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# THE RELATIONSHIP OF E-COMMERCE READINESS TO TECHNOLOGY ACCEPTANCE: THE CASE OF BARBADOS

**Jude E Edwards, Spicer Memorial College, Pune, India judeedwards@comcast.net**
**Leila A. Halawi, American University of Dubai, drhalawi@gmail.com**
**Richard McCarthy, Quinnipiac University, Richard.mccarthy@quinnipiac.edu**

## ABSTRACT

*This is an exploratory study that examines the relationship between selected components of e-commerce readiness and dimensions of Davis' (1989) Technology Acceptance Model. Building upon the notion that there exists some linkage between e-commerce readiness and Technology Acceptance, this study seeks to examine these linkages in e-businesses within Barbados. Three relationships are proposed – a relationship between technology acceptance and the existing e-Readiness infrastructure, a relationship between technology acceptance and current telecommunications access, and a relationship between technology acceptance and education. The results of this study demonstrated that there are strong relationships between e-commerce readiness components and various technology acceptance dimensions.*

**Keywords:** technology acceptance model (TAM), e-commerce readiness, Barbados.

## INTRODUCTION

The islands of the Caribbean have long been treated primarily as a bastion for relaxation and seasonal tourism, and for the availability of beautiful beachfront properties [6]. This is due to the fact that many of these islands have limited natural resources and are sandwiched between two major economic regions, - - North and South America. Nurse and Punnet [28] suggest that there is an unrecognized, under researched, but pervasive set of antecedent influences that have contributed to the relative absence of technology diffusion or acceptance on many of these islands. Beyond light industries located in large industrial parks, technology has not penetrated into other areas, particularly remote areas. Thus, these islands of the Caribbean have not realized or experienced a greater economic and industrial potential.

The relationship between e-commerce readiness and technology acceptance is an area in international business that benefits from interdisciplinary research, and in which replication and validation studies are extremely beneficial. Few studies have examined how the host country's environment may modify acceptance or adoption of new technology or ideas that are being introduced. Recent studies, focusing on the Caribbean region have recognized that a number of host country environmental elements can have an effect on the rates at which changes occur in the host country [28]. For example, in the area of international management, Nurse and Punnet [40] posit that antecedents such as slavery and past economic systems have had a moderating effect on Caribbean management and economic development. The practical implications of investigations in this area are vast and require additional exploration. However, the body of literature that currently exists in this area is relatively small. This is a domain that has yet to be adequately examined in academic research.

The research problem investigated in this study involved the determination of the level of technology acceptance and e-readiness in Barbados. Three relationships were proposed: a) technology acceptance with existing e-Readiness infrastructure, b) technology acceptance with current telecommunication access, and c) technology acceptance with national education. This research had several goals and purposes: (1) To expand research relative to technology acceptance from an academic perspective; (2) To examine the linkage between technology acceptance and e-commerce readiness so that the influence of a technical infrastructure on new technology acceptance may be better understood; (3) To examine the viability of Barbados' becoming a regional telecommunication hub which will affect the economic and industrial development in the entire region. (4) TAM has not previously been applied in the Caribbean, and it may be useful to examine TAM in connection with selected e-commerce readiness components acting as external modifying variables; and (5) To examine linkage between technology acceptance, attitudes and human resource strategies, so that international managers can develop more effective human resource policies, that improve overseas operations. This study is relevant to the business and policy-making community in Barbados. As these policy-makers become highly interested in the results of this study, they may be motivated to introduce policies and practical solutions that will encourage widespread e-commerce implementation and technology acceptance in Barbados. Also, this study adds to that body of literature and to the body of knowledge that will ultimately complete the linkage between the influence of e-readiness and technology acceptance or adoption. The paper is structured as follows: (1) Following this

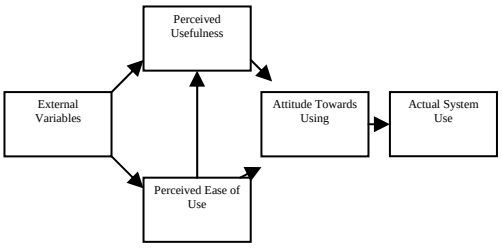
introduction is the conceptual framework for this. (2) Next, details associated with the specifics of the research methodology and experimental design is presented. (3) The data analysis approaches are then explained. (4) Finally, the implications of the results and conclusions are presented.

## CONCEPTUAL FRAMEWORK

The conceptual framework used to investigate this problem was the Technology Acceptance Model [10]. The Technology Acceptance Model (TAM) [9][10] is an adaptation of the Theory of Reasoned Action (TRA) [3][4]. According to Davis' TAM, positive perception of technology's ease of use, usefulness, and attitudes towards technology usage are important determinants of the intention to use a technology. This may be called "behavioral intention" [11][12][1][35][36][22][32][26].

The original TAM has since been expanded. The version of TAM that is frequently used today is called TAM2 (figure 1), in which a number of external variables are examined. Davis and Venkatesh [13] originally published the results of three experiments using TAM2. Hubona and Kennic [19] and Hubona and Geitz [20] posit that "the role of external variables impacting usage behavior within TAM has not been well explored". Davis [11] specifically urges that additional external variables be applied to future research using TAM. TAM2 has been used to investigate end-user acceptance or adoption of a variety on information technology systems. TAM2 has been employed to explain and predict technology use in a number of different disciplines: (a) Decision Sciences [13]; (b) Management Sciences [39]; (c) Information Technology [19][20]; (d) Information Technology and Management Information Systems; (e) Information Systems [8], [21][22][24][34][40][7][15][23]; (f) Email Application, [17]; Voice Mail [1][34]; (g) Student Laboratory Systems [37]; (h) Nursing Computer Systems [14]; (i) Computer Assisted Instruction (CAI) and other Hypertext Systems [38]; (j) Personal Computing [21]; Website Usage – [18]; (l) Internet [33] is a representation of TAM2.

Figure 1- TAM2 with External Variables

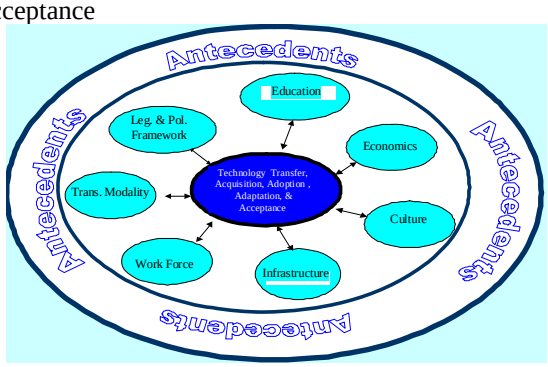



TAM2 has been used to describe and predict technology use in a number of different disciplines such as decision sciences, management sciences, IT and management information systems. TAM2 has been used to assess technology acceptance across several different cultures. TAM2 has also been used to help predict web site usage [16][18].

## TECHNOLOGY ACCEPTANCE AND COUNTRY CHARACTERISTICS AND CONSTRAINTS

Research conducted on technology acceptance from home to host country has focused narrowly on a single element in the host country that acts as either a driver or a constraint. However there are a number of characteristics that collectively and simultaneously act as drivers and constraints to technology adoption and acceptance. Nurse and Punnet [28] posit that these characteristics ultimately determine and influence the degree of technology diffusion or acceptance in that country. Figure 2 below depicts a number of characteristics that are unique, from one country to another that ultimately influences the rate of technology adoption and acceptance.

Figure 2 – Host Country Characteristics and Technology Acceptance



## RESEARCH QUESTIONS

This research seeks to answer the following questions: 1) *What relationship exists between Access to e-commerce readiness services and technology acceptance (Access dimension)?*
2.) *What relationship exists between Business Utilization of Internet Services and technology acceptance in Barbados?* (Current Utilization dimension)?

## METHODOLOGY

A listing of companies from the Barbados Industrial Development Corporation annual report, Barbados Manufacturers and Service Companies Directory [5] showed that there are approximately 500 companies operating in Barbados. Of these 500 companies, approximately 100 are providing IT products and or services. This constituted the sample population.

A survey instrument was completed by managers of IT companies operating in Barbados. These companies were grouped and the survey instrument was applied to: (a) IT companies that are exclusively owned and operated by Barbadians; (b) IT companies that are jointly owned and operated by Barbadians and foreigners; (c) IT companies that are owned and operated exclusively by foreigners in Barbados. From each company, supervisors and managers who participated in the study were asked to complete the questionnaire. The questionnaire was distributed to 97 IT companies in Barbados. As a follow-up, where possible, an e-mail was also sent to these companies. A total of 42 responses were returned within three weeks. Ten of the returns were unusable because the respondents had moved with no forwarding address, were no longer in business, and in some cases deceased. This yielded an overall response rate of 36.8 percent.

The data collection instrument was a composite three-part questionnaire, including: (a) selected questions derived from e-commerce readiness assessment guidelines [2][29][25], (b) the items from the TAM2 questionnaire [29] and (c) a set of demographic questions that sought to obtain an overall description of each respondent.

Reliability was determined using Cronbach's Alpha Coefficients. The reliability and measures of effectiveness that were utilized in the present study were demonstrated to be stable in a number of investigations performed by different research teams, and under diverse testing conditions. According to Nunnally [27], reliability estimates that are greater than .50 are sufficient for basic research. The results for this study ranged between .52 and .81.

## RESULTS

**Basic Infrastructure Relationship with E-Mail and Internet Technologies**:
Using Pearson's correlation, the data, suggest that there are strong relationships between a basic e-commerce infrastructure and e-mail or Internet usage. In addition, the data showed strong intra-relationships between TAM variables for each technology. With respect to Internet technology, there exists a strong relationship between Basic Infrastructure and Perceived Usefulness. See tables 1 & 2.

**Current Utilization Relationship with E-Mail and Internet Technologies**
Using Pearson's "one-Tail" correlation, the data suggest that there are strong relationships between an e-commerce current utilization and e-mail and Internet usage. There is also a strong relationship between e-commerce Current Utilization and Internet Perceived Usefulness; between Current Utilization and Internet Perceived Ease of Use; and between Current Utilization and Internet Job Relevance. In addition, the data showed strong intra-relationships between TAM variables for each technology. See tables 3 and 4.

**Educational Levels Influence on Technology Acceptance**
ANOVA one-way analysis was used to examine this relationship. For respondents who perceive usefulness of e-Mail technology for e-Commerce activity, the likelihood that different levels of education is significant in their acceptance of that technology. For respondents who intend to use the internet for e-Commerce activity, there is a high probability that different levels of education are significant in their decision to accept that technology. It appeared that in general, as respondents progressed from "intent to use" to "voluntary" use, higher levels of education became less significant. See table 5 and 6.

**Hypotheses Testing**

$H1_A$: A viable e-commerce Basic Infrastructure will be positively correlated with technology acceptance of companies in Barbados.

Pearson's correlation test results revealed that there are both weak and strong relationships between e-Commerce basic infrastructure and e-Mail and Internet technology acceptance. There are also both weak and strong relationships with respect to TAM internal dimensions for both e-Mail and Internet applications. Therefore this hypothesis has been partially supported. Further studies are therefore necessary to determine the reasons for the

simultaneous existence of both weak and strong correlations.

$H2_A$:Utilization of e-Mail and Internet technologies will be positively correlated with the level of technology acceptance of companies in Barbados.

Pearson's correlation test results revealed that there are both weak and strong relationships between e-Commerce current utilization for e-Mail and Internet technology acceptance. There are also both weak and strong relationships with respect to TAM internal dimensions for both e-Mail and Internet applications. Therefore this hypothesis has been partially supported. Similar to the results associated with Hypothesis # 1, further studies are therefore necessary to determine the reasons for the simultaneous existence of both weak and strong correlations.

$H3_A$: There is a significant difference in the average TAM of companies in Barbados' based Work force educational levels.

Using one-way ANOVA test, the results suggest that, in general, there is no significant difference in average Barbadian workforce personnel, based on levels of education regarding e-mail and internet technologies for e-Commerce activities. Except for Internet "intent to use" dimension, (probability of 1.7 percent that levels of education are significant) all other dimension for both e-Mail and Internet technology acceptance, show that levels of education are either marginally significant or not significant at all; these probability values range from 5.2 percent to 88.9 percent. Therefore H3a has been supported.

## DISCUSSION OF RESULTS

Using a one-tail Pearson's Correlation to examine those relationships led to certain conclusions summarized below:

E-Mail Intra-Relationships: A strong relationship exists between Perceived Usefulness and Intent to Use; a strong relationship exists between Perceived Usefulness and Job Relevance; a strong relationship exists between Perceived Ease of Use and Job Relevance.

Internet Intra-Relationships: A strong relationship exists between Perceived Usefulness and Job Relevance. A strong relationship exists between Perceived Ease of Use and Job Relevance.

Internet and E-Mail Inter-Relationships: A strong relationship exists between Internet Perceived Usefulness and e-mail Job Relevance. A strong relationship exists between the Internet Perceived Ease of Use and e-mail Job Relevance.

Significance of Educational Levels: One-way ANOVA test show that levels of education has no significance relative to e-Mail or Internet technology acceptance. This study attempted to show that there exist strong relationships between selected e-commerce readiness dimensions and technology acceptance dimensions. Using e-mail and the Internet as the application technologies, and Multiple Correlation Analysis (MCA) methodology to examine those relationships, these relationships were partially supported. In addition, one-way ANOVA test shows that different levels of education do not influence technology acceptance relative to e-Commerce activities. Throughout this study, it was shown that when using e-mail and Internet technologies, there are strong relationships between e-commerce readiness and TAM dimensions. However, this result raises the question that is frequently asked: "Does technology acceptance comes before a community or organization is capable of creating and maintaining a particular infrastructure?" Arguably, in response to that question, certain levels of technology acceptance are necessary for a basic infrastructure. For example, a basic level of telecommunication infrastructure is always necessary. For it is on this infrastructure that e-commerce application and system are deployed. However, a prepared work force, appropriate education, appropriate government policies, and access to services, are necessary for sustaining and supporting a robust e-commerce readiness infrastructure and environment; thus an e-commerce readiness infrastructure is more complex than having basic technology acceptance.

So what then is technology acceptance, and how does it affect the development and sustainability of e-commerce activities? The argument may be made that technology acceptance is at the center of a credible infrastructure. Without the basic appropriate technology, which creates the foundation for an infrastructure, there can be no access to systems that facilitate e-commerce activities. Without appropriate technology and infrastructure, no credible electronic banking is possible [29]. Without appropriate technology and infrastructure, no secure e-commerce activities are possible [29]. Thus many factors influence the acceptance of technology that is appropriate for e-commerce activities [30][31][29][35][21][1][12].

This study explored the relationship between the acceptance and usage two specific IT applications (e-mail and Internet), and selected components of e-commerce readiness. The assumption was made that a level of technology existed that supported the utilization of those IT applications. Since these two IT applications are the primary vehicles through which e-commerce activities are conducted, we sought to examine the relationship between the acceptance of these two applications and the respondents' use of them to undertake e-commerce activities. The results indicate

that, for e-mail usage: (1) there is a strong and positive relationship between current utilization and perceived usefulness; (2) there is a strong positive relationship between Current Utilization and Job Relevance; (3) there is a strong and positive relationship between Perceived Usefulness and Intent to Use; (4) there is a strong and positive relationship between Perceived Usefulness and Job Relevance; there is a strong and positive relationship between Perceived Ease of Use and Job Relevance.

The results also show that, for Internet usage: (a) there is a strong and positive relationship between Current Utilization and Job Relevance; (b) there is a strong and positive relationship between Perceived Usefulness and Job Relevance; (c) there is a strong relationship between Perceived Ease of Use and Job Relevance.

## IMPLICATIONS FOR BUSINESS DEVELOPMENT

The increasing importance and proliferation of information technologies, and end –user technology acceptance, for e-commerce activities, suggest that an infrastructure and access to that infrastructure are necessary for wide-spread e-commerce activities [30]. This proliferation has facilitated increased e-commerce activities and more technology acceptance in organizations and communities [31]. Thus there is an intricate relationship between a supportable and sustainable infrastructure, access to and utilization of that infrastructure, key IT applications, and the levels of e-commerce activities.

However many organizations, that are desirous of greater e-commerce activities, frequently experience many set-backs and frustrations that are associated with inadequate infrastructure, inadequate access, and a general lack of education in this particular area. In many cases, these organizations also have a general lack of knowledge in information technology, and inadequate hardware and software. There is often a general need to rely on outside resources and experience to offset their shortage or absence of technical support. Pavlou, [30] suggests that greater trust in the available e-commerce infrastructure will demand greater technology acceptance. Oxley and Yueng [29] argued that a supportable and sustainable infrastructure is necessary for increased e-commerce activities. Pavlou and Gefen [31] posit that an appropriate education is also essential for greater e-commerce activities. When take together, and an innate comprehensive knowledge in many areas associated with information technology become essential for sustaining and expanding e-commerce activities.

This study examined the relationship between the utilization of e-mail and Internet applications with e-commerce readiness components. Managers of organizations, who want, or plan to, purchase more IT applications for e-commerce activities, are able to take into consideration some of the issues that affect technology acceptance as it relates to e-commerce activities.

After discussing the initial findings of this study with some of Barbados' government and diplomatic personnel in the United States, it was suggested that copies of this study be made available to a number of ministries in Barbados. Some of these ministries included: (a) the Prime Minister of Barbados who is also the Minister of Finance; (b) the Ministry of Education; (c) and the Ministry of Economic Development. It was stated that these ministries represent the vanguard for e-commerce development in Barbados and that this research will become a resource that facilitate the decisions that will be made by policy makers.

## LIMITATIONS

There are several limitations associated with this study. First, the data was collected using questionnaires that were mailed to selected managers of IT companies in Barbados.

Second, this study targeted IT organizations in Barbados, considering that these companies were more likely than others to use e-mail and the internet, and to have e-commerce capability and greater technology acceptance. It is the author's conviction that had all 500+ companies that are operating in Barbados were included in the study, there is the likelihood that the survey might have yielded different results.

Third, the study was confined to Barbados and no attempts should be made to apply the results to other Caribbean nations. Future studies may seek to replicate this study in other islands in the region.

## FUTURE WORK

In future research studies, all registered companies operating in Barbados should be included. A study of the full range of companies will more likely yield more complete information relative to the relationship between e-commerce readiness and levels of technology acceptance in Barbados.

Other components of e-commerce readiness should be considered in future research. This study selected components that were considered basic relative to

conducting e-commerce activities. However it is accepted that the other components may have equal influence on successful e-commerce activities. These components include: (a) Government Promotion, (b) Facilitating Activities, and (c) Positioning for Digital Economy (government policies, legal issues among others.

Future studies should also try to predict how e-commerce readiness may encourage greater levels of technology acceptance and how greater levels of technology acceptance predict increased levels of e-commerce activities. Specifically, these studies may be designed to examine the weight that each e-commerce readiness component may have on levels of technology acceptance and vise versa. Additional studies may also be developed to examine the relationship between technology acceptance and other host country antecedents, such as economics, government policies workforce preparedness, and so on. A key area of research may be that of exploring whether or not these host country dynamics are predictors for level of e-commerce activities.

Another area for future studies is in the area of more robust statistical analyses.

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**Correlations**

| | | BINF | EINT | EPU | EPEOU | EJR | EVOL |
|---|---|---|---|---|---|---|---|
| BINF | Pearson Correlatio | 1.000 | .280 | .345* | .094 | .161 | -.251 |
| | Sig. (1-tailed) | . | .067 | .031 | .311 | .197 | .090 |
| | N | 30 | 30 | 30 | 30 | 30 | 30 |
| EINT | Pearson Correlatio | .280 | 1.000 | .519** | .119 | .146 | -.223 |
| | Sig. (1-tailed) | .067 | . | .002 | .265 | .220 | .118 |
| | N | 30 | 30 | 30 | 30 | 30 | 30 |
| EPU | Pearson Correlatio | .345* | .519** | 1.000 | .302 | .468** | -.011 |
| | Sig. (1-tailed) | .031 | .002 | . | .052 | .005 | .478 |
| | N | 30 | 30 | 30 | 30 | 30 | 30 |
| EPEOU | Pearson Correlatio | .094 | .119 | .302 | 1.000 | .374* | -.051 |
| | Sig. (1-tailed) | .311 | .265 | .052 | . | .021 | .394 |
| | N | 30 | 30 | 30 | 30 | 30 | 30 |
| EJR | Pearson Correlatio | .161 | .146 | .468** | .374* | 1.000 | -.088 |
| | Sig. (1-tailed) | .197 | .220 | .005 | .021 | . | .322 |
| | N | 30 | 30 | 30 | 30 | 30 | 30 |
| EVOL | Pearson Correlatio | -.251 | -.223 | -.011 | -.051 | -.088 | 1.000 |
| | Sig. (1-tailed) | .090 | .118 | .478 | .394 | .322 | . |
| | N | 30 | 30 | 30 | 30 | 30 | 30 |

*. Correlation is significant at the 0.05 level (1-tailed).

**. Correlation is significant at the 0.01 level (1-tailed).

Table 3 - Correlation Current Utilization and e-Mail Technology

**Correlations**

| | | UTIL | EINT | EPU | EPEOU | EJR | EVOL |
|---|---|---|---|---|---|---|---|
| UTIL | Pearson Correlation | 1.000 | .282 | .501** | .337* | .557** | -.153 |
| | Sig. (1-tailed) | . | .066 | .002 | .034 | .001 | .209 |
| | N | 30 | 30 | 30 | 30 | 30 | 30 |
| EINT | Pearson Correlation | .282 | 1.000 | .519** | .119 | .146 | -.223 |
| | Sig. (1-tailed) | .066 | . | .002 | .265 | .220 | .118 |
| | N | 30 | 30 | 30 | 30 | 30 | 30 |
| EPU | Pearson Correlation | .501** | .519** | 1.000 | .302 | .468** | -.011 |
| | Sig. (1-tailed) | .002 | .002 | . | .052 | .005 | .478 |
| | N | 30 | 30 | 30 | 30 | 30 | 30 |
| EPEOU | Pearson Correlation | .337* | .119 | .302 | 1.000 | .374* | -.051 |
| | Sig. (1-tailed) | .034 | .265 | .052 | . | .021 | .394 |
| | N | 30 | 30 | 30 | 30 | 30 | 30 |
| EJR | Pearson Correlation | .557** | .146 | .468** | .374* | 1.000 | -.088 |
| | Sig. (1-tailed) | .001 | .220 | .005 | .021 | . | .322 |
| | N | 30 | 30 | 30 | 30 | 30 | 30 |
| EVOL | Pearson Correlation | -.153 | -.223 | -.011 | -.051 | -.088 | 1.000 |
| | Sig. (1-tailed) | .209 | .118 | .478 | .394 | .322 | . |
| | N | 30 | 30 | 30 | 30 | 30 | 30 |

**. Correlation is significant at the 0.01 level (1-tailed).

*. Correlation is significant at the 0.05 level (1-tailed).

## Tables & Figures

Table 1 - Correlation Between Basic Infrastructure and e-Mail

Table 2– Correlation Between Basic Infrastructure and Internet

**Correlations**

| | | BINF | IINT | IPU | IPEOU | IJR | IVOL |
|---|---|---|---|---|---|---|---|
| BINF | Pearson Correlation | 1.000 | .068 | .353 * | .211 | .266 | -.225 |
| | Sig. (1-tailed) | . | .360 | .028 | .131 | .077 | .116 |
| | N | 30 | 30 | 30 | 30 | 30 | 30 |
| IINT | Pearson Correlation | .068 | 1.000 | -.077 | .066 | -.212 | -.127 |
| | Sig. (1-tailed) | .360 | . | .344 | .365 | .131 | .252 |
| | N | 30 | 30 | 30 | 30 | 30 | 30 |
| IPU | Pearson Correlation | .353 * | -.077 | 1.000 | .238 | .443 ** | .047 |
| | Sig. (1-tailed) | .028 | .344 | . | .102 | .007 | .402 |
| | N | 30 | 30 | 30 | 30 | 30 | 30 |
| IPEOU | Pearson Correlation | .211 | .066 | .238 | 1.000 | .691 ** | -.051 |
| | Sig. (1-tailed) | .131 | .365 | .102 | . | .000 | .394 |
| | N | 30 | 30 | 30 | 30 | 30 | 30 |
| IJR | Pearson Correlation | .266 | -.212 | .443 ** | .691 ** | 1.000 | -.015 |
| | Sig. (1-tailed) | .077 | .131 | .007 | .000 | . | .469 |
| | N | 30 | 30 | 30 | 30 | 30 | 30 |
| IVOL | Pearson Correlation | -.225 | -.127 | .047 | -.051 | -.015 | 1.000 |
| | Sig. (1-tailed) | .116 | .252 | .402 | .394 | .469 | . |
| | N | 30 | 30 | 30 | 30 | 30 | 30 |

*. Correlation is significant at the 0.05 level (1-tailed).

**. Correlation is significant at the 0.01 level (1-tailed).

Table 4 – Correlation Between Current Utilization and Internet Technology

**Correlations**

| | | UTIL | IINT | IPU | IPEOU | IJR | IVOL |
|---|---|---|---|---|---|---|---|
| UTIL | Pearson Correlation | 1.000 | .137 | .334* | .325* | .528** | -.141 |
| | Sig. (1-tailed) | . | .235 | .035 | .040 | .001 | .228 |
| | N | 30 | 30 | 30 | 30 | 30 | 30 |
| IINT | Pearson Correlation | .137 | 1.000 | -.077 | .066 | -.212 | -.127 |
| | Sig. (1-tailed) | .235 | . | .344 | .365 | .131 | .252 |
| | N | 30 | 30 | 30 | 30 | 30 | 30 |
| IPU | Pearson Correlation | .334* | -.077 | 1.000 | .238 | .443** | .047 |
| | Sig. (1-tailed) | .035 | .344 | . | .102 | .007 | .402 |
| | N | 30 | 30 | 30 | 30 | 30 | 30 |
| IPEOU | Pearson Correlation | .325* | .066 | .238 | 1.000 | .691** | -.051 |
| | Sig. (1-tailed) | .040 | .365 | .102 | . | .000 | .394 |
| | N | 30 | 30 | 30 | 30 | 30 | 30 |
| IJR | Pearson Correlation | .528** | -.212 | .443** | .691** | 1.000 | -.015 |
| | Sig. (1-tailed) | .001 | .131 | .007 | .000 | . | .469 |
| | N | 30 | 30 | 30 | 30 | 30 | 30 |
| IVOL | Pearson Correlation | -.141 | -.127 | .047 | -.051 | -.015 | 1.000 |
| | Sig. (1-tailed) | .228 | .252 | .402 | .394 | .469 | . |
| | N | 30 | 30 | 30 | 30 | 30 | 30 |

*. Correlation is significant at the 0.05 level (1-tailed).

**. Correlation is significant at the 0.01 level (1-tailed).

Table 5 – Educational Level to e-Mail Acceptance
for e-Commerce Activities

| | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| EIN | Between Groups | 9.250 | 26 | .356 | | |
| | Within Groups | 11.80 | 29 | | | |
| | Total | 2.640 | 3 | .880 | 2.942 | .052 |
| EP | Between Groups | 7.777 | 26 | .299 | | |
| | Within Groups | 10.41 | 29 | | | |
| | Total | 1.589 | 3 | .530 | 1.045 | .389 |
| EPEO | Between Groups | 13.18 | 26 | .507 | | |
| | Within Groups | 14.76 | 29 | | | |
| | Total | 1.319 | 3 | .440 | 1.026 | .397 |
| EJ | Between Groups | 11.14 | 26 | .429 | | |
| | Within Groups | 12.46 | 29 | | | |
| | Total | 2.751 | 3 | .917 | .363 | .780 |
| EVO | Between Groups | 65.61 | 26 | 2.524 | | |
| | Within Groups | 68.37 | 29 | | | |
| | Total | | | | | |

Table 6 – Educational Level to Internet Acceptance
for e-Commerce activities

| | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| IINT | Between Groups | 3.315 | 3 | 1.105 | 4.073 | .017 |
| | Within Groups | 7.052 | 26 | .271 | | |
| | Total | 10.367 | 29 | | | |
| IPU | Between Groups | 1.164 | 3 | .388 | 1.422 | .259 |
| | Within Groups | 7.096 | 26 | .273 | | |
| | Total | 8.260 | 29 | | | |
| IPEOU | Between Groups | 1.296 | 3 | .432 | .618 | .610 |
| | Within Groups | 18.171 | 26 | .699 | | |
| | Total | 19.467 | 29 | | | |
| IJR | Between Groups | .897 | 3 | .299 | .798 | .506 |
| | Within Groups | 9.746 | 26 | .375 | | |
| | Total | 10.644 | 29 | | | |
| IVOL | Between Groups | 1.435 | 3 | .478 | .210 | .889 |
| | Within Groups | 59.255 | 26 | 2.279 | | |
| | Total | 60.690 | 29 | | | |