 (No). Items include "I know that IIUM.FM is accessible only through the Internet".

Perceived Usefulness of Listening (PUOL): is measured with eleven items on a five-point Likert scale ranging from 1-strongly disagree to 5-strongly agree. Items include "Listening to IIUM.FM would keep me updated with the campus current events". The highest score is "55" while the lowest score is "11". The higher the score, the higher the degree of PUOL is.

Perceived Ease of Listening (PEOL): is measured with eleven items on a five-point Likert scale ranging from 1-strongly disagree to 5-strongly agree. An example of the statements that reflect PEOL is "I can listen to IIUM.FM while working on my computer".

Attitude towards Listening: is assessed with eleven items on a five-point Likert scale ranging from 1-strongly disagree to 5-strongly agree. An example of the statements that reflect attitude towards listening is "I feel that listening to IIUM.FM makes me relaxed."

Actual Listening: is measured with eleven items on a five-point Likert scale ranging from 1=Never, 2=Rarely, 3=Sometimes, 4=Often, and 5=Always. An example of the items is "I listen to music from other countries on IIUM.FM*"*.

Behavioral Intention (BI) to Listen: is assessed with twelve items on a five-point Likert scale ranging from 1-strongly disagree to 5-strongly agree. An example of the items is "I will listen to IIUM.FM frequently".

FINDINGS OF THE STUDY

Profile of the Respondents

Table 1 displays the profile of the respondents with regards to demographic, academic, and computer-related variables. From the 467 respondents who participated in this study, there are 238 listeners of IIUM.FM (51.0%) while the remaining 299 are non-listeners (49.0%).

Table 1: Profile of the Respondents

Respondents' Profile	Listeners (N_1=238)		Non-Listeners (N_2=229)		Total	
	F	%	F	%	F	%
Gender						
Male	65	56.0	51	44.0	**116**	**24.8**
Female	173	49.3	178	50.7	**351**	**75.2**
Total	**238**	**51.0**	**229**	**49.0**	**467**	**100.0**
Age group						
18-21 years old	63	29.0	154	71.0	**217**	**46.5**
22 years old and above	175	70.0	75	30.0	**250**	**53.5**
Total	**238**	**51.0**	**229**	**49.0**	**467**	**100.0**
M=21.78, SD=1.91						
Min=18, Max=37						
Nationality						
Malaysian	200	50.1	199	49.9	**399**	**85.4**
International	38	55.9	30	44.1	**68**	**14.6**
Total	**238**	**51.0**	**229**	**49.0**	**467**	**100.0**
Department						
Communication	87	69.6	38	30.4	125	**26.8**
English Language & Literature	24	26.1	68	73.9	92	**19.8**
History & Civilization	18	41.9	25	58.1	43	**9.2**
Political Science	30	58.8	21	41.2	51	**10.9**
Psychology	41	46.6	47	53.4	88	**18.8**
Sociology & Anthropology	36	61.0	23	39.0	59	**12.6**
Others	2	22.2	7	77.8	9	**1.9**
Total	**238**	**51.0**	**229**	**49.0**	**467**	**100.0**
Level of Study						
1st year	22	17.2	106	82.8	128	**27.4**
2nd year	52	40.0	78	60.0	130	**27.8**
3rd year	62	74.7	21	25.3	83	**17.8**
4th year	102	81.0	24	19.0	126	**27.0**
Total	**238**	**51.0**	**229**	**49.0**	**467**	**100.0**
PC Ownership						
Yes	225	52.7	202	47.3	427	**91.4**
No	13	32.5	27	67.5	40	**8.6**
Total	**238**	**51.0**	**229**	**49.0**	**467**	**100.0**
Internet Connection						
Yes	206	55.1	168	44.9	374	**85.6**
No	20	31.7	43	68.3	63	**14.4**
Total	**226**	**51.0**	**211**	**49.0**	**437**	**100.0**

Demographic profile: The results indicate that more than three-quarters of the respondents (75.2%) are female compared to male respondents (24.8%). The average age among the respondents is 21.78 years old (SD=1.91) with the youngest being 18 years old and the oldest is 37 years old. More than half of the respondents (53.5%) are aged between 22 years old and above. The remaining (46.5%) aged between 18-21 years old. The majority of the respondents (85.4%) reported that they are Malaysians. Only 14.6% of the respondents are International students.

In terms of listening to IIUM.FM, more than half of the male respondents (56.0%) and 49.3% of the female respondents are listeners of the radio. Seven in ten of the older respondents (70.0%) listened to IIUM.FM compared to only 29.0% of the younger respondents. More than half of the International students (55.9%) and the Malaysian students (50.1%) are listeners. On the other hand, about half of the female respondents (50.7%) do not listen to IIUM.FM compared to 44.0% of the male respondents. Seven in ten of the younger respondents (71.0%) are non-listeners against three in ten of the older respondents (30.0%). Nearly half of the Malaysian respondents (49.9%) and 44.1% of the International respondents do not listen to IIUM.FM.

Academic Profile: The results indicate that the respondents of this study mostly come from the Communication, English Language and Literature, and Psychology Departments. Apart from the Communication and the Sociology and Anthropology students, the bulk of the students in the other departments do not listen to IIUM.FM. It was also found that the students in the higher level of study are more likely to listen to the radio than those in the lower level of study.

Computer-related Profile: Almost all respondents of the study own a computer or laptop (91.4%) compared to only 8.6% who do not possess a computer or a laptop. The respondents who have Internet connection constitute the bulk of the sample (85.6%). Only 14.4% of them are not connected to the Internet. The computer owners are more likely to listen to IIUM.FM than those who do not possess a computer. Moreover, the students with Internet connection are more likely to listen to IIUM.FM than those who are not connected to the Internet. This may be related to the nature of IIUM.FM radio station which is an Internet-only radio.

Patterns of Listening to IIUM.FM

Table 2 presents the patterns of listening to IIUM.FM among the respondents. Slightly more than half of them (51.9%) have been listening to the radio for more than a month. Half of the listeners (50.6%) reported that they listened to the radio at night. The majority of the IIUM.FM listeners (84.8%) listened to music programmes. The relaxing function of music may explain this preference of music programmes over the rest of the programmes aired on IIUM.FM. About two-thirds of the listeners indicated that they listened to IIUM.FM because "it is new" (66.5%). Even though the majority of them listened to music, only 30.1% mentioned getting more music variety as their reason for listening to IIUM.FM.

The Non-listeners

A total of 229 non-listeners answered the questionnaire. The main reason that prevented the non-listeners from listening to IIUM.FM was "lack of time" (68.9%). Other reasons mentioned were "lack of knowledge about the existence of the radio" (38.4%) and "reception problems" (37.5%). On the whole, the non-listeners slightly agreed that they will listen to IIUM.FM in the future (M=3.34, SD=0.97).

Table 2: Patterns of Listening to IIUM.FM

Patterns of Listening to IIUM.FM	Frequency	Percentage
Experience of Listening to IIUM.FM		
A few days ago	22	9.3
A week ago	13	5.5
A few weeks ago	23	9.7
A month ago	56	23.6
More than one month ago	123	51.9
Total	**237**	**100.0**
Time Spent Listening Per Session		
1-10 minutes	70	29.9
11-30 minutes	104	44.4
More than 30 minutes	60	25.7
Total (M=32.1, SD=31.73, Min=1minute, Max=190 minutes)	**234**	**100.0**
Frequency of Listening Per Week		
1 day	121	52.4
2 days	41	17.7
3 days	38	16.5
4 days and above	31	13.4
Total (M=2.04, SD=1.45)	**231**	**100.0**
Place of Listening		
Mahallah	131	55.5
Home	59	25.0
IIUM PC Labs	17	7.2
Canteen/Café	14	5.9
Library	9	3.8
Others (e.g. Audio Lab, Friends' rooms, In class before it started)	6	2.6
Total	**236**	**100.0**
Time of Listening (Multiple responses)		
Night	120	50.6
Evening	77	32.5
Afternoon	46	19.5
Morning	34	14.3
Others (e.g. "whenever I get connected to the Internet")	28	11.8
Programmes Listened (Multiple responses)		
Music	201	84.8
News	62	26.2
Public service announcements	56	23.6
Talkshows	47	19.8
Religious programmes	41	17.3
Weather forecast	9	3.8
Reasons for Listening (Multiple responses)		
Because it's new	157	66.5
To get more music variety	71	30.1
To show support because I am IIUM student	42	17.8
For its religious content	34	14.4

Hypotheses Testing

Table 3 displays the mean values and correlations for all the variables in the model of the study.

Table 3: Correlations between the variables of the study

Variable	M	SD	1	2	3	4
1 Knowledge	8.50	1.66	-			
2 PEOL	3.25	0.99	.326	-		
3 PUOL	3.24	0.98	.262	.595	-	
4 Attitude	2.98	0.88	.180	.644	.796	-
5 Actual Listening	2.77	1.05	.319	.575	.631	.692

Note: All the correlations are significant at 0.001except r=.180 ($p<0.01$)

The mean values show that the respondents are highly knowledgeable about IIUM.FM (M=8.50, SD=1.66). Even though they slightly agree that listening to it would be easy (M=3.25, SD=.99) and useful (M=3.24, SD=.98), they have a negative attitude towards listening it (M=2.98, SD=.88) and rarely listen to it (M=2.77, SD=1.05).

To test the hypotheses of the study, the researchers followed the four steps in establishing mediation as mentioned by Ramayah and Ignatius (2010). Step 1, the predictor (knowledge) must affect the criterion variable (actual listening); step 2, the predictor (knowledge) must affect the mediators (PEOL, PUOL, and attitude); step3, the mediator (PEOL, PUOL, and attitude) affects the criterion variable (actual listening); step 4, the relationship between the predictor (knowledge) and the criterion variable (actual listening) must either reliably reduce or become nonsignificant when the mediators (PEOL, PUOL, and attitude) are controlled.

The results in table 4 show that the four conditions of mediation were met. When the mediators (PEOL, PUOL, and Attitude) were introduced, the standardized beta for the predictor (Knowledge) decreased (to .142 with PEOL, .153 with PUOL, and to .191 with Attitude) but remain significant. This indicates that PEOL, PUOL, and Attitude are partial mediators in the relationship between knowledge about IIUM.FM and actual listening. Therefore, H1, H2, and H3 are supported. Knowledge about IIUM.FM was found to influence actual listening directly and indirectly through PEOL, PUOL, and attitude towards listening. Furthermore, the model of the study finds support from the data gathered.

Table 4: Direct and Indirect Effects (Mediation) Analysis

Variables		Step 1	Step 2	Step 3	Step 4
		Actual Listening	$PEOL_{H1}$, $PUOL_{H2}$, $Attitude_{H3}$	Actual Listening	Actual Listening
Predictor					
	H_1	0.319	0.326	-	0.142
Knowledge	H_2	0.319	0.262	-	0.153
	H_3	0.319	0.180	-	0.191
Mediators					
PEOL		-	-	0.575	0.536
PUOL		-	-	0.631	0.601
Attitude		-	-	0.692	0.656

Notes: All the betas are significant at 0.001except beta=.180 ($p<0.01$), beta=.153 ($p<0.005$), beta=.142 ($p<0.05$).

As a whole, TAM for students' acceptance of IIUM.FM explained more than half of the variance (53.3%) in students' actual listening to this radio

DISCUSSION

TAM theorizes that external variables influence actual usage of technologies, indirectly, through their influence on perceived usefulness (PU) and perceived ease of use (PEOU). The results of this study reveal that TAM has the ability of explaining the actual listening to IIUM.FM. The findings are in line with past TAM researches which found the model to be parsimonious. For instance, Ndubisi (2003b) found that there is validity for most of TAM constructs among Malaysian women entrepreneurs. The findings of Ndubisi's study showed that Malaysian women entrepreneurs' usage of information technology (IT) is driven directly and indirectly by PEOU via PU. Abu Samah et al., (2011) found that PEOU and attitude provide the best prediction for ICT usage and explained about 44.0% of variance in ICT usage. However, the findings of this study contradict their results with regards to the contribution of PU in determining ICT usage. While PUOL to IIUM.FM was found to predict actual listening among the listeners, Abu Samah and colleagues found no significant contribution of PU to ICT usage.

The mediating effect and contribution of the PEOL and PUOL to IIUM.FM in the TAM for students' acceptance of IIUM.FM has strong support in the literature. In fact, PU and PEOU

have been well known by its parsimonious structure of acceptance behavior and have been widely cited in the study of technologies adoption models.

The notion that attitude influences behavioral intention or usage has been well established in literature pertaining to the adoption of a new technology. In this study, attitude towards listening to IIUM.FM was found to be the most significant determinant of actual listening. This is consistent with Abu Samah et al.'s study (2011). These researchers found that attitude was the main contributor towards ICT usage among Village Development and Security Committee in Malaysia. Moreover, in line with previous empirical research, the findings of this study indicate that attitude towards listening to IIUM.FM does mediate the relationship between knowledge about IIUM.FM and actual listening.

CONCLUSION

The focus of this study is on the acceptance of a new technology in a voluntary setting and the contribution of knowledge about this technology in its acceptance among potential users. The three hypotheses proposed in this study postulated that knowledge about IIUM.FM influences actual listening through perceived ease of listening (PEOL), perceived usefulness of listening (PUOL), and attitude towards listening to IIUM.FM. The three hypotheses were supported since Knowledge about IIUM.FM was found to influence actual listening directly and indirectly via PEOL, PUOL, and attitude towards listening. Thus, the main implication of this study is that: one way to increase the acceptance of a new technology is to increase the knowledge about that technology through different means of promotion provided that PEOU, PU, and attitude towards the technology were given adequate attention.

The findings reveal that the proposed model "TAM for HS students' acceptance of IIUM.FM" is supported in this study. Therefore, TAM is robust since its application helps explain more than half of the variance in actual listening, which is in line with the literature in the technology acceptance field. Thus, this study, built on the body of research related to technology acceptance, is an added scenario to studying adoption of new technology.

The respondents of this study are university undergraduate students. Since the majority of them are young, the study may not represent a comprehensive picture of the various segments of the IIUM community. Hence, future studies should focus on a more diversified age brackets in their investigations by including other categories of IIUM community such as academic staff, administrative staff, business operators, postgraduate students. The concept of behavioral intention in the original TAM was removed from "TAM for students' acceptance of IIUM.FM" due to the cross-sectional nature of this study. Future research should employ a longitudinal survey design to find out whether the behavioral intention of the non-listeners will lead them to listen to IIUM.FM in the future.

REFERENCES

Abu Samah, B., Mohamed Shaffril, H. A., Abu Hassan, M., & D'Silva, J. L. (2011). Can TAM be applied on the rural setting: The case of village development and security committee in Malaysia. *Journal of Social Sciences, 7* (2), 113-119.

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes, 50* , 179-211.

Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behavior*. New Jersey: Prentice-Hall.

Arbitron & Edison Media Research. (2010). The Infinite dial 2010: Digital platforms and the future of radio, 2010.

Babbie, E. R. (2001). *Survey research methods* (9th edn.). Belmont: CA Wadsworth.

Baker, A. J. (2009). Comparing the regulatory models of net-radio with traditional radio. *International Journal of Emerging Technologies and Society, 7* (1) , 1-14.

Coleman, J. S., Katz, E., & Menzel, H. (1996). *Medical Innovation: A Diffusion Study.* New York: Bobbs-Merrill. PH (E).

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 318-340.

Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention, and behavior: An introduction to theory and research.* Reading, MA: Addison-Wesley.

Gauthier, B. (2006). *Conventional radio, Internet radio and satellite radio: a 2005 literature scan.* Montreal: Association Quebecoise de L'industrie du Disque, du Spectacle et de la Radio.

Internet Radio. (2003). Retrieved June 20, 2010. www.cw.routledge.com/ref/radio/internet

Lee, Y., Kozar, K. A., & Larsen, K. R. (2003). The technology acceptance model: Past, present, and future. *Communications of the Association for Information Systems, 12*, 752-780.

Maslin, M., & Ramlah, H. (2008). *User acceptance of information technology: Understanding theories and models.* Selangor Darul Ehsan: Venton.

Moon, J.-W., & Kim, Y.-G. (2000). Extending the technology acceptance model for the world wide web context: Playfulness as a salient belief. *INFORMS & KORMS* .

Ndubisi, N. O. (2003b). Women entrepreneurs and IT usage: The impact of traits. *The Journal of Business in Developing Nations, 3*, 111-147.

Park, J-H. (2007). Factors influencing the adoption of open access publishing. Unpublished doctoral dissertation. Graduate School, Syracuse University.

Ramayah, T., & Ignatius, J. (2010). Intention to shop online: The mediating role of PEOU. *Middle-East Journal of Scientific Research, 5* (3), 152-156.

Rogers, E. M. (1975). *Diffusion of innovations*. Glencoe: Free Press.

Rogers, E. M. (2003). *Diffusion of innovations* (5th edn.). New York: Free Press.

Rose, J., & Fogarthy, G. (2006). Determinants of perceived usefulness and perceived ease of use in the technology acceptance model: Senior consumers' adoption of self-service banking technologies. *Academy of World Business, Marketing & Management Development Conference Proceedings, 2* (10) , 122-129.

Shen, D., Laffey, J., Lin, Y., & Huang, X. (2006). Social influence of perceived usefulness and perceived ease of use of course delivery systems. *Journal of Interactive Online Learning, 5* (3) , 270-282.

Stockment, A. (2010). Internet radio: The case for a technology neutral royalty standard. *Virginia Law Review, 95*, 2129-2181.

Welcome to IIUM.fm. (2010). Retrieved May 29, 2010. www.livestream.iium.edu.my/iiumfm

Yusliza, M. Y., Zikri, M., Mohd Salehuddin, M. Z., Ermy, S. P., & Emmaliana, R. (2009). Individual differences, perceived ease of use, and perceived usefulness in the e-library usage. *Computer and Information Science, 2* (1) , 76-83.