EXPLAINING USERS' INTENTIONS TO CONTINUE PARTICIPATING IN WEB 2.0 COMMUNITIES: THE CASE OF FACEBOOK IN THE HASHEMITE KINGDOM OF JORDAN

A THESIS SUBMITTED FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

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ABSTRACT

Traditional communications media has been transformed and reshaped with the introduction of the Internet and its technologies. The Internet has massively evolved over time, and the World Wide Web or otherwise referred to as Web 1.0 has developed to what is so called Web 2.0. The explosive diffusion of this global system has fostered the emergence of Web-based communities supported by the existence of globally connected individuals.

As both the number of World Wide Web virtual community sites and users has expanded and grown quickly, these communities have become a subject of study to researchers of multiple disciplines. However, sustaining a successful operation of any Web 2.0 community depends on the continuous participation of its own users. It is massively important to maintain committed members in terms of continuous participation. Yet, their level of participation might vary depending on one's personal, social, situational, and cultural influences that eventually affect their intentions and behaviour on whether to continue or discontinue participating in that community.

Facebook as a particular Web 2.0 community has been used as an exemplary case study in this research reflecting the drivers of its continuous usage in the Hashemite Kingdom of Jordan. Moreover, very few studies on Web 2.0 communities covered the Middle East area and more specifically there is almost absence of research in Jordan on how users of Facebook along with their cultural and behavioural influences would continue using this Web 2.0 community or not. Therefore, this study tackles this issue to investigate the influences affecting the continuous participation in these communities

This research develops a conceptual framework that can be used as an instrument to guide empirical work in the field of Web 2.0 communities. The empirical context of the research is random Facebook users in Jordan, where data were analysed using quantitative and qualitative research approaches. Results and findings show that Personal attitude, subjective norms, and perceived behavioural control has shown to be all significant and highly influential on affecting users' intentions to continue participating on Facebook, perceived behavioural control (i.e. facilitating conditions, controllability) ranked the highest in its significance towards examining users' intentions to continue

participating on Facebook. Followed by the subjective norms (i.e. critical mass, compliance, and informational influences), then ranked the personal attitude (i.e. satisfaction, compatibility).

Results have proved that most Facebook users in Jordan do participate on this site in the first place to deliver epistemic value elements, not with a much difference came the social value after, then ranked the hedonic third. The utilitarian value proved to be insignificant by all means, therefore, users intend to continue participating on Facebook despite of the perceived value elements to be delivered. Interestingly, analysis have proved the insignificance of the three cultural dimensions (i.e. masculinity vs. Femininity, individualism vs. Collectivism, and long-term vs. Short-term orientation), therefore, it has not been considered moderating in the framework of this research.

Furthermore, the study concludes with specific implications for relevant theories, and useful findings on the individual, organizational, and the societal levels. Additionally, researchers in similar areas can find this work useful as a way to approach new streams in studying participation in Web 2.0 communities.

DEDICATION

There are a number of people without whom this research might not have been completed and this thesis might not have been written, and to whom I am greatly indebted.

To my dear husband Mutaz,

You have been my source of encouragement and inspiration throughout my studies. You have offered me all kinds of practical, mental, and emotional support one could ever need. I thank you for the tolerance and patience you have shown to my competing demands of study and self-development other than the demands of being a wife and a mother. Mutaz, I have learned a lot from you throughout the achievement of this research, and am so proud of what I have reached with your unconditional love and support. I would not have been able to finish this thesis without your guidance, I owe you so much.

To my precious daughter Sarah,

You have shared with me a wonderful experience, and you have been my companion through the hard days and sleepless nights. You have cheered up the bad times and regardless, you have inspired me to succeed. I love you Sarah.

To my beloved parents, mum and dad, and *family,*

Your belief in the richness of learning has been the biggest motivation that led me all the way throughout this thesis. I dedicate this to you for giving me all the love and moral support I have needed in the accomplishment of this work. Thank you for being that much proud of me; I am honoured to have you as my parents.

I would dedicate this thesis as well to my in-laws, and thank them for the help and encouragement they offered me when I most needed it.

Thank you all,
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From the formative stages of this thesis to the final draft, I owe an immense debt of gratitude to the ideal supervisor Dr. Anastasia Papazafeiropoulou. Her sage advice, invaluable guidance, insightful criticism, and patient encouragement aided the writing of this thesis in innumerable ways.

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To each of the above, I extend my deepest gratitude.

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LIST OF ABBREVIATIONS

- TCP/IP: Transmission control protocol/Internet protocol
- WWW: World Wide Web
- XML: Extensible Markup Language
- CoP: Communities of Practice
- 3D: Three Dimensions
- EDI: Electronic Data Interchange
- TTF: Theory of Task Technology Fit
- DOI: Diffusion of Innovation
- PCI: Perceived Characteristics Innovation
- TAM: Technology Acceptance Model
- TRA: Theory of Reasoned Action
- TPB: Theory of Planned Behaviour
- IT: Information Technology
- IDT: Innovation of Diffusion Theory
- EDT: Expectancy Disconfirmation Theory
- PBC: Perceived Behavioural Control
- SET: Self-Efficacy Theory
- RFC: Resource Facilitating Conditions
- TFC: Technology Facilitating Conditions
- IS: Information Systems
- PCC: Placement and Careers Centre
- MAS: Masculinity Index
- UAI: Uncertainty Avoidance Index
- VCs: Virtual Communities
- CMC: Computer Mediated Communication

- PCC: Placement and Careers Centre
- SPSS: Statistical Package for the Social Sciences
- WAP: Wireless Application Protocol
- OCs: Online Communities
- KMS: Knowledge Management System
- SNCs: Social Networking Communities
- B2C: Business to Customer
- MBA: Masters of Business Administration
- CV: Curriculum Vitae
- ANOVA: Analysis of Variance
- CA: Conversation Analysis
- IPA: Interpretative Phenomenological Analysis
- DA: Discourse Analysis

PUBLICATIONS

CONFERENCES

(2010) Al-Lozi, E., and Papazafeiropoulou, A., "Developing a framework explaining continuous participation in digitally engaged communities". *In proceedings of the 15th annual conference of the UKAIS*, Oxford, UK.

(2010) Al-Lozi, E., and Papazafeiropoulou, A., "And why would I participate? A framework of value exchange and roles in digitally engaged communities". *In proceedings of the 3rd digital cultures workshop*, Manchester, UK.

BOOK CHAPTER

(2011) Al-Lozi, E., and Papazafeiropoulou, A., "Intention-based models: the theory of planned behaviour within the context of IS", Springer Publications.

RELATED PROJECTS

NAME OF THE PROJECT

Trust and Value Exchange in the Digital Economy.

INVESTIGATORS:

Dr. Drew Hemment/Lancaster University, Dr. Laurence Brooks/ Brunel University, Dr. Tally Hatzakis/Brunel University, Enas Al-Lozi/Research Associate and PhD candidate/Brunel University, Mr. James Wallbank/Access Space.

SUMMARY:

The project investigated the successful creation and maintenance of trust in social networks. It explored the economic and non-financial value of social and participatory technologies for the many different companies and communities, who make, use and are affected by them. Trust in social networks is often fragile and precarious, it can be said to be a dilemma that needs to be solved differently each time. It often comes with other variables, such as reputation and credibility, and is multi-dimensional, developed over time, or comes through recommendation or association.

The project was led by Drew Hemment and Laurence Brooks. A Research Associate - Enas AL-Lozi - was employed for the project, who took part in workshops and ethnographic studies at Access Space in Sheffield and with Bebo in Belfast, plus who undertook an ethnographic studies of online users of Bebo's BeWell forum.

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1.1. INTRODUCTION

1.1.1. THE INTERNET AND WEB 2.0 REVOLUTION

Since its introduction, the Internet has enabled entirely new forms of social interaction, and activities, thanks to its basic features such as the widespread usability and access. Social networking websites such as Facebook, Twitter and MySpace have created new ways to socialize and interact. Users of these sites are able to add a wide variety of information to pages, pursue common interests, and to connect with others. It is also possible to find existing acquaintances, to allow communication among existing groups of people. Sites like LinkedIn foster commercial and business connections. YouTube and Flickr specialize in users' videos and photographs, and a lot more examples to mention.

The Internet is a global system of interconnected computer networks that use the standard Internet Protocol Suite (TCP/IP) to serve billions of users worldwide (Hoffman, 1996). It is a network of networks that consists of millions of private, public, academic, business, and government networks, of local to global scope, that are linked by a broad array of electronic and optical networking technologies. The Internet carries a vast range of information resources and services, such as the inter-linked hypertext documents of the World Wide Web (WWW) and the infrastructure to support electronic mail (Potosky, 2007). Therefore, most traditional communications media including telephone, music, film, and television are being reshaped or redefined by the Internet.

Within 15 years the Web has grown from a group work tool into a global information space with more than a billion users. Currently, the Web is both returning to its roots as a read/write tool and also entering a new, more social and participatory phase. These trends have led to a feeling that the Web is entering a 'second phase'—a new, 'improved' Web version 2.0 (Cormode and Krishnamurthy, 2008).

Web 2.0 refers to the second generation of web development and web design that facilitates information sharing, interoperability, user-centered design and collaboration on the World Wide Web (Alexander, 2006). The advent of Web 2.0 led to the development and evolution of Web-based communities, hosted services, and Web applications. Examples include social-networking sites, video-sharing sites, wikis, blogs, mashups and folksonomies. Web 2.0 websites allow users to do more than just retrieve information. They can build on the interactive facilities of "Web 1.0" to provide "Network as platform" computing, allowing users to run software-applications entirely through a browser (O'Reilly, 2005) users can own

the data on a Web 2.0 site and exercise control over that data (Hinchcliffe, 2006). The term Web 2.0 is commonly associated with Web applications that facilitate interactive information sharing, interoperability, user-centered design, and collaboration on the World Wide Web. A Web 2.0 site gives its users the free choice to interact or collaborate with each other in a social media dialogue as creators of user-generated content in a virtual community, in contrast to websites where users are limited to the passive viewing of content that was created for them (O'Reilly, 2005).

These sites may have an "Architecture of Participation" that encourages users to add value to the application as they use it (Graham, 2005; O'Reilly, 2005). This stands in contrast to traditional websites, the sort that limited visitors to viewing and whose content only the site's owner could modify. Web 2.0 sites often feature a rich, user-friendly interface based on (Asynchronous Java script and XML) Ajax (Graham, 2005) and similar client-side interactivity frameworks, or full client-server application frameworks such as OpenLaszlo, Flex, and the ZK framework (Hinchcliffe, 2006). According to Best (2006), the characteristics of Web 2.0 are: rich user experience, user participation, dynamic content, metadata, Web standards and scalability. Further characteristics, such as openness, freedom (Greenmeier *et al.*, 2008) and collective intelligence (O'Reilly, 2005) by way of user participation can also be viewed as essential attributes of Web 2.0.

1.2. RESEARCH AREA

Traditional communications media has been transformed and reshaped with the introduction of the Internet and its technologies. The explosion of the Internet has expanded faster than any other communications medium. This global system has interconnected millions and millions of people all over the globe through networks of public and private nature. As the Internet has massively evolved over time, the World Wide Web or otherwise referred to as Web 1.0 has developed to what is so called Web 2.0 (see Figure 1-1).

Currently, Web 2.0 is highly associated with the technologies and web applications that harnessed the power of the audience it is serving, often referred to as social media applications (Barsky and Purdon, 2006). These emerging platforms provided a greater collaboration among the Internet users, content providers and enterprises and facilitated the creation and exchange of user generated content and that is why you can say that users of Web 2.0 own the technology.

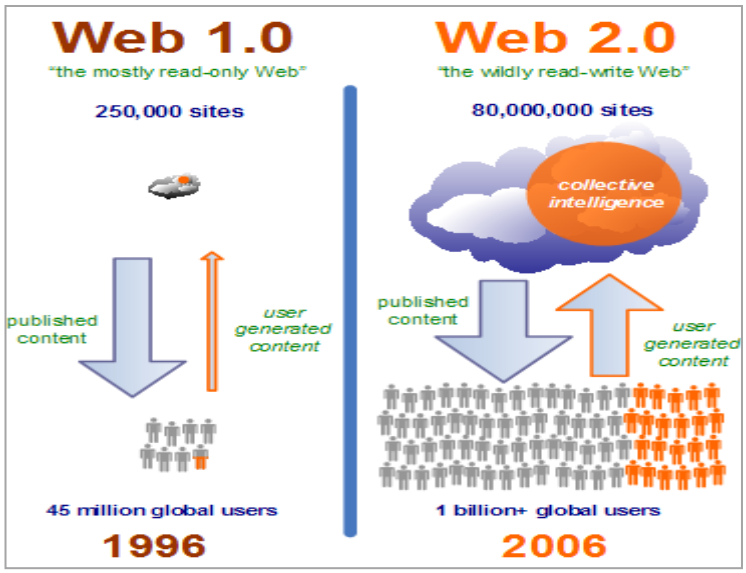


Figure 1-1: From Web 1.0 to Web 2. (Adopted from Ciccarelli, 2006)

Source: http://blogs.voices.com/thebiz/2006/09/web_20_definition.html

The explosive diffusion of the Internet has fostered the emergence of Web-based communities supported by the existence of globally connected individuals. This kind of connection is digitally enhanced to create an accessible environment available to everyone at anytime and at very low cost. Web 2.0 communities have existed over the Internet for almost a quarter of a century; the medium that created an online environment for people to get together and socialize in a more understandable, and friendly community. Therefore, there has been a recent rise of interest in studying Web 2.0 Communities. As both the number of WWW virtual community sites and users has expanded and grown quickly, these communities have become a subject of study to researchers of multiple disciplines (Lee *et al.*, 2003).

The wide spread of Web 2.0 communities and their mass adoption is traced back to the increasing number of Internet users connected all over the globe (see Table 1-1). A report by World Internet statistics indicated that the latest estimate number of Internet users for the year 2010 counted nearly 1.966.514.816 billion Web surfers worldwide, with over 475 million over Europe, and 63 million within the Middle East (Internet world stats, 2010). For example, Bebo caters a massive teenage audience of 11.2 million in the United Kingdom (UK) only, my space serves 10 million users, while Facebook grabbed the headline with 7 million UK users who have signed in within a year only (Brewis, 2008). Latest UK surveys claim that social networks sites are costing the British business up to £6.5 billion in lost productivity

(The Sunday Times, 2008). That was one example of the massive adoption of such communities worldwide.

World Regions	Population (2010 Est.)	Internet Users Latest Data	Growth 2000-2010
Africa	1,013,779,050	**110,931,700**	2,357.3 %
Asia	3,834,792,852	**825,094,396**	621.8 %
Europe	813,319,511	**475,069,448**	352.0 %
Middle East	212,336,924	**63,240,946**	1,825.3 %
North America	344,124,450	**266,224,500**	146.3 %
Latin America/Caribbean	592,556,972	**204,689,836**	1,032.8 %
Oceania / Australia	34,700,201	**21,263,990**	179.0 %
WORLD TOTAL	6,845,609,960	**1,966,514,816**	444.8 %

Table 1-1: Internet World Statistics 2010
Source: http://www.internetworldstats.com/stats.htm

1.2.1. CONTINUOUS PARTICIPATION IN WEB 2.0 COMMUNITIES

With the advent of these Web 2.0 communities, the human fabric and nature of social interacting and networking has been transformed. Indeed, these communities have shifted the boundaries of human interaction; where they have extended to broader geographical context, a context that acts as the mainstream medium for values creation and exchange. Where these technologies foster an online environment with endless opportunities of beneficial value elements, the intended purpose behind each cannot be achieved without the presence of dedicated users ensuring the effectiveness functioning of the community. Otherwise, it would simply be a cyberspace of outdated static contents rather than an ongoing source of value creation and exchange.

However, sustaining a successful operation of any Web 2.0 community depends on the continuous participation, and engagement of its own users. It is massively important to maintain committed members in terms of continuous participation and engagement. Users participate in Web 2.0 communities for the sake of satisfying personal and inner needs and desires, and satisfying those needs cannot be achieved without loyal interactants pitching in and generating the good. Yet, their level of participation might vary depending on one's personal, social, situational, and cultural influences that eventually affect their intentions and behaviour on whether to continue or discontinue participating in that community. Participation can be measured in terms of the general engagement of users within the site,

amount of time spent on the site, number of threads, number of returning visits, or number of page views and clicks (Johnston, 2009).

In the Power Law of Participation (see Figure 1-2) formed by Ross Mayfield (2006), users in Web 2.0 communities may participate on a low threshold level while others may highly engage with the community. Ross explains that most begins with a very low level of engagement through reading, and then once subscribed; if subscribed, they enter the middle phase of sharing, networking and writing till they formulate into a bigger role of moderating most activities on the site till they get experienced and lead the network of collaboration. But what makes them continue participating and evolving within the online community will be examined throughout this research. However, all these levels and types of behavioural roles are thoroughly explained in chapter two.

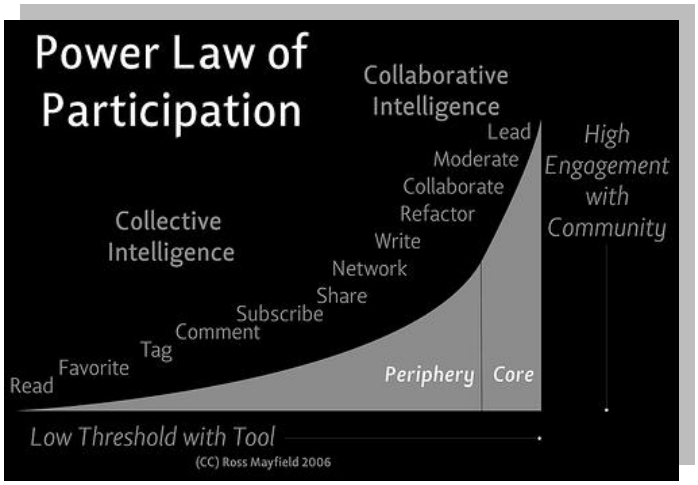


Figure 1-2: Power law of participation in Web 2.0 communities (Adopted from Mayfield, 2006)

Facebook as a particular Web 2.0 community has been used as an exemplary case study in this research reflecting the drivers of its continuous usage in the Hashemite Kingdom of Jordan. It is one of the largest and widely adopted and used Web 2.0 communities all around the world, and the massive rise in its adoption and usage within the last 2 to 3 years in Jordan, has shed the lights on the need for further research in this area and in such context. Therefore, attention should be paid to study the cognitive (social, cultural, and behavioural) beliefs underlying their continuous interest in coming back and participating on Facebook, or not. This attention however is deemed pertinent as previous efforts were mainly concerned with a more technology-related thinking without giving much attention to precisely identify the social-related influences in this context (see for example Taylor and Todd, 1995a,b; Tan and Teo, 2000; Hsu and Chiu, 2004; Lee *et al.*, 2005; Al-Gahtani *et al.*, 2007).

Having provided a brief introduction to this thesis, the current chapter continues to detail the research area and motivations behind this research, develops its questions, defines the objectives, provides a preface to the methodology being used, and confirms the multi-fold contributions of the research. Finally, and within the last section, an outline of the thesis, summarising the structure and the context of the next six chapters is illustrated.

1.2.2. WEB 2.0 COMMUNITIES

The advent of the third generation Internet-based broadband and other Web-based technologies has transformed the human fabric and nature of social interacting. The wide spread of digital communities and the move to their mass adoption is traced back to the increasing number of Internet users connected all around the globe (see Table 1-2). In a report by the ComScore (Erick Schonfeld, 2009) indicates that the estimate number of Internet users for the year 2008 counted nearly a growing 1.5 billion web surfers worldwide, with 283 million all over Europe, and 36.7 million only within the United Kingdom. The popularity of virtual spaces has grown tremendously over the past few years, and people became more motivated to express themselves, communicate, and maintain relationships digitally using a whole range of media and applications. Facebook, MySpace, LinkedIn, and other social networking sites are expected to grow to 1 billion participants by 2012 (Alexa, 2009).

#	Site	Users/million	Source
1.	Facebook	over 500	www.facebook.com/press/info.php?statistics
2.	My space	over 15	www.readwriteweb.com/.../myspace_mail_now_has_over_15_million_users.php
3.	Twitter	over 190	techcrunch.com/2010/06/08/twitter-190-million-users/
4.	LinkedIn	over 60	techcrunch.com/2010/.../linkedin-now-60-million-strong/
5.	Flickr	over 40	www.numberof.net/number-of-flickr-users/

Table 1-2: Examples of Web 2.0 communities and subscribed users worldwide.

Indeed, the rapid growth of network access, and convergence of a cheaper, faster, and flexible medium of computer mediated networking opened opportunities for creating, sharing and exchanging perceived value elements. It increased the velocity of transactions and fostered interactional density. The proliferation of low cost access anytime and from anywhere enticed

people to become active participants in managing their social lives online, specially to those who lack physical mobility. The ties are shifting from linking people in places to linking people at any place, which as well in a way or another enhances the "latent ties" (Walther and Boyd, 2002; Cummings *et al.*, 2002; Haythornthwaite, 2005; Du, 2006) between them. The potent influence of social computing applications in bringing together far-flung, and like-minded individuals (Hagel and Armstrong, 1997; Wellman and Gulia, 1999), and their role in influencing consumer opinions, knowledge, and behaviours (e.g., Williams and Cothrell, 2000).

The initiation of digital networks has not been for the sake of its own; each with the intention of gaining the adoption of friendship and dating hunters (i.e. MySpace, Facebook), educational and learning seekers (i.e. Yamaha, Pearson), and emotional and health support desirers (i.e. Bebo be well, iVillage). Most sites support people to connect based on shared interests, political views, or activities. Some sites cater to diverse audiences, while others attract people based on common language or shared racial, sexual, religious, or nationality-based identities. Sites also vary in the extent to which they incorporate new information and communication tools, such as mobile connectivity, blogging, and photo/video-sharing.

In spite of the differences in goal achievements of each, most share common participative features: Interactants of active or passive nature form impressions through customized personal profiles (Stutzman, 2006; Leitner *et al.*, 2008; Light *et al.*, 2008; Golbeck, 2009), otherwise referred to as "Social Presence" (Waters and Gasson, 2006). Identity profiling represents the IT artefacts that allow an individual to communicate and present his/her personal information to other members in the community (Law and Chang, 2008). Profiles reflect self presentational behaviours of participants where they manage information about name, age, gender, status, nationality, interest, phone number, home town, and occupation for contacting purposes (Sunden, 2003).

Web 2.0 communities offer people new and varied ways to communicate via the Internet, whether through their personal computers or their mobile phones. They allow people to easily and simply create their own online page or profile and to construct and display an online network of contacts, often called 'friends'. Users of these sites can communicate via their profile both with their 'friends' and with people outside their list of contacts. This can be on a one-to-one basis (much like an email), or in a more public way such as a comment posted for all to see.

On a general level, Web 2.0 communities can be categorized according to Peck *et al.*, (2007) into five main classes:

- **Person-Oriented Communities:** This type of communities represents the sort of communities where the person and social interactions are in focus. Examples on that are Bebo, MySpace, and Facebook.
- **Professional Communities:** Professional communities focus on business networking and Communities of Practice (CoP). Examples are LinkedIn and itLinkz (Brandtzaeg and Heim, 2008).
- **Media-Oriented Communities:** Communities that focus on the creation, distribution and consumption of user-generated multi-media content, such as videos, music, and photos. Examples are YouTube and Flickr.
- **Virtual World Communities:** Communities have changed from using simple text-based environments to integrating more multimedia tools and applications to enhance user-generated content. These 3-D virtual communities are created and owned by its own members and users. A typical example on that is Second Life (Brandtzaeg and Heim, 2008).
- **Mobile Communities:** Communities that allow easy access, and make it possible to have direct and indirect contact with the community and make any updates on the move, such as Twitter and Facebook.

1.2.3. DEFINITION OF WEB 2.0 COMMUNITIES

Regardless of the absence of a generally accepted definition for Web 2.0 communities, everyone nowadays seems to have a noticeable idea of the hallmarks and the main objects forming digital communities, but that can be misleading in a way. Researchers used different terms to refer to Web 2.0 communities and did highly contribute in defining computer mediated and supported communities (see Table 1-3). To start with, Lee *et al.*, (2003) defined the online communities as "the cyberspace supported by computer-based information technology, centred upon communication and interaction of participants to generate member-driven contents, resulting in a relationship being built up".

Rheingold (1994) defines virtual communities as: "Social aggregations that emerge from the net when enough people carry on public discussions long enough, with sufficient human feeling to form webs of personal relationships in cyberspace (p. 5). Plant (2004) defines them as "a collective group of entities, individuals or organizations that come together either

temporarily or permanently through an electronic medium to interact in a common problem or interest space" (p.54).

Another definition is made by Andrews (2002), who describes them as "a group of people who form relationships over time by interacting regularly on the Internet, as they have common interests for various reasons". Hagel and Armstrong (1997) define virtual communities as: "computer-mediated space where there is an integration of content and communication with an emphasis on member-generated content". Social Networks are defined by Wasserman and Faust (1994) as a: "set of actors connected by a set of ties". Schoberth *et al.,* (2002) use the term online communities to: "describe the communication and social interaction that is seen in Internet and Web-based list servers, bulletin boards, use-net newsgroups and chats".

Boetcher *et al.,* (2002) states that online communities can be defined just like any other traditional community, which is: "the gathering of people, in an online space where they come, communicate, connect, and get to know each other online" (p. 1). Boyd (2004) describes social network communities as: "technologies that enable the public articulation of social networks". Du (2006) defines the online community as a: "group of people communicating or interacting via the Internet". Jin *et al.,* (2007) view a virtual community as a: "group of people who conduct open activities of practice based on shared interests through the Internet to overcome the constraints of time and space".

Boyd and Ellison (2007) define social network sites as: "Web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system (p. 1). Blanchard (2008) define the social networks as: "groups of people who interact primarily through e-collaboration technologies and who have developed feelings of belonging, identity, attachment, and influence with each other" (p. 126).

Dwyer (2007) defines social networking sites as: "systems that offer free accounts, with ways to display profile information, visualize connections to friends, and share digital media". Bhattacherjee (2001) define the social network as a: "set of people, organizations, or other cial entities connected by a set of social relationships such as friendship, co-working or information exchange". Waterson (2006) refers to the term online community in a more general term, and defines it as: "a large-scale groups that regularly exchange information through mechanisms such as e-mail, weblogs, discussion lists, and Wikis" (p. 334). Interestingly, the term "communities 2.0" has been used by Brandtzaeg and Heim (2008) to

refer to online communities that are characterized by rich user-generated content, in terms of videos, audios and photos, and dynamic interaction among multiple users of a virtual space.

However, the most widely cited definition is that of Preece (2000), which argues that a digital community consists of: *people, purpose, policies, and the computer systems.* She explains that any community is created by a group of people who are networked together, interacting publicly (synchronously or asynchronously), sharing similar interests and needs, and governed through implicit set of rituals and protocols which guide their personal interactions. However, she also indicates that this kind of relationship needs to be mediated by the support of a technological facilitator.

Logically, this definition emphasizes the orchestration and management of the *sociability* and *usability* of these communities as the two key components behind individualised networking. These virtual spaces are changing from a geographical centric to a relationship specific, that's why it is becoming extremely difficult to define this term (Wilson, 2001).

Web 2.0 communities all share common attributes and indicators (Whittaker *et al.*, 1997; Rheingold, 2000; Diker, 2004; Waterson, 2006; Brandtzaeg and Heim, 2008):

- People with shared goals, interests, needs or activities.
- Repeated, active participation, with intense interaction and strong emotional ties between members.
- Access to shared resources with policies to determine access.
- Reciprocity of information, and supportive relationships between members.
- Strong social feelings of belonging and a sense of shared identity.
- Shared context (social conventions, language, protocols).

In sum, technology supported communities are Web-based networks of interpersonal ties that connotes individuals socially, and allow them to (1) create a sense of belonging and construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection that forms a sense of affiliation, and (3) view and traverse their list of connections and those made by others within the system. They are a form of socio-technical system (a combination of technologies, people, and social practices) (Bruckman, 2002). Hence the nature and taxonomy of these connections may vary from site to site; they can be direct or indirect. Members of these virtual communities start their involvement as web browsers or information lurkers, that involvement and participation increases by time and consequently the mode of interaction could evolve from informational to relational (Kozinets, 1999).

Source	Term	Definition
Wasserman and Faust (1994)	Social Network	Set of actors connected by a set of ties.
Rheingold (1994)	Virtual Community	Social aggregations that emerge from the net when enough people carry on public discussions long enough with sufficient human feeling to form webs of personal relationships in cyberspace.
Hagel and Armstrong (1997)	Virtual Community	Computer-mediated space where there is an integration of content and communication with an emphasis on member-generated content.
Preece (2000)	Digital Community	People, purpose, policies, and the computer systems.
Bhattacherjee (2001)	Social Network	A set of people, organizations, or other social entities connected by a set of social relationships such as friendship, co-working or information exchange.
Andrews (2002)	Online Community	A group of people who form relationships over time by interacting regularly on the Internet, as they have common interests for various reasons.
Schoberth *et al.* (2002)	Online Community	The communication and social interaction that is seen in Internet and Web-based list servers, bulletin boards, use-net newsgroups and chats.
Boetcher *et al.* (2002)	Online Community	The gathering of people, in an online space where they come, communicate, connect, and get to know each other online.
Lee *et al.* (2003)	Online Community	The cyberspace supported by computer-based information technology, centred upon communication and interaction of participants to generate member-driven contents, resulting in a relationship being built up.
Boyd (2004)	Social Network Community	Technologies that enable the public articulation of social networks.
Plant (2004)	Online Community	A collective group of entities, individuals or organizations that come together either temporarily or permanently through an electronic medium to interact in a common problem or interest space.
Du (2006)	Online Community	A group of people communicating or interacting with

		each other via the Internet.
Waterson (2006)	Online Community	Large-scale groups that regularly exchange information through mechanisms such as e-mail, discussion lists, weblogs and Wikis.
Boyd and Ellison (2007)	Social Network Site	Web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system.
Jin *et al.* (2007)	Virtual Community	Group of people who conduct open activities of practice based on shared interests through the internet to overcome the constraints of time and space.
Dwyer (2007)	Social Networking Site	Systems that offer free accounts, with ways to display profile information, visualize connections to friends, and share digital media.
Blanchard (2008)	Virtual Community	Groups of people who interact primarily through e-collaboration technologies and who have developed feelings of belonging, identity, attachment, and influence with each other.

Table 1-3: Definitions of Web 2.0 communities.

1.2.4. EVOLUTION OF WEB 2.0 COMMUNITIES

Since 1975 with the introduction of the Internet, Web 2.0 communities originally began to form as social entities with the aim of bringing back a sense of belonging that was lost during the shift from community to society (Fischer *et al.*, 1996). These communities reach back to the beginnings of e-mail based list servers and news groups used for the exchange of ideas and information (Schoberth *et al.*, 2002). The existence of Web-based communities was predicted 20 years ago by Licklider (1965). It has been even viewed by many researchers that Community Memory of Berkeley, California that initially started in the mid-1970s was the first practical online community (Schuler, 1994; Li *et al.*, 2008). Generally speaking, it is believed that Web 2.0 communities are traced back to the emergence and use of Electronic Data Interchange (EDI) along with other inter-organizational systems (Plant, 2004).

That concept started with the organizational evolution in their ways of running and managing business relationships. These relationships expanded beyond their traditional boundaries, and the process of automated information exchange between the business parties along with the development of standardised networking protocols is what established a sense of a business community. Long distance communities started to flourish by the beginning of 1970s (Wellman *et al.*, 2002) where businesses initiated network interaction towards achieving common objectives and strategic goals.

Despite that, social needs were not part of the intended purpose of these networks. Therefore, apart from that, the first recognizable social network site has been launched in 1997. That social network what so-called *SixDegrees.com* allowed users to log up and create profiles, with the ability of surfing for others and networking. Personal profiles existed on most major web based community sites but with slight differences in the website features. *Classmates.com* for example, allowed people to affiliate with their high school or college, but lacked the flexibility of creating profiles and surfing friends.

Thus, worth mentioning, *Six Degrees* (1997) was the first to combine these features, it first promoted itself as a tool to help people connect with and send messages to others. Nevertheless, while *Six Degrees* failed to sustain in business and eventually closed. Looking back, its founder believed that Six Degrees was simply ahead of its time (Weinreich, 2007; Boyd, 2008). Early adopters complained that people were already assembling to the Internet; most did not have extended networks of online friends, and additionally, most users were not interested in meeting strangers.

With the beginning of year 1997, a number of online communities began supporting various combinations of perceived value creation and exchange in social networking environments. Early examples such as AsianAvenue, BlackPlanet, and MiGente allowed users to create personal, professional, and dating profiles (Wasow, 2007). The next wave began when Ryze.com was launched in 2001. But in the end, communities such as Ryze never acquired mass popularity, Tribe.net grew to attract a passionate niche user base, LinkedIn became a powerful business service, and Friendster became the most significant, if only as "one of the biggest disappointments in Internet history" (Chafkin, 2007, p. 1).

1.3. RESEARCH MOTIVATIONS: CONTINUOUS PARTICIPATION IN WEB 2.0 COMMUNITIES

As more and more people join Web 2.0 communities, and some communities fall apart soon after their launch due to their disability in generating enough energy and synergies for engaging in long-term activities (Bettoni *et al.,* 2007), there is an emerging need to understand their continuous interaction and participation at a deeper level (Nolker and Zhou, 2005). Examining the social influences affecting their choice of whether to continue participating or not is becoming a key research issue in the IS field (Bhattacherjee, 2001; Bhattacherjee and Premkumar, 2004).

Despite the fact that Web 2.0 communities have existed in some fashion for over 25 years, little scholarly research has empirically addressed the reasons why users choose to remain active and continue participating in a certain community and why others stop to, and what are the influences affecting that behaviour as a result. Fostering participation in Web 2.0 communities is an issue that continues to present challenges for researchers and practitioners alike. Therefore, it is important to provide incentives to encourage participation until the community reaches a critical mass and takes off (Cheng and Vassileva, 2006).

Moreover, very few studies covered the Middle East area and more specifically there is almost absence of research in Jordan on how users of Facebook along with their cultural and behavioural influences would continue participating on this Web 2.0 community (the case of Facebook in this research) or not. Even the behaviour of continuous participation in such a community has been ignored in a way or another and underestimated. This study tackles this issue to investigate the influences affecting the continuous participation in these communities.

Is it a personal matter where some users are internally motivated to continue, or this behaviour is traced back to some other factors? Well, seeking to understand the reasons behind such behaviour, the current research focuses at investigating the continuous participation on Facebook in Jordan, on the basis of identifying the social precedents influencing human attitudes and leading to this continuous behaviour. This research emphasizes the importance of the social aspects and characteristics in determining human intentions and their continuous post-*usage* behavioural roles pertaining to Facebook. It postulates that as individuals live within different contexts of personal, social, situational, and cultural backgrounds, the roles played by them in Web 2.0 communities in general and on

Facebook in specific are more likely to be different, due to the intentional differences in regards to which perceived value elements are desired to be captured.

Retrospectively, attention should be paid to study the personal, social, situational, and cultural beliefs underlying their continuous interest in coming back and participating in such communities, or not. This attention however is deemed pertinent as previous efforts were mainly concerned with a more technology-related thinking without giving much attention to precisely identify the social-related influences in this context (see for example Taylor and Todd, 1995a,b; Tan and Teo, 2000; Hsu and Chiu, 2004; Lee *et al*., 2005; Al-Gahtani *et al*., 2007).

The current research motivations are therefore attributed to the need of a further investigation of the social-related aspects that would influence the continuous participation of Facebook users in Jordan. To this end, the research develops a theoretical framework that investigates the social precedents influencing human intentions, the cultural influences, and as a result develops a categorization of those perceived value elements driving members into continuous participation on Facebook, leading to the final categorization of the roles and behaviour played by those users.

1.4. PURPOSE OF RESEARCH

1.4.1. PROBLEM STATEMENT

This research aims at investigating the social and cultural influences of human behaviour on determining the continuous participation of users on Facebook. Influences such as personal, social, situational, and cultural are to be examined to further understand why some users continue to participate on Facebook, and why others stop to within the context of Jordan. Thus, the question of this research can be formulated through the statement of asking:

"What drives users' intentions to continue -or not- participating on Facebook?"

In other words: "What are the influences that motivate Facebook users in Jordan to continue participating on it?"

1.4.2 OBJECTIVES

The research aim cannot be achieved without fulfilling certain objectives covering the main steps of investigating the phenomenon. Thus, the objectives of this research are to:

- Explore and identify the social influences affecting users' continuous participation of Facebook in Jordan.
- Examine the effect of the cultural dimensions in Jordan on users' intentions to continue participating on Facebook or not to.
- Analyze and classify the perceived value elements behind participating and engaging on Facebook in Jordan.
- Analyze and classify users' roles and behaviour on Facebook and their potential differences over time.
- Develop a framework to examine the relationships amongst the social influences, the cultural dimensions, the perceived value elements, and the roles of users on Facebook in Jordan.
- Carry out a field discovery to examine, evaluate and empirically validate the research problem.

1.5. PREFACE TO METHODOLOGY

Due to the nature and context of this research, quantitative and qualitative methodological methods are used for studying and investigating the social facts reflecting the problem area which reflects the positivist paradigm of this study. Both are appropriately applied since quantitative research explains the changes in social facts primarily through objective measurements and quantitative analysis (Taylor and Bogdan, 1984), while qualitative research is more concerned with understanding the social phenomenon from the audiences' perspective (Firestone, 2005). This enables the researcher to study the phenomenon from a social and cultural perspective and on a large scale (see Denzin and Lincoln, 1994; Avison and Pries-Heje, 2005).

The massive number of Facebook users in Jordan which are distributed on a large geographic area makes it even harder for the researcher to generalize the results of the data collected, however it is still easy to collect responds as the sample investigated represents 69% of the whole population of Facebook users in Jordan, which is quite reasonable. Therefore, the selection of both methodologies would help in better understanding the continuous intentions and behaviors of Facebook users through the social, cultural, and behavioral contexts within which they live.

1.5.1. QUESTIONNAIRES:

Concerning the research strategy of inquiry, carefully designed questionnaires are distributed to Facebook users in Amman/Jordan aged between 18-45 years old. This strategy is one of most commonly used quantitative methods of gathering information about use and usage. It holds that behavior can be explained through objective facts. It is the easiest way of collecting responds on a very wide scale that forms the base of the social phenomenon being investigated. It is also the most efficient way to begin with in testing any research hypotheses. But to get the more contextual, rich details on a more in-depth level of investigation, the researcher conducted group interviews; otherwise called focus groups.

1.5.2. FOCUS GROUPS:

Focus groups can be defined as: "a group of participants gathered to share their thoughts, ideas, feelings, and attitudes on a certain subject". The method is particularly useful for exploring people's knowledge and experiences and can be used to examine not only what people think but how they think and why they think that way. For the main research, two focus groups have been formed consisting of 9-10 participants aged between 18-45 years old. Participants of the quantitative part were asked to leave their e-mails on the templates distributed earlier, and then were invited to take part in focus groups but was kept voluntary. Each session lasted for around 45-50 minutes. In this case the researcher plays a more detached role where the researcher becomes the instrument of data collection but in a more subjectively immersed matter. However, further details of research methodology and design are discussed in chapter 3.

1.6. SIGNIFICANCE OF RESEARCH

The outcome of this research makes multi-fold contributions to the body of literature on online communities in the Middle East in general and on Facebook in specific in Jordan. The multi-fold significance of this research in terms of **theory** and **practice** can be summarized as mentioned below. From a theoretical point of view it:

Contribution 1: It tests the theory of planned behaviour within the context of continuous participation and engagement on Facebook (i.e. the post-adoption decision of continuous participation.

Contribution 2: It examines the social and cultural related determinants that would influence a person's attitude and behaviour towards that continuous behaviour.

Contribution 3: It develops a comprehensive taxonomy classifying the perceived value elements driving users' intentions into participating on Facebook in Jordan as they are expected to be gained and achieved as a result.

Contribution 4: It develops an inclusive categorization of the various behavioural roles adopted and played by users and members of Facebook in Jordan.

Contribution 5: It investigates the effect of the attitudinal determinants on human intentions to participate on Facebook, and as a result that intentional influence on determining users' behaviour based on the examination of the relationships flowing within.

From a practical perspective, it is a model that provides insights on the individual, organizational, and the societal levels for: **Decision and Policy Makers** in building strategic plans for a sustainable and continuous participation and engagement in Web 2.0 communities and Facebook in specific, and according to that, policies and regulations might need re-engineering for the sake of supporting certain users. **Service Providers** in knowing what factors to examine, whom to support and whom to watch, it eases up their ability of recognizing which parts of the online community to balance and to focus on for re-enhancement purposes.

For **Users** where they can exactly know which perceived value element they would gain and acquire when acting upon a certain role and vice versa depending on each users' own attitudinal characteristics, social beliefs and influences, and the situational and cultural factors accompanied by every user and thus affecting their decision on whether to re-participate again. For **Developers,** it inspires them in knowing and meeting the exact needs and perceived value elements of users according to their different behavioural roles, taking into consideration the attitudinal, societal, control, and cultural differences affecting their intentions and actual behaviours.

But as individuals' needs and desires change in each stage of the online community evolution over time, developers require re-designing the tools, features, mechanisms, and technologies.

They have to identify carefully each behavioural role played within the community, and know what kind of perceived value element is related to it, and thus add the right technology components that will better support the community, in a way a sustainable information system life cycle prescribes.

1.7. STRUCTURE OF THESIS

This piece of research revolves around seven main chapters, where each chapter introduces, reviews, and summarizes the content and outputs delivered behind it, structured as in Figure 1-3.

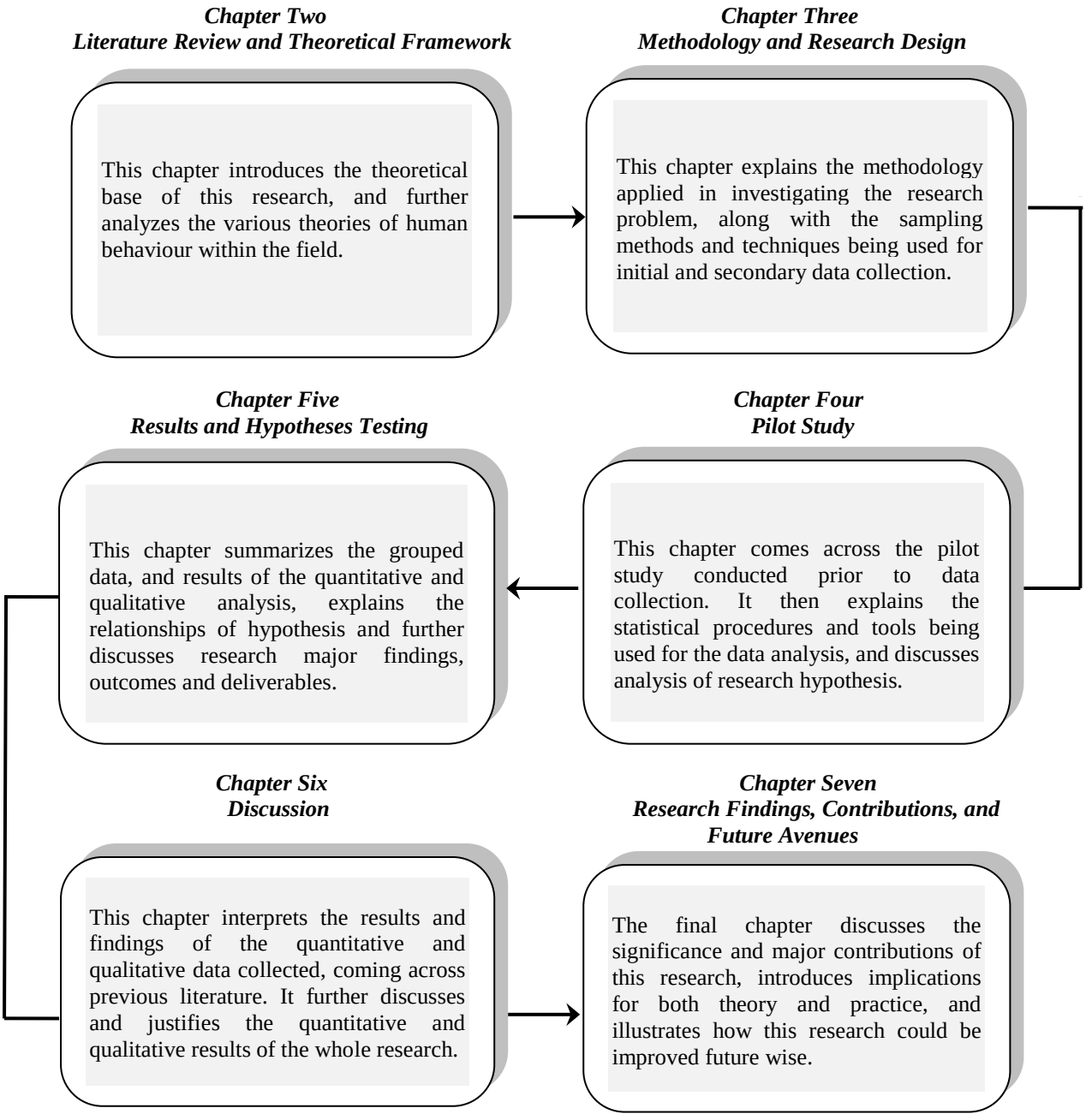


Figure 1-3.Structure of Thesis.

Chapter Two

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

- **CONTENTS** **PAGE**

2.1. INTRODUCTION

Web 2.0 communities cannot survive without lasting user involvement, participation, and engagement in terms of generating user content and social interacting. Indeed, Web 2.0 communities need participative members if they are to sustain. What are most important the perceived values elements a certain community offers. People may join a community for one reason, but participate for another. For the past couple of years, millions of people have turned daily to Web 2.0 communities to conduct diverse information-seeking and communication activities. A great number of users, however, are passive information consumers (Fichter 2005; Totty 2007). They read world news, review weather forecasts, and look for medical information. Over time, many would assume an additional role and become information providers contributing content on a wide range of topics in blogs and wikis (Baller and Green 2005; Goodnoe 2006).

Value creation and exchange can be described in a framework provided by Kappelman and Mclean (1992) in three patterns of social engagement; *Participation, Involvement, and Engagement*. They define participation as the observable behaviour of individuals in a collaborative process, while involvement is differentiated by them as a psychological state of identification to the extent that an object is perceived as both important and personally relevant, however, engagement is referred to by them as the superset of participation and involvement required to bind community members together into a social entity of communal resources (Wenger, 1998).

Behind any level of digitally engaged participation, there are numerous classes of the perceived values created and exchanged and as a result classes of behavioural roles are determined. Web 2.0 communities offer a wide range of publicly transferred benefits, and people join them to fulfil personal needs, whether individually-oriented, or community-oriented through playing a certain behavioural role. However, participation is purposive and the level of involvement might vary depending on the purpose being gratified. Therefore, the success behind any virtual community is in its growing, continuous user participation, involvement and engagement.

2.2. RELEVANT THEORIES

Researchers have employed various theories such as social network analysis (e.g. Wellman and Gulia, 1999), life cycle models (e.g. Alon *et al*., 2004), and motivational theories (e.g. Bagozzi and Dholakia, 2002) for studying Web 2.0 communities. Many others have applied the Theory of Task-Technology Fit (TTF), Diffusion of Innovation (DOI), and Perceived Characteristics Innovation (PCI). Clearly, research in information systems has heavily employed intention-based models which use behavioural intention to predict usage and in turn focus on the identification of the determinants of intention (attitudes, social influences and facilitating conditions (Davis *et al*., 1989; 1992).

The most widely cited and applied intention-based theories are the Technology Acceptance Model (TAM); The Theory of Reasoned Action (TRA); and the Theory of Planned Behaviour (TPB). However, a common theme underlying many of these investigations is to better understand the nature and role of the social influence of antecedents exerted by the community on its members and their perceived value elements (Alon *et al*., 2004; Postmes *et al*., 2000; see Dholakia and Bagozzi, 2004 for a review).

TPB received great attention from many researchers and is still extensively adopted in improving the understanding of the determinants of IT usage. Previous studies have increased the explanatory power of TPB by considering the multi-dimensionality of its components; thus, the extended TPB has been successfully used in predicting IT usage from decomposing attitudinal, normative, and control beliefs (Taylor and Tod, 1995; Hsu and Chiu, 2004; Lin, 2006). A study by Taylor and Tod (1995) indicated that a better understanding of the relationships between the belief structures and antecedents of intention requires the decomposition of attitudinal beliefs. They showed that the decomposed model of the TPB has better explanatory power than the pure TPB and TRA.

Yet the theory of planned behaviour has not been applied to the context of continuous of IT usage (Hsu and Chiu, 2004; Hsu *et al.,* 2006), and more specifically and within the context of this research; the continuous participation and engagement in Web 2.0 communities. Previous studies have implicitly considered continuance as an extension of acceptance behaviours (see Karahanna *et al.,* 1999). Additionally, this research aims to examine the post adoption cognitive beliefs and factors influencing one's intention to continue participating and using Web 2.0 communities. And that could not be better supported and explained with a theory other than the TPB.

This research suggests that the extended TPB is a widely accepted expectancy-value model appropriate for explaining the determinants of member intentions to continue participating in Web 2.0 communities. In other words, the extended model tends to examine the post-adoption cognitive and situational beliefs anteceding and influencing one's intentions to continue participating on digitally engaged communities. Therefore, as the TPB has been successfully used in predicting behaviour intention from person's attitudes, subjective norms, and PBC, it has been extended to include different attitude-related factors allowing cross-over effects so as to increase its predictive power, and it is applied as the theoretical base for this study to better predict and explain members' intentions and behavioural roles.

2.2.1. TECHNOLOGY ACCEPTANCE MODEL (TAM)

TAM focuses on explaining the attitude behind the intention to adopt, accept and use a specific technology or service (Shih and Fang, 2004). It is an adaptation of the TRA from psychology specifically tailored to model user acceptance of IT. TAM has been widely applied in acceptance behaviour across a broad range of IT (Bajaj and Nidumolu, 1998;

Gefen and Straub, 1997; Lin and Lu, 2000; Liaw and Huang, 2003; Pin and Lin, 2005; Wu and Wang, 2005). However, it places more emphasis on the role of technology in affecting users' intentions towards their behaviour.

TAM is primarily built on the TRA, Expectancy Theory (Vroom, 1964; Robey, 1979); and Efficacy Theory (Bandura, 1977). It theorizes that one's behavioural intentions are determined by two specific belief constructs (perceived usefulness, and perceived ease of use). In short, if the central goal is to predict IT adoption from an IT perspective, it can be argued that the TAM is preferable for the reason that it focuses on system design characteristics. TAM predicts whether individuals will accept and voluntary use a certain system.

However, the TAM's fundamental constructs do not fully reflect the specific influences of technological and usage-context factors that may alter the users' acceptance (Moon and Kim, 2001). Therefore, perceived usefulness, and perceived ease of use may not fully explain behavioural intentions towards the use of virtual communities. Its fundamental constructs do not fully reflect the variety of user task environment and constraints (Fu *et al.*, 2006). The TAM does not take into account the human and social factors that the TPB considers. Therefore, TAM has not been considered within the context of this study, as this research aims at studying the social-related antecedents of human intentions and not the technology-related ones.

2.2.2. DIFFUSION OF INNOVATION (DOI)

The most dominant and authoritative work of the innovation diffusion theory (IDT) literature is that of Rogers' (1995). His work has been widely cited although his framework that has been developed during the last 35 years has been debated (Elliot and Loebbecke 2000; Kautz and Pries-Heje 1996)) it is the first well-known and widespread framework for the diffusion of innovations (See Rogers, 1983).

According to Rogers the *innovation-decision process*, in which a decision-making unit passes from first knowledge of an innovation to the decision to adopt or reject it, plays a crucial role for the diffusion of an innovation. In this process five steps are defined: *Knowledge* occurs when a potential adopter learns about the existence on the innovation and gains some understanding of how it is functions. *Persuasion* occurs when a potential adopter forms a favourable or unfavourable attitude towards and innovation.

Decision occurs when a potential adopter undertakes activities, which lead to the adoption or rejection of an innovation. *Implementation* occurs when an innovation is actually put to use. *Confirmation* occurs when an adopter seeks reinforcement of an innovation-decision that has already been made, but the adopter may reverse this previous decision if exposed to conflicting messages about the innovation. Based on the DOI theory, the attitudinal belief has three salient characteristics of an innovation that influence the adoption decision: relative advantage, complexity and compatibility, these factors are strongly related to adoption decision (Tornatzky and Klein, 1982). As the essential focus of this study is to investigate the post-adoption factors that would lead to continuous participation, this theory has not been considered.

2.2.3. EXPECTANCY DISCONFIRMATION THEORY (EDT)

Expectancy disconfirmation theory is a consumer behaviour model that gained widespread acceptance in the research of explaining and predicting consumer satisfaction and continuance in the context of online shopping. It is originally developed by Oliver (1980) and theorizes that users' post-purchase satisfaction is jointly determined by pre-purchase expectation and expectancy disconfirmation. EDT assumes that consumers' degree of satisfaction is an outcome of a five step process (Oliver, 1980) where users: 1. Form an initial expectation of the service. 2. Accept, join and use the service. 3. Form perceptions about that certain service. 4. Compare the formed perceptions with their prior expectations. 5. Form a feeling of satisfaction, or dissatisfaction based on their disconfirmation level.

According to this theory, users' disconfirmation level is three folds; users can be positively disconfirmed where the service perceived performance exceeds their expectations; Confirmed where the service perceived performance equals users' prior expectations; and negatively disconfirmed where the level of perceived performance of the service being used falls short of users' expectations. EDT is a very well suited theory to further our understanding of continuous usage of Web 2.0 communities within the context of this research, due to its being widely used in the consumer behaviour literature to study post-purchase behaviour.

It is worth mentioning here, that Coughlan *et al*., (2001) asserted that satisfaction is an attitude construct that affects behavioural intentions. Therefore, satisfaction has been applied in the research framework as a major antecedent and determinant of perceived value elements, along within a decomposed model of the theory of planned behaviour in order to

study the post-behavioural roles of members of Web 2.0 communities (i.e. the continuous participation and engagement in Web 2.0 communities).

2.3. THEORY OF PLANNED BEHAVIOUR: ORIGIN

Human behaviour can be best explained as the result of attempts exhibited by humans to satisfy certain needs and desires. It is driven by person's own motives and intentions and mostly influenced by personal, social, and situational factors. Studying human behaviour allows a better understanding to the motives and intentions behind people's actions, but explaining that in all its complexity has been and still a difficult task. Human behaviour has been approached at many levels, from physiological concerns at one extreme to social concentrations at the other.

Concepts such as personal attitudes and personality traits, social norms and values, and the environmental conditions surrounding a person plays a major and important role in the attempts of predicting and explaining human behaviour (see Ajzen, 1988; Campbell, 1963). But the question remains; why do people act the way they do? Finding the answer to such a question is not easy. In fact, a vast amount of scientific research has tried to answer such a thing but yet, no comprehensive and clear explanation for that.

Generally speaking, you could say people behave the way they do for a reason. However, the reason may not be clear; in fact, it may not be logical or rational either. Therefore, this area of studies has received a great deal of attention for the fact that by observing human behaviour, you can gain the knowledge you need to better understand yourself and people surrounding you and influencing your own behaviour. It helps in learning why people act and react in certain ways, and identifies the various types of behaviour and needs of people.

The history of theory of planned behavior is traced back to the theory of reasoned action, developed by Icek Ajzen and Martin Fishbein (1980). TRA was derived from early research which started out as the theory of attitude, and eventually led to the study of human attitude and behavior. The TRA was "born largely out of frustration with traditional attitude-behavior research, much of which found weak correlations between attitude measures and performance of volitional behaviors" as stated by (Hale *et al.*, 2003, p. 259).

By the 1980's, Ajzen and Fishbein extended the concept into a theory of reasoned action as a major determinant of any human behaviour. Their theory of reasoned action posits that the antecedent of any behaviour is human intention, and that the strength of the person's

intentions to perform that certain behaviour corresponds with the likelihood of the behaviour taking place. The antecedents of intentions were stated as the strength of attitudes towards the certain behaviour, and subjective norms that are perceived as the social pressure of whether to perform or not to perform the behaviour.

The theory of reasoned action is a model that finds its origins in the field of social psychology. This model defines the links between behavioral beliefs, personal attitudes, social norms, intentions, and behaviors of individuals. According to this model, a person's behavior is determined by its behavioral intention to perform it. This intention is itself determined by the person's behavioral attitudes, personal traits, and his subjective norms towards the behavior.

The TRA postulates that the attitude of a person towards a behavior is determined by his beliefs on the consequences of this behavior, and by his evaluation of these consequences. Beliefs are defined by the person's subjective probability that performing a particular behavior will get him to a certain outcome and produce specific results. Moreover, behavioral intention is also determined by the subjective norms that are themselves determined by the normative beliefs of an individual and by his motivation to comply to the social norms.

The key application of the theory of reasoned action is prediction of behavioral intention as reasoned action is explicitly concerned with behaviour. This theory recognizes that there are situations (or factors) that might limit the influence of attitude on behaviour. Therefore, reasoned action predicts behavioural intention, a compromise between stopping at attitude predictions and actually predicting behaviour. Because it separates behavioural intention from behaviour, reasoned action also discusses the factors that limit the influence of attitudes (or behavioral intention) on behaviour

TRA also claims that all other factors which influence the behavior only do so in an indirect way by influencing the attitude or subjective norms. Fishbein and Ajzen (1975) refer to these factors as being external variables. These variables can be for example, the characteristics of the tasks, or of the user, the type of development implementation, the political influences, and the organizational structure (Davis *et al*., 1989). Theory of reasoned action is an important account of volitional behaviour in social psychology. The TRA and its successor, the theory of planned behaviour (Ajzen, 1985), were developed to permit prediction behaviours not entirely under volitional control.

2.4. CONCEPTUAL FRAMEWORK OF TPB

Later refinements of the TRA, is Icek Ajzen's Theory of Planned Behaviour (TPB) - which act as an extension to the TRA that resides around the additional construct of controlled behaviour. Ajzen's theory of planned behaviour (1985) proposes and incorporates an additional determinant of human motivational intentions which is the *'Perceived Behavioural Control'* (PBC) into the reasoned action model. This addition is to acknowledge the discovery that individuals might have incomplete control over their intended behaviour, as a result of unstable and uncontrollable external contexts (Ajzen, 2002; Bandura, 1977, 1982; Triandis, 1977).

The theory of planned behaviour is a well-established social-psychological model used to examine and predict human intentions and behaviour in situations where individuals might lack control over their own behaviour. The major difference between TRA and TPB is the addition of a third determinant of behavioural intention, perceived behavioural control. The concept of perceived behavioural control, however, originates from the Self-Efficacy Theory (SET) proposed by Bandura (1977).

PBC indicates that a person's motivation is influenced by how difficult the behaviours are perceived to be, as well as the perception of how successfully the individual can, or cannot, perform the activity. If a person holds strong control beliefs about the existence of factors that will facilitate a behaviour, then the individual will have high perceived control over a behaviour. Conversely, the person will have a low perception of behavioural control if he/she holds strong control beliefs about that certain behaviour.

The theory of planned behaviour is very powerful and superior with respect to other competing models in predicting and explaining human behaviour, because it supplies more information to explain behaviour (Mathieson, 1991; Taylor and Tod, 1995a, b). Thus, it provides good prediction while using few predictors, and provides a complete understanding of the phenomena as it includes variables with very different conceptual scope.

Within the core of the theory of planned behaviour lies the central factor, which is individuals' intention to perform certain behaviours. Intentions can be defined as the anticipated outcome that guides your planned actions. Individuals' intentions are indications of what would motivate and influence his intent to act in certain behaviour. Thus, intentions

would be expected to affect and influence performance to the extent that the person has behavioural control (Ajzen, 1991).

Remarkably, the general framework of the theory of planned behaviour (see figure 2-1) postulates three conceptually independent determinants of members' intentions; *Attitudes, Subjective Norms,* and *Perceived Behavioural Control*. *Attitude* towards the behaviour refers to the degree to which a person has a favourable or unfavourable evaluation or appraisal of the behaviour to be acted upon (Taylor and Tod, 1995a, b; Orbell *et al*., 1997). Individual attitude is determined by personal beliefs and traits that characterize that individual in particular.

The second determinant strongly relates to social factors and is termed as individuals' subjective norms. *Subjective Norms* refer to the perceived social pressure of the external environment surrounding individuals on whether to perform a behaviour or not, and how family and friends would affect his/her perception of whether to behave in a certain way or not. This construct is consistently a weaker predictor of physical activity intentions than attitudes and perceived behavioural control (Godin and Kok, 1996, Hagger *et al*., 2002).

The third antecedent of individuals' behavioural intentions is the degree of *Perceived Behavioural Control* which refers to one's perceived ease or difficulty of performing the behaviour (Orbell *et al.*, 1997). Interestingly, Ajzen (1991) assumes that perceived behavioural control reflects to some extent past experience as well as other anticipated hurdles and obstacles (i.e. resources and opportunities available to a person) which might be internal or external.

The antecedent of perceived behavioural control (ability) contributed by Azjen plays an important part in the theory of planned behaviour. The present view of it is most compatible with Bandura's (1977, 1982) concept of perceived self-efficacy, which is concerned with "judgments of how well one can execute courses of action required to deal with prospective situations" (Bandura, 1982, p.122).

These investigations and findings have strongly indicated that people's behaviour is highly influenced by their actual confidence level in their ability to perform it (i.e. by their own perceived behavioural control). The importance of *actual* behavioural control is self evident (Azjen, 1991); the facilitating resources and opportunities available to a person must to some extent dictate the likelihood of behavioural achievement.

There is a lack of evidence for the interactive effects of PBC on the intention–behaviour relationship. Thus; Ajzen (1991) argued for a direct relationship between PBC and behaviour which more closely fitted the available data. Ajzen also argued that under conditions where behavioural intention alone would account for only small amounts of the variance in behaviour (i.e. where there are problems of volitional control), PBC should be independently predictive of behaviour.

Consequently, the measurement of perceived behavioural control has attracted considerable attention in the TPB literature. Several researchers and practitioners (see Armitage and Conner, 2001; Trafimow *et al.*, 2002) have argued that perceived behavioural control is a multi-dimensional construct comprising two conceptually distinct constructs: *Perceived Control*, and *Self-Efficacy*.

Although perceived behavioural control is about whether individuals' behaviour is to be considered under their own voluntary control, self-efficacy refers to the perceived ease or difficulty of performing that behaviour (Bandura, 1986). However, Ajzen (2002) agreed that perceived behavioural control consists of perceived control and self-efficacy; but, he rejected the idea that the two variables are independent from each other.

According to the model of the theory of planned behaviour, perceived behavioural control, together with human intention, can directly predict the actual behavioural achievement that is the performance of behaviour. Nonetheless, for accurate predictions, several conditions have to be met, first, the measures of intention and perceived behavioural control must correspond to (Ajzen and Fishbein, 1977) or be compatible with (Ajzen, 1988) the behaviour that is to be predicted.

That is, intentions and perceptions of control must be assessed in relation to the particular behaviour of interest, and the specified context must be the same as that in which the behaviour is to occur. Therefore, when the situation affords a person complete control over his behavioural performance, intentions alone should be sufficient to predict behaviour (Jackson *et al*., 2003).

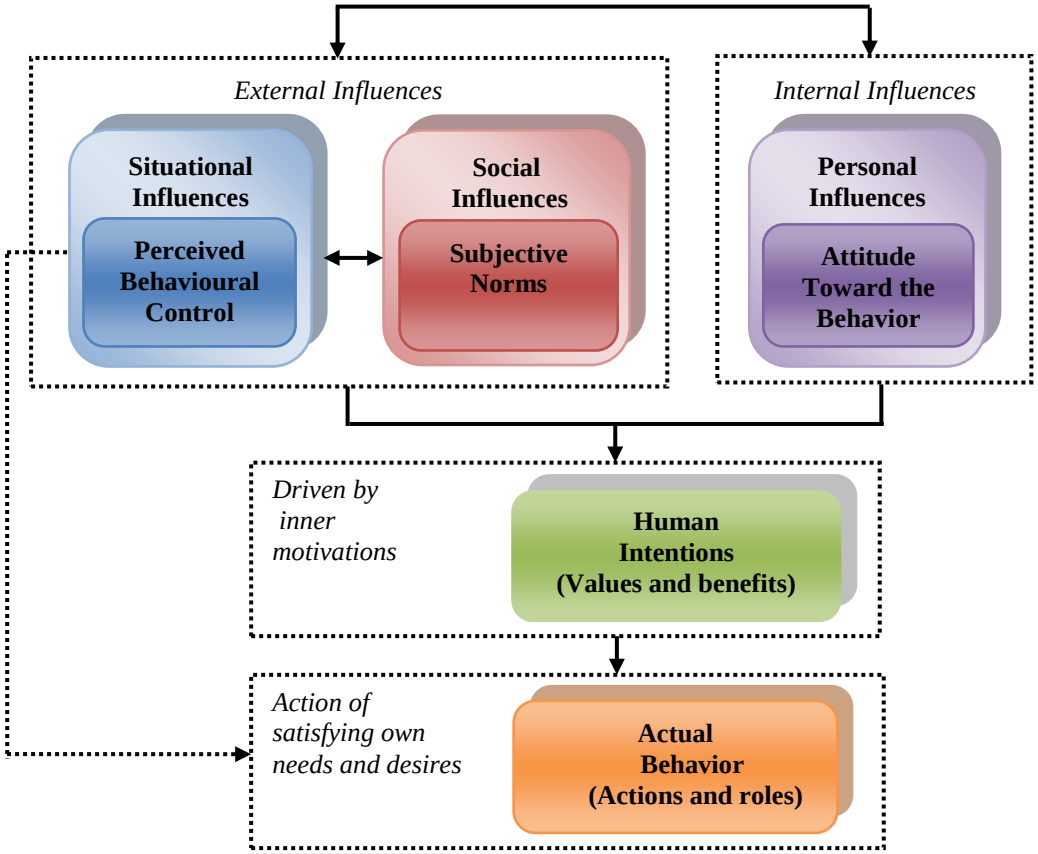


Figure 2-1: Theory of Planned Behaviour

2.4.1. DIMENSIONS AND MEASUREMENTS OF THEORY OF PLANNED BEHAVIOUR

The theory of planned behaviour deals with the antecedents of the three main determinants of behavioural intentions; Attitudes, Subjective Norms, and Perceived behavioural Control, which determine intentions and eventually the achievement of direct actions. At the most basic level of explanation, the theory hypothesizes that human behaviour is a function of "salient" information, or beliefs relevant to the behaviour (Ajzen, 1988).

People can hold many beliefs about any given behaviour, but they can attend to only a relatively small number at any given moment. It is these salient beliefs that form the knowledge to be considered as the prevailing determinants of a person's intentions and actions. Thus, according to the TPB, human actions are guided by three distinguishable considerations:

1. *Behavioural Beliefs* are the inner beliefs of an individual about the consequences of taking a certain action (Azjen, 1991). Those beliefs differ from an individual to another based on personal backgrounds such as traits, personality, characteristics, and mentality. It is assumed that the behavioural beliefs do influence attitudes towards the actual behaviour.
2. *Normative Beliefs* are the individual perceptions about a particular behaviour which are mostly influenced by the judgments and beliefs of significant other such as family members and friends. Those beliefs constitute the underlying determinants of subjective norms (Bamberg *et al*., 2003).
3. *Control Beliefs* are individual's beliefs about the presence and/or absence of certain factors that would facilitate or impede the achievement of the behaviour (Ajzen, 1991; 2001). Those inner beliefs of being in control of your own actions provide the basis for perceptions of perceived behavioural control which conceptually related to the self-efficacy concept originated by Bandura (1977).

2.5. BEHAVIOURAL INFLUENCES

Within the context of this research, and within the framework that is to be proposed, the post-adoption factors representing members' intentional antecedents are of social-related nature. Those antecedents have been adopted from the theory of planned behaviour to predict, explain, and determine members' actual behaviours in Web 2.0 communities with minor substitutes in their decomposed beliefs in order to fit the context of this research. Remarkably, the general framework of the theory of planned behaviour postulates three conceptually independent determinants of members' intentions.

These social-related antecedents along with their salient constructs are; i.e. *Attitudes* (compatibility, and satisfaction); *Subjective Norms* (Critical Mass, Compliance, and Informational Influences); and *Perceived Behavioural Control* (Facilitating Conditions, Self-Efficacy, and Controllability). The following sub-sections provide a detailed overview description pertaining to the aforementioned framework constructs and taxonomies.

2.5.1. PERSONAL INFLUENCES

ATTITUDES

Attitude towards the behaviour refers to the degree to which a person has a favourable or unfavourable evaluation or appraisal of the behaviour to be acted upon (Ajzen, 1991; Taylor and Tod, 1995; Orbell *et al.,* 1997) and defined by salient beliefs about consequences multiplied by outcome evaluations (Huang and Chuang, 2007). Following are the decomposed beliefs investigated in this study:

A) *Compatibility*: this salient belief of individual's attitude is drawn from the Diffusion of Innovation theory (Rogers, 1983). Based on that theory, the attitudinal belief has three significant characteristics that strongly influence the adoption decision of an innovation; relative advantage, complexity and compatibility. Compatibility is defined as the degree to which an innovation fits with the potential adopter's previous experience and current needs (Fishbein and Ajzen, 1975; Tornatzky and Klein, 1982; Rogers, 1983). Although it has been widely applied within the context of IT adoption and other perspectives related to system design characteristics (see Liao *et al.,* 1999; Tan and Teo, 2000; Chen *et al.,* 2002; Shih and Fang, 2004; Fu *et al.,* 2006), it has been considered within the framework of this research for the reason that as people's needs change over time, as well as their previous experience is a cumulative knowledge that gets built over time, it presents a key determinant of members' attitudes, and therefore would influence the ongoing and continuous participation in Web 2.0 communities.

B) *Satisfaction*: Generally speaking, gratification (Sangwan, 2005) is defined as an ex-post evaluation of member experience with the community, and is conceptualized as a positive feeling, indifference, or a negative feeling (Anderson, 1977). But according to the theory of expectancy disconfirmation where this construct has been derived from; it is well defined as the joint levels of pre-purchase expectation of a service and the expectancy disconfirmation (Oliver, 1980).

Although it has been originated and widely used within the consumer behaviour research for studying human's post-purchase behaviour, it is asserted by many as a major attitude construct that affects behavioural intentions despite the differences in the contexts it is applied within (Coughlan *et al.,* 2001; Hsu and Chiu, 2004; Hsu *et al.,* 2006; Huang and Chuang, 2007). Within the focus of this study, virtual

community organizers remain viable by their task performance and by providing benefits to their members and achieve considerable levels of satisfaction. Therefore, satisfied members form continuous intentions to re-participate and re-engage in the community again and again.

H1: Personal attitude has a positive impact on the perceived value elements to be delivered from Facebook.

H1A: Personal attitude represented by satisfaction and compatibility has a positive impact on the perceived social values to be delivered from Facebook.

H1B: Personal attitude represented by satisfaction and compatibility has a positive impact on the perceived hedonic values to be delivered from Facebook.

H1C: Personal attitude represented by satisfaction and compatibility has a positive impact on the perceived epistemic values to be delivered from Facebook.

H1D: Personal attitude represented by satisfaction and compatibility has a positive impact on the perceived utilitarian values to be delivered from Facebook.

2.5.2. SOCIAL INFLUENCES

SUBJECTIVE NORMS

The second attitudinal determinant according to the TPB strongly relates to social factors and is termed as individuals' subjective norms. Subjective Norms refer to the perceived social pressure of the external environment surrounding individuals on whether to perform a behaviour or not, and is consistently a weaker predictor of physical activity intentions than attitudes and perceived behavioural control (Godin, 1993; Blue, 1995; Kok, 1996, Hagger *et al.,* 2002). Three salient normative beliefs are to be examined in this study; Critical Mass, Compliance, and Informational Influences.

A) Critical Mass: According to Liao *et al.* (1999), critical mass refers to the wide and massive adoption of a certain innovation (service) by a large group of population. In other words, it is described as the minimal number of continuous adopters of an interactive innovation (Mahler and Rogers, 1999). The massive societal embracement and continuous acceptance of using and participating in any digitally engaged

community would affect members' decision towards continuous participation or not (Guo and Barnes, 2007).

Therefore having a strongly positive norm of joining and engaging in cyberspaces and online communities would form a trend of continuous intentions to stay as a member and engage in an ongoing behavioural role within that certain community. On the other hand, negative societal trends of an engagement in a certain community (for example, having your friends, colleagues, peers leave a specific community for the lack of social, informational, hedonic needs) will affect your internal perceptions and intrinsic intentions on whether to continue your membership or not, and as a result, can lead to discontinued attitudes.

B) *Compliance:* Otherwise referred to as societal, normative or personal pressures (George, 2004; Shih and Fang, 2004) which is best known as the influence of others' expectations about engaging into a certain attitude and performing certain behaviour (Tan and Teo, 2000; Gefen *et al.*, 2002; Venkatesh *et al.*, 2003). Therefore, compliance is the degree to which the user perceives that others (i.e. internal influences of family, friends, and colleagues) approve of their participating in a digitally engaged community (Liao *et al*., 1999; Bhattacherjee, 2000). That extent to which an individual perceives that important others believe he/she should continue using and participating in the system (e.g. the community) appeared to have a great and major influence on individual's attitudes and intentions towards their actual behaviours (Dholakia *et al*., 2004; George, 2004; Hsu and Chiu, 2004; Lin, 2006; Guo and Barnes, 2007).

C) Informational Influences: Informational influence is another type of societal pressures that affects one's intentional attitudes. It differs from compliance and normative influences in that its source is non-personal and comes from other external influences such as mass media reports, television, radio, newspapers, magazines, and expert opinions (Bhattacherjee, 2000; Venkatesh and Brown, 2001). These non-personal parties and secondary sources of information are major examples on the informational influences on one's behaviour, they outline a huge influence and affect individuals' attitudes towards the behaviour of engaging in a certain role (Hsu and Chiu, 2004; Lin, 2007; Hong *et al.*, 2008).

H2: Subjective norms have a positive impact on the perceived value elements to be delivered from Facebook.

H2A: Subjective norms represented by critical mass, compliance and informational influences have a positive impact on the perceived social values to be delivered from Facebook.

H2B: Subjective norms represented by critical mass, compliance, and informational influences have a positive impact on the perceived hedonic values to be delivered from Facebook.

H2C: Subjective norms represented by critical mass, compliance, and informational influences have a positive impact on the perceived epistemic values to be delivered from Facebook.

H2D: Subjective norms represented by critical mass, compliance, and informational influences have a positive impact on the perceived utilitarian values to be delivered from Facebook.

2.5.3. SITUATIONAL INFLUENCES

PERCEIVED BEHAVIOURAL CONTROL

The third antecedent of individuals' behavioural intentions is the degree of *Perceived Behavioural Control* which refers to one's perceived ease or difficulty of performing the behaviour (Orbell, 1997). Interestingly, Ajzen (1991) assumes that perceived behavioural control reflects to some extent situational influences and past experience as well as other anticipated hurdles and obstacles (i.e. resources and opportunities available). Having control over one's own behaviour is a major determinant influencing human intentions to participate and engage in a digitally engaged community.

The antecedent of perceived behavioural control (ability) contributed by Azjen plays an important part in the theory of planned behaviour. In fact, the theory of planned behaviour differs primarily from the theory of reasoned action in its addition of this construct. Below are the three main control beliefs that best suit the focus and context of this research.

A) *Facilitating Conditions:* Facilitating conditions have been defined by Ajzen and Madden (1986) as the extent to which circumstances facilitate or interfere with the performance of the behaviour. More specifically, the availability of external resources (i.e. time, money, effort) needed to facilitate the performance of a particular behaviour, which is referred to in literature as *Resource Facilitating Conditions "RFC"* (Triandis, 1979; Bhattacherjee, 2000; Fu *et al*., 2006; Lin, 2006; Guo and Barnes, 2007; Lin, 2007; Ajjan and Hartshorne, 2008). As well as the availability of technological equipments, broadband connections, and the WWW applications. This signifies the *Technology Facilitating Conditions "TFC"* (Triandis, 1979; Taylor and Tod, 1995; Fu *et al.*, 2006). Therefore, the external influence of facilitating conditions, and the perception of whether or not an individual lacks enough information resources to perform an intended behaviour is a crucial antecedent of human behavioural roles (Tan and Teo, 2000; Teo and Pok, 2003; Shih and Fang, 2004).

B) *Self-Efficacy (SE)*: Bandura's theory of Self-Efficacy (Bandura, 1977) posits that individual's judgement and self-assessment of one's capability to use a WWW application or service within the domain of general computing may have a positive or negative influence on his/her behavioural attitude. Being internally confident of the ability to behave successfully in any given situation positively influence the continuance of person's behaviour (Compeau and Higgins, 1991; Bhattacherjee, 2000; Tan and Teo, 2000; Ajzen, 2002; Torkzadeh and Van Dyke, 2002). In other words, it can be simply put as the ease or difficulty of performing certain behaviour (Shih and Fang, 2004; Hsu and Chiu, 2004; George, 2004; Lin, 2006; Guo and Barnes, 2007).

C) *Controllability:* Controllability refers to the beliefs about the extent to which performing the behaviour is up to the actor own decision (Ajzen, 2002; Hsu and Chiu, 2004; George, 2004). Controllability is essential in sustaining an ongoing behavioural attitude for the reason that lacking control in an open space with thousands of unknown parties can threaten the continuous participation of members in any digitally engaged community, as they may lose power of control and managing their own confidential information, personal pictures, and other private data, and as a result intimidate advantage takers and hackers.

H3: Perceived behavioural control have a positive impact on the perceived value elements to be delivered from Facebook.

H3A: Perceived behavioural control represented by facilitating conditions, self-efficacy, and controllability has a positive impact on the perceived social values to be delivered from Facebook.

H3B: Perceived behavioural control represented by facilitating conditions, self-efficacy, and controllability has a positive impact on the perceived hedonic values to be delivered from Facebook.

H3C: Perceived behavioural control represented by facilitating conditions, self-efficacy, and controllability has a positive impact on the perceived epistemic values to be delivered from Facebook.

H3D: Perceived behavioural control represented by facilitating conditions, self-efficacy, and controllability has a positive impact on the perceived utilitarian values to be delivered from Facebook.

Although some researchers pointed out that a weakness of the TPB is its lack of explanatory power of testing the continuous usage of IS (e.g. Hartwick and Barki, 1994; Karahanna *et al*., 1999), it has been applied as the theoretical base behind the phenomena investigated in this research. It has been highly claimed that because the original constructs of the TPB model do not fully reflect that context, therefore, it has been preferable to extend it and decompose its salient beliefs to predict post-adoption determinants that would suit various contexts and situations (the framework of this research).

But as related-literature has embarked upon Web 2.0 communities from multi-disciplined points of view (e.g. psychology, management, computer science, information systems, and sociology), and within the literature, there have been many attempts to examine the perceived value elements and their influence on determining the behavioural roles in Web 2.0 communities, those efforts did tackle the phenomenon in a more technology related sense without giving much attention solely to precisely identifying the social-related antecedents of human intentions in a decomposed theoretical background of the TPB (see for example

Taylor and Tod, 1995; Liao *et al*., 1999; Tan and Teo, 2000; Hsu and Chiu, 2004; Lee *et al.*, 2005; Luarn and Lin, 2005; Lin, 2006; Al-Gahtani *et al.*, 2007; Hong *et al*., 2008).

2.6. APPLICATIONS OF THEORY OF PLANNED BEHAVIOUR

Related-literature has embarked upon the theory of planned behavior from multi-disciplined points of view (see table 2-1); ranging from psychology (see Casper, 2007), sociology (see Kim and Karpova, 2010), management (see Yi *et al*., 2006), marketing (see Kalafatis *et al*., 1999), biology (see Patterson, 2001), computer science (see Siponen, 2000), to information systems (see Huang and Chuang, 2007) disciplines.

So far, theory of planned behavior has more than 1200 research bibliographies in academic databases. In particular, recently, several studies also found that the TPB would better help to predict health-related behavioral intention (Ajzen, 1988) given that TPB has improved the predictability of intention in various health-related fields such as leisure (e.g., Ajzen and Driver, 1992), and exercise (e.g., Nguyen *et al*., 1997). That is why the health and nutrition fields have been using this model often in their research studies as well.

The theory of planned behaviour is heavily utilized and applied within the discipline of information systems. The theory of planned behaviour along with its extensions and modifications with other intention based theories is used to study, explain and predict decisions of acceptance, adoption, use and continuous of use of technology systems and other digital services. Applications of the theory of planned behaviour are wide and covering many research areas such as online grocery buying (Hansen *et al.*, 2004); Expert decision support system use (Workman, 2005); Electronic service acceptance (Hsu and Chiu, 2004); IT adoption (Liao *et al*., 1999; Venkatesh *et al*., 2000; Riemenschneider *et al*., 2003; Lim, 2003; Brown and Venkatesh, 2005); IT acceptance (Chau and Hu, 2001, 2002; Venkatesh *et al*., 2003); Fabrication of information online (Lwin and Williams, 2003); IT use (Mathieson, 1991; Bobbitt and Dabholkar, 2001).

In Information Systems, the theory of planned behaviour has been integrated with other competing models such as Technology Acceptance Model (TAM), Expectancy Disconfirmation Theory (EDI), Diffusion of Innovation theory (DOI) in a decomposed structure by combining constructs. That proved to help in providing a fuller understanding of IT acceptance, adoption, use, and continuance of use. For example, Chau and Hu (2002) have integrated TAM and TPB into a model that investigates healthcare professionals' decisions to

accept telemedicine technology. The integrated model proposes that perceived usefulness and ease of use of the technology have a significant effect on the attitude toward the decision of accepting the technology.

On the other hand, in a study by Liao *et al*., (1999), the adoption of virtual banking in an international city has been studied through combining the TPB with the DOI theory. They propose that attitude towards the use of virtual banking is dependent upon the beliefs of relative advantage, ease of use, compatibility, results demonstrability and perceived risk. Subjective norms about the use of virtual banking are dependent upon normative beliefs of image, visibility and critical mass. Perceived behavioural control about the use of virtual banking is dependent upon control beliefs of voluntariness, Trialability, support and learning.

Bosnjak *et al.,* (2005) have extended the theory of planned behaviour in their study to predict and explain the number of participations in a Web-based panel survey. They applied the pure model of the theory of planned behaviour with the addition of a fourth construct (i.e. moral obligation) to the original model. This extension is traced back to the evidence that people are willing to participate in an Internet-based survey to the extent to which they feel morally obliged. Moral obligation has been suggested by researchers (Gorsuch and Ortenberg, 1983; Conner and Armitage, 1998) to be added to the theory of reasoned action and the theory of planned behaviour.

#	Study	Area	Purpose	Modifications to TPB	Main Results
1.	Mathieson (1991)	IS Usage.	Predict user intentions.	Comparing TAM with TPB.	1. Both TAM and TPB predicted intention to use IS quite well. 2. TAM is easier to apply but only supplies general information on users' opinions about a system. 3. TPB provides more specific information that can better guide development.
2.	Taylor and Todd (1995)	IT Usage.	Understand IT usage.	A comparison of the TRA and the TPB.	1. The decomposed TPB provides a fuller understanding of behavioural intentions by focusing on the factors that are likely to influence systems use.

3.	Liao *et al*. (1999)	Virtual Banking	Study the adoption intention of virtual banking.	TPB and DOI theories.	1. Attitude towards virtual banking was dependent on relative advantage, compatibility, ease of use, result demonstrability, and perceived risk. 2. Subjective norms about virtual banking were dependent on image, visibility and critical mass. 3. PBC about virtual banking was dependent on voluntariness, support and organizational learning. 4. Intention to use virtual banking was determined by attitude, subjective norms and PBC.
4.	Venkatesh *et al.* (2000)	Technology Adoption.	Investigate gender differences in individual technology adoption decision-making processes.	TPB.	1. Men's decisions of using the technology were more strongly influenced by their attitudes. 2. Women were more strongly influenced by subjective norms and PBC. 3. Sustained technology usage behaviour was driven by early usage behaviour.
5.	Bobbitt and Dabholker (2001)	Technology based Self-service.	Understand and predict use of technology-based self-service.	Integration of TRA, TPB, Influence of category-based affect, theory of trying, and other external influences.	1. Keep marketers aware of what affects consumers' attitudes and behaviours in relation to technology-based self-service. 2. Benefiting the marketers by determining the perceived risks associated with a particular technology-based self-service. 3. Make marketers consider how the amount and type of information available through a technology-based self-service option can affect consumer intentions. 4. Help marketers locate potential situational factors of control that may influence the use of technology-based self-service. 5. Marketers need to ensure that consumers do not become frustrated

					in attempting to use their technology-based self-service.
6.	Chau and Hu (2002)	Telemedicine Technology.	Investigate healthcare professionals' decisions to accept telemedicine technology.	Integration of TAM and TPB.	1. In healthcare, professionals place more emphasis on usefulness of technology rather than ease of use. 2. Professionals in the healthcare seem to be more independent when taking their decisions and seldom influenced by others.
7.	Lwin and Williams (2003)	Fabrication of Information online.	Investigate the antecedents behind online consumers' attempt to disguise their identities through fabrication.	Integrating the Theory of Privacy and the TPB.	1. Attitudes, PBC, and Perceived Moral Obligation are significant drivers of fabrication, while subjective norms are not. 2. Anonymity likely contributed to the intention to fabricate information.
8.	Lim (2003)	Adoption of negotiation support systems (NSS)	Identify factors affecting the intention to adopt negotiation support systems by managers and executives.	Integrating TPB and TAM.	1. Subjective norms and PBC emerged as strongest determinants of intention to adopt NSS. 2. Probing of subjective norm revealed organizational culture and industrial characteristics to play significant roles.
9.	Riemenschneider *et al.* (2003)	IT Adoption decisions in small businesses.	Understand IT adoption decisions of small business executives regarding a Web site.	A collected model of TAM and TPB with the underlying categories of cognitions.	Improved social contact with customers and vendors facilitated by the Internet is the driving force behind Web site adoption.
10.	Leonard *et al.* (2004)	IT ethical behaviour intentions.	Investigate what influences IT ethical behaviour intentions.	TRA, TPB and other ethical decision making models	1. Perceived importance and age as new variables have a significant impact on the intent to behave ethically/unethically. 2. For all taken scenarios, attitudes and personal normative beliefs were significant indicators of intention to behave ethically/unethically.
11.	Hsu and Chiu	WWW	Internet self-efficacy and	An extended model of the	1. General internet self-efficacy and Web specific self-efficacy are found to play important roles in shaping

	(2004)		electronic service acceptance.	TPB.	individual behaviour. 2. General Internet self-efficacy had a significant influence on attitude toward the e-service usage. 3. General Internet self-efficacy contributed to the shape of an individual's Web specific self-efficacy. 4. Web specific self-efficacy had a significant direct effect on e-service usage. 5. Attitude toward the e-service usage was the major determinant of behavioural intention. 6. Interpersonal norm and subjective norm did not have a direct effect on behavioural intention.
12.	Hansen *et al*. (2004)	WWW	Predict online grocer buying intention.	A comparison between the TRA and the TPB.	The TPB with the inclusion of a path from subjective norm to attitude provides the best fit to the data and explains the highest proportion of variation in online grocery buying intention.
13.	Celuch *et al*. (2004)	WWW	Understand insurance sales person Internet information management intentions.	A comparison of the TRA and the TPB.	1. The TRA fails to account for the important role of self-efficacy in predicting information management intentions in both the customer and company related settings. 2. Perceived control was not found to have impact in the customer model and had minor impact in the company model.
14.	George (2004)	WWW	Investigate the relationships among beliefs about Internet privacy and trustworthiness, along with beliefs about perceived behavioural control and the	TPB.	1. Beliefs about trustworthiness positively affect attitudes toward buying online, which in turn positively affect purchasing behaviour. 2. Beliefs about self-efficacy regarding purchasing positively affect perceived behavioural control, which in turn affects online purchasing behaviour

			expectations of important others, and online purchasing behaviour.		
15.	Shih and Fang (2004)	WWW	Study Internet banking in Taiwan.	Decomposed TPB (comparing the TRA and pure TPB to a decomposed TPB).	1. Intention to adopt Internet banking can be explained by attitude in both models. However, in the decomposed TPB model, only relative advantage and complexity are related to attitude, while compatibility is not. 2. The path from subjective norm to intentions failed to achieve significance. People who are important to users of the do not influence their intention to adopt internet banking. The possible factors of influence could be other network characteristics, such as information quality and security. 3. Self-efficacy is a significant determinant of PBC.
16.	Workman (2005)	Technology use, disuse, and misuse.	Investigate the use, disuse, and misuse of an expert decision support (EDSS) technology.	TPB.	1. EDSS use was negatively related to errors. 2. Misuse of EDSS was positively related to errors. 3. Positive attitudes and social influences led to increased EDSS use while perceptions of control had no effect. 4. The interaction of social influences and attitudes had a significant non-linear relationship with EDSS misuse.
17.	Pavlou and Fygenson (2006)	eCommerce.	Understand and predict eCommerce adoption.	Extension of the TPB.	1. Importance of trust and technology adoption variables (perceived usefulness and ease of use) as salient beliefs for predicting ecommerce adoption, justifying the integration of trust and technology adoption variables within the TPB framework.

					2. In addition, technological characteristics (download delay, Website navigability, and information protection), consumer skills, time and monetary resources, and product characteristics (product diagnosticity and product value.
18.	Truong (2009)	WWW	Predict user acceptance of online video services.	TPB.	1. TPB model was viable in predicting user acceptance of online video services. 2. Perceived behavioural control was the highest contributor to predicting intention to use online video services. 3. Attitude toward use and subjective norm were found to have moderate predictive power.

Table 2-1: Applications of TPB within IS

As the theory of planned behaviour revolves around explaining human intentions towards a certain behaviour, applying its original model without any modifications or decomposition into studying IT acceptance, adoption, use and continuance of use is not sufficient. Therefore, these general and specific modifications have resulted in a better understanding of the human-IT interaction phenomena. Collected models of these integrative approaches have proved to be powerful and indicated a satisfactory predictive and explanative power (Taylor and Tod, 1995; Lwin and Williams, 2003; Bosnjak *et al.*, 2005; Brown and Venkatesh, 2005).

2.7. HOFSTEDE'S CULTURAL DIMENSIONS

As this study aims at explaining why users continue participating on Facebook in Jordan, cultural dimensions and measures and their effect on that behaviour should be taken into consideration. The framework of this research incorporates Hofstede cultural dimensions in studying why users would continue participating on Web 2.0 communities (the case of Facebook in Jordan) or not. It is widely accepted that Hofstede cultural typology best explains such situations. Reasons might vary however from country to another behind the continuous participation on Facebook.

Culture is a term that is hard to define, however, in relation to Hofstede, he has described it as: "the subjective software of human minds". Hofstede's (1980) cultural dimensions serve as the most influential culture theory among social science research (Nokata and Sivakumar,

2001). In addition, Hofstede's cultural framework (see Figure 2-2) has also received strong empirical support (Sondergaard 1994). The framework was generated through the most extensive examination of cross national values ever undertaken, with 116,000 respondents and across 40 countries. The results were consistent with findings in 38 other studies (Nokata and Sivakumar, 2001).

Between 1967 and 1973, Hofstede collected data from 116,000 IBM employees working in over 70 countries. The 40 largest countries were first analyzed, but the number was later extended to 50 countries and three regions (Hofstede, 2003). From the findings of this research, Hofstede identified four central dimensions of cultural diversity, which he proposed were largely independent. These dimensions, which can be measured across nations and expressed in scales, are named as follows: (a) power distance, (b) individualism-collectivism, (c) masculinity-femininity, and (d) uncertainty avoidance. Afterwards a fifth dimensions was added to the typology which is (e) long-term orientation-short-term orientation (Hofstede, 1991; 2001).

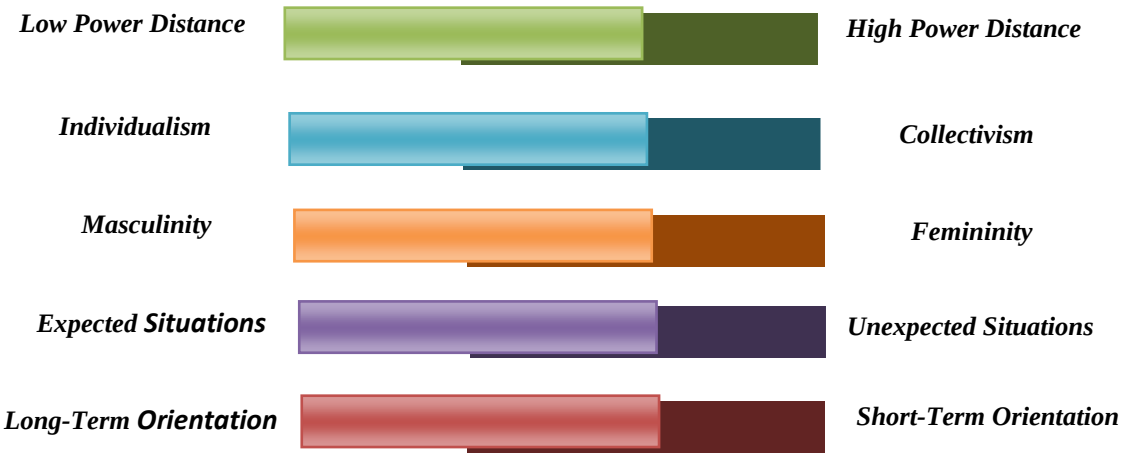


Figure 2-2: Hofstede cultural dimensions

According to Hofstede, cultural measures are not absolute. Rather, a country's score along one dimension must be seen in relation to the scores of other countries. Furthermore, not every person from a country fits precisely in the cultural typology of that country, although all the members of one cultural society together exhibit trends and tendencies that can be statistically measured and linked to the four dimensions of cultural diversity (Hofstede, 1991). Brief descriptions of the dimensions are given in the following section.

2.7.1. POWER DISTANCE

The power distance dimension refers to the inequality of the distribution of power in a country (Hofstede and Peterson, 2000, p. 401). In organizations this distribution of power is reflected in the hierarchy. Power distance can also be described as the extent to which the less powerful members of institutions and organizations within a country expect and accept that power is distributed unequally (Hofstede 1991, p. 28). It represents the extent of adherence to formal authority channels and is the degree to which the lesser powerful accept the prevailing distribution of power.

Centralized decision structures, authority and the use of formal rules are therefore often the characteristics of organizations in countries with high power distance. Such organizations have been associated with lower rates of innovation and adoption (Zmud, 1982). The reason for this relationship can be found in more psychological orientated research. Studies have shown that employees are more innovative when they have more autonomy, are more empowered and work for leaders who have a less authoritative leadership style (Mumford and Licuanan, 2004).

Furthermore cultures with high power distance are expected to have lower openness for new ideas as it involves decision-making on issues where there are hardly any historical trends and very little information (Lee and Peterson, 2000). High power distance cultures have members who are much more comfortable with centralized power than members of low power distance cultures. It describes the relationship between the *higher-ups* and *lower-downs* of a society and how human disparity and differences in power and wealth are dealt with (Hofstede, 1991). For example, the hierarchy in a company, the rate of political centralization, and the expected respect children exhibit towards their teachers can all be influenced by Power Distance (Dahl, 2004). However this dimension has been ignored in this research due to its relevance in measuring power distance among businesses and organizations and its irrelevance in measuring the continuous participation of users on Facebook.

2.7.2. INDIVIDUALISM VERSUS COLLECTIVISM

Individualism pertains to the degree to which people in a country prefer to act as individuals rather than as members of a group, while in collectivism, there is a "close-knit of social structure" (Benedict *et al.*, 1999) in which people expect from their group to care for them.

Cultures with high levels of collectivism show a higher degree of group behaviour and concern to promote their continued existence. Where on the other hand countries with high levels of individualism people are emotionally more detached from in-groups and place their personal goals, motivations and desires ahead of those of the in-group (Kagitcibasi, 1997).

This dimension describes the extent to which members of a culture rely on and have allegiance to either their self or the group (Hofstede, 1991). Hofstede states that "individualism pertains to societies in which the ties between individuals are loose: Everyone is expected to look after himself or herself and his or her immediate family" (Roth, 1995). In contrast, "collectivism pertains to societies in which people from birth onwards are integrated into strong, cohesive in-groups, which throughout people's lifetime continue to protect them in exchange for unquestioning loyalty" (Hofstede, 1991, p. 51). Collectivism on the other hand concerns the relation between the individual and the group to which the individual belongs. Therefore, it is very significant to this research in affecting users' decision on whether to continue participating on Facebook or not.

2.7.3. MASCULINITY VERSUS FEMININITY

Masculine cultures emphasize work and material accomplishments; feminine societies put human relationships at the forefront. The Femininity versus Masculinity dimension deals with gender roles and their importance on individual and cultural levels. Cultures are differentiated according to the way in which gender roles are distributed (Hofstede, 1991). *Masculinity*, according to Hofstede, pertains to societies in which social gender roles are clearly distinct (i.e., men are supposed to be assertive, tough, and focused on material success whereas women are supposed to be more modest, tender, and concerned with the quality of life).

Femininity, in contrast, "pertains to societies in which social gender roles overlap (i.e., both men and women are supposed to be modest, tender, and concerned with the quality of life)" (Hofstede, 1991, pp. 82-83). The *Masculinity Index* (*MAS*) describes the extent to which a country tends to be masculine. In countries with a high *MAS*, it is valued to be ambitious, successful, and assertive (Hofstede, 1991). In countries with low MAS, relationships with other people and the preservation of the environment are important (Hofstede, 1991). Masculine cultures are characterized by competition, ambition, a focus on performance and material values. Feminine cultures are characterized by solidarity, equality, consensus seeking and concern about social relationships.

2.7.4. UNCERTAINTY AVOIDANCE

Uncertainty avoidance refers to how much people feel threatened by ambiguity, as well as the felt importance of rules and standards (Tavakoli *et al.,* 2003). People with an orientation low on uncertainty avoidance prefer situations that are free and not bound by rules and regulations. Uncertainty avoidance describes the extent to which people feel anxious or uneasy in unfamiliar or unpredictable situations. When uncertainty avoidance is strong, there is a need for structure, strict rules of behaviour, and a belief in an absolute truth to avoid ambiguous situations (Hofstede, 1991). Uncertainty Avoidance can therefore be defined as the extent to which the members of a culture feel threatened by uncertain or unknown situations. This feeling is, among other things, expressed through nervous stress and in a need for predictability: "A need for written and unwritten rules" (Hofstede, 1991 p. 113).

Hofstede (1984, p. 83) defines uncertainty avoidance as "The degree to which members of a society feel uncomfortable with uncertainty and ambiguity". Adoption of a new technology involves risk and uncertainty. This has attracted research attention in economics, largely advocated by Paul Stoneman, incorporating the idea that adopting a new technology is similar to any other kind of investment under uncertainty. As the adoption of a new technology is concerned with doing something new, the extent of uncertainty attached to it is also greater (Stoneman, 2001). Similarly, Freeman and Soete (2000) have considered variation in countries' ability to take risks and to assess new innovations as a reason for the slow diffusion rates across countries. Thus, any innovation, as Woodman *et al.,* (1993, p. 293) state: "doing something for the first time", is associated with ambiguity and uncertainty.

Hofstede measures uncertainty avoidance with the *Uncertainty Avoidance Index* (*UAI*). In countries with a high *UAI*, structure, hard work, precision, and punctuality are desired. Aggressions are allowed to occur on certain occasions. Different behaviors and opinions are approached with intolerance (Hofstede, 1991). A lower *UAI* leads to tolerance towards different and unfamiliar situations where members accept unfamiliar risks and have a more tolerant attitude towards differing behaviours and opinions (Pfeil *et al.,* 2006). However this dimension has been ignored as this research tends to examine the continuous participation of users who have already adopted Facebook and are using it and not examining the process of adopting it.

2.7.5. LONG-TERM VERSUS SHORT-TERM ORIENTATION

Long-term versus short-term orientation is people's basic reference period; short-term involves the tendency toward consumption and maintaining materialistic status, and long-term suggests thrift, perseverance, following tradition, and deferred satisfaction. (Pavlou and Chai, 2002). It is extent to which people of a country show a propensity to take a long-term perspective that primarily emphasizes doing things that improve the future as opposed to a short-term perspective that primarily emphasizes the present or the successes of the past (Veiga *et al.,* 2001). Cultures with a long-term orientation are associated with thrift and perseverance, while cultures with a short-term orientation are associated with respect for tradition, fulfilling social obligations, and protecting one's 'face' (Erumban and De Jong, 2006).

H4: There are no significant differences on the impact of the behavioural influences (personal attitude, subjective norms, and perceived behavioural control) on the perceived value elements (social, hedonic, epistemic, and utilitarian values), attributed to the cultural dimensions (masculinity vs. Femininity, individualism vs. Collectivism, and long-term vs. Short-term orientation).

H6: There are no significant differences on the impact of the perceived value elements (social, hedonic, epistemic and utilitarian values) on users' intentions to continue participating on Facebook, attributed to the cultural dimensions (masculinity vs. Femininity, individualism vs. Collectivism, and long-term vs. Short-term orientation).

2.8. APPLICATIONS OF HOFSTEDE CULTURAL DIMENSIONS WITHIN IS

Hofstede's cultural framework has been applied in a wide variety of contexts, across most (if not all) of the behavioural science disciplines (see Table 2-2). In marketing, Hofstede's cultural framework has been applied in studies of advertising (Alden et al., 1993; Gregory and Munch, 1997; Zandpour *et al.,* 1994), global brand strategies (Roth, 1995), and ethical decision making (Blodgett *et al*., 2001), and is discussed in numerous textbooks (e.g., Keegan and Green, 2003). Clearly, Hofstede's cultural framework has provided the catalyst for many studies throughout the social sciences, and has helped shape marketing thought (Blodgett et al., 2008).

Authors	Cultural dimensions	Focus of study
Burn *et al*. (1993)	Individualism, uncertainty avoidance, power distance, and masculinity.	IS and Culture- top management issues in Hong Kong.
Cummings and Guynes (1994)	Individualism, uncertainty avoidance, power distance, and masculinity.	HQ verses subsidiaries.
Ein-Dor *et al*. (1993)	Economic, demographic, and socio-psychological	Effect of national culture on IS.
Garfield and Watson (1998)	Uncertainty avoidance and power distance	Impact of national culture on national information infrastructure.
Harvey (1997)	Individualism, uncertainty avoidance, power distance, and masculinity	Comparing GIS design and implementation between USA and Germany
Hasan and Ditsa (1999)	Individualism, uncertainty avoidance, power distance, and masculinity	National culture and the adoption of IT
Hofstede (2000)	Individualism, uncertainty avoidance, power distance, and masculinity	Effects of differences in national culture within MNCs
Hunter and Beck (2000)	Individualism, uncertainty avoidance, power distance, and masculinity	Cultural differences in the perception of the qualities of excellent systems analyst
Keil *et al* (2000)	Uncertainty avoidance	Effect of national culture on project risk perception

Table 2-2: IS research on Hofstede cultural dimensions (compiled after Myers and Tan, 2002)

2.9. VALUE CREATION AND EXCHANGE IN WEB 2.0 COMMUNITIES

Web 2.0 communities cannot survive without lasting user involvement and participation in terms of generating user content and social interacting (Soroka and Rafaeli, 2006). Indeed, Web 2.0 communities to be successful and live up to their higher expectations need a critical mass of active users to be reached and maintained. What are most important; the motivational values a certain community offers. People may join a community for one reason, but participate for another. For the past couple of years, millions of people have turned daily to Web 2.0 communities to conduct diverse information-seeking and communication activities.

A great number of users, however, are passive information consumers (Fichter 2005; Totty 2007). They read world news, review weather forecasts, and look for medical information. Over time, many would assume an additional role and become information providers

contributing content on a wide range of topics in blogs and wikis (Baller and Green 2005; Goodnoe 2006). Behind any level of digitally engaged participation, there are numerous classes of perceived values (McKeachie, 2002) created and exchanged. Web 2.0 communities offer a wide range of publicly transferred benefits, and people join them to fulfil personal needs, whether individually-oriented, or community-oriented.

However, actors that use human-computer systems are goal-driven; where users are driven by their desires to perform a certain action as opposed to satisfy an internal entity (Rhiengold, 2000; Norman, 2003; Bishop, 2007), thus their participation can be described as purposive and the level of involvement might vary depending on the purpose being gratified from joining them. Therefore, the successful operation behind any virtual community is in its growing of its own perceived values, these values can be classified as Social, Hedonic, Utilitarian, and Epistemic.

Despite existing criticism, Maslow's theory (1943, 1971) has proved viable in explaining human motivation in different settings. Building on Maslow's theory of Human Motivation, Maslow and Lowery (1998) distinguished eight groups of needs: *physiological needs, safety needs, needs for belongingness and love, esteem needs, cognitive needs, aesthetic needs, self-actualization* and *transcendence needs*, suggesting that these needs should be satisfied from the basic to the highest one (i.e. *Physiological and Safety Needs*). However, in the context of Web 2.0 communities, some values cannot realistically contribute to the satisfaction of such needs. For this reason, they are not considered in the context of this research. Perceived values discussed below, are values to be investigated within this research.

H5: the perceived values to be delivered from Facebook have a positive impact on users' intentions to continue participating on Facebook

2.9.1. PERCEIVED SOCIAL VALUE

One of the most important values perceived and captured in Web 2.0 communities are social values (Baym, 1995; Jones, 1995; Blanchard and Horan, 2000; Haythornthwaite, 2002; Arguello *et al*. 2006; Jin et al. 2007; Hrastinski, 2007; Rood and Bruckman, 2009). Social values otherwise referred to as *'Human values'* (Leitner *et al.,* 2008) concern the utility derived from users' association with certain social groups, this value includes the desire to become part of the community through socializing and communicating, those values are essential in creating an atmosphere where communication is encouraged. Wellman and Gulia

(1999) used the term "boutique shopping" in that the person "shops around" for a wide variety of social resources to meet his or her needs. Social values could be broken down into *Emotional, Networking, Self-Efficacy,* and *Self-Discovery* needs. These needs are maintained through interpersonal relationships among interactants.

A) Emotional Support: Many interactants join online networks desperately seeking for emotional and social support (McArthur and Bruza, 2001; Maloney-Krichmar, 2002; Eysenbach *et al.,* 2004; Brandtzaeg and Hein, 2008; Li *et al.,* 2008; Law and Chang, 2008) in different aspects of life. Calls could be for help and advice in health issues (i.e. Bebo/Bewell), mental support (i.e. the Samaritans). It is the degree to which one's personal needs are gratified through interacting with others. Such users might lack the opportunity of getting this support in real life, and somehow been dragged into isolation (Malooney-Krichmar and Preece 2005; Butler *et al*. 2005). Therefore, they are encouraged into finding an accessible substitute anytime and from anywhere. The anonymity in these communities also increases the calls for community assistance. Social value seekers are offered opportunities to build and maintain social ties with people met online, opportunities to offer and receive emotional support in a climate of trust and empathy (Preece 1998; Johnson and Ambrose 2006).

B) Networking: The perceived value of networking, meeting new people, and building sociable relationships through interacting with one another is another goal for social networking sites (Hagel and Armstrong, 1997; Wasko and Faraj, 2000; Hall, 2003; Huang and DeSanctis, 2005; Du, 2006; Brandtzaeg and Heim, 2008; Janzik and Herstatt, 2008; Law and Chang, 2008; Rood and Bruckman, 2009).

Social networking involves social relations between people who have some type of relationship or affiliation (Light *et al.*, 2008). Interactants tend to bond, maintain relationships, and re-unite with old friends. Social interaction represents the strength of the relationships, the amount of time spent, and the frequency of communication among members (Liang *et al.,* 2008). Networks of socialising can take the form of online that might extent to further boundaries of offline relationships, or enhancing offline (latent) relationships via online networks. Web 2.0 communities are all about social interaction where communication and interaction are the foundation of such relationships (Misanchuk and Anderson, 2001; Stepich and Ertmer, 2003; Ridings and Gefen 2004; Butler *et al.* 2005; Johnson and Ambrose 2006; Blanchard, 2008).

Many people have been found to join face-to-face groups to belong and be with others (Watson and Johnson, 1972), another possible reason why people join virtual communities is to seek friendship. The interactivity achieved with chat rooms, instant messaging, and bulletin boards, and the various search facilities available on the Internet provide a way for individuals to search for and to communicate with others for the purpose of establishing and continuing friendships. The structure of the Internet makes it easier to find others in similar situations and meet with them than it is in real life (Igbaria, 1999; Wellman and Gulia, 1999), especially when the interest may be highly unusual or unique. It has been suggested that some people whose jobs are lonely and isolated seek others in virtual communities not only to exchange opinions and request advice about problems, but also just generally to engage in small-talk with people around the world (Filipczak, 1998; Lowes, 1997; Wellman, 1997).

C) Self-Esteem: Platforms of Web 2.0 communities enable users to get a feeling of togetherness through interaction with other community members. Adding and managing friends, participating in groups and events gives members the feeling of being connected. The creation of groups and the contribution to group discussions can help members establish a certain reputation, which according to the theory of human motivation (Maslow, 1943) represents the outer self-esteem need and thereby enable them to feel important (e.g. inner self-esteem).

Generally speaking, the esteem needs both on the outer and inner levels to be satisfied are (1) the need of respect of others, the need for status, fame, recognition, attention, appreciation, dignity, even dominance, and (2) the need for self-respect, including such feelings such as confidence, competence, achievement, mastery, independence, and freedom (Janzik and Herstatt, 2008).

D) *Self-Discovery*: As the last recognizable social value, self-discovery is defined as: "a sense of emotional involvement with the group" (Bagozzi and Dholakia 2002, p.11). Generally speaking, joining a group creates a sense of attachment, belongingness, and relatedness to that group; as long as one's certain needs are satisfied (McMillan and Chavis, 1986; Dholakia *et al.* 2004; Du, 2006; Waterson, 2006; Seddon *et al.*, 2008; Blanchard, 2008). In virtual communities, despite the lack of face-to-face interaction, findings by a study investigated by Blanchard and Markus (2004) revealed that the human feelings, including attachment, obligation, relationship, identity, and support

are the dimensions captured in the sense of belonging to a community. Thus, the stronger the sense of community belonging (Beaudouin and Velcovska, 1999; Nonnecke, 2000; Hall, 2003; Soroka and Rafaeli, 2006; Brandtzaeg and Heim, 2008; Janzik and Herstatt, 2008) individuals conquers, the more they are likely to take an active role in creating and exchanging values.

This *Need for Belongingness* (Maslow, 1943, 1971; Seddon *et al.,* 2008) is the first social need an individual seeks to satisfy after elementary needs are fulfilled. The satisfaction of this need gained a new dimension with the arrival of virtual communities (Koh and Kim 2003, Chan *et al.* 2004, Blanchard and Markus 2002). For example, Teo *et al*. (2003) have shown that the sense of belongingness has a significant positive impact on the intention to use VCs. Human beings are "social creatures by nature" and exhibit the need to belong and be part of a group (Rheingold, 1993).

In general, online social network platforms enable users to get a feeling of support and togetherness through interaction with other community members. Adding and managing friends, participating in groups and events gives members the feeling of being connected. At the same time, constant notifications remind users of their affiliation, by encouraging exterior friends to join, a member automatically defines herself as an insider as opposed to the invited outsider, enforcing the sensation of community identification. Thus, the creation of groups and the contribution to group discussions can help members to establish a certain reputation, which according to the theory of human motivation (Maslow, 1943) represents the outer self-esteem need and thereby enable them to feel important.

***H5A*:** The perceived social values to be delivered from Facebook have a positive impact on users' intentions to continue participating on Facebook.

2.9.2. PERCEIVED HEDONIC VALUE

Hedonic values highlight three personal F's – one's fantasies, feelings and fun (Holbrook and Hirschman 1982). Hedonic values are perceived as abstract and subjective, and mainly referred to an intrinsic motivation in doing something that is inherently interesting, entertaining and enjoyable possibly as a hobby (Preece 1998, 1999; Wasko and Faraj, 2000;

Ridings and Gefen 2004; Waterson *et al.*, 2004; Butler *et al.* 2005; Johnson and Ambrose 2006; Du, 2006; Brandtzaeg and Heim, 2008; Janzik and Herstatt, 2008; Leitner *et al.*, 2008).

They are described as causing enjoyment, anxiety, playfulness, pleasure, and arousal (Kim *et al.,* 2007). Web 2.0 communities give individual members interactive entertainment opportunities through the creation and consumption of a positive, confluent experience through interaction (Bagozzi and Dholakia, 2002). Online poker players for example, enjoy setting up tournaments to challenge their skills against those of other members in addition to their financial motives. Others enjoy helping other members within the community and provide them with guidance, help, advice and support.

Arguably, the entertainment value of the Internet applies to virtual communities as well. A good example of this are adventure MUDs, a type of virtual community in which users play games with other community members (Reid, 1999; Utz, 2000). Virtual community participants have been found to believe that the communities are fun and enjoyable (Wasko and Faraj, 2000), and Utz (2000) proposes that the primary motivation for individuals in MUDs is an interest in recreational role-playing and game playing (Ridings and Gefen, 2004).

***H5B*:** The perceived hedonic values to be delivered from Facebook have a positive impact on users' intentions to continue participating on Facebook.

2.9.3. PERCEIVED EPISTEMIC VALUE

Epistemic value can be defined as that value that would persuade users looking for curiosity and novelty experience as well as new knowledge acquisition (Hunt, 1961; Sheth *et al.* 1991; Pura 2005; Janzik and Herstatt, 2008). Because online communities are public and allow for dynamic interaction, active collaboration and sharing, ideas and knowledge become transparent and easily transferable to many diverse sets of people.

People looking for this kind of value are often referred to *'information seekers'* (Rood and Bruckman, 2009). In other words, *Cognitive needs* (Ridings *et al.*, 2002; Ellison *et al.* 2006) are expressed in the individual mental desire to discover, know, understand and explore (Maslow 1943; Kim *et al.*, 2007; Janzik and Herstatt, 2008; Wang *et al*., 2008). Technically, Web 2.0 communities can satisfy cognitive needs through messaging, chatting or studying profile information of other users. Through the community platforms, many participants

follow up on new trends in fashion, music, movies or social events. Heated group discussions also hint at participants looking for knowledge through virtual spaces. This new knowledge might be derived from different factors of motivations, mainly personal curiosity. However, epistemic value is considered to be a key function of value and can influence behavioural intentions and switching behaviours (Zeithaml *et al.* 1996).

***H5C*:** The perceived epistemic values to be delivered from Facebook have a positive impact on users' intentions to continue participating on Facebook.

2.9.4. PERCEIVED UTILITARIAN VALUE

Why do people choose to join a virtual community? The most frequently cited reason in the literature is to access information (Furlong, 1989; Jones, 1995; Wellman *et al.,* 1996), which is also a reason for group membership cited often by social psychologists (Watson and Johnson, 1972). Indeed, there are some reports of Computer Mediated Communication (CMC) site providers who have been directed to use content to attract members by creating virtual communities where patrons can search for product and service information (Hagel and Armstrong, 1997).

Virtual communities, providing a subset of the information available on the Internet, are unique in that most of their content is member-generated, as opposed to other Internet information which is typically provided by the site provider. This makes the quality of CMC content an important factor in virtual community success (Filipczak, 1998). It has even been suggested that virtual communities must have compelling content, and that they might fail if they do not have good standards for this content (Sreenivasan, 1997). One way of achieving such compelling context is through member-generated content, and the self-sustaining process it creates: as more members generate more content, the increased content draws more members (Hagel and Armstrong, 1997).

The huge amounts of random information available on the Internet are staggering. In the world of Web 2.0 communities, this value is referred to the public informational products available for everyone with no favour asked in return (Rheingold 1993; Kollack 1999; Wellman and Gulia, 1999; Blanchard and Horan, 2000; Wasko and Faraj, 2000; McArthur and Bruza, 2001; Cho *et al.,* 2002; Haythornthwaite, 2002; Hall and Graham, 2004; Cai *et al.,* 2008; Liang *et al.,* 2008); goods that are socially generated, owned and maintained by the community (Lave, 1988; Brown and Duguid, 1991; Lave and Wenger, 1991; Janzik and

Herstatt, 2008), and therefore, information exchange is motivated by "moral obligation and community interest rather than by narrow self-interest (Von Krogh, 1998) and expectation of return" (Wasko and Faraj, 2000, p. 155). Web 2.0 communities are a great source of valuable, free, communal information with the large numbers of users pitching in, and collectively contributing for the greater good and its provision where "the possibilities are endless" (Ho *et al*. 2007).

As Schwartz (1970) affirms; people tend to contribute in Web 2.0 communities as a sense of fairness, public duty, and concern for their community. This voluntary contribution tends to help the community successfully operate and continuously grow (Lesser, 2000; Bock and Kim, 2002; Kolekofski and Heminger, 2003; Chiu *et al.,* 2006). Satisfying a utilitarian value is the effective achievement of a functional goal which is often suitable for learners, solution seekers and problem-solvers (Hirschman and Holbrook 1982; Wasko and Faraj, 2000; Hall and Graham, 2004; Pura 2005; Bishop, 2007; Law and Chang, 2008; Adamic *et al.,* 2008; Rood and Bruckman, 2009). It is characterized as instrumental and extrinsic, that is beneficial for functional and practical queries (Babin *et al.* 1994). Such perceived values can be classified as:

A) *Computer Efficacy:* which is defined by Compeau and Higgins (1995) as "an individual's perceptions of his/her ability to use computer (software) in the accomplishment of a task" (p. 191). Individuals' beliefs about their abilities to competently use computers were found to exert a significant influence on their expectations of the outcomes of using them.
B) *Instrumental:* are functional values that can be best described as an acquisition of new knowledge, and an increase in idea creation and enhanced problem solving (Arguello *et al.* 2006; Du, 2006; Liang *et al.,* 2008). For example, asking for a handy advice in solving a dilemma, or support when having a technical difficulty (i.e. Yahoo Answers). This can lead to further skill enhancement (Janzik and Herstatt, 2008).

***H5D*:** The perceived utilitarian values to be delivered from Facebook have a positive impact on users' intentions to continue participating on Facebook.

It is worth mentioning here that such a classification of the perceived values in Web 2.0 communities is novel as well as their distinction to interpersonal values (social, hedonic and epistemic) and informational (epistemic and utilitarian). The same is true concerning the roles

adopted by different users of Web 2.0 communities which are unequivocally clarified in the next section.

2.10. BEHAVIOURAL ROLES IN WEB 2.0 COMMUNITIES

Users might evolve in terms of their participative roles in Web 2.0 communities, and each role-behaviour is distinct with its own characteristics of needs of value. In time, when enough members join a community, an identity for the community begins to develop. Members start using a common language and as the community grows, they select the roles they will play. Then participant roles become identifiable. Some members lead discussions and volunteer information, while others follow, and lurk for support and information. These characteristics (common to both online and physical communities) initiate the *growth* stage of the digital community (Ridings *et al.* 2006). Generally speaking, users' roles and internet behaviours can be classified into (1) Passive and (2) Active (Soroka and Rafaeli, 2006). *Passive* users that are subjected to an action without responding or initiating in return as these users flow for self-sake rather than benefiting others, and *Active* users that are energetically active in terms of contribution (see Table 2-3 for a summary).

In our context, users in Web 2.0 communities might move from one role to another, or stick to the same role for own self-beneficiary. However, participation can be explained using a consumer behaviour principle called "social proof" (Cialdini, 2001). It suggests that what determines the behaviour is finding what other people think is correct; "seeing the appropriateness of something when others are using it" (Fontana and Sorensen, 2005). More interestingly, the frequency of the users' visits defines their communication behaviour (Soroka and Rafaeli, 2006). For example, someone who tends to visit the community very often has different communication patterns than one who visits only a few times. Below, recognizable role behaviours of Web 2.0 communities are discussed.

2.10.1. NEWBIE

A newbie (Blanchard, 2008) refers to *'New Comers'* (Soroka and Rafaeli, 2006; Du, 2006; Lambropoulos, 2006; Godara *et al.*, 2009) in any Internet-based activity, most widely used to express newly joining, and *'Potential Contributors'* (Lambropoulos, 2006). Newbies are first-time users that start as being observers or over-hearers for the purpose of learning about the community. As they join, the community evolves and a cycle of interaction repeats.

Newbies bring new ideas for discussion and their roles change over time (Nonnecke and Preece 2001; Burkett 2006), metaphorically, "they tip their toe in" (Preece and Shneiderman, 2009). They indirectly participate through watching, listening or reading information without directly getting involved or contributing to the community (Schoberth *et al*. 2002). They might exhibit a wish for contribution and lurk before taking part in any discussion. In sum, Newbies are users with desire to contribute but yet not much of contributors (Ridings *et al*., 2006). Thus Newbies should be given attention from other users and provide them with information to help them become part of the group.

2.10.2. LURKER

Lurkers are depicted as *'Peripherals'* (Whittaker *et al.,* 1998; Huang and DeSanctis, 2005; Watson and Gasson, 2006; Godara *et al.,* 2009), *'Consumers'* (Janzik and Herstatt, 2008, *'Free-Riders'* (Sweeney, 1973; Connolly and Thorn, 1990; Kollock and Smith, 1996; Morris and Ogan, 1996; Wellman and Gulia, 1998; Cabrera and Cabrera, 2002; Hippel and Von Krogh, 2003; Hall and Graham, 2004; Yu *et al.,* 2007; Gu *et al.,* 2008; Assmann *et al.*, 2009), *'Free Loaders'* (Blanchard, 2008), *'Loners'* (Kumar *et al.,* 2006), and *'Observers'* (Lambropoulos, 2006). They can be described as the unseen forces that do affect the community in a way or another.

This is because their main role is invisibly observing the community, viewing, and consuming contents with unstructured levels of participations, and mainly no desire for contribution or involvement in any sharing activity (Mason, 1999; Nonnecke and Preece, 1999, 2000; Nonnecke, 2000; Preece *et al.,* 2004; Du, 2006; Lambropoulos, 2006; Li *et al.,* 2008; Assmann *et al.,* 2009). That is "Passive attention over active participation" (Soroka and Rafaeli, 2006, p. 163). They actually do not add any content or engage into any discussion (Blanchard and Horan, 2000; Nonnecke and Preece 2000). Interestingly enough, a deeper semantic examination reveals that the English verb "to lurk" usually means "lying in wait", often with malicious intent. Thus lurkers can be defined as a persistent but silent audience with hiding patterns of participation. Lurking has ambiguous, both positive and negative valence. Lurking, however, excludes users who have visited the community once or twice and never showed up after (Soroka and Rafaeli, 2006).

Lurkers are attracted to Web 2.0 communities because of their desire for credible information. They seek opportunities to broaden their viewpoints and consume information

privately. They might seek and elicit information regularly without the intent of maintain any debate (Waters and Gasson, 2006). Matter of fact, lurkers may have the desires and capabilities to engage and participate, but hold beliefs that prevent them from making participatory actions, perhaps one of the most effective means to change their beliefs is for regulars, and leaders to nurture newbies in the community (Bishop, 2007). Approximately, they represent 80–90% of a Web 2.0 community population (Katz, 1998; Mason, 1999; Lambropoulos, 2004; Tedjamulia *et al.* 2005; Du, 2006; Li *et al.*, 2008; Rood and Bruckman, 2009).

Skinner (1983) suggests that the way to turn lurkers into *'de-lurkers'* (Soroka and Rafaeli, 2006) is to reward them for taking participatory actions. However, Li *et al.* (2008) view lurkers as not necessarily passive participants and they argue that "their seemingly silent participation conveys a deeper level of engagement than that of non-lurkers". Nonetheless, we agree with Nonnecke and Preece (2000) that lurkers are passive actors as being non-contributors. Hierarchical needs theory (Maslow, 1943) seems to suggest that the reason lurkers do not participate in Web 2.0 communities is that their safety (social) needs are not being met (Bishop, 2007). Interestingly, one apparent reason in a study conducted by Wasko and Faraj (2000) indicates that lurkers may not participate because they find it time consuming, and/or are not comfortable with their level of expertise, so they prefer to browse and occasionally participate. However, lurking can be harmful and get in the way of community development.

Lurkers might join a Web 2.0 community for a certain period of time out of curiosity to observe others virtually (Leitner *et al.*, 2008). Narrowing that down, it might be curiosity of discovering and desiring knowledge about the technology (Adamic *et al.*, 2008; Rood and Bruckman, 2009), or curiosity of understanding the community. For example, Joinson (2008) gathered a snapshot of Facebook users in two studies conducted with 378 users. Respondents indicated that they use Facebook to keep people under virtual surveillance; users were eager to see what old contacts and friends were up to, how they behave and how they look (Leitner *et al.*, 2008). However, having curiosity as a motivation for joining the community might lead to an ongoing full participation, or may lead to the user leaving the community after satisfying his epistemic needs. Users within this role are unduly interested in the affairs of others and their private details, and are eager to learn more on a continuous basis. Donath

(1996) proposes that people often try to find out about other participants from the content of their postings.

2.10.3. INSIDER

Insiders are regular (Rood and Bruckman, 2009) active participants who are fully engaged and committed to the community, and contribute to the public communications. They consistently add to the community's content, share knowledge, and get engaged into group discussions but generally in terms of fulfilling a minimal contractual obligation (Du, 2006; Waters and Gasson, 2006; Blanchard, 2008). They can be classified as *'Experienced Users'* (Godara *et al.*, 2009), *'Chatters'* (Nolker and Zhou, 2005), and *'Contributors'* (Huang and DeSanctis, 2005; Waters and Gasson, 2006; Rood and Bruckman, 2009) as well. Their level of interaction is high and frequent. Insiders (regulars) were once newbies, as depicted by Kim (2000), but now are established in the community and comfortably participating in the community's life. Regulars make concerted efforts to comment and rate others. They not only browse and ask questions, but respond to others' queries, engage in some social interaction, and make some intelligent contributions (Tedjamulia *et al.*, 2005).

2.10.4. LEADER

Leaders (Li *et al.*, 2008) can be referred to as *'Advanced'* (Lambropoulos, 2006), *'Elders'* (Kim, 2000), *'Key Communicators'* (Cho *et al.*, 2002), and *'Experts'* (Hall and Graham, 2004; Waters and Gasson, 2006; Bouguessa et al., 2008; Brandtzaeg and Heim, 2008; Law and Chang, 2008; Li *et al.*, 2008), *'Mentors'* (Adamic *et al.*, 2008; Law and Chang, 2008), *'High Brow'* (Soroka and Rafaeli, 2006). They are informal, key members of any Web 2.0 community that attempt to create and support the social network often described with the *'Lion's share' of contributions'* (Rashid *et al.*, 2006, p. 955).

Leaders are defined as high contributors to the success and health of the community since they are in a central position to spread knowledge, and thus provide cohesiveness and consistency among others (Hall and Graham, 2004; Nolker and Zhou, 2005; Du, 2006). Leaders are people with appropriate expertise to answer questions, solve problems, or provide collaboration with value motives (Yu *et al.*, 2007). They are the main information providers (Janzik and Herstatt, 2008; Li *et al.*, 2008) as users turn to them for help. Leaders sustain membership through continuous participation as they become committed to the community;

	Role	Synonym	Perceived Value	Representative Literature
1.	Newbie	New Comer; First-Time User; Potential Contributors.	**Perceived Social Value** *(Emotional, Networking, Self-Efficacy, Self-Discovery)***; Perceived Hedonic Value; Perceived Utilitarian Value** *(Computer Efficacy, Instrumental)***; Perceived Epistemic Value** *(Knowledge Acquisition)***.**	(***See*** Nonnecke and Preece, 2001; Schoberth *et al.*, 2002; Burkett, 2006; Du, 2006; Ridings *et al.*, 2006; Lambropoulos, 2006; Soroka and Rafaeli, 2006; Blanchard, 2008; Godara *et al.*, 2009).
2.	Lurker	Peripherals; Consumers; Non-Contributors; Non-Cooperators; Free-Riders; Free Loaders; Loners; Resource Takers; Silent Viewers; Observers.	**Perceived Social Value** *(Self-Efficacy, Self-Discovery)***; Perceived Hedonic Value; Perceived Utilitarian Value** *(Computer Efficacy, Instrumental)***; Perceived Epistemic Value** *(Knowledge Acquisition).*	(***See*** Sweeney, 1973; Connolly and Thorn, 1990; Kollock and Smith, 1996; Morris and Ogan, 1996; Katz, 1998; Wellman and Gulia, 1998; Whittaker *et al.*, 1998; Mason, 1999; Nonnecke and Preece, 1999; Blanchard and Horan, 2000; Nonnecke, 2000; Nonnecke and Preece, 2000; Wasko and Faraj, 2000; Cabrera and Cabrera, 2002; Hippel and Von Krogh, 2003; Hall and Graham, 2004; Preece *et al.*, 2004; Lambropoulos, 2004; Tedjamulia *et al.*, 2005; Huang and DeSanctis, 2005; Soroka and Rafaeli, 2006; Watson and Gasson, 2006; Du, 2006; Lambropoulos, 2006; Bishop, 2007; Yu et al., 2007; Blanchard, 2008; Janzik and Herstatt, 2008; Li *et al.*, 2008; Assmann et al., 2009; Godara et al., 2009; Rood and Bruckman, 2009).
3.	Insider	Regulars; Contributors; Chatters; Experienced Users.	**Perceived Social Value** *(Emotional, Networking, Self-Efficacy, Self-Discovery)***; Perceived Hedonic Value; Perceived Utilitarian Value** *(Computer Efficacy, Instrumental)***; Perceived Epistemic Value** *(Curiosity of observing others, Knowledge Acquisition).*	(***See*** Kim, 2000; Tedjamulia *et al.*, 2005; Huang and DeSanctis, 2005; Nolker and Zhou, 2005; Waters and Gasson, 2006; Du, 2006; Blanchard, 2008; Godara *et al.*, 2009; Rood and Bruckman, 2009).
4.	Leader	Advanced; Elders; Key Communicators; Experts; Mentors; Highbrow**.**	**Perceived Social Value** *(Networking, Self-Efficacy, Self-Discovery)***; Perceived Hedonic Value** *(Enjoyment of helping others)***.**	(***See*** Kim, 2000; Preece, 2000; Tyler and Blader, 2000; Cho *et al.*, 2002; Bishop, 2002; Hall and Graham, 2004; Tedjamulia et al., 2005; Du, 2006; Waters and Gasson, 2006; Soroka and Rafaeli, 2006; Rashid *et al.*, 2006; Lambropoulos, 2006; Bishop, 2007; Yu *et al.*, 2007; Bouguessa *et al.*, 2008; Janzik and Herstatt, 2008; Li *et al.*, 2008; Law and Chang, 2008; Li *et al.*, 2008; Godara *et al.*, 2009).

Table 2-3: IS literature analysis of roles and perceived values in Web

and therefore, they have become recognized to the community with a favourable identity (Tyler and Blader, 2000). This type of participation (i.e. Leaders) is referred to as a digital community "veteran" (Tedjamulia *et al.*, 2005; Godara *et al.*, 2009). This type is firmly responsible for making the majority of contributions in the community. Their contributions are the primary reason lurkers sneak around and decide to get involved (Preece, 2000). Leaders usually experience a desire if a bulletin board goes off topic for example, and will carry out actions to bring it back to the its original focus (Bishop, 2002). Leaders are volunteer helpers (Lambropoulos, 2006; Yu *et al.*, 2007) and staff members who keep the community running (Bishop, 2007), they even have the ability to influence others' behaviours. However, according to the theory of Human Motivation (Maslow, 1943), elders seem to be actively participating and engaging in Web 2.0 communities for the reason that they are meeting their social and esteem needs (Bishop, 2007). Leaders can take the form of hosts, moderators, cybrarians and greeters.

2.11. RESEARCH FRAMEWORK

The developed framework (see Figure 2-3) aims to explain why users of Web 2.0 communities (the case of Facebook in this research) would continue participating on Facebook and what are the social-related and culture-related factors affecting this decision. Moreover, how they would determine their behavioural roles based on the social-related antecedents and their decomposed beliefs influencing their perceived value elements over time. This explanation can be illustrated in four main developed taxonomies: The taxonomy of the perceived value elements members aim to gain and achieve from the community; i.e. *Perceived Social Values* (emotional, networking, self-efficacy, and self-discovery); *Perceived Hedonic Values* (self-entertainment); *Perceived Epistemic Values* (where a user may join a community for the purpose of gratifying his curiosity in acquiring knowledge, or even surfing into others private details); and *Perceived Utilitarian Values* (Free public information related to computer-efficacy and functional values).

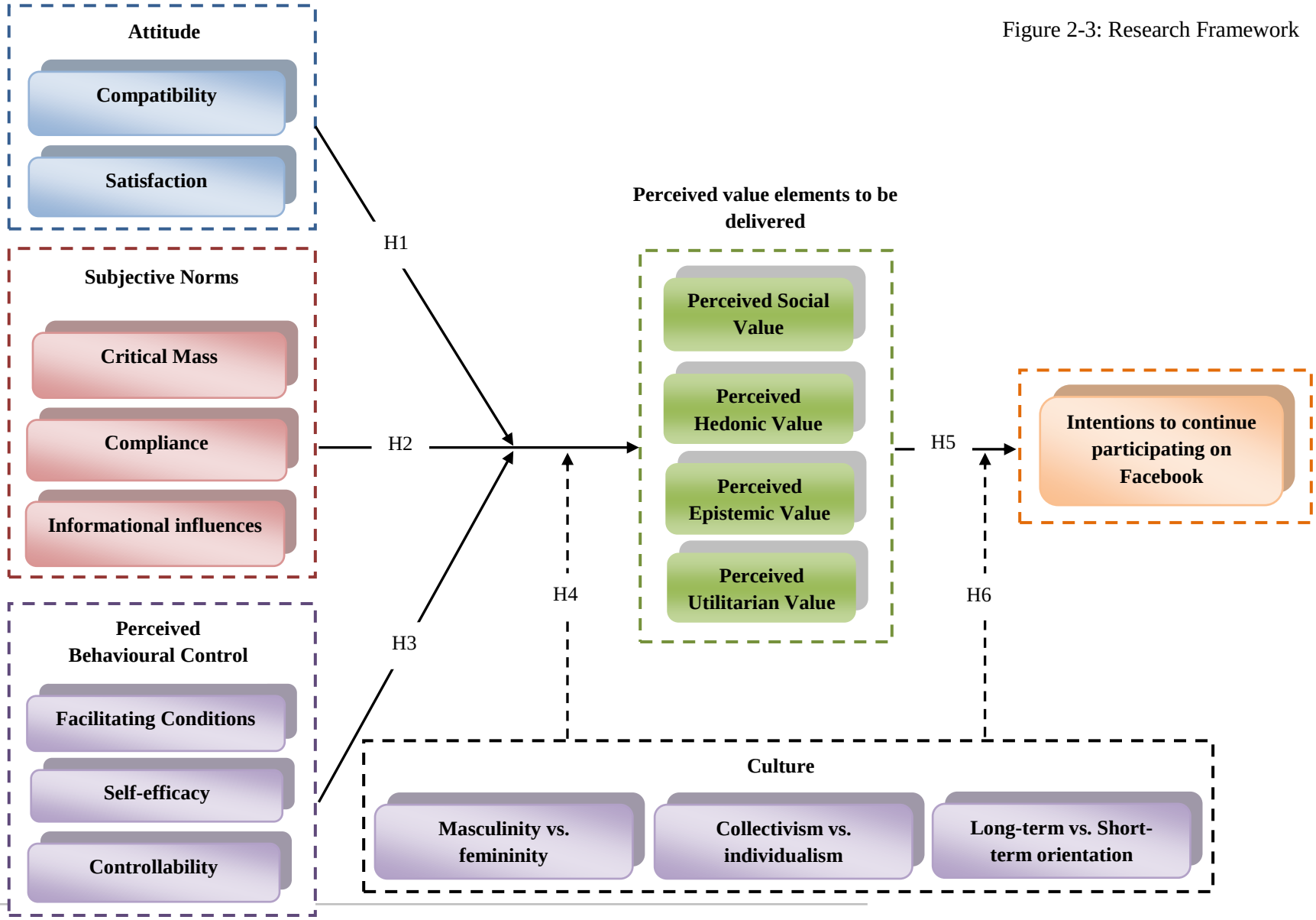
The taxonomy of members' actual behavioural roles in Web 2.0 communities; where members are classified as *Newbies*, *Lurkers*, *Insiders*, and *Leaders*. The post-adoption factors representing members' intentional antecedents are of social-related nature. Those antecedents have been adopted from the theory of planned behaviour to predict, explain, and determine members' actual behaviours in Web 2.0 communities with minor substitutes in their

decomposed beliefs in order to fit the context of this research. Remarkably, they postulate three conceptually independent determinants of members' intentions.

These social-related antecedents along with their salient constructs are: *Attitudes* (compatibility, and satisfaction); *Subjective Norms* (Critical Mass, Compliance, and Informational Influences); and *Perceived Behavioural Control* (Facilitating Conditions, Self-Efficacy, and Controllability). Finally, the moderating dimensions of culture suggested by Hofstede: *Individualism-Collectivism; Masculinity-Femininity; Long-Term Orientation versus Short-Term Orientation*, and their effect on the perceived values driving users towards continuous active participation on Facebook.

Accordingly, the originality of this work adds a new dimension of research in Web 2.0 communities, and opens up opportunities for possible extensions and amendments of efforts within this research area. Thus, its novelty comes from the intense effort of investigating the post-adoption factors and exploring the antecedents of the motivational value elements along with their decomposed beliefs, and their effect in determining the continuous behaviour of participating on Facebook. Moreover, it tests how culture would affect users' intentions on whether to continue participating on Facebook in Jordan or not. Conclusions of this research might assure the accurateness of the framework investigated, or might prove changes in the attitudinal antecedents, perceived value elements, and/or members' behavioural roles.

Figure 2-3: Research Framework



2.12. SUMMARY

Noticeably, various internal and external factors may affect and influence Facebook users in Jordan and their level of participation on it. These factors reflect personal, social, and situational factors that in turn determine users' actual behaviour on Facebook. Interestingly, as a result, users play various role behaviours in Web 2.0 communities, and within each role lies their intentions of satisfying purposive personal desires. These roles might vary depending on how much users are satisfied with meeting their perceived values. However, regardless of the previously mentioned personal, social and situational factors, culture may play a moderating and influencing role in the actual behaviour of continuous participation of these users.

Chapter Three

METHODOLOGY AND RESEARCH DESIGN

- **CONTENTS** **PAGE**

3.1. INTRODUCTION

Information systems as an area of study, bridges the multidisciplinary field of business and the interdisciplinary computer science field. It is multidisciplinary in nature as its roots relates to other disciplines as well, such computer science, engineering, mathematics and management science (Culnan, 1987); and thus the nature of its research is complex. The contributions to IS study and research come from multiple domains of research (Land, 1992) and thus there is no one single superior approach applicable in all cases, but a variety of research paradigms, approaches, methods, and techniques to be employed. This chapter illustrates the research methods and design applied within this thesis for the examination of continuous participation in Web 2.0 communities in general and more specifically relating back to the research problem that is to be tested, why would Facebook users in the Hashemite Kingdom of Jordan continue participating on it or not.

Having a diversity of backgrounds and variety of approaches in the IS discipline seems to be worrying to some researchers and appealing to others. Benbasat and Weber (1996) argue that the discipline of information systems requires consistency or otherwise the discipline will shatter, whereas Robey (1996) argues that such diversity is a positive source of strength that enriches research in IS as variety creates flexibility and inspires creativity. It seems that the latter standpoint is more accepted and practiced by researchers in information systems given that current IS research approaches are still substantially varied (see Palvia *et al.*, 2006 for a categorization of IS methods).

Having argued that the availability of different research paradigms, approaches, and methods is favoured by the IS research community, however, can they be used to investigate any phenomenon and irrespective of the research question? Can they be used to augment the research value? Well, it can be argued that the appropriateness of the research paradigms, approaches, and methods depends on the nature of the research question and/or the nature of the phenomenon under investigation.

Furthermore, there is no clear-cut answer whether research paradigms, approaches, and methods are completely unique or could be combined together in some situations. Robey (1996) argues that the existing methodical approaches and strategies differ in their suitability

across different research questions, the underlying nature of phenomenon under investigation, and the underlying philosophical standpoint of researchers. Mingers (2001) believes that there is still room for combining IS research methods to enhance the research value and benefits. However, Orlikowski and Baroudi (1991) argue that by using a plurality of research perspectives, the research benefits can be augmented *only if* these perspectives are employed *effectively* and *appropriately*. Hence, the selection of fitting research approach is a key task during the process of research design whether the researcher follows one perspective or more.

Nevertheless, understanding the whole range of research paradigms, strategies, and approaches is significant as such awareness normally helps reduce any bias that the researcher may have towards one particular approach. This is because this sort of understanding keeps the researcher open to the possibility of other assumptions that may fit their interests and predispositions (Orlikowski and Baroudi, 1991).

Here in this research, the interpretive approach has been selected as the most appropriate for the development of the framework of this thesis. Interpretive research is used increasingly as an approach that can help the understanding to complex phenomena related to the use of information systems (Walsham 1995a). However, further explanation on the research approach is explained in the section below.

3.2. RESEARCH UNDERLYING PARADIGM AND SELECTED APPROACH

The philosophical paradigm underlying this research is of a positivist nature; positivist studies attempt to test a theory in an attempt to increase the predictive understanding of a phenomenon. In line with this, Orlikowski and Baroudi (1991: p.5) classified IS research as positivist if there was evidence of formal propositions, quantifiable measures of variables, hypothesis testing, and the drawing of inferences about a phenomenon from the sample to a stated population. Traditionally in IS research, three major paradigms can be distinguished as *positivist*, *interpretive*, and *critical* (Chua, 1986; Orlikowski and Baroudi, 1991; Klein and Myers, 1999). Any research can be classified as:

- A *positivist* if there is an evidence of hypotheses generation, operational or quantifiable measures of research variables such as the dependent and independent

variables, testing of theory, and finally the drawing of conclusions about the examined phenomenon from a sample representing the research population (Orlikowski and Baroudi, 1991). Hence, positivists commonly assume that reality is objectively given and thus can be measured independently of the researcher and the employed instrument (Avison and Pries-Heje, 2005).

- *Interpretive* if it assumes the knowledge of reality is shaped by its social context and can be obtained only through social constructions including, but not limited to, language, shared meanings, consciousness, tools, and documents. As argued by Walsham (1993), the aim of interpretive research is at the "understanding of the context of the information system and the process whereby the information system influences and is influenced by the context" (p. 4-5).
- *Critical* if the main aim of the research is one of a social critique seeking to assist in eliminating the causes of unwarranted domination; and improves the opportunities for realizing human potentials (Hirschheim and Klein, 1994). This kind of research assumes that "social reality is historically constituted and that is produced and reproduced by people" (Avison and Pres-Heje, 2005: p.244).

As Galliers (1991) argues it is unlikely that there is universal information systems research approach; thus selecting the appropriate one when studying information systems is one of the most difficult. In sum with all the mentioned above, the researcher do agree with what Orlikowski and Baroudi (1991) state: *"Researchers should ensure that they adopt a perspective that is compatible with their own research interests and predispositions, while remaining open to the possibility of other assumptions and interests"*.

3.3. RESEARCH DESIGN

The design of this research (see Figure 3-1) has gone through three main phases: the *Exploration* phase, the *Testing* phase, and the *Evaluation* phase. Speaking of which, the exploration phase can be best described as the building block of this research. The researcher did run an extensive literature review from existing research on the perceived values and the behavioural roles of members in Web 2.0 communities, the researcher also applied content

analysis of the various theories studying and explaining human behaviour along with their embedded beliefs and as a result a theoretical background has been built and the researcher did come up with the initial framework.

Taking the initial framework to the second phase, that is the testing phase, a pilot study was conducted for that purpose. Phase one of the data collection included three focus groups and an online survey was created as the quantitative approach to be used later on in the study. As a result, the data collection techniques and the research framework have been initially tested and revised (this will be explained in detail in chapter 4).

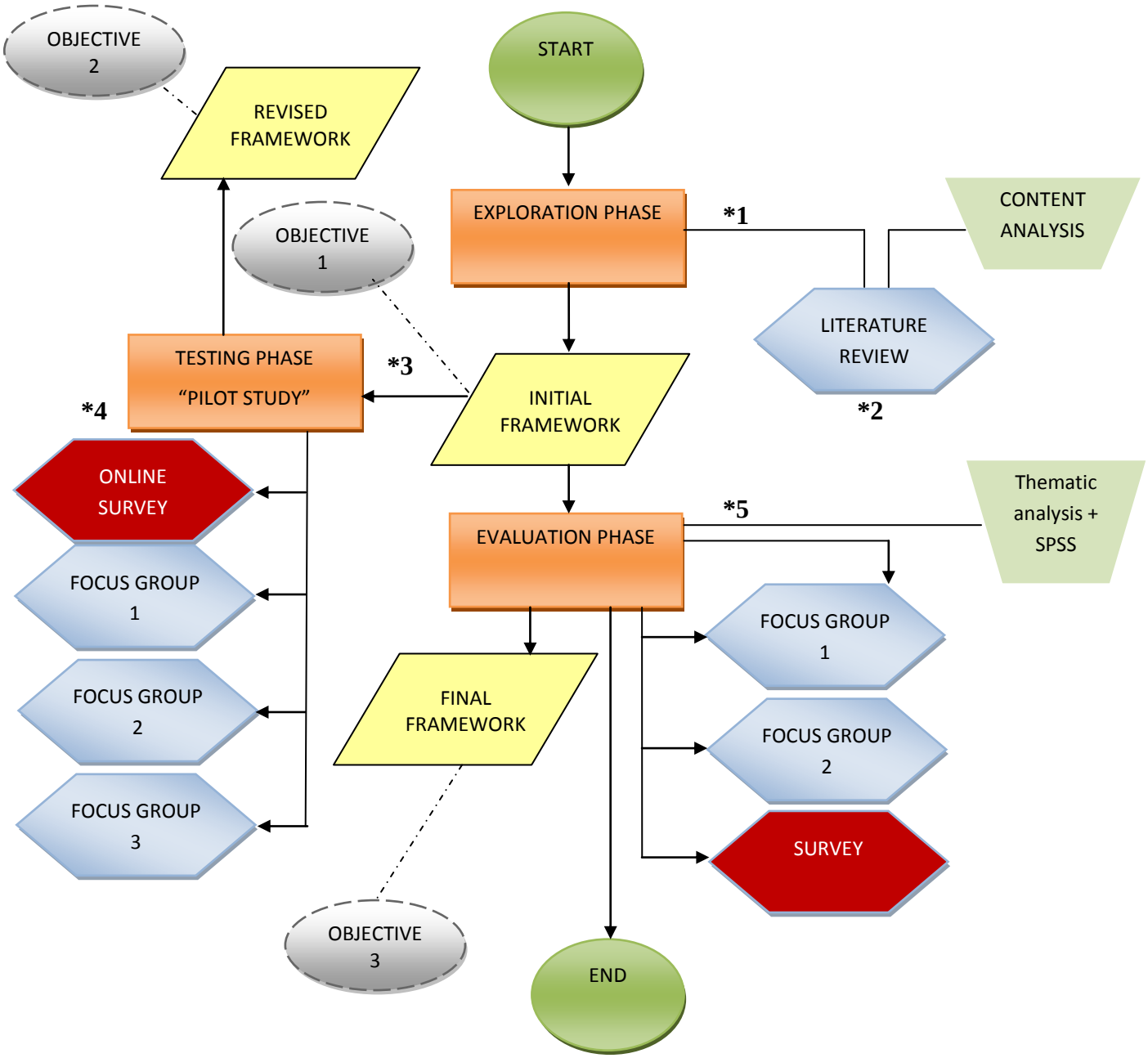
Moving on to the third phase; the evaluation phase (chapters 5 and 6), which evaluates the whole research hypothesis and framework, both qualitative and quantitative approaches has been used. This phase represents the second phase of the data collection. The researcher did run two focus groups as group interviews, and three hundred and fifteen (315) surveys were collected from random Jordanian Facebook users. Both qualitative content analysis and statistical analysis were applied in the process of testing the hypotheses, evaluating the final framework, and coming up with the final results of the research.

Therefore, summing up the research main objectives as illustrated in the figure 3-1 below can be as followed:

(1) Exploring the existing literature on Web 2.0 communities and theories of human behaviour and their applications in the field of information systems.

(2) Testing the initial framework and assuring the validity and reliability of its hypotheses and the research main instruments and techniques used in testing that.

(3) Evaluating the final framework by analyzing the data collected and presenting the results that examine and explain continuous participation of Facebook in Jordan by Jordanian users.



*1 *Theoretical background.*
*2 *Perceived values and behavioural roles in Web 2.0 communities; analysis of human behaviour theories.*
*3 *investigating continuous participation in Web 2.0 communities.*
*4 *Data collection phase1.*
*5 *Data collection phase2.*

Figure 3-1: Research design.

3.4. QUALITATIVE VERSUS QUANTITATIVE RESEARCH

A research method is a strategy of inquiry which moves from the underlying philosophical assumptions to research design and data collection. The choice of research method influences the way in which the researcher collects data. Specific research methods also imply different skills, assumptions and research practices.

Where a quantitative researcher might seek to know what percentage of people do one thing or another (Neuman, 1997), the qualitative researcher pays much greater attention to individual cases and the human understandings that feature in those cases. Nevertheless, it could be argued that the quantitative researcher is more precise, however, it is not possible to be precise in most situations as people change and the social situation might become too complex for numerical measurements (Belli, 2008). However, quantitative research has a tendency to 'clarify' where clarification is not appropriate.

In qualitative research, it is argued that the qualitative perception is a more precise reflection of certain situations than the numerical perception. Just as there are various philosophical perspectives which can inform qualitative research, so there are various qualitative research methods. Four main differences are agreed upon between research qualitative and quantitative methods (see also Table 3-1):

1. Quantitative research is based on a positivist paradigm which assumes that there are social facts with an objective reality apart from the beliefs of individuals. Qualitative research is rooted in a phenomenological paradigm which holds that reality is socially constructed (Taylor and Bogdan 1984; Firestone, 2005).
2. Quantitative research seeks to explain the causes of changes in social facts primarily through objective measurements and quantitative analysis (Avison and Pres-Heje, 2005). Qualitative research is more concerned with understanding the social phenomenon from the actors' perspectives through participation in the life of those actors (Taylor and Bogdan, 1984).
3. The quantitative researcher typically employs an experimental or correlational design approach to reduce error and bias that keeps one from clearly perceiving social facts (Cronbach, 1975). The prototypical qualitative study is the ethnography which helps

the reader understands the definitions of the situation of those studied (Goodenough, 1971).

4. The role of the quantitative researcher is detached to avoid bias. On the other hand, the qualitative researcher becomes immersed and involved in the phenomenon of interest (Powdermaker, 1966).

	Qualitative research	**Quantitative research**
	"All research ultimately has a qualitative grounding" - Donald Campbell	*"There's no such thing as qualitative data. Everything is either 1 or 0"* - Fred Kerlinger
Aim	Provide a complete detailed description.	Classify features, count them, and construct statistical models in an attempt to explain what is observed.
Tool	The researcher is the data gathering instrument.	The researcher uses tools, such as questionnaires or equipment to collect numerical data.
Format	Data collected is in the form of words, pictures or objects.	Data collected is in the form of numbers and statistics.
Nature	Subjective – individuals, interpretation of events is important (e.g., uses participant observation and in-depth interviews).	Objective: seeks precise measurement and analysis of target concepts (e.g., uses surveys, questionnaires).
Pros and cons	Qualitative data is more 'rich', time consuming, and less able to be generalized.	Quantitative data is more efficient, able to test hypotheses, but may miss contextual detail.
Researcher's role	Researcher tends to become subjectively immersed in the subject matter.	Researcher tends to remain objectively separated from the subject matter.

Table 3-1: Qualitative vs. Quantitative research (Compiled after Neill, 2007)

Quotations adapted from Miles and Huberman (1994)

The use of multiple data collection methods (see Table 3-2) as it is the case in this research (i.e. qualitative and quantitative methods) makes triangulation possible and this provides stronger substantiation of theory (Eisenhardt, 1989). Mentioning this mixed approach, "Triangulation" is the process that aims at corroborating the same phenomenon by using different data sources and thus, any finding or conclusion made from the cases is likely to be more convincing and accurate if it is based on several different sources of information (Yin, 1994).

3.5. CONTENT AND CONSTRUCT VALIDITY AND RELIABILITY

The face of validity was achieved through the pilot work of the research instrument with academic field experts from reputable academic universities and fields in Jordan, who checked the relevance and appropriateness of the instrument to achieve the research objectives providing evidence of face validity. These academics were consulted to examine the relevancy of the questionnaire to the study objectives. Content validity is achieved by the procedures that are used to develop the research instrument, which are: (a) conducting a thorough examination of the previous empirical and theoretical work of researchers within the field, upon which the operational definitions for each variable was made. (b) Conducting a pilot study before starting the field work (outlined in the section below)

3.5.1 TESTING PHASE: PILOT STUDY

As part of testing the research hypotheses, an initial pre-testing phase or otherwise referred to as the preparation phase by the researcher took place few months prior to the main data collection and hypotheses testing. This pilot study has been useful in assuring the reliability and validity of the data collection instruments and techniques to be used on a later stage of the hypotheses testing. It has also provided insights of the tackled problem of this research, and the relationships among the framework constructs. This study did last for around three to four (3-4) months and took place at The Placement and Careers Centre (PCC) at Brunel University/ United Kingdom.

The pilot study did aim to examine the continuous participation of the users of the PCC Web page on Facebook. The pilot study was of a qualitative and quantitative nature, starting with the conduction of three (3) focus groups, two (2) with the Web page creators, managers, and moderators, and 1 with a number of users of the PCC Web page. Each session did last between forty and fifty-five (40-55) minutes, and all three (3) groups were interviewed and given copies of the research survey to fill in, evaluate, and provide feedback and/or suggestions. All sessions were tape recorded and transcripted on the same day. For the quantitative part, the survey has been uploaded online to the PCC Web page on Facebook supported by an invitation that has been sent to fans of the PCC Web page with the help of the Web page moderators inviting them to take part in the survey and enter the prize draw. However, the researcher only managed to get forty-eight (48) responses, but it was sufficient enough for such a study as few minor modifications were applied to the survey questionnaire based on the feedback received from the participants. Chapter 4 presents the pilot study in more in-depth detail along with the analysis of the collected data.

3.6. DATA COLLECTION: QUANTITATIVE APPROACH

Quantitative research methods express the assumption of a positivist paradigm which holds that behaviour can be explained through objective facts (Avison and Pres-Heje, 2005). Quantitative research aims generates statistics through the use of large-scale survey research (Firestone, 2005), using methods such as questionnaires or structured interviews. This type of research targets and reaches many more people, but the contact with those people is much quicker than it is in qualitative research. Qualitative methods produce information only on the particular cases studied. In other words, quantitative methods can be used to verify, which of such hypotheses are true. Quantitative research is still viewed as the classical scientific paradigm.

Quantitative research holds assumptions that social facts have an objective reality, and variables of research are identified and relationships are measured. The main purpose behind it is prediction of causal explanation of the research hypotheses and their inter-relationships. It involves gathering data that is absolute, such as numerical data, so that it can be examined in as unbiased a manner as possible. There are many principles that go along with

quantitative research, which help promote its supposed neutrality. Quantitative research generally comes later in a research project, once the scope of the project is well understood. But that is not the case in this research.

The main idea behind quantitative research is to be able to separate things easily so that they can be counted and modelled statistically, to remove factors that may distract from the intent of the research. A researcher usually has a very clear idea what is being measured before they start measuring it, and their study is set up with controls and a very clear blueprint.

3.6.1. PHASE ONE: SURVEY

The survey questionnaire is the most commonly used method of gathering information about use and users. Questionnaires are easy to prepare but it is important to be able to avoid major pitfalls and to be able to identify them in the research done by others. Questionnaires are very cost effective when compared to face-to-face interviews. This is especially true for studies involving large sample sizes and large geographic areas (De Vaus, 2002). Questionnaires avoid interviewer bias, guiding, and cues that can impact the validity and reliability of the data collection. They reduce bias as there is uniform question presentation and no middle-man bias (Leung, 2001). The researcher's own opinions will not influence the respondent to answer questions in a certain manner as there are no verbal or visual clues to influence the respondent.

Questionnaires are a less expensive way to reach more people, including people at some distance. Depending upon the mode of distribution, this can be quickly done and data analysis can begin right away (Bernard, 2006). Anonymity insures more valid responses and might reflect a higher level of response quality. On the other hand, the use of questionnaires for a variety of commercial purposes as well as for "real" research have created a situation in which response rates have fallen over time. A response rate between 25 and 33 percent is now considered to be a good one (Punch, 2005), even after follow-ups, the response rate may still be low. It does require some motivation to respond and then the respondent must understand the questions and the sort of response required. Because the researcher is at some distance, there is little opportunity to develop rapport with the respondent. In some cases,

there is no opportunity to probe or clarify. Misunderstandings about purpose, questions, privacy, or whatever cannot be answered..

The type of this research is a single cross-sectional design in which the collection of data from users was carried out only once. In this research, a self-completion, well structured questionnaire has been developed based on previous empirical research and used as a primary measurement tool, four hundred twenty (420) questionnaires have been distributed to random Facebook users in Jordan, age ranged between eighteen (18) and forty five (45) years old. The total number of returned questionnaires was (348), and the number of complete questionnaires valid for statistical analysis was (315), with a response rate of (83%). That makes the number of excluded questionnaires (33) due to the multiple appearances of skipped questions and missing values. The survey consisted of five (5) main sections and had 63 questions in total, and most of its questions were fixed response alternative questions. It is important for this study to start with such a technique of quantitative method so as to reach the fuller picture of the intended target and get the results on a larger scale, as the targeted population as it will be explained in later sections is massive. The questionnaire also had a descriptive part that helped the researcher shape an indicator about the reasons behind users' continuous or discontinuous participation of Facebook in Jordan.

3.6.2. METHOD OF DATA ANALYSIS

For statistical analyses purposes, the researcher utilized the Statistical Package for Social Sciences (SPSS) software. However, statistical tests and analyses are used to verify whether the study hypothesis are to be accepted or rejected as each is stated as a null hypothesis (Ho). Moreover, different statistical analyses have been used for essential descriptive analysis. The different statistical methods that has been used are (1) Cronbach's Alpha to check the reliability of the data measured; (2) Descriptive statistics such as frequencies, descriptive, explore, crosstabs; (3) compute function has been used to invert the data related to negatively stated questions as well as variables' means calculations; (4) Multiple Regression analysis has been used for hypothesis testing purposes; and (5) Analysis of Variance (ANOVA) has been also used to test the role of culture as a mediating factor.

3.7. QUALITATIVE APPROACH

The term "interpretive" research is frequently used interchangeably with "qualitative" research (Denzin and Lincoln, 2000), and there are a number of concepts, traditions and assumptions related to qualitative research. These include traditions such as positivism, post-positivism and many perspectives and/or methods (Becker and Howard, 1996).

Qualitative research methods express the assumptions of a phenomenological paradigm that there are multiple realities that are socially defined (Fischer, 2005). Rich description persuades by showing that the researcher was immersed in the setting and giving the reader enough detail to make sense of the situation (Firestone, 2005). Qualitative researchers want to know where, when, how, and under what circumstances behaviour comes into being. The data from informants takes the form of words and pictures rather than numbers, often the descriptive data contains quotations said by informants to illustrate and substantiate the presenting findings. The researchers are also concerned with the process rather than the simple outcomes because they do not set out to find data to prove or disprove hypotheses that they have prior to their study.

Qualitative research tends to mainly explore attitudes, behaviour and experiences through such methods as interviews or focus groups on a small scale. It attempts to get an in-depth opinion from participants. Qualitative research has an exploratory and open-ended nature. Participants are asked to respond to general questions and the interviewer or group moderator probes and explores their responses to identify and define peoples' perceptions, opinions and feelings about the topic or idea being discussed and to determine the degree of agreement that exists in the group.

The quality of the findings from qualitative research is directly dependent upon the skill, experience and sensitivity of the interviewer or group moderator (Denzin and Lincoln, 2000). This type of research is often less costly than surveys and is extremely effective in acquiring information about peoples' communications needs and their responses to and views about specific communications. It is often the method of choice in instances where quantitative measurement is not required connected to cultural and interpretive studies.

The reasons for selecting the qualitative research approach for this thesis is because a main assumption of this approach is that qualitative research studies things in their natural settings, attempting to understand phenomena in terms of the meanings that people bring to them (Denzin and Lincoln, 2000), meanings that are missing from the numerical and statistical values found in the quantitative approach, and understand them on a more in-depth and detailed level. That is what the researcher of this thesis is searching for as a result of this approach.

3.7.1. PHASE TWO: FOCUS GROUPS

A very important source of evidence of this study has been the unstructured in depth *interviews* with the parties involved in the activities under investigation. Indeed, interviews are the primary data source for interpretive case studies. According to Walsham (1995b) interview is the method that the researcher can best access the interpretations that participants have regarding the actions and events under investigation. A focus group is a type of interviews but on a group level which involves encouraging an invited group of participants to share their thoughts, feelings, attitudes and ideas on certain subject (Kaufman, 2003). Organizing focus groups can also be very useful in getting in-depth insights of what participants as part of the total population might have.

Focus groups are a form of group interview that capitalizes on communication between research participants in order to generate initial and/or in-depth data about the phenomenon (Lindlof and Taylor, 2002). Although group interviews are often used simply as a quick and convenient way to collect data from several people simultaneously, focus groups explicitly use group interaction as part of the method. This means that instead of the researcher asking each person to respond to a question in turn, people are encouraged to talk to one another: asking questions, exchanging and commenting on each other's experiences and points of view. The method is particularly useful for exploring people's knowledge and experiences and can be used to examine not only what people think but how they think and why they think that way.

In phase one of data collection (pilot study), three focus groups has been conducted as a way of gathering detailed insights of participants in testing the instruments to be used for data collection later on in this research, testing the validity and the reliability of those instruments, and for deriving initial findings of the main research. Phase two of the data collection, the researcher conducted two focus groups with same techniques used in phase 1 of the data collection process, it has been very useful in getting practical insights of individuals' experience and knowledge about the topic of research that is being under investigation.

The use of the interview method is deemed useful in this research. By utilizing the interview, this research seeks to enrich the understanding of the main problem of this research. The use of semi-structured interviews is preferred as opposed to fully structured or un-structured interview techniques. This is because semi-structured interviews allow the researcher to focus on the main aspects related to the phenomenon under consideration while at the same time keep the researcher open to any new idea that may emerge during the interview process.

Interviews were recorded while additional notes were taken during the course of the interview to avoid data loss due to note taking and on average each session lasted about forty to fifty (40-50) minutes. The primary themes discussed with each focus group are mentioned in chapter 4 within as the agenda discussed during the conduction of the focus groups of the pilot study. The conducted interviews were transcribed, verified and then analyzed. After transcribing the interviews, the data has been analyzed thematically by utilizing content analysis.

From the researcher's own experience, focus groups are quick, cheap and relatively easy to assemble, good for getting rich data in participants' own words and developing deeper insights, people are able to build on one another's responses and come up with ideas they might not have thought of in a 1-to-1 interview. However, limitations of focus groups include: The responses of each participant are not independent, a few dominant focus group members can skew the session, and focus groups require a skilled and experienced moderator.

3.7.2. METHOD OF DATA ANALYSIS

Content analysis is a method of analysing written, verbal or visual communication messages (Cole, 1988). Essentially, "there is no simple right way to do content analysis" (Weber, 1990), and Stone *et al.,* (1966) define it as "any research technique for making inferences by systematically and objectively identifying specified characteristics within text" for further in depth understanding of the main thematic constructs to be investigated within any research. Content analysis as a research method is a systematic and objective means of describing and quantifying phenomena (Krippendorff, 1980; Downe-Wamboldt, 1992; Sandelowski, 1995).

Content analysis allows the researcher to test theoretical issues to enhance understanding of the data where the aim is to attain a condensed and broad description of the phenomenon. The type of content analysis used within this research is qualitative content analysis where the data collected are usually analyzed to identify important relationships among the content qualities examined (Riffe *et al.,* 2005). A deductive approach (Elo and Kyngas, 2007) has been used in the qualitative content analysis of this research because the structure of analysis is operationalised on the basis of previous knowledge and the purpose of the study is theory testing (Kynga and Vanhanen, 1999).

One characteristic of qualitative content analysis is that the method, to a great extent, focuses on the subject and context, and emphasises differences between and similarities within codes and categories (Elo and Kyngas, 2007). Another characteristic is that the method deals with manifest as well as latent content in a text. In the case of this research, the manifest content, that is, what the text says, is presented in categories and applied and not the themes that are seen as expressions such as in the latent content (Catanzaro, 1988, Robson, 1993, Morse, 1994, Burns and Grove, 2005). In other words, the data analyzed is what the text is talking about (Graneheim and Lundman, 2004). Therefore, when transcribing interviews and observations into text, gestures such as silence, sighs, laughter, and posture has been ignored although they may influence the underlying meaning (Watzlawick *et al.,* 1967) but the researcher wanted to avoid confusion after all.

In any qualitative content analysis, there is the preparation phase which starts by selecting the unit of analysis (McCain 1988, Cavanagh 1997, Guthrie *et al.,* 2004). The unit of analysis in

this case is the text provided within the interviews (i.e. the focus groups). The text was sorted into twenty two (22) content areas and then text with similar themes and meanings were extracted and brought together into one text, the text was divided into meaning units that were condensed. The condensed meaning units were abstracted and labelled with a code.

In qualitative content analysis interpretation involves a balancing act. On one hand, it is impossible and undesirable for the researcher not to add a particular perspective to the phenomena under study. On the other hand, the researcher must 'let the text talk' and not impute meaning that is not there.

Phase	***One***	***Two***	***Two***
Method Used	***Survey***	***Focus group 1***	***Focus Group 2***
Where	Random	Piano Lounge/ Marriott Hotel	Piano Lounge/Marriott Hotel
When	September-November 2010	24th October, 2010	14th November, 2010
Number of Participants	315	9	10

Table 3-2: Summary of methods used for data collection.

3.8. SAMPLING FRAME AND UNIT

3.8.1 THE FACEBOOK ERA: OVERVIEW

Facebook is an online website (see Figure 3-2) that was originally founded in 2004 for social networking by Mark Zuckerberg with his college roommates and fellow computer science students Eduardo Saverin, Dustin Moskovitz and Chris Hughes (Cooper, 2010) and is privately operated and owned by Facebook Inc. with more than 500 million active users in July 2010 (Zucherberg, 2010) which is about one person for every fourteen in the world (Facebook statistics, 2010). The website's membership was initially limited by the founders to Harvard students, but was expanded to other colleges in the area. *Entertainment Weekly*

put it on its end-of-the-decade 'best-of' list, saying, "How on earth did we stalk our exes, remember our co-workers' birthdays, bug our friends, and play a rousing game of Scrabulous before Facebook? (Geier *et al.*, 2009).

Figure 3-2: Facebook welcome page and news feed.
Source: www.Facebook.com

Facebook constitutes a rich site for researchers interested in the affordances of social networks due to its heavy usage patterns and technological capacities that bridge online and offline connections. We believe that Facebook represents an understudied offline to online trend in that it originally primarily served a geographically-bound community (the campus). Created in 2004, by 2007 Facebook was reported to have more than 21 million registered members generating 1.6 billion page views each day (Needham and Company, 2007). The site is tightly integrated into the daily media practices of its users: The typical user spends about 20 minutes a day on the site, and two-thirds of users log in at least once a day (Cassidy, 2006; Needham and Company, 2007). In 2006, Facebook was used at over 2,000 United States colleges and was the seventh most popular site on the World Wide Web with respect to total page views (Cassidy, 2006).

On Facebook, users can create profiles with photos (see Figure 3-3), lists of personal interests, contact information and other personal information. Communicating with friends and other users can be done through private or public messages or a chat feature. Users can also create and join interest groups and "like pages" (formerly called "fan pages" until April 19, 2010), some of which are maintained by organizations as a means of advertising

(Facebook, 2008). Average user creates 90 pieces of content each month; more than 30 billion pieces of content (web links, stories, blogs, posts, notes) shared each month.

Users can also add people as friends and send them messages, and update their personal profiles to notify friends about themselves. Users are able to search for friends and acquaintances by e-mail address, school, university, or just by typing in a name or location for search. When people become friends, they are able to see all of each others' profiles including contact information. E-mail notifications let users know when new friends have chosen to add them to their list or when someone has sent a message to them within the system.

Figure 3-3: Snapshots of Facebook profile and public groups.
Source: www.Facebook.com

A popular feature on Facebook is the ability to share photographs uploaded from a phone, camera, or hard drive. As with other private information, users have the option to allow only friends to see their pictures or anyone. There is an unlimited amount of storage available, which is a major advantage of Facebook photograph sharing capabilities.

Groups can be created by users (see Figure 3-3). These can include anything from grade school connections to hobbies and interests. Groups can be public and available to everyone or private, meaning only those invited can join and view discussions. Similarly, the Events feature allows friends to organize parties, concerts, and other get together in the real world, users can also become fans of everything such as people, organizations, television shows, movies, and musicians. There are countless applications available to add to a profile, they

range from a list of Top Friends to movie compatibility with others, and maps of where users have travelled.

Figure 3-4: Applications on Facebook.
Source: www.Facebook.com

These applications (see Figure 3-4) are created by individuals outside of Facebook employment who are known as Developers. Users of Facebook can share news stories, video, and other files with friends. Most news and video websites have buttons that can be clicked to automatically share the story or video on a feed. The person sharing can make comments about the shared item that their friends will see. Personal notes can also be written and shared with friends. When sharing an item, users can attach the item to their Wall for all to see, or can tag individual people that they think would be most interested in seeing the item. When a user is tagged, they receive an e-mail notification.

The Facebook among other Web 2.0 communities stands out for three reasons: its success among the college crowd; the amount and the quality of personal information users make available on it; and the fact that, unlike other networks for young users, that information is personally identified. Accordingly, Facebook is of interest to researchers in two respects: 1) as a mass social phenomenon in itself; 2) as a unique window of observation on the privacy attitudes and the patterns of information revelation among young individuals. Facebook market penetration is impressive: it can draw more than 80% of the undergraduate population in many colleges. The amount, quality, and value of the information provided is impressive too: not only are Facebook profiles most often personally and uniquely identified, but by default they show contact information (including personal addresses and cell phone numbers)

and additional data rarely available on other networks. Then they wonder, what puts Facebook on the lead? And why people spend over 700 billion minutes per month on it? According to Facebook statistics for the year 2010, it is that Facebook has 70 translations available on the site, with more than 550,000 active applications currently on Facebook platform.

This piece of work is considered to be an empirical field study that is analytical in nature, and the triangulation in the data collection methods emphasizes the validity and reliability of the research building blocks and supports the level of accuracy of the results found from the collected data. However, it is not a must to include triangulation in any research conducted; it depends on the context of the research and the acquired results as mentioned in the earlier sections of this chapter. Table 3-3 below, illustrates 86 studies extracted by the researcher out of previous research in information systems showing the different types of methods and techniques used for data collection in studying different topics related to the Web 2.0 communities and other.

No.	AUTHOR	CONTEXT	METHOD
1.	Taylor and Tod (1995)	Understanding IT usage	Field survey (questionnaire).
2.	Donath (1996)	Identity and deception in the VC	Ethnography (text based analysis).
3.	Tsai and Ghoshal (1998)	Social capital and value creation in Intra-firm networks	Online Survey.
4.	Liao *et al*. (1999)	Adoption of virtual banking	Field survey (questionnaire).
5.	Wasko and Faraj (2000)	Why people participate and other help in electronic communities of practice	Ethnography (content analysis).
6.	Nonnecke and Preece (2000)	counting the silent (lurkers)	Ethnography (text based analysis).
7.	Turner *et al.* (2001)	An exploration of CMC support communities	Field survey (questionnaire) followed by face-to-face interviews.
8.	Wellman *et al.* (2001)	Social networks, participation and community commitment	Field survey (questionnaire).
9.	Swan (2001)	virtual interaction	Online survey.
10.	Nonnecke and Preece (2001)	why lurkers lurk?	In-depth, semi-structured interviews.
11.	Matei and Ball-Rokeach	Real and virtual social ties	Telephone and mail surveys; focus

No.	AUTHOR	CONTEXT	METHOD
	(2001)		groups; and structured interviews.
12.	Khalifa and Cheng (2002)	Mobile commerce adoption	Field survey (questionnaire).
13.	Cho *et al.* (2002)	Social information sharing	Group experiment.
14.	Teo *et al*. (2003)	Sustaining virtual learning communities	Experiment and questionnaires.
15.	Ardichivili et al. (2003)	Participation in virtual knowledge sharing and COP.	Case study (interviews and documentations).
16.	Teo and Pok (2003)	WAP adoption	Online survey.
17.	Peltier *et al*. (2003)	VCs and assessment of online marketing education	Online survey.
18.	Schoberth *et al.* (2003)	online communities: analysis of communication activities	Ethnography (text based and content analysis).
19.	Malhotra and Galletta (2003)	role of commitment & motivation in KMS implementation	Field survey (questionnaire).
20.	George (2004)	TPB and Internet purchasing	Field survey (questionnaire).
21.	Hsu and Chiu (2004)	E-service continuance and TPB	Field survey (questionnaire).
22.	DeSouza and Preece (2004)	Analyzing and understanding online communities	Ethnography (text based analysis).
23.	Shih and Fang (2004)	TPB and internet banking	Field survey (questionnaire).
24.	Wang and Fesenmaier (2004)	understanding members' participation & active contribution to an OC	Online survey.
25.	Ludford *et al*. (2004)	increasing online communities participation	Experimental groups.
26.	Hall and Graham (2004)	motivating collaboration to generate knowledge capital in OCs	Ethnography (content analysis); Field survey (questionnaire); in-depth interviews.
27.	McInnerney and Roberts (2004)	online learning: social interaction & the creation of a sense of community	Ethnography (text based analysis).
28.	Dholakia *et al*. (2004)	Consumer participation in VCs	Online survey.
29.	Hung and Chang (2005)	User acceptance of WAP services	Field survey (questionnaire).
30.	Jaruwachirathanakul and Fink (2005)	Internet banking adoption	Field survey (questionnaire).
31.	Luarn and Lin (2005)	Intentions to use mobile banking	Field survey (questionnaire).
32.	Lee *et al.* (2005)	Acceptance of internet based learning	Field survey (questionnaire).
33.	Wasko and Faraj (2005)	Social capital and knowledge contribution in electronic networks of practice	Practical experiment followed by a field survey (questionnaire).

No.	AUTHOR	CONTEXT	METHOD
34.	Gross and Acquisti (2005)	Information revelation and privacy in online social networks	Ethnography (content analysis).
35.	Maloney-Krichmar and Preece (2005)	multi-level analysis of an online health community	Ethnography (content analysis).
36.	Lampe and Johnston (2005)	effects of feedback on new members in an OC	Ethnography (text based and content analysis).
37.	Huang and DeSanctis (2005)	mobilizing informational social capital in cyberspaces	Ethnography (content analysis).
38.	Stutzman (2005)	evaluation of identity sharing behaviour in SNCs	Field survey (questionnaire).
39.	Nolker and Zhou (2005)	identifying member roles in OCs	Experimental groups & content analysis.
40.	Hsu *et al*. (2006)	Continued online shopping behaviour	Field survey (questionnaire).
41.	Fu *et al*. (2006)	Acceptance of E-Tax filing	Field survey (questionnaire).
42.	Lin (2006)	Understanding behavioural intentions to participate in VCs	Field survey (questionnaire).
43.	Lampe *et al.* (2006)	profile elements as signals in an online social network	Ethnography (content analysis).
44.	Liu and Schwen (2006)	socio-cultural factors affecting the success of an online MBA course	Case study (interviews and document analysis).
45.	Chiu *et al.* (2006)	Knowledge sharing in VCs	Field survey (questionnaire).
46.	Zhao (2006)	Do internet users have more social ties?	Field survey (questionnaire).
47.	Chiu *et al.* (2006)	Understanding knowledge sharing in VCs	Online pilot study; web-survey.
48.	Waters and Gasson (2006)	Social engagement in an OC of inquiry	Ethnography (text based & content analysis).
49.	Bateman *et al.* (2006)	community commitment & online behaviour	Online survey; Ethnography (content analysis).
50.	Lambropoulos (2006)	sociability & usability for active participation	Online focus groups; Ethnography (content and linguistic analysis).
51.	Arguello *et al.* (2006)	Individual group interactions in online communities	Ethnography (text based analysis).
52.	Lin (2007)	Predicting intentions to shop online	Online survey.
53.	Al-Gahtani *et al*. (2007)	IT acceptance and use in Saudi Arabia	Online survey.
54.	Huang and Chuang (2007)	Explaining post-merger behaviour of IS use	Field survey (questionnaire).

No.	AUTHOR	CONTEXT	METHOD
55.	Hsu and Lu (2007)	Behaviour in online game communities	Online survey.
56.	Hsu *et al*. (2007)	Knowledge sharing behaviour in VCs	Online survey.
57.	Guo and Barnes (2007)	Why people buy virtual items in virtual worlds	Focus groups; experts' opinions; interviews and questionnaires.
58.	Hernandez and Mazzon (2007)	Adoption of internet banking	Field survey (questionnaire) followed by interviews.
59.	Lampel and Bhalla (2007)	The role of status seeking in online communities	Web discussion group; field survey; and ethnography
60.	Harper *et al*. (2007)	Inviting users to participate in online conversations	Experimental group.
61.	Li and Lai (2007)	Interpersonal relationships and VC participation	Online Survey.
62.	Dwyer *et al*. (2007)	Trust and privacy in social networking sites	Online survey.
63.	Ho *et al*. (2007)	socio-logical factors affecting trust development in VCs	Pilot studies; Online survey (questionnaire).
64.	Jin et al. (2007)	factors affecting users' intention to continue using VCs	Online survey.
65.	Smarkola (2008)	Efficacy of TPB: Computer usage intentions	Field survey (questionnaire) followed by interviews.
66.	Agarwal (1999)	Individual acceptance of IT	Field survey (questionnaire).
67.	Crespo and DelBosque (2008)	Innovativeness and adoption of B2C e-commerce: TPB	Interviews followed by a field survey (questionnaire).
68.	Ajjan and Hartshorne (2008)	Web 2.0 technology adoption	Field survey (questionnaire).
69.	Hong *et al*. (2008)	understanding the behaviour of mobile data service consumers	Online survey.
70.	Zhang *et al*. (2008)	Students interactions and course performance	Field survey (questionnaire).
71.	Law and Chang (2008)	fostering knowledge exchange in online communities	Online survey; field survey (questionnaire).
72.	Xu *et al*. (2008)	Product adoption in online social networks	Ethnography (content analysis).
73.	Wang *et al*. (2008)	Understanding users' continuance of face book	Field survey (questionnaire).
74.	Beaudoin (2008)	Explaining the relationship between internet use and interpersonal trust	Field survey (questionnaire).
75.	Brandtzbaeg and Heim (2008)	User loyalty and online communities	Online survey.

No.	AUTHOR	CONTEXT	METHOD
76.	Liang *et al.* (2008)	Individual knowledge sharing behaviour: Social exchange theory	Meta-analysis of previous empirical studies.
77.	Chang (2008)	Psychological contracts & knowledge exchange in virtual teams	Online survey; semi-structured interviews.
78.	Hargitti (2008)	differences among users & non-users of SNSs	Field survey (questionnaire).
79.	Wang *et al*. (2008)	Understanding users' continuance of face book	Field survey (Questionnaire).
80.	Seddon *et al.* (2008)	examining motivation for sustained engagement in OCs	Group interviews; Pilot studies.
81.	Gu and Huang (2008)	indirect reciprocity in contributions to a music sharing network	Ethnography (content analysis).
82.	Navlakha *et al*. (2008)	examining the role of quality & trust on e-commerce repurchase intentions	Online survey.
83.	Godara *et al*. (2009)	Weblog networks vs. Discussion forums	Ethnography (content analysis).
84.	Pardue and Landry (2009)	Software component adoption	Controlled experiment followed by a field survey.
85.	Burke and Lento (2009)	Motivating new comer contribution in social network sites	Ethnography (Text based analysis); semi-structured and face-to-face interviews.
86.	Assmann *et al*. (2009)	users' influence on the success of OCs	Online survey; Ethnography (observation).

Table 3-3: Examples of methodologies used in studying Web 2.0 communities in IS.

3.9. SUMMARY

As discussed earlier, the field of information systems is a multi-disciplinary field where data triangulation is essential in studying and investigating a phenomenon. This chapter has presented the data collection procedures of the quantitative and qualitative methods used, as well as the sampling frame, method, and units involved. Analysis of such data has been discussed as well, showing the methods used for the quantitative and for the qualitative phases of the data collection and the method of analysis for each. To be continued in chapter 4 is the pilot study conducted before hand for the aim of testing the methods and techniques used in testing and analyzing the research main hypotheses. To be followed in chapter 5 is an

in-depth analysis and discussion of the main data collected, statistics to be illustrated in figures and tables along with the main results and findings.

Chapter Four

PILOT STUDY

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4.1. INTRODUCTION

Before going through the process of testing the research hypotheses on a full scale, it is really important to run the testing on a smaller-scale. Especially when the scope of the research covers a large sample and quantitative measures are used in the testing. This smaller scale, or in other words the "pilot study" helps ensure the validity of the study design and its ability in capturing the required data, and the reliability of the measuring instruments to be used in testing the hypotheses of this research. The researcher did run a pilot study as a preliminary "prototype model" in testing the instruments to be used in testing the hypotheses through meeting three focus groups for the purpose of testing the research questionnaire and other screening instruments, stimulus materials, and evaluation forms used in the group interviews.

The pilot study has taken place at the Placement and Careers Centre (PCC) of Brunel University/United Kingdom, West London. The researcher has met the creators/moderators of the PCC Web page created on Facebook, as well as the fans/users of the PCC Web page on Facebook but in different time frames. This pilot study lasted for around 4 months starting from the very first day the researcher has been introduced to the PCC employees and the centre itself. As this research aims at explaining continuous participation in Web 2.0 communities, with an exemplary case study of Facebook in Jordan, running a pilot study on the Facebook Web page of the PCC centre was useful in providing initial insights of the results.

The researcher did manage to run three focus groups, two with the PCC moderators and managers, and one with a random sample of 9 participants from the PCC Web page fans and users. In parallel with that, the research questionnaire was uploaded online on one of the most widely used Web sites for creating and managing online survey; surveymonkey.com, over a period of time which lasted 3 months. The reason behind uploading the questionnaire was to save time and money in testing the reliability of the questionnaire design as an initial indication of the usefulness of it. The link first was uploaded directly on the PCC Web page on Facebook, but didn't succeed in grabbing enough attention from the PCC fans; afterwards the research campaign was supported by sending invitations to as many fans as possible to their personal e-mails. The researcher managed to get 48 responses back from the invited

users. The process was going a bit slow as the term was coming to its end, and students were away from campus and mostly busy with their assignments and final exams, and rarely did have time to go online and check the Web page or even fill in the questionnaire; as this is the case by the end of each and every term as observed by the Web page moderators of the PCC group when running campaigns.

This chapter illustrates in detail the reasons behind doing a pilot study for this research, the methods used in running this pilot study, the analysis of the pilot study, and the initial findings of this miniature study.

4.1.1. PILOT STUDIES

A pilot study is a preliminary trial of the research or a pre-study of your fuller study (Teijlingen and Hundley, 2001) where fewer subjects are put under testing in contrast to your fuller study. A pilot study is a small-scale methodological test intended to ensure that proposed methods and procedures will work in practice before being applied in a large, expensive investigation. Pilot studies provide an opportunity to make adjustments and revisions before investing in, and incurring, the heavy costs associated with a large study. A small study conducted in advance of a planned project, specifically to test aspects of the research design (such as stimulus material) and to allow necessary adjustment before final commitment to the design. Although not unknown in qualitative research, these are more common in large quantitative studies, since adjustment after the beginning of fieldwork is less possible than in qualitative work. Any small-scale test of a research instrument (such as a questionnaire, experiment, or interview-schedule), run in advance of the main fieldwork, and used to test the utility of the research design

4.1.2. WHY USE PILOT STUDY

Pilot studies are used for so many reasons, some for improving the data collection routine of the carried research, or checking the appropriateness of the standard measures (Lancaster et al., 2004), and others for providing additional knowledge that might have not been figured out in the first place. The researcher therefore has carried out a pilot study to discover and lead to changes in the tested hypotheses if needed, dropping some, or even developing new

ones. It also may provide the researcher with new ideas that the researcher may not have considered before. The researcher tends to test and check the methods and procedures of the data collection and therefore get a more efficient data analysis. It reveals any problems or difficulties the researcher may encounter during the full research, it also saves a lot of time and money.

4.2. BRUNEL'S PLACEMENT AND CAREERS CENTRE

Brunel's Placement and Careers Centre (PCC) is located on the campus of Brunel University in the Bannermen Centre/library building. This centre was mainly developed to offer lots of opportunities and information on the jobs, placement, and careers for students and/or employees. The PCC centre is one department consisting of three teams; placement, careers and job shops. The centre has over thirty members of staff to help students more specifically during the first year for those looking for part time work or work experience.

The staff and members of the PCC centre are fully trained experts available to help with huge range of queries including part time work, vacation work also finding placements and post graduate studies and working abroad. The PCC centre provides high quality guidance, information, careers education, work placement and recruitment services. The members of the PCC centre are highly qualified for their timely and efficient response to any enquiry or request. The members of the PCC centre are mainly there to help students after their graduation in identifying the options they have and put them into action. One of the most unique services offered by the PCC centre is that it gives students free advice up to two years after graduating.

There is a wide range of career resources available at the PCC centre, everything from Curriculum Vitae (CV) examples to careers information and directories to thousands of job listings (graduate jobs, part time and holiday vacancies). Students can even sign up for free email alerts. The job listings come from employers who have shown their interest in working with Brunel's graduates and students, which come from a variety of organizations. The centre also offers a quick query session available everyday where students can sign up on the spot to speak to a career consultant, as well as the interview rooms available for those wanting more

privacy. The centre offers help and advice on part time work and internship, where anyone is welcome to come and register with in the workshops.

The placement team helped around 800 students and offered thousands of vacancies and won a national award for the best placement provider as real experts in their field. The centre runs skills workshop as well as graduate placement and part time vacation work fairs to put in touch with employers on campus.

International students have a wide access to a huge range of placement and careers facilities and information available that is throughout their course and up to three years after their graduation. Services available to international students range from offering one to one interviews with placement offices and careers consultants, in addition, help with your CV and mock interviews services as well. Extensive information is available specifically on graduate employers, other than the regular careers fairs during the year, one of which the international careers fair.

For new graduates, not only can be able to use the centre for two years after graduation, but the centre can help find jobs every year, for over one thousand employer notify the PCC centre directly for job vacancies to show their interest in Brunel's graduates. Website includes 500 pages on help define your next step, information on occupation, advice on application interviews and psychometric tests and graduate job vacancies, campus events, part time and temporary jobs, and links to hundred of useful sites.

The Job Shop advertises part-time and vacation work for Brunel students on and off campus and also provides information and advice on employment issues such as tax, national insurance, job hunting and employment rights. The aim of the Job Shop service is to give Brunel University students access to part-time and vacation work. The service has been set up in response to the increasing need among students to offset the expense of full-time study by taking on part-time work.

Furthermore, the placement office assists students in finding sandwich placements in industry and works with the Schools to ensure that placements are appropriate for the courses. The placement office has a partnership agreement with schools to ensure the quality of its provision meets the national guidelines set out by professional bodies that are linked with

sandwich degree provision. Placement students are also an excellent resource to work in Schools, assisting in IT, research, marketing, or administrative roles as appropriate. However, further details available on the main PCC Web site: www.brunel.ac.uk/PCC.

4.2.1. PLACEMENT AND CAREERS CENTRE WEB PAGE: FACEBOOK

Do you need help and guidance to give yourself the career you can dream of? Are you looking for a work placement to get yourself some experience? What about a list of all current job vacancies? Then this is the place for you! Whatever your plans, we are here to help you make them a reality. These statements are the welcoming statements of signing in the PCC Web page on Facebook (http://www.facebook.com/BrunelPCC).

The web page has around 2,423 growing fans whom some are undergraduate students; others are graduate students, and lots whom already have graduated. Lots of events, alerts, and reminders are posted on the web page wall, where they advertise for scholarships, voluntary work, upcoming events and workshops, fairs, such as developing work skills and auditioning interviews and other events. The Web page members or as called "fans" can view all the past events as well as the upcoming events. They can also show their interest in liking or disliking the advertisements, posting and commenting on it, booking their place in the event, and /or watch any uploaded videos on certain fairs and sessions on different topics they have missed. Events are posted showing the time, date, and location.

Members can open discussions and connect online with each other or directly get in contact with any of the PCC staff, moderators and consultants, if not by email. However, relating back to the focus of this research and the pilot study taking place, the researcher have noticed lack of discussion and posts on the web page, when signing in the web page, all that could be noticed are the advertisements and posts from the centre itself about the events and fairs taking place during the upcoming months. The overload of information by the centre's staff themselves left no space for the fans to take part, comment and/or talk online.

4.3. PRE-TESTING OF RESEARCH HYPOTHESES

4.3.1. FOCUS GROUPS

The focus groups have played a crucial part mainly in the initial testing of the questionnaire. The design and format of the questionnaire has changed in so many parts, it has been

shortened as well in other parts. Few complained about how long it was, and other did complain about not understanding few terms in the wording of the questions. Some have criticized the repetition in few questions, while others did suggest eliminating parts of it. However, participants may speak out of knowledge or out of nothing; therefore the researcher has revised the whole copy of the questionnaire, adjusted and changed the parts that needed it, and re-phrased some academic words to easier ones so as to be understandable by everyone taking part in the study.

The three focus groups took place in the Placement and Careers Centre/Brunel University, two with the group moderators, and one with few fans of the group's Web page on Facebook. The first meeting (see Figure 4-1) took place on the 19th of March, with the nine creators of the Web page, from administrators, to moderators, to managers of the group. The meeting lasted for around an hour where the researcher had the chance to get to know them, introduce the research problem, and explain the reason behind the meeting, as some of them were not familiar with the idea of the focus group neither the pilot study.

At first 15 minutes of brainstorming and intense discussion took place, as they were all trying to explain the problem of why users of the PCC Web page are not active participators, what are the reasons that might be causing them not to participate on the Web page, and what were the techniques and tools they have used to grab their attention, and interest to participate, but nothing has worked as they stated. After an initial surfing of the Web page with them, it has been noticeably realised that there is too much information posted by the administrators and managers of the Web page and therefore, the page gives the impression that there is no room and no need for any active involvement by the users.

The Web page was a bit dull and misleading; as one of the participants declared. There was nothing interesting to encourage those users to actively involve, as there were no chat rooms, no white boards, no competitions, only the main wall to post on which is visible to everyone on this Web page. In a Web page like this which is mainly created to help graduates and students in finding jobs, offering advice to those seeking help in their job and careers life, having one method of communicating publicly in front of the 2800 members is a bit discouraging and embarrassing for most. The moderators have confronted so many cases

where the students came to the centre itself seeking help and advice for the reason that they did not feel comfortable asking for it online in front of that huge number of fans. That reason was one of the main problems they were dealing with. Getting users to feel involved in the Web page is no easy task, below are reports illustrating the agenda and summary of the first meeting the researcher had with them.

Date
19/03/2010

Place
Placement and Careers Centre/Brunel University

Study
The study aims at explaining continuous participation in Web 2.0 communities.

Objectives

- Examining the social influences affecting members' behaviour on whether to continue or –not to- participating on Web 2.0 communities.
- Classifying the values created and exchanged in Web 2.0 communities.
- Identifying the roles of members in these Web 2.0 communities, and their potential difference over time.

What will be covered?

1. The personal influences affecting each user in his/her continuous participation in Web 2.0 communities.
2. The social influences affecting each user in his/her continuous participation in Web 2.0 communities.
3. The situational influences affecting each user in his/her continuous participation in Web 2.0 communities.
4. The different types of values created and exchanged within the space. In other words, as a user, what values and desires drive your intentions to continue participating in these communities?
5. The different types of behavioural roles played and adopted by users of these communities. In other words, as a user, what role do you play when participating in Web 2.0 communities and for what reasons. Roles such as:

- Newbie; that is a new member with still no kind of any engagement
- Novice user who is getting familiar with the atmosphere within the space by low levels of participation but with the intention to fully participate
- Lurker otherwise referred to as a reader or an observer, with no intentions to participate for possible personal reasons.
- Insider; that is a regular user of a community. He/she could be a person who frequently gets involved in discussions and debates, posts comments and messages, shares photos and videos.
- Leader sometimes known as a moderator. This type of user controls the space with his/her heavy contribution and participation. They tend to dominate the space with their ongoing comments, posts, messages, answers, help, and advice.

Figure 4-1: Sample of first meeting agenda (Both PCC moderators and Web page fans)

Participants of the focus group were so keen to understand value creation and exchange on the Web page, they claimed that most of the perceived value elements suggested by the

literature are provided by them to the Web page. However, others did claim that there is lack of certain value elements offered to the fans of the Web page, and therefore, they play certain non-active roles. They also confirmed the availability of the different kinds of users within their Web page, from Newbies to lurkers to leaders, and the different kinds of strategies they intend to use to grab the attention of the new and non-active users;i.e. welcoming notes as soon as they join the Web page, welcoming e-mails, and all kinds of alerts (see Figure 4-2 for a summary).

Date	19th of March 2010
Place	Brunel Placement & Careers Centre
Time	9:00AM
Duration	1 Hour
Number of Participants	9 Participants
Relevance to Research	Highly Relative

Problem Identified: Why fans of Brunel's Placement & Careers web page are not much of active participators?

Researcher's point of view: If it is not related to social and personal influences, there must be certain values or needs that are not met by the PCC group community.

Possible Reasons discussed:

- ✓ Why did they join the group at the first place?
- ✓ Why aren't they engaging and participating into the web page of the PCC?
- ✓ Is that traced back to the fans themselves? Or to what the community has to offer?
- ✓ Does the problem lie within the lack of motivational values and benefits offered by the PCC?
- ✓ Did the values and benefits meet their expectations?
- ✓ Are they not feeling the "group belonging and attachment value" they should feel?
- ✓ Are they finding the web page boring and not enjoyable?
- ✓ Are they finding the information posted on the web page useless?
- ✓ Or is it something related to personal factors, social, or situational factors?

Suggested Solution:

- ✓ Finding out why would users continue or discontinue participating on the PCC web page?
- ✓ What causes their lack of enthusiasm and motivation to participate into the PCC web page?
- ✓ What factors to consider by moderators and administrators in order to ensure the continuous participation and contribution of the community members?

Steps:

- ✓ Uploading an online survey into the PCC web page to gather initial information from a wide number of users regarding their participation in such a community? The social Factors affecting their participation, the values motivating them to participate, the benefits offered by the PCC group, and the behaviour of those users online.
- ✓ Running 2 focus groups so far, one with the moderators and administrators of the PCC web page, and another one with fans and users of the PCC web page. As focus groups tend to provide an in depth examination and investigation of the problem through intensive interviews. That should uncover the hidden reasons for the discontinuation of use of the PCC group web page.

Figure 4-2: Summary of first meeting.

The second focus group took place on the 20th of May at Brunel's PCC centre with 11 members of the group administrators and moderators. This meeting was a more in-depth one; each participant has been given a screening questionnaire (see figure 4-5) followed by

explaining the role and responsibility of each and every member toward the success of the PCC Web page group. The researcher at this point was in need to get the views of the group's main driving forces (i.e. the administrators and moderators), of what the users of the PCC Web page really need, what they might be looking for in such a page, in turn what are the perceived value elements and benefits offered by them online. Stimulus material has been distributed by the researcher to every participant as a start (see figure 4-4), which helped in giving them an idea of what previous research has to offer in such cases. Having such a problem of non-active participants in any Web site/page is common, but trying to solve it does not always end as wanted. Factors such as the technological design and ease of use, personal, social and situational and other might be the reasons behind such a problem.

Date: 20th, May, 2010.
Time: 10:00 Am.
Place: PCC.
Number of Participants: 11.

MEETING AGENDA

- Warm up
  - Screening questionnaire.
  - Every person introduces him/herself.
  - Every person explains his/her role in the group.
- Introduction
  - Purpose of the group.
  - Responsibilities of the group.
  - Goals and aims of the group.
  - Main problem.
  - Possible reasons causing the problem.
  - Going through stimulus material.
- Body of discussion
  - What are users' needs in the group's point of view?
  - How do you satisfy their needs?
  - Values and benefits offered by the group.
  - Are you taking into consideration the personal, social and situational influences that would constraint their participation on the Web page?
  - Suggested solutions in the group's point of view.
- Closing
  - Post meeting evaluation.
  - Wrap up.

Figure 4-3: Sample of second Meeting Agenda

STIMULUS MATERIAL

Why fans are not participating? *It could be that*:

1. Reading and browsing is just enough for me.
2. Still learning about the group.
3. Shy about posting.
4. Nothing to offer by the group.
5. Want to remain anonymous.
6. Had no intention to post to this group.
7. The group of no value to me.
8. Not enough time to post.
9. Poor quality of messages or group.
10. Wrong group for me.
11. Do not know how to post.
12. Long delay in response to postings.
13. Concern about aggressive or hostile responses.
14. There are too many messages already.
15. Group is not welcoming.
16. If I post, am making a commitment

What can we do? *Research suggests to*:

1. Access the site frequently to motivate participants to review material.
2. Use a variety of delivery methods to engage members.
3. Provide clear expectations of participants and a set of clear norms and standards for participation.
4. Display a clear statement of the purpose and goal of the group.
5. Include a privacy statement up-front.
6. Create a special welcome area and greet users.
7. Pay special attention to acknowledging and responding to new members.
8. Be easy on the volume of postings, group information overload causes users to read less.
9. Strong moderation to ensure the use of appropriate tone and language.
10. Add personal information pages for the moderators and administrators of the group.
11. Ask participants personally to engage and give their opinion in specific matters.
12. Contact members who have not posted their first message to identify whether there are technical or other problems.
13. Use tracking tools to identify lurkers.
14. Running contests.
15. Organize online guest events.
16. Reward quality contributions.

Figure 4-4: Stimulus Material used in Focus Groups

SCREENING QUESTIONNAIRE

The following questions have been prepared for research purposes only. Please do not type your name on the template since all responses are confidential and will be used for statistical purposes only. Kindly note that this screening questionnaire is strictly voluntary; do not feel obligated to answer the questions if you are uncomfortable or unable to do so. Thank you for your cooperation, your honesty would be appreciated.

A1. PERSONAL BACKGROUND

1. Gender:

☐ Male ☐ Female

2. Age:

☐ 18-24 ☐ 25-34 ☐ 35-44 ☐ 45 and above

3. Educational Level:

☐ Primary ☐ High School

☐ College/University ☐ Graduate school

4. Current Employment Status:

☐ Employed ☐ Unemployed ☐ Retired

☐ Part-Time Student ☐ Full-Time Student

5. Why was the Placement & Careers Centre Web page created in the first place?

.....

.....

6. In your opinion, did the PCC Web page meet its intended purpose?

☐ Yes ☐ No

Thank you!

Figure 4-5: Sample of the screening questionnaire

The meeting was then wrapped up with a post-meeting evaluation form (see Figure 4-6) for the aim of getting useful and constructive feedback on the role that has been played by the researcher, and work on the weak points for the future research to be carried out.

POST MEETING EVALUATION

Assign the moderators/researchers a rating for each item mentioned below (5 = excellent; 4 = very good; 3 = good; 2 = fair; 1 = poor).

A. Moderators' Preparation	*Rating*
▪ Have a clear idea of what will be covered during the meeting	--------
▪ Understand the background and subject matter of the research	--------
▪ Understand the research objectives	--------
▪ Helped develop the topic guide	-------
▪ Were ready before the group assembled	-------
Total	

B. Moderators' Manner	*Rating*
▪ Are relaxed and friendly	---------
▪ Stimulate group interaction	---------
▪ Generate enthusiasm and involvement	---------
▪ Listen constructively	---------
▪ Display warmth and empathy	---------
▪ Are nonjudgmental	---------
▪ Probe without leading	---------
▪ Blend in but controls	---------
▪ Are flexible when pursuing new ideas	---------
▪ Discuss, but do not question	---------
▪ Display neutral body language and facial expressions	---------
Total	

C. Moderators' Handling of Group Influences	*Rating*
▪ Discourage simultaneous talking	---------
▪ Retain group spontaneity	---------
▪ Discourage irrelevant conversation	---------
▪ Permit individual differences of opinion	---------
▪ Bring shy or unresponsive group members into the discussion	---------
▪ Control dominant or disruptive group members	---------
Total	

Figure 4-6: Sample of the post-meeting evaluation.

The third and last group meeting took place on the 24th of May at the same place where the two previous meetings were, but this one was with 9 users/fans of the PCC Web page whom were invited to take part in the focus group. Their attendance was voluntary and refreshments and soft drinks were offered during the meeting. The session opened up with a screening questionnaire, stimulus material, and a post-meeting evaluation form as well. However, main topics discussed through were different, as the body of discussion reflected the users' side of point of view. Issues such what they are looking for on such a Web page, what are they expecting, and what are they offered were talked about. What drives them to participate or not to on such a page, and as a result, what kind of behaviour do they adopt as a result? (See figure 4-7 below).

Date: 24th, May, 2010.
Time: 4:00 Pm.
Place: PCC.
Number of Participants: 9.

MEETING AGENDA

- Warm up
  - Screening questionnaire.
  - Every person introduces him/herself.
- Introduction
  - Why joining the group?
  - Your expectations of the group?
  - The atmosphere of the space.
  - Main problem.
  - Possible reasons causing the problem.
  - Going through stimulus material.
- Body of discussion
  - Users' needs and they are looking for.
  - How would their needs be satisfied?
  - Values and benefits offered by the group in the users' point of view.
  - Personal, social and situational influences that would constraint their participation on the Web page?
  - Describe yourself in terms of your behaviour online.
  - Suggested solutions.
- Closing
  - Post meeting evaluation.
  - Wrap up.

Figure 4-7: Meeting Agenda (PCC fans).

4.3.2. ONLINE QUESTIONNAIRE

The questionnaire that is to be used in this research as an instrument in testing the research hypotheses has been uploaded online on the Web link surveymonkey.com by the time the second group meeting took place. The questionnaire has been uploaded to the main PCC Web page (see figure 4-8 below), in addition to the online invitation that has been sent by one of the group moderators to few of the PCC Web page fans through their personal e-mails over a period of one month. Forty eight participants did reply back and showed their interest in taking part and filling the questionnaire and were kindly asked to provide their feedback and comments by e-mail. The questionnaire was totally voluntary and confidential, it consisted of seven parts: personal background, cyberspace experience, personal influences, social influences, situational influences, motivations and intentions, and actual behaviour. Some questions were of multiple choice types, and others were open ended questions, but most parts were presented on a scale from 1-5 referring to the respondents' degree of preference.

This quantitative method was necessary in getting feedback from the users' perspective about their opinion on being a fan of the PCC Web page, what to expect, and what is offered.

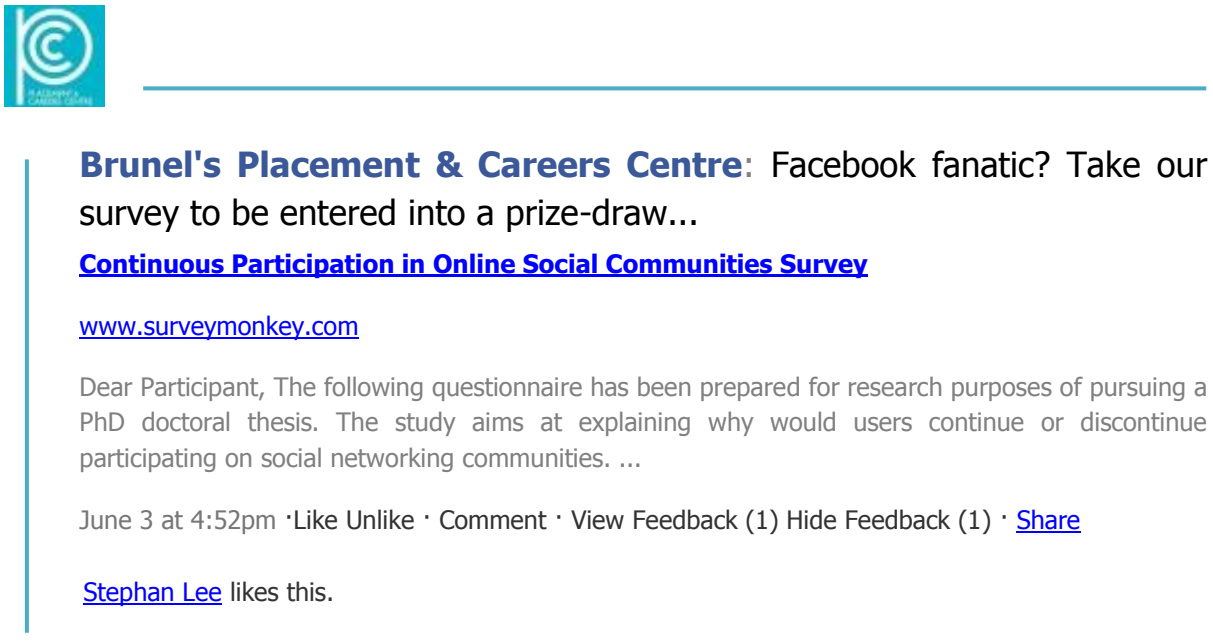

Figure 4-8: Online invitation uploaded on the PCC Web page.

Participants were offered into entering a prize draw where five winners of £50 worth of Amazon vouchers were to be randomly picked up, but as circumstances did not go as planned in the first place, the pilot study had to stop at a point earlier than wanted. However, the data and the feedback collected from the focus groups and the 48 online surveys were sufficient to apply few changes to the questionnaire itself, and most importantly the length of it, as the number of questions has been shortened from 92 to 63 questions. As a result reach to some initial findings. Below are some examples on the minor changes of the research questionnaire:

First: The term "*Social Communities*" instead of "*Web 2.0 Communities*" as lots of users were not familiar with the latest term.

Second: The focus has been shed on the word "participation" instead of the term "usage" as they hold different meanings within the current research

Third: Questions on *ethnic origin* and *employment status*, and others such as: *"I believe I have the ability to identify and correct common operational problems with a computer"* have been eliminated for their irrelevance.

Fourth: The question: *"I have the Internet Equipment needed to use the PCC Web page"* has been eliminated. Coming to think about it, who does not have Internet connection nowadays?

Fifth: Many repetitive questions have been merged in one. Examples such as:

- *"Joining the PCC Web page fits your life style"* and "*joining the PCC Web page is compatible with my situation".*
- *"I joined the PCC Web page because my friends and colleagues did"* and *"my decision of using the PCC Web page has been influenced by colleagues and friends".*
- *"People important to me support my usage of the PCC Web page"* and *"people who influence my behaviour encourage me to use the PCC Web page".*

- *"resources (computer hardware, software) required to use the PCC Web page are available to me"* and *"often, I am constrained by the lack of resources (computer hardware, software) needed to use the PCC Web page".*

- *"I am confident of using the PCC Web page even if I have never used such a thing before"* and *"I am confident of using the PCC Web page even if I have not been instructed how to use it in advance".*

- *"I believe I have the ability to remove any information that I no longer need on the PCC Web page"* and *"I believe I have the ability to display any personal or other information in a desired manner".*

- *"As a fan of the PCC Web page, I am very committed towards it"* and *"I feel a strong sense of being part of the PCC community".*

- *"Using the PCC Web page is enjoyable"* and *"I find applications within the PCC Web page joyful and entertaining".*

4.4. INITIAL ANALYSIS AND DISCUSSION

The total surveys completed throughout this pilot study was 41 (85.4%) from the total number of distributed surveys. The collection of responses and the initial analysis has been automatically performed by the software itself (surveymonkey.com). Below are the different sections divided, discussed, and illustrated in figures and charts.

4.4.1. PERSONAL INFLUENCES

User characteristics are one of the important factors in examining the personal influences affecting individuals' behaviour. Here in this research it has been divided to sub-factors in order to be tested on a more in-depth level, factors that would form and shape users' characteristics. One of the first sub-elements tested was the gender of the PCC online users. Data has revealed that the percentage of men using the PCC Web page on Facebook is much larger than females (see Table 4-1 and Figure 4-9). This could not be accurate as only 48 members took part in the questionnaire out of the increasing 2, 800 fans of the group on

Facebook however significant. The difference between the two figures appeared to be (35%) which is noticeably high, but as the pilot study has been limited by several constraints; the author still agrees that all the data collected might not be of a high accuracy. However, the author has reached to some kind of direction in which our future data might reveal.

Gender		
Answer Options	Response Percent	Response Count
Male	67.5%	27
Female	32.5%	13
answered question		40
skipped question		8

Table 4-1: Percentage and response count of respondents in terms of their gender.

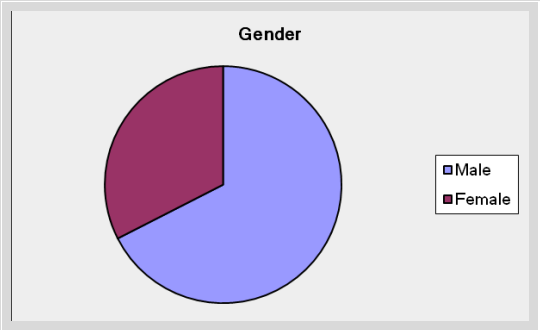

Figure 4-9: Pie chart of male and female respondents.

The second sub-element used in the testing of users' characteristics was the age of the PCC online users (see Table 4-2), the question asked had 4 age ranges, starting with 18 years old to 45 years old and above. The initial findings have shown that the highest percentage of fans using the online PCC group did range between the age of 25-34 years old which represnted (70.2%) (see Figure 4-10).

Age		
Answer Options	**Response Percent**	**Response Count**
18-24 yrs	17.0%	8
25-34 yrs	70.2%	33
35-44 yrs	10.6%	5
45 yrs and above	2.1%	1
answered question		47
skipped question		1

Table 4-2: Percentage and response count of respondents in terms of their age range.

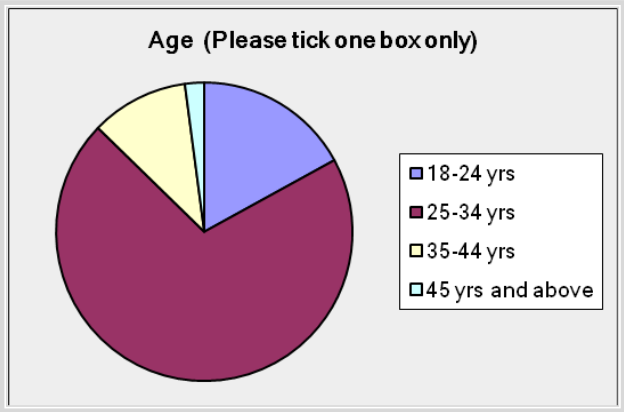

Figure 4-10: Pie chart of respondents' different age range.

The finding is reasonable and true as most of the fans who wouold use and participate on the PCC Web page are graduate students, and/or newly employed students. People looking for help and advice in careers and job life where still no experience has been formed yet. The second rating (17.0%) came from the fans aged between 18-24 years old whom reflect the undergradutes and graduates. Followed by the 35-44 years old age group, and finally with the lowest rating (2.1%), users of age 45 years and above.

As Brunel university is of a multi-cultural nature, thousands of students come from different local and international backgrounds. therefore, there could be some relation between each users' ethnic origin and background (from his/her personality, attitude, way of thinking, style of living) and their behaviour on the online PCC Web page. Six ethnic backgrounds has been suggested in this question (White British or other, Asian British or Asian, Black British or other, Mixed, Chinese, or other) (see Table 4-3). The highest number of the PCC fans represneted people from White ethnic origins (white British or other) with a percentage of (39.1%), followed by the second highest percenatge of (37.0%) coming from other ethnic origins. Then comes the Asian British or Asian ethnic origin with a percentage of (17.4%) (see Figure 4-11). However, this question has been omitted from the whole research study later on as it appeared not to have any relevance to the focus of the study neither would affect the findings and results.

Ethnic Origin		
Answer Options	**Response Percent**	**Response Count**
White (British or other)	39.1%	18
Asian British or Asian	17.4%	8
Black (British or other)	4.3%	2
Mixed	0.0%	0
Chinese	2.2%	1
Other	37.0%	17
	answered question	46
	skipped question	2

Table 4-3: Percentage and response count of respondents in terms of their ethnic origin.

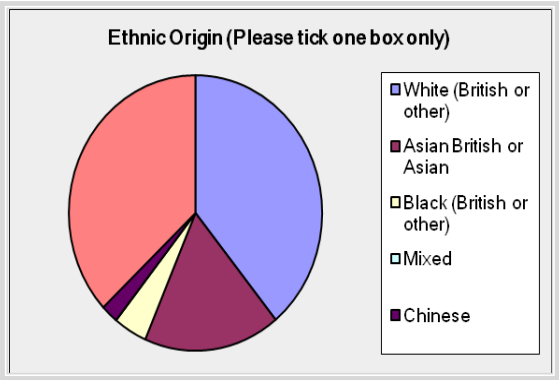

Figure 4-11: Pie chart of respondents' ethnic origins.

The fourth dimension used in testing the personal characteristics of the PCC fans is the educational level of these fans (see Table 4-4). It has been mentioned before that the PCC is a place which offers help, opportunities, and advice in careers and jobs to all age ranges and to people coming from all educational backgrounds. Therefore, it is clear that students pursuing their grdaute studies would represent the highest number of the PCC users.

Educational Level		
Answer Options	**Response Percent**	**Response Count**
Primary	0.0%	0
High School	2.2%	1
College/University	45.7%	21
Graduate School	52.2%	24
answered question		46
skipped question		2

Table 4-4: Percentage and response count of respondents in terms of their educational level.

These students might be already working while doing their higher eduaction, or looking forward to start their careers and job life very soon but need intensive help and advice in this matter. This percentage (52.2%) was the highest, followed by the (45.7%) coming from undergradute students, and then with the lowest and last percentage of (2.2%) holding high school qualifications (see Figure 4-12).

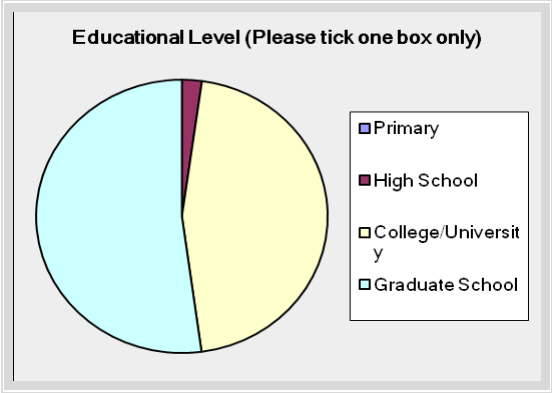

Figure 4-12: Pie chart of respondents' educational level.

The employment status is considered important in knowing the personal characteristics of the PCC online users (see Table 4-5). Full-time students showed the highest percentage (71.7%) of the whole PCC users, surprisingly followed by the (17.4%) percentage of employers and not as might be expected, the part-time students (6.5%). This might be explained that employers find the help, advice, and information needed to enhance and leverage their selves and capabilities from this Web page. However, there has been a percentage of unemployed (8.7%) of users whom are using the PCC Web page and desperately seeking for any job opportunity or even a voluntary work (see Figure 4-13).

Employment status		
Answer Options	**Response Percent**	**Response Count**
Part-Time Student	6.5%	3
Full-Time Student	71.7%	33
Employed	17.4%	8
Unemployed	8.7%	4
Retired	0.0%	0
	answered question	46
	skipped question	2

Table 4-5: Percentage and response count of respondents in terms of their employment status.

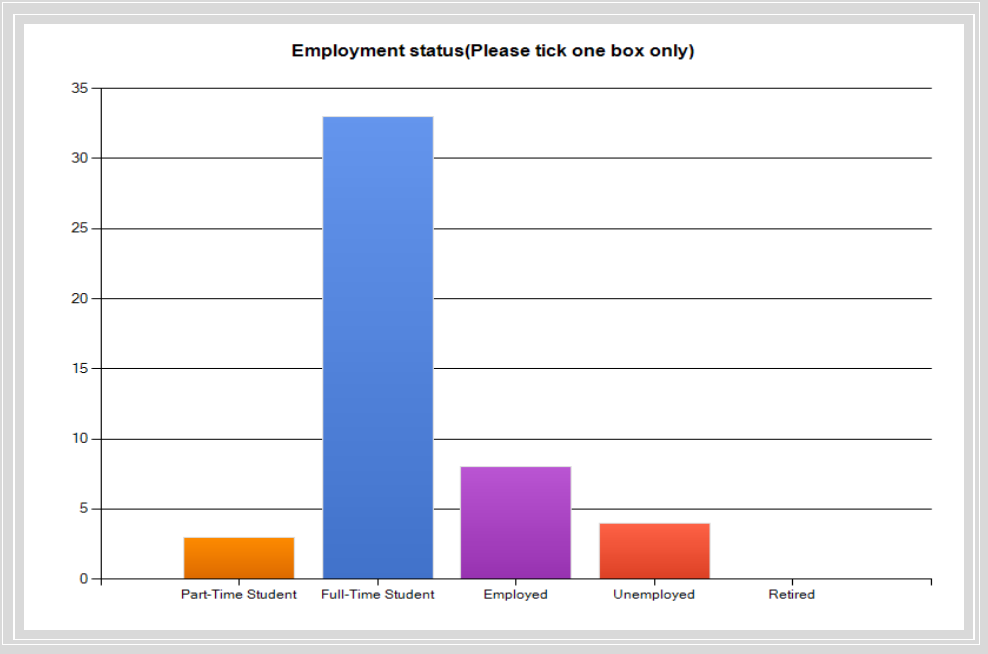

Figure 4-13: A chart of respondents' employment status.

The marital status (see Table 4-6) has been also used as one of the personal influences affecting a person's actual behaviour online. In the researcher's point of view, people's actual behaviour of participating online or not could be constrained by not having time to participate due his/her marital status and/or being in a relationship. However, data as proved the non-relevancy of it, single people and married represented the highest figures with the percentage of (39.1%), with the rest in a relationship (21.7%). No separated, divorced, or widowed took place in the survey (see Figure 4-14).

Are you Currently		
Answer Options	**Response Percent**	**Response Count**
Single	39.1%	18
In a Relationship	21.7%	10
Married	39.1%	18
Separated	0.0%	0
Divorced	0.0%	0
Widowed	0.0%	0
	answered question	46
	skipped question	2

Table 4-6: Percentage and response count of respondents in terms of their marital status.

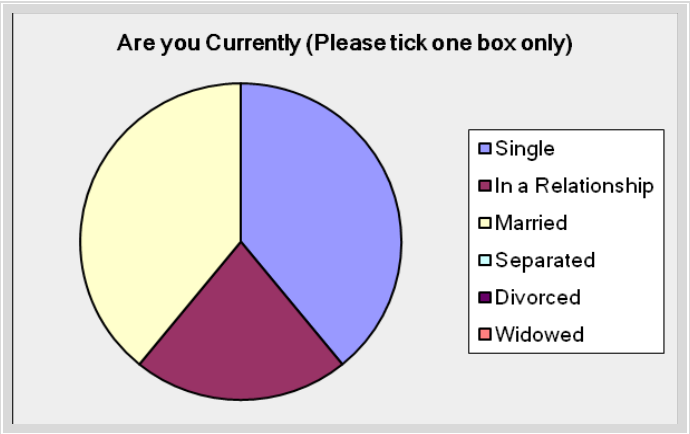

Figure 4-14: Pie Chart of respondents' marital status.

The sum of it could be explained as: "most users that took place in this pilot study are males aged between 25-34 years old, full-time students pursuing their graduate degree, half married half single".

4.4.2. CYBERSPACE EXPERIENCE

The cyberspace experience has been measured by constructs such as computer usage in terms of years, months, hours. Forty-five (45) respondents expressed the years and months they have been using computers in general with an average of (13.644).

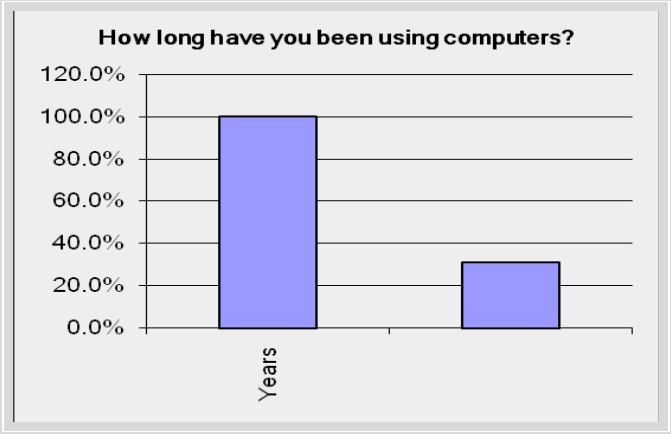

Figure 4-15: Cyberspace experience of respondents in terms of years and months.

The average of computer usage per day for each person was (7.840) (see Figure 4-15), (52.4%) of the respondents use other Web 2.0 communities and sites in addition to their usage of Facebook, while (47.6%) use Facebook as their only Web 2.0 community site (see Table 4-7).

Do you use any social networking site other than Facebook? (If no, please proceed to question 5)		
Answer Options	**Response Percent**	**Response Count**
Yes	52.4%	22
No	47.6%	20
	answered question	**42**
	skipped question	**6**

Table 4-7: Percentage and reponse count of respondents using only Facebook.

However, Facebook represented the highest percentage in terms of people using it (70.4%) among the five most widely used Web 2.0 communities (see Table 4-8), followed by Twitter (44.4%), and Bebo with the lowest percentage of usage (7.4%) (see Figure 4-16).

Which social networking sites do you use?		
Answer Options	**Response Percent**	**Response Count**
Facebook	70.4%	19
MySpace	11.1%	3
Twitter	44.4%	12
Flickr	11.1%	3
Bebo	7.4%	2
Other	22.2%	6
answered question		27
skipped question		21

Table 4-8: Percentage and response count of respondents using other sites.

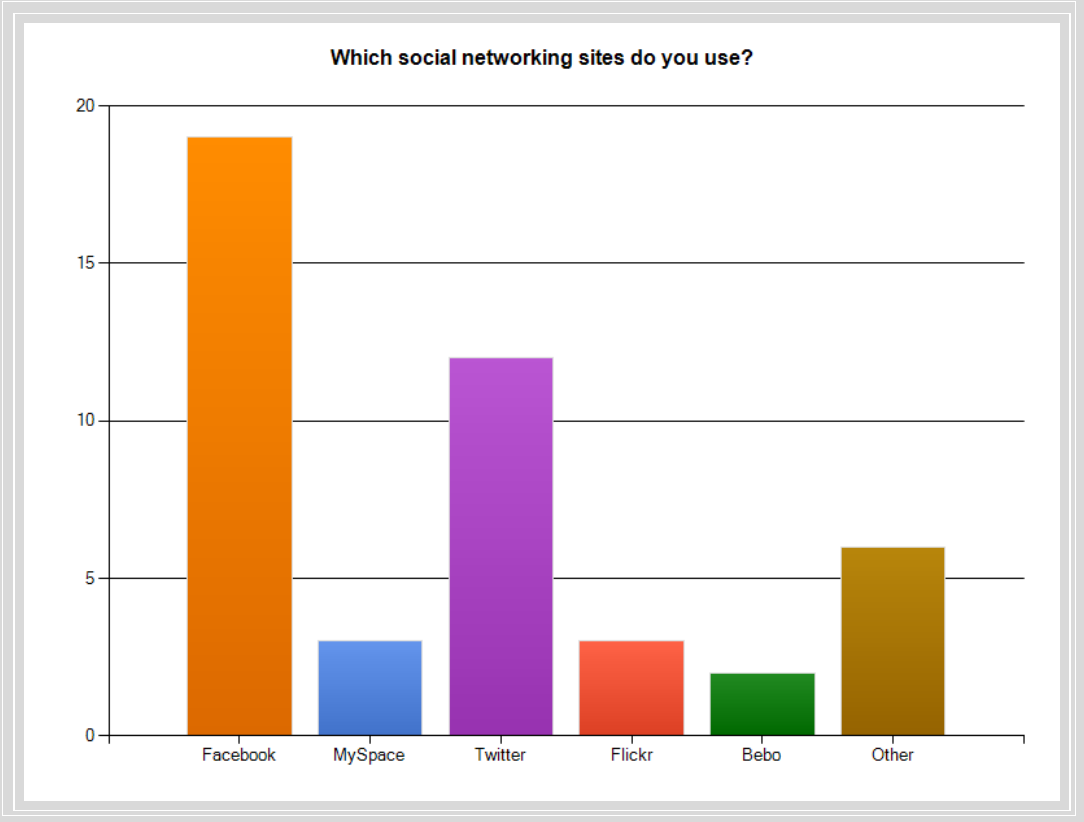

Figure 4-16: Social networking sites used by respondents.

Moreover, (40.9%) of the total respondents have been using Facebook for only 1-2 years (see Table 4-9). this percentage was the highest. (38.6%) have been using it between a period of

3-4 years. (20.5%) have been using it for less than a year, while (2.3%) used Facebook for more than 4 years (see Figure 4-17).

For how long have you been using Facebook?		
Answer Options	**Response Percent**	**Response Count**
Less than a year	20.5%	9
1-2 years	40.9%	18
3-4 years	38.6%	17
More	2.3%	1
	answered question	**44**
	skipped question	**4**

Table 4-9: Percentage and response count of respondents' usage of Facebook.

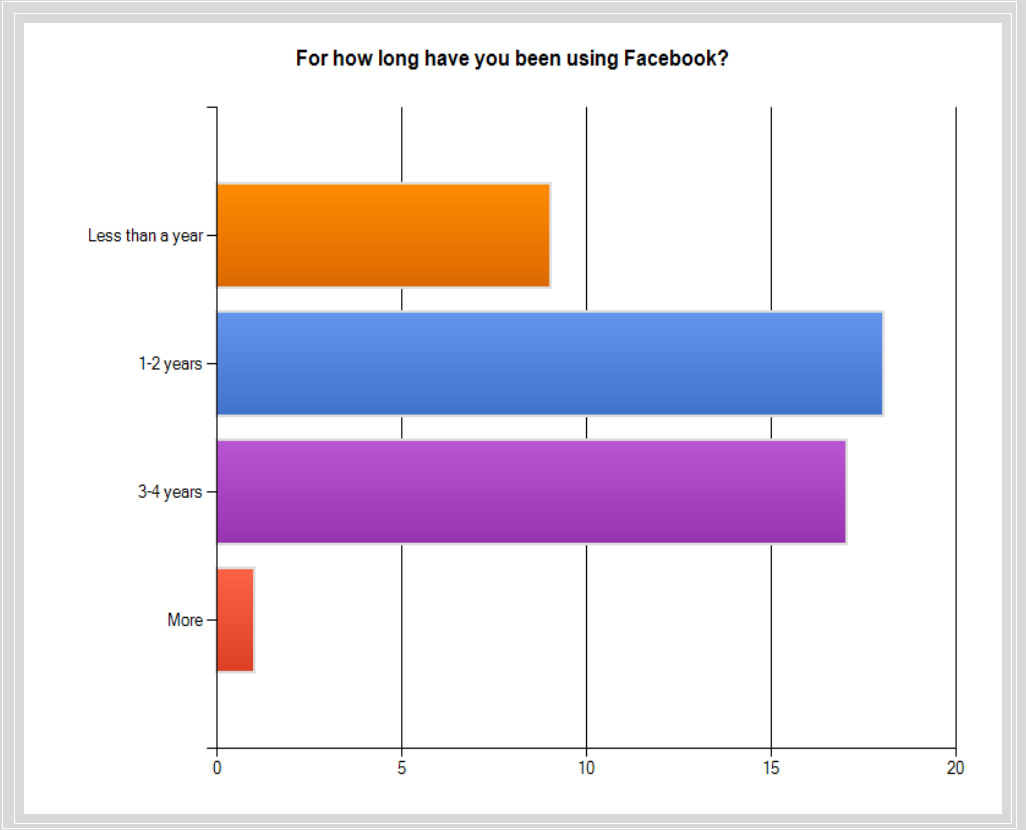

Figure 4-17: Graph of respondents' usage of Facebook in terms of years.

How did you know about Brunel's Placement and Careers Centre Web page? (You can choose multiple answers)		
Answer Options	**Response Percent**	**Response Count**
The Centre itself	20.5%	9
Friends and Colleagues	45.5%	20
Lecturers and Staff	2.3%	1
Announcements and Leaflets	29.5%	13
Other	22.7%	10
	answered question	44
	skipped question	4

Table 4-10: Percentage and response count of how respondents first knew about the PCC Web page.

Results have shown that most of the PCC fans did first know about the PCC Web page from their friends and colleagues (see Table 4-10), this means that the compliance factor has the highest effect amongst others with a percentage of (45.5%). Then come the informational influences rating the second with a percentage of (29.5%). Lecturers and staff came with the least influence of (2.3%) only (see Figure 4-18).

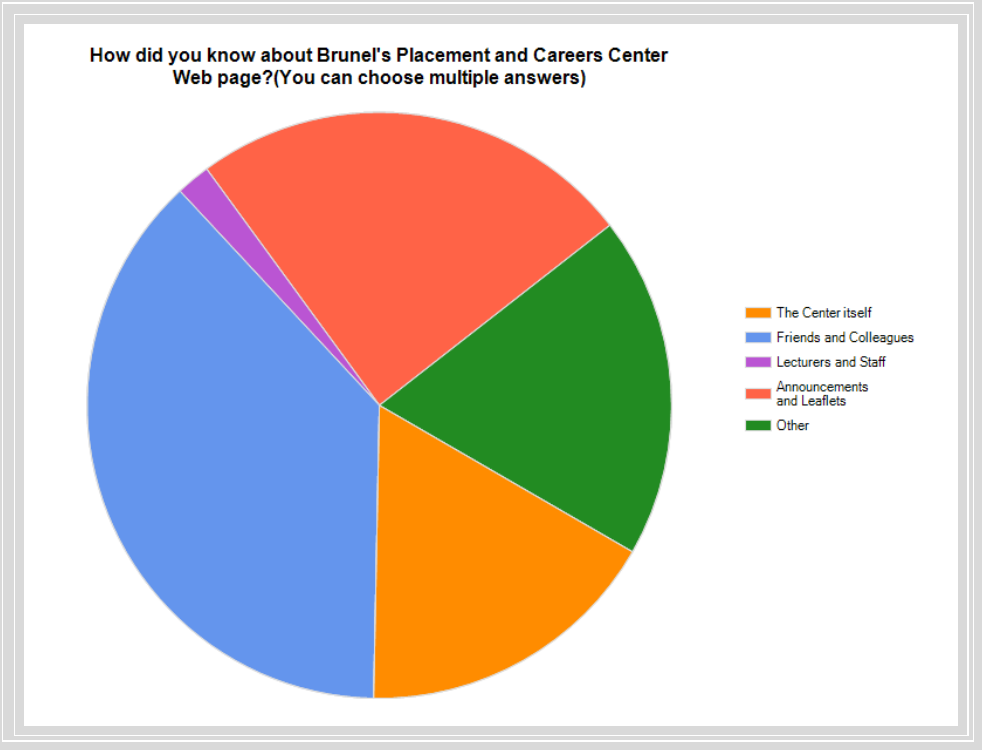

Figure 4-18: Pie chart of how respondents first knew about the PCC Web page.

The average for how long has been each respondent a fan and a member of the PCC Web page is (4.153) (see Table 4-11). The Results also shows that (95.0%) or 38 respondents visit the PCC Web page on an average/week of 1-5 times. Moreover, 2.5% visits it on an average of 6-10 times and the same percentage for the 16-20 times a week.

How many times on average per week do you visit Brunel's Placement and Careers Web page? (Please tick one box only)		
Answer Options	Response Percent	Response Count
1-5 times	95.0%	38
6-10 times	2.5%	1
11-15 times	0.0%	0
16-20 times	2.5%	1
21-25 times	0.0%	0
25 times or more	0.0%	0
answered question		40
skipped question		8

Table 4-11: Percentage and response count of respondents' average visits to the PCC Web page.

Questions such as why did they join the PCC Web page has showed has showed that (47.6%) of the respondents were looking for job opportunities when they first joined the Web page. While (35.7%) of the respondents did join for other non mentioned reasons(see table 4-12 and Figure 4-19)..

Why did you join Brunel's Placement and Careers sub group in the first place? (You can choose multiple answers)		
Answer Options	Response Percent	Response Count
Looking for job opportunities	47.6%	20
Seeking career help and advice	31.0%	13
Social networking	16.7%	7
Entertainment purposes	9.5%	4
Other	35.7%	15
answered question		42
skipped question		6

Table 4-12: Percentage and response count of respondents' first reason of joining the Web page.

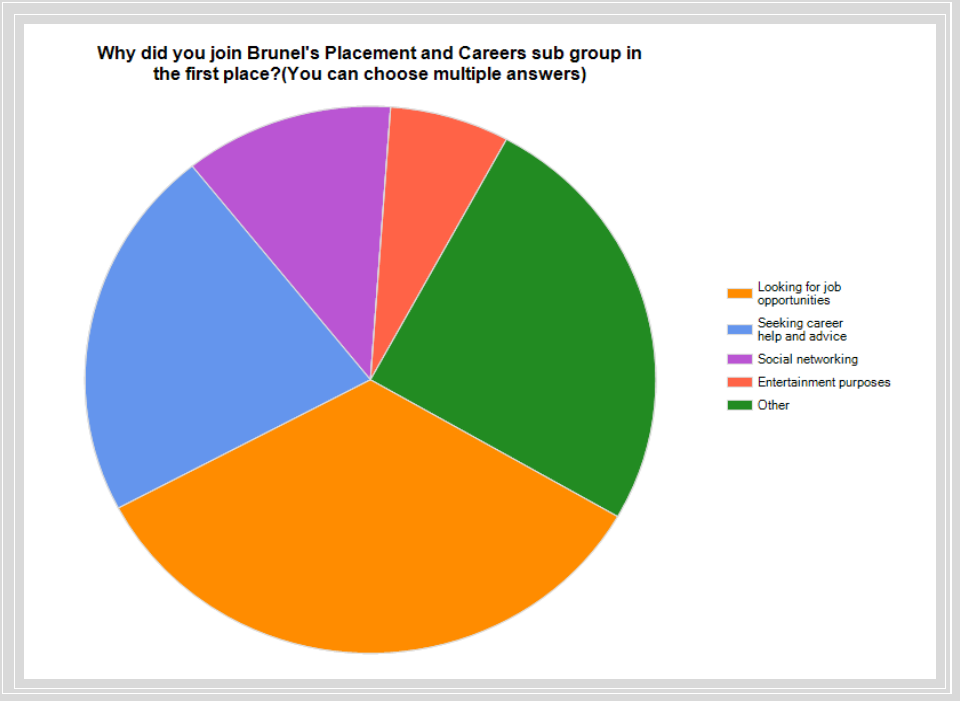

Figure 4-19: Reasons behind joining the PCC Web page.

Coming to measure the level of participation in terms of the role users adopt and behave upon (see Tab;e 4-13), results have shown that (50%) act as observers of this online community without any kind of participation, unfortunately, results came with no high contributors at all holding the percentage of (0.0%) (see Figure 4-20).

As a user of Brunel's Placement and Careers Web page, do you consider yourself (Please tick one box only)		
Answer Options	**Response Percent**	**Response Count**
Observer	50.0%	21
Reader	40.5%	17
Low Contributor	21.4%	9
Medium Contributor	2.4%	1
High Contributor	0.0%	0
	answered question	**42**
	skipped question	**6**

Table 4-13: Percentage and response count of the roles adopted by respondents online.

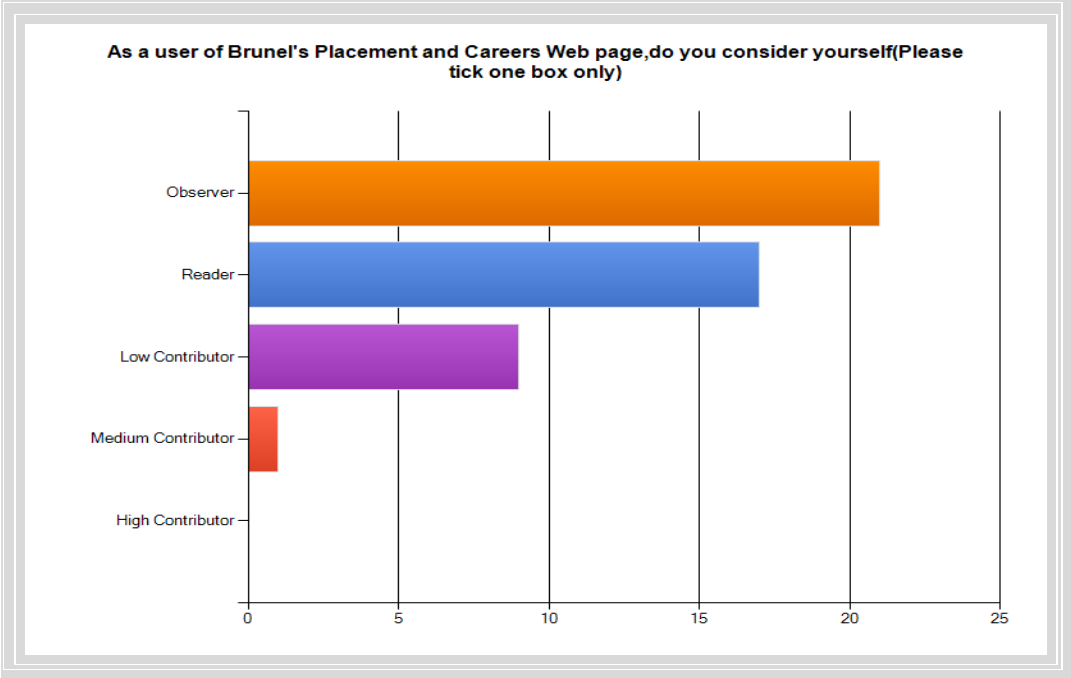

Figure 4-20: Roles adopted by respondents online.

4.4.3. SOCIAL AND SITUATIONAL INFLUENCES, MOTIVATIONS AND INTENTIONS, AND THE ACTUAL BEHAVIOUR

Moving on to the next section of the survey, the type of questions asked has been changed. a scale from one to five has been applied where each respondent indicates his/her degree of preference or otherwise referred to as answer on a scale from one to five starting from strongly disagree to strongly agree. Below (see table 4-14) is a detailed table, illustrating the initial analysis of the social and situational influences, motivations and intentions, and finally the actual behaviour of continuous participation. The analysis reveals on the scale the percentage of respondents that have answered each question, along with the average of their answers and the rating average of each construct.

Personal Influences (continued): Compatibility

#	Question	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Rating average	Count
1.	Do you think that joining the PCC Web page fits with your life style?	2.2% (1)	20% (9)	**40% (18)**	26.7% (12)	11.1% (5)	3.24	45
2.	Participating in the PCC Web page is compatible with my situation	4.5% (2)	11.4% (5)	**45.5% (20)**	31.8% (14)	6.8% (3)	3.25	44
3.	I feel comfortable taking part in the PCC group	7.1% (3)	4.8% (2)	**40.5% (17)**	**40.5% (17)**	7.1% (3)	3.36	42
4.	Feeling comfortable as a fan of the PCC group is important to me	4.7% (2)	11.6% (5)	**41.9% (18)**	37.2% (16)	4.7% (2)	3.26	43

Satisfaction

#	Question	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Rating average	Count
1.	Do you like the idea of using the PCC Web page?	2.3% (1)	0.0% (0)	27.3% (12)	**52.3% (23)**	18.2% (8)	3.84	44
2.	Getting involved in the PCC Web page makes me feel excited	4.7% (2)	9.3% (4)	**62.8% (27)**	20.9% (9)	2.3% (1)	3.07	43
3.	As a fan of the PCC group, it satisfies my exact needs	6.8% (3)	22.7% (10)	**45.5% (20)**	22.7% (10)	2.3% (1)	2.91	44
4.	As a result of	4.8% (2)	16.7%	**42.9%**	28.6%	7.1% (3)	3.17	42

	participating the PCC group, it appeared to be up to my expectations		(7)	**(18)**	(12)			

Social Influences: Critical Mass

#	Question	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Rating average	Count
1.	I am using the PCC Web page because I have seen my colleagues and friends using it before trying it my self	14.3% (6)	26.2% (11)	19.0% (8)	**35.7% (15)**	4.8% (2)	2.90	42
2.	I joined the PCC group because my colleagues and friends did	14.3% (6)	**33.3% (14)**	21.4% (9)	23.8% (10)	7.1% (3)	2.76	42

Compliance

#	Question	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Rating average	Count
1.	my decision of using the PCC Web page is influenced by colleagues and friends	16.7% (7)	**26.2% (11)**	19.0% (8)	**26.2% (11)**	11.9% (5)	2.90	42
2.	Generally speaking, I want to do what my friends think I should do	28.6% (12)	**40.5% (17)**	28.6% (12)	2.4% (1)	0.0% (0)	2.05	42
3.	people who influence my behaviour encourage me to use the PCC Web	18.6% (8)	16.3% (7)	**39.5% (17)**	23.3% (10)	2.3% (1)	2.74	43

	page							

Informational Influences

#	Question	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Rating average	Count
1.	I read/saw reports that using the PCC Web page is a good way of gathering information	7.0% (3)	16.3% (7)	30.2% (13)	**34.9% (15)**	11.6% (5)	3.28	43
2.	Advertisements and leaflets depict a positive sentiment of using the PCC Web page	2.4% (1)	12.2% (5)	34.1% (14)	**46.3% (19)**	4.9% (2)	3.39	41
3.	Brunel's reports influence me to continue participating on the PCC Web page	4.7% (2)	14.0% (6)	**41.9% (18)**	34.9% (15)	4.7% (2)	3.21	43

Situational Influences: Facilitating Conditions

#	Question	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Rating average	Count
1.	I can use the PCC Web page whenever I want	4.8% (2)	0.0% (0)	16.7% (7)	**45.2% (19)**	33.3% (14)	4.02	42
2.	I have the time needed to use the PCC Web page	7.1% (3)	16.7% (7)	21.4% (9)	**40.5% (17)**	14.3% (6)	3.38	42

3.	Resources (computer hardware/software) required to use the PCC Web page are available to me	7.3% (3)	2.4% (1)	12.2% (5)	31.7% (13)	46.3% (19)	4.07	41
4.	I have the Internet equipment required to use the PCC Web page	2.3% (1)	2.3% (1)	9.3% (4)	34.9% (15)	**51.2% (22)**	4.30	43
Self-Efficacy								
#	Question	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Rating average	Count
1.	I believe I have the ability to identify and correct common operational problems with a computer	2.4% (1)	4.8% (2)	14.3% (6)	38.1% (16)	**40.5% (17)**	4.10	42
2.	I am confident of using the PCC Web page even if I have never used such a thing before	2.3% (1)	2.3% (1)	20.9% (9)	**44.2% (19)**	30.2% (13)	3.98	43
3.	I believe I have the ability to edit profiles on the PCC Web page	4.7% (2)	9.3% (4)	27.9% (12)	**34.9% (15)**	23.3% (10)	3.63	43
4.	I have the resources, the knowledge, and the ability to use the PCC Web page	0.0% (0)	7.0% (3)	25.6% (11)	**34.9% (15)**	32.6% (14)	3.93	43
Controllability								

#	Question	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Rating average	Count
1.	Using the PCC Web page is entirely within my control	4.7% (2)	9.3% (4)	20.9% (9)	**34.9% (15)**	30.2% (13)	3.77	43
2.	I believe I have the ability to remove any information that I no longer need on the PCC Web page	0.0% (0)	14.6% (6)	29.3% (12)	**31.7% (13)**	24.4% (10)	3.66	41
3.	I believe I have the ability to display any personal or other information in a desired manner	2.8% (1)	8.3% (3)	25.0% (9)	**41.7% (15)**	22.2% (8)	3.72	36

Intentions

#	Question	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Rating average	Count
1.	A community that would not offer me any benefit is a waste of time	4.9% (2)	17.1% (7)	24.4% (10)	22.0% (9)	**31.7% (13)**	3.59	41
2.	using the PCC Web page meets my desired needs	12.2% (5)	7.3% (3)	**43.9% (18)**	34.1% (14)	2.4% (1)	3.07	41

Perceived Social Value

#	Question	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Rating average	Count
1.	I use the PCC Web page for social networking	12.2% (5)	31.7% (13)	34.1% (14)	17.1% (7)	4.9% (2)	2.71	41

2.	the PCC Web page is a good place for meeting new people	2.5% (1)	17.5% (7)	**47.5% (19)**	30.0% (12)	2.5% (1)	3.13	40
3.	I feel more comfortable asking for support online than offline	2.4% (1)	31.7% (13)	19.5% (8)	**34.1% (14)**	12.2% (5)	3.22	41
4.	I tend to find emotional support and encouragement from other members of the PCC Web page	25.0% (10)	20.0% (8)	32.5% (13)	17.5% (7)	5.0% (2)	2.58	40
5.	As a fan of the PCC group, I am very committed towards it	2.6% (1)	25.6% (10)	**59.0% (23)**	10.3% (4)	2.6% (1)	2.85	39
6.	I feel a strong sense of being part of the PCC community	2.6% (1)	20.5% (8)	**61.5% (24)**	12.8% (5)	2.6% (1)	2.92	39
7.	Using the PCC Web page improves my image	5.1% (2)	30.8% (12)	**43.6% (17)**	17.9% (7)	2.6% (1)	2.82	39
8.	Using the PCC Web page gives me more confidence	12.8% (5)	20.5% (8)	**35.9% (14)**	28.2% (11)	2.6% (1)	2.87	39

Perceived Hedonic Value

#	Question	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Rating average	Count
1.	Using the PCC Web page is	5.3% (2)	13.2%	**47.4%**	34.2%	0.0% (0)	3.11	38

	enjoyable		(5)	**(18)**	(13)			
2.	I find applications within the PCC Web page joyful and entertaining	2.6% (1)	18.4% (7)	**50.0% (19)**	26.3% (10)	2.6% (1)	3.08	38
3.	I enjoy myself as a fan of this community	4.7% (2)	14.0% (6)	**51.2% (22)**	25.6% (11)	4.7% (2)	3.12	43

Perceived Epistemic Value

#	Question	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Rating average	Count
1.	Using the PCC Web page has helped me in acquiring new knowledge when needed	5.4% (2)	10.8% (4)	16.2% (6)	**56.8% (21)**	10.8% (4)	3.57	37
2.	the PCC Web page satisfies my curiosity	2.6% (1)	18.4% (7)	**50.% (19)**	26.3% (10)	2.6% (1)	3.08	38

Perceived Utilitarian Value

#	Question	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Rating average	Count
1.	using the PCC Web page gives me the opportunity to find solutions to functional problems and dilemmas	5.3% (2)	15.8% (6)	**39.5% (15)**	34.2% (13)	5.3% (2)	3.18	38
2.	I have realised that	12.8%	**41.0%**	25.6%	12.8%	7.7% (3)	2.62	39

	seeking for help and advice on the PCC Web page in any matter is just a waste of time	(5)	**(16)**	(10)	(5)			

Actual Behaviour

#	Question	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Rating average	Count
1.	I intend to continue participating on the PCC Web page in the future	2.5% (1)	12.5% (5)	32.5% (13)	**45.0% (18)**	7.5% (3)	3.43	40
2.	I would like to discontinue my use of the PCC Web page in the future	17.5% (7)	**35.0% (14)**	30.0% (12)	15.0% (6)	2.5% (1)	2.50	40
3.	I intend to increase my use of the PCC Web page in the near future	5.0% (2)	15.0% (6)	**45.0% (18)**	30.0% (12)	5.0% (2)	3.15	40
4.	I strongly recommend using the PCC Web page to others	7.5% (3)	0.0% (0)	27.5% (11)	**50.0% (20)**	15.0% (6)	3.65	40

Newbie

#	Question	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Rating average	Count
1.	I don't feel comfortable posting messages, comments, photos, videos online	7.5% (3)	25.0% (10)	20.0% (8)	**32.5% (13)**	15.6% (6)	3.23	40
2.	personally I quickly adapt and	5.0% (2)	27.5%	**32.5%**	**32.5%**	2.5% (1)	3.00	40

	engage to online interactions		(11)	**(13)**	**(13)**			
3.	it takes me sometime to feel comfortable to publicly engage in any online activity	12.5% (5)	15.0% (6)	25.0% (10)	**32.5% (13)**	15.0% (6)	3.23	40

Lurker

#	Question	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Rating average	Count
1.	I often observe the PCC Web page without any kind of engagement	2.6% (1)	12.8% (5)	30.8% (12)	**41.0% (16)**	12.8% (5)	3.49	39
2.	Personally I am interested in surfing the PCC Web page without participating in it	5.0% (2)	17.5% (7)	20.0% (8)	**37.5% (15)**	20.0% (8)	3.50	40
3.	I do not find any reason to post messages, comment, or photos on the PCC Web page	7.5% (3)	22.5% (9)	**27.5% (11)**	20.0% (8)	22.5% (9)	3.28	40

Insider

#	Question	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Rating average	Count
1.	I tend to contribute (post messages, comments) to discussion staking place on the PCC Web page	**30.0% (12)**	25.0% (10)	22.5% (9)	22.5% (9)	0.0% (0)	2.38	40

2.	I frequently visit and use the PCC Web page	25.0% (10)	20.0% (8)	20.0% (8)	**35.0% (14)**	0.0% (0)	2.65	40
3.	I sign in the PCC Web page almost every day	2.6% (1)	12.8% (5)	30.8% (12)	**41.0% (16)**	12.8% (5)	3.49	39
Leader								
#	Question	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Rating average	Count
1.	I would classify myself as a conversationalist (i.e. enjoys having conversations) on the PCC Web page	12.8% (5)	30.8% (12)	**46.2% (18)**	5.1% (2)	5.1% (2)	2.59	39
2.	I would dominate the space with my heavy contributions	20.5% (8)	**33.3% (13)**	**33.3% (13)**	10.3% (4)	2.6% (1)	2.41	39
3.	I tend to give help and advice to others online	5.0% (2)	17.5% (7)	20.0% (8)	**37.5 (15)**	20.0% (8)	3.50	40

Table 4-14: Statistical analysis of the initial data collected.

It has been mentioned that the conduction of the main research has taken place within a different context than the one where the pilot study has been conducted. A context that is different in terms of the personal, social, situational, and cultural characteristics of the participants. Generally speaking, a mini-study that aimed at explaining continuous participation on Facebook in the United Kingdom, and more specifically a context that was all about the users of the Brunel's placement and careers centre Web page and their continuous participation on this Web page. Given that the researcher moved into explaining continuous participation on Facebook in the Hashemite Kingdom of Jordan, the demographic

characteristics and the personal influences have been disregarded due to their irrelevancy to the current research.

Table 4-14 illustrated above shows the initial responds of the 48 participants in the online survey on the social and situational influences, motivations and intentions, and the actual behaviour of continuous participation on the Web page. It presents the likert scale used in measuring the elements of each construct and the averages of responds in percentage for each degree of preference (i.e. strongly agree, agree, neutral, disagree, and strongly disagree). Highlighted in red are the highest percentages of responds indicating the highest relative element and so on. This initial analysis aided the researcher in getting an idea about what element is relative and what other elements might not be, and as a result, helped in adjusting the final draft of the survey.

4.5. SUMMARY

This chapter did present the pilot study the researcher conducted beforehand in the United Kingdom at the Brunel's Placement and Careers Centre. However, there were few limitations and changes in plans throughout this pre-study that did stop the continuation of it. The timing of the pilot study (April-June) was not the most appropriate timing as students were busy preparing for their final assignments and end of term exams, so it was very hard to get in touch with students and invite them to participate in any focus groups.

Even the questionnaire, although it was online, and lots of invitations and reminders has been sent to users of the PCC Web page, the researcher did only manage to get 48 out of the planned hundreds. The members of the PCC group (managers and moderators) explained that summer time is off for most of them as well, and that it is better to continue the conduction of this study by the beginning of next year (2010-2011), which is a waste of time in the researcher's point of view.

The researcher in other words scheduled a new plan and managed to travel for the study's main data collection to Jordan. In other words, the focus of the study remained the same, but within a new and different cultural context (i.e. continuous participation on Facebook in Jordan). The researcher made use of the pre-mature pilot study in adjusting and assuring few

elements of the testing of the research hypotheses. It has been useful in a way or another for the full research testing carried out later on. Therefore, presenting the initial findings and discussing them provides somehow some insights on the actual behaviour of users on Facebook/PCC Web page.

Chapter Five

RESULTS AND HYPOTHESES TESTING

- **CONTENTS** **PAGE**

5.1. INTRODUCTION

This chapter outlines the research results based on two forms of data collection techniques: focus groups and survey questionnaire. This triangulation of data collection is used to examine and investigate the theory established for this research regarding the continuous participation of Facebook as a social networking site in Jordan. The chapter sows the analysis and results of the formulated hypotheses besides the results of the conducted focus groups. This chapter is structured as follows: it begins with an introduction about the Hashemite

Kingdom of Jordan as a country and culture; it discusses the increasing growth of Facebook adoption and usage in Jordan over the last few years and provides graphical charts on that.

The chapter then explains the quantitative and qualitative methods of data analysis, explaining the process of testing the hypotheses in both phases of data collection. However, details on that will be discussed in the coming sections, then the chapter ends up with a summary of research main results.

5.2. THE CASE OF FACEBOOK IN THE HASHEMITE KINGDOM OF JORDAN

Jordan, officially the Hashemite Kingdom of Jordan is a kingdom on the East Bank of the River Jordan of the Middle East (see Figure 5-1). It borders Saudi Arabia to the southeast, Iraq to the east, Syria to the north, the West Bank and Israel to the west, sharing control of the Dead Sea. Jordan's only port is at its southern tip, at the Gulf of Aqaba, which it shares with Israel, Egypt, and Saudi Arabia. Much of Jordan is covered by the Arabian Desert. Amman is the capital city and Islam is the predominant and official religion in Jordan.

The official languages are English and Modern Standard Arabic, and the spoken language is Jordanian. English on the other hand is widely understood and is usually used in commerce, government, universities, medicine, and among educated people. Modern Standard Arabic and English are obligatory learning at public schools with French being an important elective, and Spanish is slowly spreading.

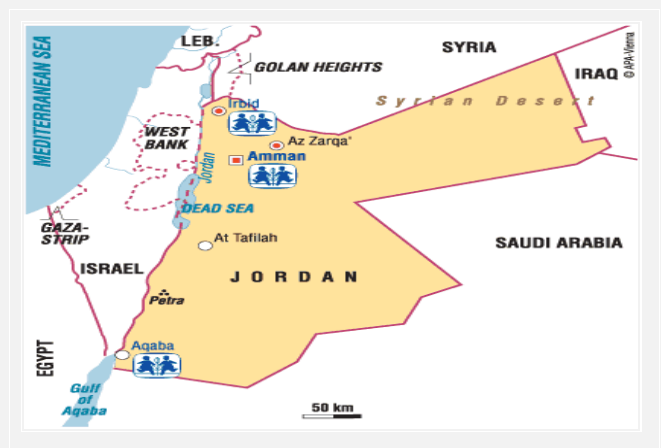

Figure 5-1: The Hashemite Kingdom of Jordan

Source: www.googlemaps.com

The culture of Jordan, as in its spoken language, values, beliefs, ethnicities is Arab as the Kingdom is in the heart of Southwest Asia. Although many people from different regions of the world have come to settle in Jordan, they have long been assimilated in the society and added their richness to the society that subsequently developed. Jordan has a very diverse and open cultural scene with many different artists, religious sects, and ethnic groups residing in the small country because of Jordan's reputation for stability and tolerance. In the 2010 Newsweek "World's Best Countries" list, Jordan ranked as the third best Arab country to live in, after Kuwait and the United Arab Emirates. In addition, Jordan is one of the most liberal countries in the Middle East.

In the last few years in the middle east, the Internet usage and Facebook adoption has risen to its massive with approximately 1,741,900 Internet users in June/10, that makes 27.2% of the total population, according to the International Telecommunication Union (2010), which is around 6, 430, 411 million for the year 2010 (see Table 5-1). As Facebook is still leading social networks worldwide, being number one in many countries, and winning the battle against many other social networks.

It has become number one in Jordan as well. The number of Facebook users increased rapidly in the past 5 months at its highest rates: 113%, which made Jordanian Facebook users go over 1, 061,000 million Facebookers, that is half of Internet users in Jordan. In other words, around 2 millions of the total population which is 6.5 millions are active Facebook users (Jordan Facebook statistics, august 2010/http://www.facebakers.com/countries-with-Facebook/JO/).

212,336,924 population estimate for the Middle East in 2010
63,240,946 Internet users as of June 30/10, 29.8% of population
11,698,120 Facebook users on August 31/10, 5.5% penetration rate

Table 5-1: Statistics from the Middle East (Adopted from (http://www.internetworldstats.com/middle.htm)

Speaking of which, the unit of analysis (see Yin, 1994) are random users of Facebook in Jordan with the age range between 18-45 years old. This unit of analysis is tested and

examined to study why would these users continue participating on Facebook or not, what are the personal, social, situational, and cultural determinants influencing their decision. There have been high interests in applying this study in Jordan due to the recent rise in adopting and using Facebook as statistics indicated within the text. The research primary data has been collected during the months September, October, November and December of the year 2010.

In accordance to what have been mentioned before about the high adoption of Facebook in Jordan, charts below (see Figure 5-2 and 5-3) as an example, illustrate the gender usage of Facebook; 601.680 thousand male users and 433.920 thousand female users for the year 2010 (www.Facebakers.com). As well as the percentages of Facebook usage among different age ranges.

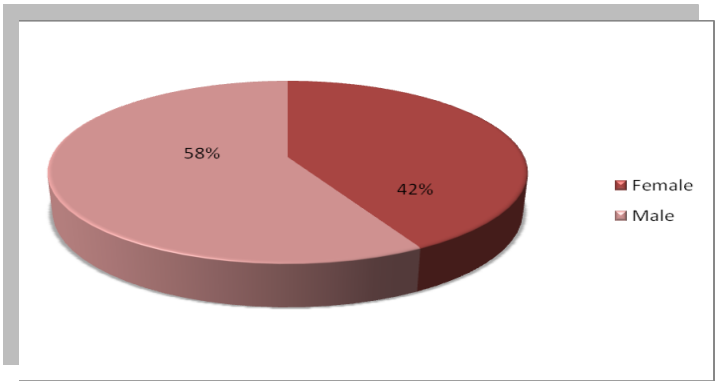

Figure 5-2: Male/Female user ratio of Facebook in Jordan.

Source: www.facebakers.com

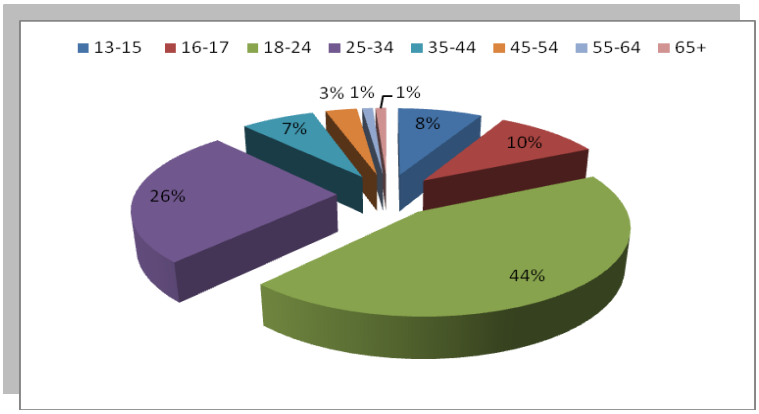

Figure 5-3: Age distribution of Facebook users in Jordan.

Source: www.facebakers.com

5.3. QUANTITATIVE ANALYSIS

In this section, we explain the method of data collection, the process of preparing and analyzing the collected data so as to test the proposed hypotheses and answer the research questions.

5.3.1 DATA CODING AND EDITING

After collecting the data using the developed questionnaire for this research, we started the process of collecting, editing, and screening the data. This process, although simple, is very critical. This is because it is a foundational process; thus mistakes during this process would have significant negative consequences on the later steps during the analysis. This research includes only completed questionnaires those deemed appropriate for data analysis. During the coding process, answers to questions were converted to numbers and entered into an SPSS file. Editing process followed so as to ensure that data coding was completed appropriately. Moreover, during the editing process, we referred to the original questionnaires in cases where out of range values were discovered.

5.4. TEST OF MULTIVARIATE ASSUMPTIONS: DATA SCREENING

For the purpose of making sure that data are clean and ready for further analysis. The researcher conducted data screening so as to make sure that data is normally distributed (as a prerequisite for regression analysis), missing value are treated, and outliers are omitted. This would enhance the goodness of the results. The following section explains this preliminary analysis.

5.4.1 TREATMENT OF MISSING VALUES

According to Pallant (2005), it is very important to look carefully at missing values in the data file so as to figure out whether missing values were happening randomly or non-randomly (i.e. in a systematic pattern). This is significant because if the missing values are randomly distributed amongst the survey questionnaire, then there is no bias, but if the missing value are following a systematic pattern then generalisability of results might be affected (Tabachnick and Fidell, 2007). Based on the above recommendation, data were examined carefully and nine questionnaires (less than 3%) were found to have missing responses from the 315 questionnaires that were deemed appropriate for data analysis after

the initial screening (see Chapter 3). These missing values were found to be distributed in a random manner; hence no bias to be expected. Accordingly, mean substitution method (i.e. replacing the missing values of variable with the mean of that variable) was applied to treat missing values as suggested by many scholars (e.g. Pallant, 2005).

5.4.2 NORMALITY

Regression analysis requires data to be normally distributed as a prerequisite so as to ensure the validity and reliability of the results. This research employs Jarque-Bera (skewness-kurtosis) test to make sure that all the variables are within the acceptable limit of the skewness-kurtosis ranges (see Table 5-1). This test provides a comparison of the distributions of the research data and the normal distribution. Skewness-kurtosis critical values have been identified by scholars (e.g. Tabachnick and Fidell, 2007) within the range of ± 2.58 at the 0.01 significance level.

Var./Statistics	Min.	Max.	Mean	Std. Deviation	Skewness	Std. Error	Kurtosis	Std. Error
Satisfaction	2	5	3.51	0.839	-.884-	0.137	-.128-	0.274
Compatibility	1	5	3.56	0.908	-.637-	0.137	-.482-	0.274
Critical Mass	1	5	3.46	0.977	-.270-	0.137	-.652-	0.274
Compliance	2	5	3.58	0.807	-.908-	0.137	0.087	0.274
Informational Influences	1	5	3.59	1.024	-.589-	0.137	-.638-	0.274
Facilitating Conditions	2	5	3.65	0.874	-.804-	0.137	-.154-	0.274
Self-Efficacy	2	5	3.58	0.788	-.791-	0.137	0.518	0.274
Controllability	2	5	3.63	0.812	-.956-	0.137	0.468	0.274
Masculinity vs. Femininity	1	5	4.07	0.793	-1.714-	0.137	3.288	0.274
Individualism vs.	1	5	4	0.828	-1.220-	0.137	1.6	0.274

Collectivism								
Long-Term vs. Short Term	1	5	4.04	0.821	-1.372-	0.137	1.856	0.274
Social Value	1	5	3.61	0.754	-1.067-	0.137	0.659	0.274
Hedonic Value	1	5	3.6	0.807	-.895-	0.137	0.447	0.274
Utilitarian Value	1	5	2.19	0.55	1.092	0.137	3.056	0.274
Epistemic Value	1	5	3.55	0.834	-.946-	0.137	0.374	0.274
Intention to Continue Participating	2	5	3.63	0.834	-1.146-	0.137	0.635	0.274

Table 5-2: Descriptive Analysis and Normality Test

Skewness value indicates the symmetry of the distribution. If skweness value is positive, then data are clustered to the left of the distribution; otherwise data are clustered to the right of the distribution. Kurtosis value indicates the height of the distribution. Positive kurtosis values indicate a peaked distribution, while negative kurtosis values suggest a flatter distribution (Hair *et al*., 2006). Based on the above and according to the results shown in Table 5-1, the data of this research is deemed to be normally distributed.

5.4.3 OUTLIERS DETECTION

Outliers can be defined as cases with standard deviations well over or well under the standard deviations of the majority of other cases. Pallant (2005) argues that outliers are expected if data are normally distributed and extend more than 3 standard deviations from the mean. Detecting and treating outliers is important as it might affect the validity and reliability of the data. While some scholars suggest that outliers should be removed, others recommend keeping them by adjusting their values to less extremes ones (Tabachnick and Fidell, 2007). The decision whether to remove or to keep outliers can be made after measuring the impact of outliers on data validity and reliability. This can be done by comparing the mean of the variable before and after outliers' removal. If the two means are very similar, then the decision is to keep outliers within the dataset for further analyses; otherwise outliers should be removed from the dataset (Pallant, 2005).

In this research, Box-Plot method was used to detect outliers. The detected outliers were removed and new means for variables were calculated. The new means were very similar to old ones (i.e. those have been calculated before removing outliers). Thus, the researcher returned outliers to the dataset so as to be included in further analyses.

5.4.4 LINEARITY AND MULTI CO-LINEARITY

Scatter-Plot method was used to test the linearity assumption. Figure 5-1 is the scatter-plot matrix for the variables. The figure indicates linearity relationships between the independent and dependent variables.

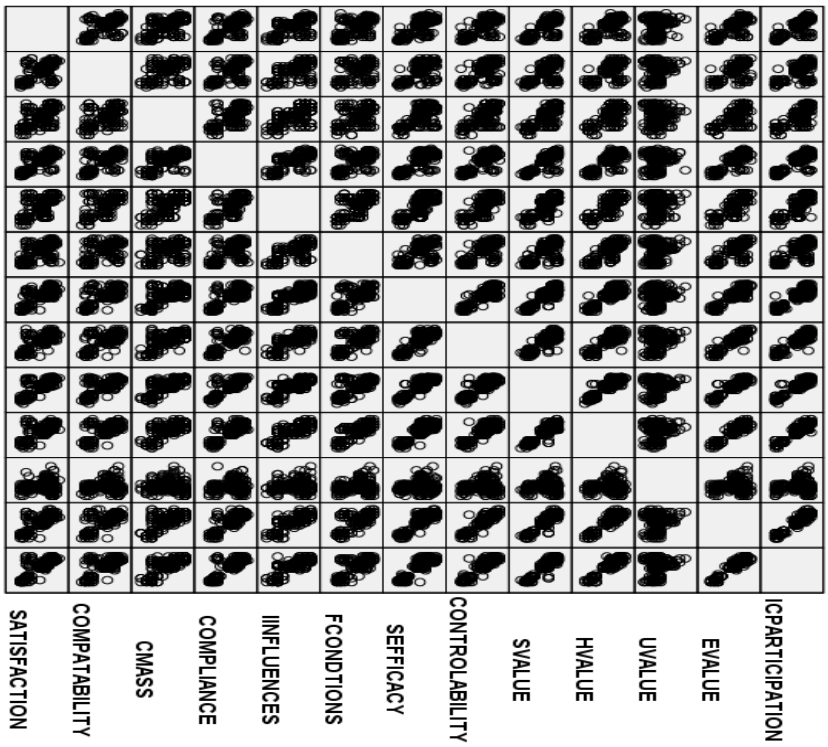

Figure 5-4: Scatter-Plot Linearity Test

As for multi co-linearity, it occurs when variables are highly correlated with each others in a regression model. Usually, two values are used to check for multi co-linearity: tolerance and VIF (Variance Inflation Factor). If the value of tolerance is less than 0.10 and VIF value is more than 10, then multi co-linearity is there. In this research, multi co-linearity is not challenged as tolerance values are above 0.10 and VIF values are below 10 in all regression models (see Appendix E).

5.5. SAMPLE CHARACTERISTICS

The descriptive analysis of participants did describe their demographic characteristics, such as age, gender, religion, and educational background, plus their cyberspace experience and usage of Web 2.0 communities in general and Facebook in specific. Results (see table 5-3) have shown that females presented the higher count of participants in terms of their gender, which counted 206 female participants (i.e. 65.40%) out of the 315, and males counted 109 (i.e. 34.60%) out of the 315 participants.

Speaking of age, 223 participants (i.e. a percentage of 70.80%) were from the age range of 18-24 years old, this was the highest percentage of age range amongst other. Out of the 315 participants, 67 persons were aged between 25-34 years old (i.e. 21.30%). The number of participants whom age ranged between 35-44 years old did count as 20 persons (i.e. a percentage of 6.30%). At last, only 5 persons of the age 40 years old and above (i.e. 1.60%) did take part in the research survey.

In terms of the religion participants did hold, 252 persons were Muslims (i.e. 80.50%) of the total participants, this was a high percentage compared to the participants holding Christianity as their religion whom presented only 61 persons (i.e. the percentage of 19.50%). Relating back to the highest percentage of age range (i.e. 18-24 years old), 297 persons (i.e. 94.30%) were still pursuing their undergraduate degree, which makes sense as undergraduates mostly do age between 18-24 years old, and only 18 persons did count as graduates (i.e. 5.70% out of the total percentage).

The average daily usage of Facebook per individual was 4.36 hours/daily, it appeared that 163 participants (i.e. 51.70%) have been using Facebook between the years 1-3, 75 persons have been using it for 4-6 years (i.e. 23.80%), 73 persons count as individuals who have been using Facebook for less than a year (i.e. 23.20%), and only 4 individuals have been using it for more than 6 years (i.e. 1.30%).

Gender		*Frequency*	*Percentage*
	Male	109	34.60%
	Female	206	65.40%

Age		*Frequency*	*Percentage*
	18-24	223	70.80%
	25-34	67	21.30%
	35-44	20	6.30%
	45 and above	5	1.60%
Religion		*Frequency*	*Percentage*
	Islam	252	80.50%
	Christian	61	19.50%
Education		*Frequency*	*Percentage*
	Undergraduate school	297	94.30%
	Graduate school	18	5.70%
		Frequency	*Percentage*
Using Facebook (Years)	Less than a year	73	23.20%
	1-3 Years	163	51.70%
	4-6 Years	75	23.80%
	More than 6 Years	4	1.30%
Facebook Usage/ Day		Mean	
		4.36	

Table 5-3: Sample Characteristics.

When asked if using any other social networking site than Facebook, 151 persons did count as yes (i.e. 47.90%), and were using other sites such as My Space, Twitter, Flickr, and Bebo. Out of the 315 participants, 164 did count as no and were not using any other social networking site, and were exclusively using Facebook, and they presented 52.10% of the total percentage. Individuals using other social networking sites did count as 53 persons using Twitter, 36 persons using My Space, 17 persons using Flickr, 2 persons only using Bebo, and 77 persons (i.e. 24.40%) using other social networking sites that were not mentioned within the questionnaire (see Table 5-4).

Using any SNS other than Facebook		*Frequency*	*Percentage*
	Yes	151	47.90%
	No	164	52.10%
MySpace		*Frequency*	*Percentage*
	Yes	36	11.40%
Flickr		*Frequency*	*Percentage*
	Yes	17	5.40%
Twitter		*Frequency*	*Percentage*
	Yes	53	16.80%
Bebo		*Frequency*	*Percentage*
	Yes	2	0.60%

Other		*Frequency*	*Percentage*
	Yes	77	24.40%

Table 5-4: Usage of Social Networking Sites.

5.6. EXPLORATORY FACTOR ANALYSIS AND RELIABILITY MEASURES

This research uses Maximum Likelihood factoring method to conduct the exploratory factor analysis as recommended by many scholars (e.g. Hair et al., 2006). Exploratory factor analysis is used to identify the appropriate loading for each variable on each factor (Tabachnick and Fidell, 2007). Given the sample size for this research (n=315) and following the suggestion of Hair et al. (2006), the factor loading that would be considered appropriate for this research is above 0.30 at the 0.05 significance level. The results of the conducted exploratory factor analysis are shown in Table 5-5. The table shows that factor loading for all research variables is above 0.30 and thus considered appropriate for this research.

Table 5-5 also shows the reliability of the research variables. This research employs Cronbach's Alpha method to evaluate the reliability of research variables. The value of Cronbach Alpha should be greater than 0.65 to be considered appropriate (Tabachnick and Fidell, 2007). Accordingly, all research variables are considered reliable as their Cronbach's Alpha values are greater than 0.65.

Variable	Item	Loading Factor	#Items	Cronbach's Alpha
Culture	MASC1	0.742	6	0.855
	MASC2	0.681		
	IND1	0.652		
	IND2	0.698		
	LONG1	0.739		
	LONG2	0.701		
Compatibility	COM1	0.564	3	0.889
	COM2	0.623		
	COM3	0.641		
Satisfaction	SAT1	0.623	4	0.902
	SAT2	0.463		
	SAT3	0.470		

	SAT4	0.496		
Informational Influences	INIF1	0.727	2	0.857
	INIF2	0.785		
Compliance	COMP1	0.705	4	0.893
	COMP2	0.705		
	COMP3	0.726		
	COMP4	0.743		
Critical Mass	CM1	0.549	2	0.889
	CM2	0.557		
Facilitating Conditions	FCON1	0.612	3	0.882
	FCON2	0.520		
	FCON3	0.632		
Efficacy	SEFF1	0.798	6	0.922
	SEFF2	0.818		
	SEFF3	0.796		
	SEFF4	0.789		
	SEFF5	0.818		
	SEFF6	0.722		
Controllability	CONT1	0.802	4	0.893
	CONT2	0.767		
	CONT3	0.798		
	CONT4	0.791		
Utilitarian Value	UV1	0.663	4	0.782
	UV2	0.705		
	UV3	0.758		
	UV4	0.632		
Social Value	SNV1	0.785	8	0.937
	SNV2	0.761		
	SNV3	0.797		
	SEV1	0.755		
	SEV2	0.792		
	SSDV1	0.755		
	SSEV1	0.759		
	SSEV2	0.754		
Hedonic Value	HV1	0.764	3	0.862
	HV2	0.789		
	HV3	0.796		

Epistemic Value	EV1	0.850	3	0.872
	EV2	0.809		
	EV3	0.827		
Intentions to Continue Participating on Facebook	ICP1	0.847	4	0.909
	ICP2	0.813		
	ICP3	0.808		
	ICP4	0.810		

Table 5-5: Exploratory Factor Analysis and Reliability Test

Moreover and in order to determine the adequacy of the extraction method in the exploratory factor analysis, The Kaiser-Meyer-Olkin (KMO) test of sampling adequacy and the Bartlett's test of sphericity were employed. According to Tabachnick and Fidell (2007), the factor analysis extraction method is acceptable if KMO is above 0.60 and Bartlett's test of sphericity is significant ($p<0.001$). The aforementioned conditions are applied in this research as KMO value is 0.975 and Bartlett's Test of Sphericity is significant (see Table 5-6). Therefore, the factor analysis of this research is considered appropriate.

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.975
Bartlett's Test of Sphericity	Approx. Chi-Square	15750
	df	1540
	Sig.	0.000
Goodness-of-fit Test		
Chi-Square	df	Sig.
1738.609	1169	0.000

Table 5-6: KMO and Bartlett's Test

5.7. HYPOTHESES TESTING

Six main hypotheses and sixteen sub-hypotheses were formulated for this research. Multiple linear regression analysis was mainly used to test association and prediction relationships

amongst variables. On the other hand, Analysis of Variance (ANOVA) was used to test moderating relationships. Moreover, One-Sample t-test is used as a supplementary test for Culture variable.

However, before testing the hypotheses using the aforementioned methods, a Bivariate Pearson Correlation test was applied. This test is helpful to determine the degree of association between independent and dependent variables. This is useful as a preliminary step to get a feel of the data regarding the formulated hypothesis before conducting regression analyses.

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13
SATISFACTION	1												
COMPATABILITY	.630**	1											
CMASS	.635**	.564**	1										
COMPLIANCE	.725**	.675**	.678**	1									
IINFLUENCES	.660**	.637**	.625**	.732**	1								
FCONDTIONS	.619**	.542**	.539**	.649**	.679**	1							
SEFFICACY	.754**	.651**	.628**	.779**	.775**	.655**	1						
CONTROLABILITY	.748**	.684**	.709**	.799**	.788**	.710**	.863**	1					
SVALUE	.761**	.714**	.749**	.830**	.779**	.690**	.862**	.867**	1				
HVALUE	.708**	.660**	.693**	.800**	.794**	.811**	.846**	.843**	.877**	1			
UVALUE	0.054	0.062	-.064-	0.08	0.006	0.074	0.05	0.061	0.039	0.048	1		
EVALUE	.772**	.708**	.719**	.839**	.797**	.750**	.887**	.919**	.913**	.902**	0.061	1	
ICPARTICIPATION	.791**	.732**	.761**	.836**	.816**	.755**	.877**	.911**	.929**	.922**	0.066	.947**	1

**. Correlation is significant at the 0.01 level (2-tailed).

Table 5-7: Bivariate Pearson Correlation

Table 5-7 shows the results of the Bivariate Pearson Correlation Test. The results indicates a high degree of association (greater than 0.60) amongst the elements of personal attitude, subjective norms, and perceived behavioral control variables and the elements of perceived value elements with the exception of utilitarian value. The results also show a high degree of relationships amongst the elements of perceived value elements variable and intention to continue participating on Facebook, with the exception of utilitarian value. Accordingly, one can expect that, after conducting regression analyses, relevant hypotheses would be accepted except those including utilitarian value construct.

5.7.1 PERSONAL ATTITUDE AND PERCEIVED VALUE ELEMENTS

One main hypothesis and four sub-hypotheses were formulated to test the impact of "Personal Attitude" (PATT) variable on "Perceived Value Elements" (PVE). In order to test the main hypothesis, the independent variable "Personal Attitude" was regressed on "Perceived Value Elements" as a dependent variable. For sub-hypotheses testing "Satisfaction" (SAT) and "Compatibility" (COM) as elements of the "Personal Attitude" variable were regressed on "Social Value" (SV), "Hedonic Value" (HV), "Utilitarian Value" (UV), and "Epistemic Value" (EV) as elements of "Perceived Value Elements" dependent variable. Table 5-8 shows the results of the regression and that all of the hypotheses, with the exception of H1C are supported.

No.	Hypothesis Path	Adj. R^2	β	t-value	p-value (Sig.)	Result
H1	PATT--->PVE	0.671	0.820	25.307	0.000	Supported
H1A	SAT--->SV	0.668	0.515	12.295	0.000	Supported
	COM--->SV		0.390	9.302	0.000	
H1B	SAT--->HV	0.574	0.484	10.192	0.000	Supported
	COM--->HV		0.355	7.492	0.000	
H1C	SAT--->UV	-0.002	0.024	0.326	0.744	Not Supported
	COM--->UV		0.047	0.652	0.515	
H1D	SAT--->EV	0.676	0.541	13.063	0.000	Supported
	COM--->EV		0.368	8.886	0.000	

Table 5-8: Personal Attitude and Perceived Value Elements: Regression Analysis

The results for the first hypothesis (H1: *H1A, H1B, H1C, H1D*) indicate that personal attitude of Facebook users in Jordan represented by their level of satisfaction and compatibility with Facebook as a social networking site has a significant and positive impact on the perceived social, hedonic, and epistemic value elements that could be achieved through their continuous participation on Facebook. However, the results show that satisfaction and compatibility levels of Facebook users in Jordan with the site itself has no significant influence on the

perceived utilitarian value that could be delivered through the site, although Facebook users in Jordan might be satisfied with Facebook and it very well suits their life style, this has negative relationship on the possibly perceived utilitarian value element. In other words, satisfied Facebook users whom their life style is compatible with facebook tend not to perceive any utilitarian values out of their participation on this site.

5.7.2. SUBJECTIVE NORMS AND PERCEIVED VALUE ELEMENTS

One main hypothesis and four sub-hypotheses were formulated to test the impact of "Subjective Norms" (SN) variable on the "Perceived Value Elements" (PVE). In order to test the main hypothesis, the independent variable "Subjective Norms" was regressed on "Perceived Value Elements" as a dependent variable. For sub-hypotheses testing "Critical Mass" (CM), "Compliance" (COMP), and "Informational Influences" (IINF) as elements of the "Subjective Norms" variable were regressed on "Social Value" (SV), "Hedonic Value" (HV), "Utilitarian Value" (UV), and "Epistemic Value" (EV) as elements of "Perceived Value Elements" dependent variable. Table 5-9 shows the results of the regression and that all of the hypotheses are supported with the exception of H2C which is partially supported.

No.	Hypothesis Path	Adj. R2	β	t-value	p-value	Result
H2	SN--->PVE	0.790	0.889	34.386	0.000	Supported
H2A	CM--->SV	0.788	0.275	7.541	0.000	Supported
	COMP--->SV		0.429	10.255	0.000	
	IINF--->SV		0.293	7.428	0.000	
H2B	CM--->HV	0.749	0.183	4.598	0.000	Supported
	COMP--->HV		0.384	8.426	0.000	
	IINF--->HV		0.398	9.271	0.000	
H2C	CM--->UV	0.024	-0.204	-2.603	0.010	Partially Supported
	COMP--->UV		0.260	2.899	0.004	
	IINF--->UV		-0.057	-0.678	0.498	

H2D	CM--->EV	0.794	0.198	5.481	0.000	Supported
	COMP--->EV		0.457	11.051	0.000	
	IINF--->EV		0.339	8.710	0.000	

Table 5-9: Subjective Norms and Perceived Value Elements: Regression Analysis

The results for the second hypothesis (H2: *H2A, H2B, H2C, H2D*) indicate that subjective norms surrounding Facebook users in Jordan represented by the level of critical mass, and compliance has a significant and positive impact on the perceived social, hedonic, utilitarian, and epistemic value elements that could be achieved through their continuous participation on Facebook. However, the results show that the significant relationship between the critical mass and the utilitarian value element although positive is an inverse relationship (a negative value), which means that the more people join in and participate on Facebook the less they attempt to perceive utilitarian value elements.

The informational influences has a significant and positive impact on the social, hedonic and epistemic value elements as well, but has no significant impact on the perceived utilitarian value element. Therefore, the subjective norms represented by the critical mass and compliance only do have a significant and positive impact on Facebook users' in perceiving utilitarian value elements.

5.7.3. PERCEIVED BEHAVIOURAL CONTROL AND PERCEIVED VALUE ELEMENTS

One main hypothesis and four sub-hypotheses were formulated to test the impact of "Perceived Behavioral Control" (PBC) variable on the "Perceived Value Elements" (PVE). In order to test the main hypothesis, the independent variable "Perceived Behavioral Control" was regressed on "Perceived Value Elements" as a dependent variable. For sub-hypotheses testing "Facilitating Conditions" (FCON), "Self-Efficacy" (SEFF), and "Controllability" (CONT) as elements of the "Perceived Behavioral Control" variable were regressed on "Social Value" (SV), "Hedonic Value" (HV), "Utilitarian Value" (UV), and "Epistemic Value" (EV) as elements of "Perceived Value Elements" dependent variable. Table 5-10 shows the results of the regression and that all of the hypotheses are supported with the exception of H3C which happened to be not supported.

No.	Hypothesis Path	Adj. R^2	β	t-value	p-value	Result
H3	PBC--->PVE	0.852	0.923	42.563	0.000	Supported
H3A	FCON--->SV	0.808	0.114	3.221	0.001	Supported
	SEFF--->SV		0.427	8.663	0.000	
	CONT--->SV		0.418	7.900	0.000	
H3B	FCON--->HV	0.840	0.394	12.218	0.000	Supported
	SEFF--->HV		0.398	8.862	0.000	
	CONT--->HV		0.220	4.553	0.000	
H3C	FCON--->UV	-0.004	0.064	0.797	0.426	Not Supported
	SEFF--->UV		-0.020	-0.180	0.857	
	CONT--->UV		0.033	0.271	0.787	
H3D	FCON--->EV	0.893	0.167	6.314	0.000	Supported
	SEFF--->EV		0.341	9.250	0.000	
	CONT--->EV		0.507	12.836	0.000	

Table 5-10: Perceived Behavioural Control and Perceived Value Elements: Regression Analysis

The results for the third hypothesis (H3: *H3A, H3B, H3C, H3D*) indicate that perceived behavioural control of Facebook users in Jordan represented by the facilitating conditions of resources and technology available to them, their level of self-efficacy, and the level of controllability each users own on managing his/her Facebook accounts has a significant and positive impact on the perceived social, hedonic, and epistemic value elements that could be achieved through their continuous participation on Facebook.

However, the results show that the availability of resource facilitating conditions, the level of controllability Facebook users have and their level of self-efficacy they possess regarding the site itself has no significant influence on the perceived utilitarian value that could be delivered through the site. Having available resource and technology facilitating conditions, having the ability of self-efficacy in dealing with any dilemma on Facebook, and being in

control of managing personal accounts and private information on Facebook has negative relationship on the possibly perceived utilitarian value element.

5.7.4. CULTURE AND PERCEIVED VALUE ELEMENTS

In order to test the fourth hypothesis (*H4: H4A, H4B, H4C*) formulated to test the impact of the moderating variable "Culture" on the "Perceived Value Elements" (PVE), the moderating variable "Culture" was t-tested in accordance with "the Perceived Value Elements" as a dependent variable. Responses have shown positivity towards the three cultural dimensions representing culture "Masculinity vs. femininity", "individualism vs. collectivism", and "long-term vs. short-term orientation", and three of them were significant (see P-value of each). Table 5-11 below shows the one-sample t-test for these cultural dimensions.

Cultural Dimensions	Mean	Std. Deviation	t-value	p-value
Masculinity vs. Femininity	4.07	0.793	91.191	0.000
Collectivism vs. Individualism	4	0.828	85.753	0.000
Long-term vs. Short-term	4.04	0.821	87.393	0.000
Culture (Overall)	4.04	0.694	103.308	0.000

Table 5-11: One-Sample t-test for Cultural Dimensions.

However, results of the ANOVA test have shown that elements of the moderating variable "Culture" which are represented as "Masculinity vs. femininity, individualism vs. collectivism, and long-term vs. short-term orientation" have proved their insignificance and have negative impact on the dependent variable "Perceived Value Elements" represented by "Social Value", "Hedonic Value", "Epistemic Value", and "Utilitarian Value". These results indicate that "Culture" is not a moderating variable that has a moderating significance on the "Perceived Value Elements" and therefore, is not considered as a moderating variable in this research (see Table 5-12).

	Perceived Value Elements		Sum of Squares	df	Mean Square	F	Sig.
CULTURE	SVALUE	Between Groups	15.769	20	0.788	1.424	0.109
		Within Groups	162.829	294	0.554		
		Total	178.597				
	HVALUE	Between Groups	15.09	20	0.754	1.171	0.278
		Within Groups	189.392	294	0.644		
		Total	204.482				
	UVALUE	Between Groups	4.802	20	0.24	0.784	0.733
		Within Groups	90.08	294	0.306		
		Total	94.882				
	EVALUE	Between Groups	18.757	20	0.938	1.38	0.13
		Within Groups	199.834	294	0.68		
		Total	218.592				

Table 5-12: ANOVA Test of Culture and Perceived Value Elements.

According to Hofstede's cultural dimensions, developing countries are most likely to be characterized as masculine societies focused on collectivism and short-term oriented, Jordan is considered to be a developing country, therefore, supporting what Hofstede described in his cultural dimensions, responses were all positive and agreeing with his cultural theory and the t-test results have proved that. However, quantitatively, statistics have proved the

insignificance of these dimensions to the "Perceived Value Elements" and to the focus and context of this research.

5.7.5. PERCEIVED VALUE ELEMENTS AND INTENTIONS TO CONTINUE PARTICIPATING ON FACEBOOK

One main hypothesis and four sub-hypotheses were formulated to test the impact of the "Perceived Value Elements" (PVE) variable on "Users' Intentions to Continue Participating on Facebook" (ICP). In order to test the main hypothesis, the independent variable "Perceived Value Elements" was regressed on "Intentions to Continue participating" on Facebook as a dependent variable. For sub-hypotheses testing the perceived "Social Value" (SV), "Hedonic Value" (HV), "Utilitarian Value" (UV), and "Epistemic Value" (EV) as elements of the "Perceived Value elements" variable were regressed on users' "Intentions to Continue Participating" on Facebook dependent variable. Table 5-13 shows the results of the regression and that all of the hypotheses are supported with the exception of H5C which happened to be not supported.

No.	Hypothesis Path	Adj. R2	β	t-value	p-value	Result
H5	PVE--->ICP	0.895	0.946	51.864	0.000	Supported
H5A	SV--->ICP	0.934	0.302	8.125	0.000	Supported
H5B	HV--->ICP		0.281	7.999	0.000	Supported
H5C	UV--->ICP		0.016	1.071	0.285	Not Supported
H5D	EV--->ICP		0.417	10.106	0.000	Supported

Table 5-13: Perceived Value Elements and Intentions to continue participating on Facebook: Regression Analysis

The results for the fifth hypothesis (H5: *H5A, H5B, H5C, H5D*) indicate that value elements Facebook users in Jordan do perceive represented by the social, hedonic, and epistemic value elements has a significant and positive impact on users' intentions to continue participating on Facebook. However, the results show that the perceived utilitarian value element itself has no significant influence on users' intentions to continue participating on Facebook. Results

did indicate having the perceived epistemic value element the highest to have a positive influence and impact on users' intentions to continue participating on Facebook.

5.7.6. CULTURE AND USERS' INTENTIONS TO CONTINUE PARTICIPATING ON FACEBOOK

In testing the sixth hypothesis (*H6: H6A, H6B, H6C*), the hypothesis formulated to test the impact of the moderating variable "Culture" on users' "Intentions to Continue participating on Facebook" (ICP), the moderating variable "Culture" was tested in accordance with users' "Intentions to Continue Participating on Facebook" as a dependent variable. Responses again have shown positivity towards the three cultural dimensions representing culture (Masculinity vs. femininity, individualism vs. collectivism, and long-term vs. short-term orientation). These sub-cultural dimensions as elements of the moderating variable "Culture" have been t-tested in accordance to the users' "Intentions to Continue Participating on Facebook", table 5-14 below shows the one-sample t-test for these cultural dimensions.

	Intentions to Continue Participating on Facebook	Sum of Squares	df	Mean Square	F	Sig.
CULTURE	Between Groups	15.91	20	0.796	1.156	0.293
	Within Groups	202.379	294	0.688		
	Total	218.289	314			

Table 5-14: ANOVA Test of Culture and Intentions to Continue Participating on Facebook.

Results of the ANOVA test have shown that elements of the moderating variable "Culture" which are represented as "Masculinity vs. femininity, individualism vs. collectivism, and long-term vs. short-term orientation" have proved their insignificance and have negative impact on the dependent variable of users' "Intentions to Continue Participating on Facebook". These results indicate that "Culture" is not a moderating variable again that has a moderating significance on the users' "Intentions to Continue Participating on Facebook" and therefore, is not considered as a moderating variable in this research.

5.8. QUALITATIVE METHOD OF DATA COLLECTION

This section aims at presenting the qualitative part of data collection for this research. Two focus groups were separately interviewed using semi-structured interviews as the main qualitative method of gathering the data. The two groups varied in the gender, age, qualifications of participants, however, all of them shared the acquisition of Facebook accounts and were familiar with using Facebook.

A thematic analysis (Boyatzis, 1998) has been conducted for the purpose of analyzing this qualitative data. Although thematic analysis is rarely acknowledged, yet it is widely used as a qualitative analytic method. Due to the focus of this research and its qualitative phase of data collection, the researcher argues that it offers an accessible and theoretically flexible approach (Braun and Clarke, 2006) to search for meanings and analyse informants' talk of fair amounts of data.

In thematic analysis, there are two primary ways where themes or patterns can be identified out of the collected data: inductive (Patton, 1990) or deductive (Hayes, 1997; Boyatzis, 1998). An inductive approach means that the themes identified are strongly linked to the data themselves, making this form of thematic analysis bearing similarities to grounded theory, which is not the case of this research. The deductive or 'theoretical' thematic analysis is driven by the researcher's theoretical approach. In this type of thematic analysis, there is less rich description of the data and more detailed analysis of some aspects of the data. While this research develops a conceptual framework and develops hypothesis for the purpose of testing that framework, a thematic map of analysis was built based on the research theoretical approach. Therefore, a deductive approach has been applied (more details will be explained in the following sections).

5.8.1. FOCUS GROUPS: SEMI-STRUCTURED INTERVIEWS

Frey and Oishi (1995:01) define interviews as "a purposeful conversation in which one person asks prepared questions (interviewer) and another answers them (respondent)" This is done to gain information on a particular topic or a particular area to be researched. Interviews are a useful tool which can lead to further research using other methodologies such as observation and experiments (Jensen and Jankowski 1991, pp. 101). Interviews can have one of two basic structures. They can be either structured (closed interview style) or unstructured

(open interview style). Open-ended or unstructured interviews are defined by Nichols (1991, pp. 131) as "an informal interview, not structured by a standard list of questions.

Fieldworkers are free to deal with the topics of interest in any order and to phrase their questions as they think best." This type of structure uses a broad range of questions asking them in any order according to how the interview develops (Breakwell *et al.*, 1995, pp. 231). Open-ended questions allow the interviewer, if they wish, to probe deeper into the initial responses of the respondent to gain a more detailed answer to the question (Wimmer and Dominick, 1997, pp. 156). The richness of the data is therefore entirely dependant on the interviewer. They themselves, must judge how much or how little they should probe or say themselves.

There are of course both advantages and disadvantages to this type of structure. It is particularly useful as a pilot study, to test out what peoples responses would be to a particular issue. It may throw a completely different light on an issue that the interviewer had previously never considered (Wimmer and Dominick, 1997). Freedom for the respondent to answer how they wish to is important in giving them a feeling of control in the interview situation. This version also has its disadvantages, namely in terms of the amount of time needed to collect and analyse the responses (Wimmer and Dominick, 1997). Due to the varied nature of the responses, it is necessary to use the content analysis technique to analyse it.

Open questions used in this unstructured interview approach can cause confusion either because of the lack of understanding of the question by the informant or by the lack of understanding of the respondent's answer by the interviewer (Wimmer and Dominick, 1997). Despite some of these disadvantages, open-ended questions are very important. Gray (1987) showed this when she studied women's relations to video technology. It was found that women wanted to tell their stories therefore needing open-ended questions to enable them to talk freely (Jensen and Jankowski, 1991).

Semi-structured interviewing is a qualitative research method used for the purpose of exploring a framework or a set of themes within a research (Lindlof and Taylor, 2002). Unlike structured interviewing, semi-structured interviews are flexible and allow more space for new questions to be brought up during the interview (i.e. the majority of questions can be

created throughout the interview). It a useful tool for obtaining qualitative information from a small sample of the total population, and helps in gaining new insights in issues that are to be investigated (Aira *et al*., 2003).

Semi-structured interviews use open-ended questions, some suggested by the interviewer, and some arise naturally during the interview. One of the major benefits of this research method is that of its validity (Cooper and Fairburn, 1987), as the interviewee is able to talk about the topic in a more in-depth and detailed way without being constrained to speak out something he/she does not intend to. It is also easy to record and transcript these sessions later on. On the other hand, it has some limitations as it is one of the most expensive and time-consuming research methods (Hove and Anda, 2005), plus the sample that is being interviewed tends to be usually small in number, so the level of validity and reliability might be low. This technique offers responses that are influenced by respondents' age, gender, and culture, and therefore best suits the investigation of this research.

The second type of interview technique is a group interview or focus group study. This was defined by Wimmer and Dominick (1997, pp. 97) as "a research strategy for understanding audience/ consumer attitudes and behaviour" The members of a focus group should feel very much at ease with each other before conducting the interview, ideally they should perhaps know each other already. The members of the group should be of the same sex and share similar backgrounds in order to rule out any confounding variables (Nichols, 1991, pp. 14). Conversation in a focus group can be either structured or unstructured (often somewhere in between) and can last up to two hours. Discussion is guided constantly by the interviewer whilst the respondents (usually 6-12 of them) discuss and express opinions with each other (Wimmer and Dominick, 1997).

Focus groups, like one to one interviews, "allow for the collection of preliminary information about a topic, they may be used in pilot studies to detect ideas that will be further investigated using another research method" (Wimmer and Dominick, 1997, pp. 97). Because of this, each interview approach can be used in studying television in combination with a further research methodology. Focus group interviewing is much cheaper and quicker to run, than intensive one to one interviews and responses tend to be more complete and less inhibited (Wimmer

and Dominick, 1997). Interviewing in a group can also provide disadvantages. One person may consistently undermine the others, dominating the conversation.

> *Some researchers claim that the focus groups are not a good research methodology because of the potential influence of one or two respondents on the remaining members of the group. These critics say that a dominant respondent can negatively affect the outcome of the group and that group pressures may influence the comments made by individuals (Wimmer and Dominick, 1997, pp. 461).*

However, the first focus group that was to be interviewed consisted of nine male and female participants holding the degree of undergraduate studies and aged between eighteen and twenty-one years old. The second one consisted of ten male and female participants aged between 22 and 45 years old, currently employed or pursuing their post graduate degrees.

- *Focus Group 1*: Included male and female participants from different Jordanian backgrounds, most of them are current undergraduate students coming from different Jordanian universities. They all have been using Facebook for over one year, already have active accounts and are currently familiar with Facebook and its applications (see Table 5-15).
- *Focus Group 2:* Included male and female participants from different Jordanian backgrounds, part of them are current employees, and the other part are either part-time or full-time post graduate students coming from different Jordanian companies and universities. They all have been using Facebook for over one year, already have active accounts and are currently familiar with Facebook and its applications (see Table 5-16).

Individuals were initially contacted by email or telephone upon their acceptance to take part in the focus group and were invited to attend the focus group sessions which took place on the 24th of October and the 14th of November, 2010 at the Piano Lounge of the Marriott hotel/Amman, Jordan. Meetings started with half-an-hour of networking and getting to know each other flavoured by some refreshments. The researcher afterwards outlined the purpose

of the study and the contribution each individual participating in the focus groups could make.

	Gender	*Age*	*Qualifications*	*Facebook membership*	*Number of friends*
1.	Female	19	Undergraduate	5 years	438
2.	Female	19	Undergraduate	4 months	40
3.	Male	21	Undergraduate	3 years	256
4.	Male	20	Undergraduate	2 years	317
5.	Female	21	Undergraduate	3 years	246
6.	Male	19	Undergraduate	4 years	480
7.	Female	20	Undergraduate	5 years	274
8.	Male	20	Undergraduate	2 years	411
9.	Male	19	Undergraduate	3 years	250

Table 5-15: Profile of participants in focus group 1.

The researcher explained that all interviews would be taped but that the material gathered would be considered confidential within the research team: individuals are only identified by their public profile which is presented in the tables below. Most of the individuals the researcher approached were happy to contribute to the study, many suggesting that this was a new and important area which needed some investigation especially in a Middle Eastern country like Jordan.

	Gender	*Age*	*Qualifications*	*Facebook membership*	*Number of friends*
1.	Female	22	Postgraduate	4 years	309
2.	Female	42	Employed	3 years	267
3.	Male	27	Postgraduate	3 years	344
4.	Male	35	Employed	2 years	298

5.	Female	30	Postgraduate	4 years	511
6.	Female	29	Employed	4 years	432
7.	Male	24	Postgraduate	5 years	296
8.	Male	25	Postgraduate	2 years	156
9.	Female	44	Employed	3 years	325
10.	Female	33	Employed	3 years	217

Table 5-16: Profile of participants in focus group 2.

It is difficult to stick to a rigid plan when conducting semi-structured interviews, but generally these interviews imposed few of the current questions:

- How did you first know about Facebook?
- Why did you join Facebook and make an account? (main reason)
- How long have you been using Facebook? (in years or months)
- Have you met new friends on Facebook?
- Do you have personal photos for you on your profile?
- Is your account private or not?
- If your account is private, then tell me why?
- Do you care about what other people and friends think of your comments and photos?
- Do your parents (or people important to you) like the idea that you use Facebook?
- If they don't like it and ask you to cancel it, will you cancel your account?
- If all your close friends cancelled their accounts on Facebook, will you cancel it?
- Are you a member of any group on Facebook? If yes, around how many?
- What are the applications that you use on Facebook? (games, chat, other.. etc. name them)
- Do you comment, poke, etc. A lot on others' pictures and videos?
- Do you sometimes sign in Facebook just to read the updates and the news, and see pictures without commenting at all?

- Do you use Facebook to get new knowledge? Or anything related to education?
- Are you satisfied with Facebook? Do you think it can be better?

5.9. METHOD OF DATA ANALYSIS

All interviews were tape recorded and transcribed for analysis. The overall analytical approach adopted largely followed the conventions of thematic and template analysis, where the researcher produces a list of codes (template) representing themes identified in the textual data (King 2004). The qualitative data analysis package NVivo was not used in the case of this research as the amount of the qualitative data is not huge. Computerisation does allow the researcher to work efficiently with large amounts of text and complex coding schemes facilitating depth and sophistication of analysis, nevertheless, it was not the case in this phase.

5.9.1. THEMATIC ANALYSIS

Qualitative approaches are incredibly diverse, complex and nuanced (Holloway and Todres, 2003), and thematic analysis is seen as a foundational method for qualitative analysis. Indeed, Holloway and Todres (2003, p. 347) identify 'thematizing meanings' as one of a few shared generic skills across qualitative analysis. For this reason, Boyatzis (1998) characterizes it, not as a specific method, but as: "a tool to use across different methods". Similarly, Ryan and Bernard (2000) locate thematic coding as a process performed within 'major' analytic traditions (such as grounded theory), rather than a specific approach in its own right.

Thematic analysis is in a way or another content analysis, which is a method of analysing written, verbal or visual communication messages (Cole 1988). Thematic analysis is widely used, but there is no clear agreement about what thematic analysis is and how you go about doing it (see Attride-Stirling, 2001; Boyatzis, 1998; Tuckett, 2005). It can be seen as a very poorly 'branded' method, in that it does not appear to exist as a 'named' analysis in the same way that other methods do (eg, narrative analysis, grounded theory). In this sense, it is often not explicitly claimed as the method of analysis, when, in actuality, we argue that a lot of analysis is essentially thematic, but is either claimed as something else (such as content analysis (e.g., Meehan *et al*., 2000).

Through its theoretical freedom, thematic analysis provides a flexible and useful research tool, which can potentially provide a rich and detailed, yet complex, account of data. Given the advantages of the flexibility of thematic analysis, it is important that we are clear that we are not trying to limit this flexibility.

An account of themes 'emerging' or being 'discovered' is a passive account of the process of analysis, and it denies the active role the researcher always plays in identifying patterns/themes, selecting which are of interest, and reporting them to the readers (Taylor and Ussher, 2001). The language of 'themes emerging: can be misinterpreted to mean that themes 'reside' in the data. A theme might be given considerable space in some data items, and little or none in others, or it might appear in relatively little of the data set. So, researcher judgement is necessary to determine what a theme is, and the initial guidance around this is that you need to retain some flexibility, and rigid rules really do not work. Furthermore, the 'keyness' of a theme is not necessarily dependent on quantifiable measures _ but rather on whether it captures something important in relation to the overall research question.

5.9.2. THEORETICAL THEMATIC ANALYSIS: DEDUCTIVE APPROACH

Generally speaking, qualitative analytic methods can be roughly divided into two camps. Within the first, there are those tied to, or stemming from, a particular theoretical background, for some of these such as conversation analysis (CA) (e.g., Hutchby and Wooffitt, 1998) and interpretative phenomenological analysis (IPA) (e.g., Smith and Osborn, 2003). For others of these such as grounded theory (Glaser, 1992; Strauss and Corbin, 1998), discourse analysis (DA; e.g., Burman and Parker, 1993; Potter and Wetherell, 1987; Willig, 2003) or narrative analysis (Murray, 2003; Riessman, 1993) there are different manifestations of the method, from within the broad theoretical framework. Second, there are methods that are essentially independent of theory, and can be applied across a range of theoretical and epistemological approaches.

In other words, themes or patterns within the extracted data can be identified in one of two primary ways in thematic analysis: in an inductive or 'bottom up' approach (e.g., Frith and Gleeson, 2004), or in a theoretical/deductive or 'top down' approach (e.g., Boyatzis, 1998; Hayes, 1997). An inductive approach means the themes identified are strongly linked to the data themselves (Patton, 1990) (as such, this form of thematic analysis bears some similarity

to grounded theory). In this approach, if the data have been collected specifically for the research (e.g. via interview or focus group), the themes identified may bear little relation to the specific questions that were asked of the participants.

They would also not be driven by the researcher's theoretical interest in the area or topic. Inductive analysis is therefore a process of coding the data without trying to fit it into a pre-existing coding frame, or the researcher's analytic preconceptions. In this sense, this form of thematic analysis is data-driven.

In contrast, a 'theoretical' thematic analysis would tend to be driven by the researcher's theoretical or analytic interest in the area, and is thus more explicitly analyst driven. This form of thematic analysis tends to provide less a rich description of the data overall, and more a detailed analysis of some aspect of the data, where the coding is done for a quite specific research question (this maps into the theoretical approach) not having the research question evolving throughout the coding process.

Another decision revolves around the 'level' at which themes are to be identified: at a semantic or explicit level, or at a latent or interpretative level (Boyatzis, 1998). The thematic analysis applied in this research focuses on analyzing the data on a latent, interpretive level, where the themes are not only identified within the explicit or surface meanings of the data, but the analysis goes beyond the semantic content of the data, and starts to identify or examine the underlying ideas assumptions, and conceptualizations that are theorized as shaping or informing the semantic content of the data. Thus, for latent thematic analysis, the development of the themes themselves involves interpretative work, and the analysis that is produced is not just description, but is already theorized. Thematic analysis that focuses on 'latent' themes tends to be more constructionist.

5.9.3. DATA ANALYSIS

The process of thematic analysis is a straightforward process that involves specific stages that one can follow. Firstly the qualitative data needs to be read and transcripted in order to get familiar with the data collected. Secondly, and once the data has been reviewed many times, codes can be generated representing the data, at this stage codes can represent and indicate certain themes, themes extracted from the data. This way all relevant data can be grouped into similar themes. Themes then are reviewed and relations to the codes extracts are being

checked in order to come up with a thematic map of analysis (King, 2004). Defining and naming themes comes at this stage, where an ongoing analysis are run to refine the specifics of each theme, to reach the overall story the analysis tells, generating clear definitions and names for each theme. The final opportunity for analysis, is relating back the analysis to the research question and literature, producing a scholarly report of the analysis.

The table below (5-17) shows few of the data extracted from the respondents, each coded and defined by a certain theme, before grouping similar data together and coming up with final results.

Group Interviews			
Code	Data extract	Theme	Type of relationship
A	*"I joined Facebook basically for fun"*	Perceived Hedonic value	Positive
B	*"It was something new that made me curious"*	Perceived Epistemic value	Positive
C	*"I first knew about it from friends, so I eventually had to join"*	Compliance	Positive
D	*"All my friends had accounts on Facebook"*	Critical mass	Positive
E	*"I did not join Facebook to meet new people"*	Perceived Social value	Negative
F	*"I love it when people comment on my photos"*	Perceived Social value	Positive
G	*"I would not cancel my account even if my friends would"*	Critical mass/Compliance	Negative
H	*"I like it the way it is, as it keeps updating itself"*	Satisfaction	Positive
I	*"I never looked for information on Facebook"*	Perceived Utilitarian/Gift value	Negative
J	*"I never joined any group for educational*	Perceived Gift	Negative

Group Interviews			
Code	Data extract	Theme	Type of relationship
	purposes"	value	
K	*"I usually sign in to read updates and news feed"*	Lurker	Positive
L	*"I enjoy looking at my friends photos"*	Perceived Social/Hedonic value	Positive
M	*"I do not chat, comment or poke a lot"*	Newbie	Positive
N	*"I joined Facebook to catch up with old friends"*	Perceived Social value	Positive
O	*"I met lots of new friends online"*	Perceived Social value	Positive
P	*"My parents do not like the idea, but I do not care"*	Compliance/Long-term vs. Short-term orientation	Negative
Q	*"It does not make any difference if you are a male or female"*	Masculinity vs. Femininity	Negative
R	*"Being a female does not affect my usage of Facebook"*	Masculinity vs. Femininity	Negative
S	*"I do care about what other people think of me online"*	Individualism vs. Collectivism	Positive
T	*"My parents do not mind at all, they all have accounts too"*	Compliance	Positive
U	*"I do comment on every picture uploaded by close friends"*	Leader	Positive
V	*"I always take photos of myself to upload on Facebook"*	Insider/Perceived Social value	Positive
W	*"It could be better!"*	Satisfaction	Negative

Group Interviews			
Code	Data extract	Theme	Type of relationship
X	*"I consider myself as an active user"*	Insider	Positive
Y	*"I am not interested in any of its applications, but am always there for chatting"*	Insider/Perceived Social value	Positive
Z	*"I am always looking for new mind jolt games"*	Perceived Hedonic value	Positive
AA	*"My account is private, because I do not want everyone to see my photos"*	Individualism vs. Collectivism	Positive
BB	*"I spend so much time playing on Farmville, pet society, and bubble island"*	Perceived Hedonic value	Positive
CC	*"I joined Facebook so as not to look weird, as everybody I know had accounts on it"*	Compliance/Perceived Social value	Positive
DD	*"I am careful about which photos to upload online"*	Compliance/Individualism vs. Collectivism	Positive
EE	*"I am still not that familiar with it"*	Newbie	Positive

Table 5-17: Examples of the thematic analysis (phase one).

Note that the previous table only illustrated few of the extracted data, and not all data has been presented, as most of the responds was similar and redundant. Therefore, few quotes were considered for presentation purposes. Moving on to the second stage of analysis, all data sharing similar embedded meanings that indicated the same themes were grouped together, to exemplify that (see table 5-18 below).

Theme	Code	Percentage
Perceived Hedonic value	A,L,Z,BB	26.3%
Perceived Gift value	I,J	10.5%
Perceived Utilitarian value	I	5.2%
Perceived Social value	E,F,L,N,O,V,Y,CC	42.1%

Perceived Epistemic value	B	5.2%
Newbie	EE	5.2%
Lurker	K	5.2%
Critical Mass	D,G	10.5%
Compliance	C,G,P,T,CC,DD	31.5%
Individualism vs. Collectivism	S,AA,DD	15.7%
Masculinity vs. Femininity	Q,R	10.5%
Long-term vs. Short-term orientation	P	5.2%
Insider	V,X,Y	15.7%
Leader	U	5.2%
Satisfaction	H,W	10.5%

Table 5-18: Examples of the thematic analysis (phase two)

In Table 5-18 above percentages has been calculated to explain the percentage of responds indicating each theme. These percentages indicate the significance of each theme with the actual behaviour of continuous participation (i.e. the dependent variable). However the tables above are only examples of few of the data extracted as mentioned before and not all the data collected from the interviews, and that is due to presentation limitations. This way the researcher can easily re-review the initial findings and reach a much clearer analysis and make sure nothing has been missed, or miss-understood. Once data has been grouped, themes have been defined, and relations to the codes have been checked, the researcher can reach to what is so-called a map of analysis and narrate the qualitative story of this research.

5.10. SUMMARY

This chapter has presented an in-depth analysis of the quantitative and qualitative data collected from the distributed surveys and group interviews as a tool that complemented the quantitative data collected in phase one. The chapter explained the method of analysis used in each phase, presented the main results and findings of both phases. Quantitatively, the statistical results of the 315 surveys were explained and presented in tables, and qualitatively two groups were interviewed and 19 participants in total. The thematic analysis conducted on

the qualitative collected data helped in providing a better understanding of the themes embedded within the extracted data which assures the results and validates the findings of phase one.

Chapter Six

Chapter Six

DISCUSSION

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6.1. INTRODUCTION

Having analyzed the quantitative and qualitative data of this research and results have been shown in the previous chapter, the researcher follows on in this chapter to discuss the research main results and findings through an in-depth interpretation of the quantitative and qualitative results and findings. The chapter provides an overview of the research significance and main contributions along with what previous scholarly research have proven within the area of Web 2.0 communities and the context of the theory of planned behaviour.

Further, the chapter moves on to the general discussion of the results of this research and what suggestions they offer, detailing the characteristics of the sample tested in this research, along with the demographic descriptions of it. The chapter then cross-discusses the results of the hypothetical relationships raised in this research, reassures the built framework, and proves the relative relationships amongst it. All that along with what related-literature and previous studies has shown and proved.

6.2. GENERAL DISCUSSION: INTERPRETATIONS OF THE QUANTITATIVE AND QUALITATIVE ANALYSIS

As previously mentioned, the area of Web 2.0 communities has become a hot topic that came across the attention of researchers from different disciplines. However, little scholarly research has empirically addressed the reasons why users intend to remain active and continue participating in a certain community and why others stop to, what are the determinants of the perceived values of Facebook users, and their affecting influence on users' intentions.

This research covers the gap of research in the Middle East area and more specifically in Jordan on how users of Facebook along with their cultural and behavioural influences intend to continue participating on Facebook or not. Even the behaviour of continuous participation in such a community has been ignored in a way or another and underestimated. This study

tackles this issue to investigate the influences affecting the continuous participation in these communities.

The researcher has been seeking to answer the question of whether it is a personal matter where some users are internally motivated to continue participating on Facebook, or this behaviour is traced back to some other factors? on the basis of identifying the social precedents influencing users' and their perceived values that may lead to this continuous behaviour.

Previous scholarly research has tackled this area from different perspectives (refer to chapter 2), some investigated users' intentions to adopt an information system (i.e. Liao *et al*., 1999; Venkatesh *et al*., 2000; Lim, 2003), other tackled users' intentions to continue using an information system (Bobbitt and Dabholker, 2001; Hansen *et al*., 2004; Shih and Fang, 2004). Speaking of which, some studies considered technological factors in examining users' intentions to continue participating on Web 2.0 communities, while others considered both the technological and social factors to be major influences and determinants of users' behaviour.

Remarkably, this research emphasizes the importance of the social aspects and characteristics in determining human intentions and their continuous post-*usage* behavioural roles pertaining to Facebook. It examines the personal, social, situational, and cultural beliefs underlying users' continuous interest in coming back and participating on Facebook in Jordan. This attention however has deemed pertinent as previous efforts were mainly concerned with a more technology-related thinking without giving much attention to precisely identify the social-related influences in this context (see for example Taylor and Todd, 1995a,b; Tan and Teo, 2000; Hsu and Chiu, 2004; Lee *et al*., 2005; Al-Gahtani *et al*., 2007). Furthermore, the framework has been tested and results are to be discussed, below the researcher discuss the relevant hypothetical relationships, shows what this research has proved and what other studies have suggested.

Analysis of the qualitative data has revealed that not all constructs of the research framework proved to be significant to the actual behaviour of continuous participation on Facebook. Some determinants have shown to be significant as proved by the quantitative data, but other have proved the opposite, and this of course is due to the limitations of the focus groups in terms of the nature of the participants, their characteristics and the number of participants

interviewed. Although limited to two focus groups; that are 19 participants, few constructs appeared totally irrelevant and insignificant to the context of the study. To name few of those constructs: satisfaction, compatibility, compliance, informational influences, religion, Individualism versus collectivism, and long-term versus short-term orientation, and few of the perceived values affecting the actual behaviour were highly significant and relevant which will be discussed in details within the following sections.

6.2.1. CHARACTERISTICS OF THE TARGETED SAMPLE

The targeted sample of this research represented random Facebook users in the capital city Amman/Jordan. Amman presents a much modernised city where almost every person living in it has a personal computer, and/or access to the Internet at any point of time. Therefore, the researcher has chosen the random sample from this city to reach a more valid and reliable testing of the framework as a start. Both the quantitative and qualitative samples of this research presented were chosen randomly in spite of gender, age, religion and qualifications.

Quantitatively, 315 valid surveys were returned, which indicates that 315 people did fully take part in the first phase of examining users' intentions to continue participating on Facebook. Personal characteristics such as gender, age, religion and educational level did not appear to be significant or make any difference on individuals' intentions and level of participation on Facebook. All has proved to be irrelevant to the decision of whether to continue participating on Facebook or not, as Facebook appeared to be used by all ages and genders, and backgrounds in Jordan. Descriptive data has revealed that the targeted sample consisted of a higher percentage of female participants, almost more than half of the 315 participants. That was the case for the focus groups as well; randomly volunteered interviewees were mostly females. That can be traced to the normal distribution of gender in Jordan or could be just a coincidence.

The statistics of the sample has shown that most age ranged between 18-24 years old, that can be best explained by Facebook statistics of type of users in Jordan (see chapter 5), and this came with the highest percentage of (70.6%), which assures our argument in the previous chapter. The second percentage to follow was the group of participants who aged between 25-34 years old but with a much lower percentage, further on few aged between 35-44 years old, and only 5 participants aged 45 years or above. The case was different for the qualitative

part (i.e. the focus groups), as the researcher has purposively invited and chosen the first group of undergraduate Facebook users, the nine of them appeared to be age ranged between 19-21 years old. However for the second focus group, ten participants were interviewed, some employed and others post-graduates, age ranged between 24-44 years old. That was important and did help in getting a more in-depth understanding of the few mislead constructs.

Data revealed that more than half of the participants appeared to be Muslims in terms of their religion, Christians only presented 61 individuals of the total 315 that took part in the survey. Speaking of which, that makes sense as the study is taking place in a country that holds Islam as her main religion. However, religion was insignificant to this research and therefore interviewees of the focus groups were not asked about their religion, and religion was not a topic that has been even mentioned or discussed throughout the sessions, as the researcher wanted to avoid any sensitivity resulting out of it. Additionally, speaking of the educational levels of participants, most were undergraduates either, that is explained by the highest percentage of the respondents who age ranged between 18-24 years old. In a large sample like this, where statistics has shown that most Facebook users in Jordan are of the age between 18-24 years old, it is quite right to have these results.

Moving on to the second part of the survey (i.e. the cyberspace experience of Facebook users), the sample tended to be using computers on daily basis, and on an average of (4.36) hours/per day, this hourly percentage was scaled on a minimum-maximum scale of 1-15 hours. Furthermore, when asked about whether they use any other Web 2.0 community than Facebook, almost half were exclusively using Facebook on its own, that trend indicates the high percentage of Facebook adoption and usage in Jordan over the last few years. Users who declared to be using other Web 2.0 communities than Facebook were 183 individual. Ranked in the second place however came Twitter with 53 people using it, 36 were using my space, 17 were Flickr members as well, and 77 were using other social networking sites (other than the previously mentioned communities) along with Facebook.

Statistically, speaking of the membership of the targeted Facebook users, more than half have been using Facebook between 1-3 years; interestingly 75 people have been using it for 4-6 years, similarly, 73 individuals have been using it for less than a year, and only 4 have been using it more than 6 years. These descriptive statistics have therefore indicated that Facebook

since its launching in 2004, has not been a phenomenon of adoption and usage in Jordan until the last few years. Personally I remember when people where all shaming and criticising such communities few years back, then came the sudden rise of its adoption and usage in Jordan during the last 2-3 years or so, and is still on the go.

All three determinants and influences of users' intentions (i.e. personal attitude, subjective norms, and perceived behavioural control) came highly significant in examining users' continuous participation on Facebook. Among the three main determinants, the perceived behavioural control came the most highly significant influence among the other two, followed by the subjective norms in second place, and with the personal attitude in third. The researcher has sensed that most of the targeted Facebook users in Jordan were satisfied with Facebook in general and has proved to be compatible as well with their own personalities and life styles. The normative influences and the social pressure of whether to continue participating on Facebook or not, along with the critical mass and informational influences came all highly significant in terms of determining the perceived value elements to be delivered and the intention to continue participating on Facebook, but more interestingly with the informational influences of mass media and reports ranked first.

The facilitating conditions of Internet and resource availability to users at any time were highly significant, users explained and assured during the focus groups that there is no problem nowadays with the availability of IT resources, and/or any other personal resources related to money and time. Everybody seemed to have access to the Internet at any point of time during the day and from anywhere. The level of controllability users have on Facebook in terms of controlling their own accounts, personal information and private networks ranked the highest amongst all other influences in terms of relevancy and significance, people seemed to be finding the level of controllability on Facebook very important as some considered it part of their own account privacy. Users as well have shown that they all possess a high level of self-efficacy in terms of Facebook usage and dealing its applications and unexpected dilemmas. No one seemed to have a problem with knowing and understanding any option on Facebook without the help of any external factor.

These descriptive statistics have also shown that users of Facebook in Jordan do participate on Facebook to deliver epistemic values in the first place, users of Facebook in Jordan have the need to satisfy their curiosity out if using Facebook in knowing news feeds and updates of

important people. Not with a much difference came the social value of using Facebook where they sign in and participate on Facebook mainly for social networking and meeting up with friends. The hedonic value came relevant as well in the third place, for entertaining purposes, whether it is by the use of Facebook games, applications, and/or any other entertainments, of course that is related back to every person's way of getting entertained.

Interestingly, on the other hand, the utilitarian value came insignificant as data has revealed that users do not intend to use Facebook for gaining knowledge or gathering information about a certain topic, and problem solving issues. Interviewees claimed that Facebook is not a community where you can gather information and gain knowledge to your own area of interest in life. It is a community for social networking in the first place, even though colleges and universities in Jordan are tending towards using Facebook for exchanging papers, assignments, presentations and other material related to course, students are still not interested and motivated by this idea. Therefore, to sum up, the first three values (i.e. social, hedonic, epistemic) came highly significant and almost with a very similar statistical means, and as a result, it has been proved that most Facebook users do have the intention to continue participating on Facebook in spite of the perceived value each is looking after.

However, sections below will discuss the results and findings in more details explaining the relevancy and irrelevancy of each finding. As a result to begin with, the model fit or adjusted R square for the three main constructs of the theoretical framework in accordance to the perceived value elements was highly significant (.88%). To go into more details, the significance and explanatory power of each independent variable is explained below.

6.2.2. PERSONAL ATTITUDE AND PERCEIVED VALUES TO BE DELIVERED

Personal attitude as a main construct of the theory of planned behaviour has always proved its significance to human intentions within the theory of planned behaviour. In this research it has been a proceeding construct in determining the perceived value elements users aim to gain and satisfy out of Facebook. This has not been tackled in previous research and studies; therefore, it has been one of the main contributions and significance of this research. Personal attitude has proved to be highly significant to the four perceived value elements to be delivered through Facebook examined in this research.

The independent variables; Satisfaction and compatibility appeared to be highly significant to the perceived social value to be delivered on Facebook (see Figure 6-1). The model fit of both independent variables and the perceived social value = (66.8%) which explains the relevancy of both constructs to the perceived social value elements to be delivered on Facebook. Satisfaction has shown a greater significance to the four perceived value elements than the compatibility level of Facebook, however, still compatibility came high with the significance level as well.

To begin with, satisfaction has been used before in previous scholarly research where it has shown its significance effect on users' intentions within the contexts under the theory of planned behaviour (see Coughlan *et al*., 2001; Hsu and Chiu, 2004; Huang and Chuang, 2007). Maintaining a considerable level of satisfaction to members on any Web 2.0 community is viable to attract these members to re-participate again. When users pre-expectations of Facebook do meet with their post-evaluation of what they really receive on Facebook, which makes them eager to associate with the certain group or community and creates a desire to keep their community membership and leads them to socialise and communicate more on Facebook.

Data of this research revealed that users' level of satisfaction is effective and important in perceiving their social value on Facebook, the human needs they perceive whether it is emotional needs, the need for networking, the need to boost up their self-esteem and ego, or the need to attach to a group of people seeking for comfort. Members of the focus groups did assure their high satisfaction levels with Facebook in terms of meeting their perceived social values. Many participants in the conducted focus groups have assured the importance of Facebook for socializing and meeting new people and one of them, just to give one example, stated that: ***"Facebook is a great space for meeting new people, and catching up with friends, friends you hardly see in real life".*** Some others did emphasize the importance of Facebook in enriching the feel of belonging. For example, one participant stated that: ***"Facebook gives me the feeling of group attachment, it is like spending time with your family but online, I would spend hours on it".***

Compatibility on the other hand, is best explained as the degree at which Facebook fits users' life styles, and current needs, it appeared to have a significant influence on the perceived

social value elements to be delivered. This variable as a key determinant of users' personal attitude proved to have a strong relationship in satisfying users' perceived social needs, participants explained that Facebook by all means fits their life styles, norms, and values, and therefore this community has become an integral part of their daily lives. As data revealed, the need for networking and socialising, and other previously mentioned sub-social values would not be achieved without having Facebook compatible with users' own personalities, life styles, norms and values, and daily routines. Users' would not participate on Facebook and socialise, communicate, or satisfy their internal desires of the different human needs if not well-suited in all ways.

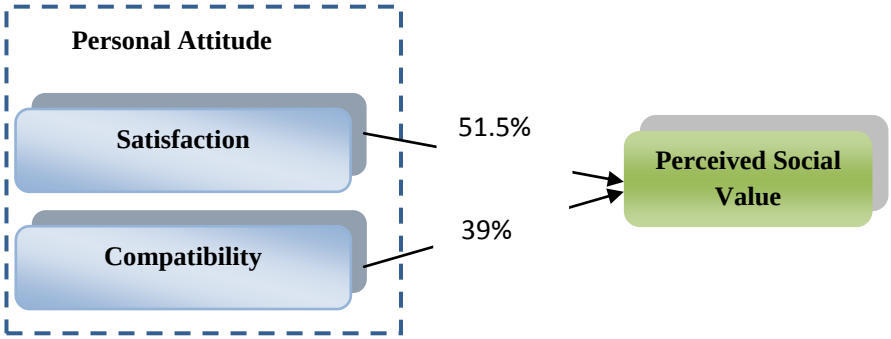

Figure 6-1: Model fit of personal attitude and the perceived social value.

For the perceived hedonic value (see Figure 6-2) the model fit of both satisfaction and compatibility with the mentioned perceived value (i.e. adjusted R square = 57.4%), that again proves the high significance of both variables in influencing the dependent variable (i.e. the perceived hedonic value). This can be best explained as if one is not satisfied with a Web 2.0 community such as Facebook, and Facebook in turn is not compatible with the user's own characteristics and traits, the users himself would not have an intrinsic motivation to do something entertaining and enjoyable in any of these communities.

In the case of Facebook, this community offers a varied opportunities of entertainment and pleasure whether through its wide range of applications, quizzes, games, and/or the creation and consumption of all types of interesting content gained through interaction and communication. Therefore, the more users are satisfied with it, and it highly meets up with their demands, and in turn suits their life style and personal values, the more they are likely to achieve their hedonic values.

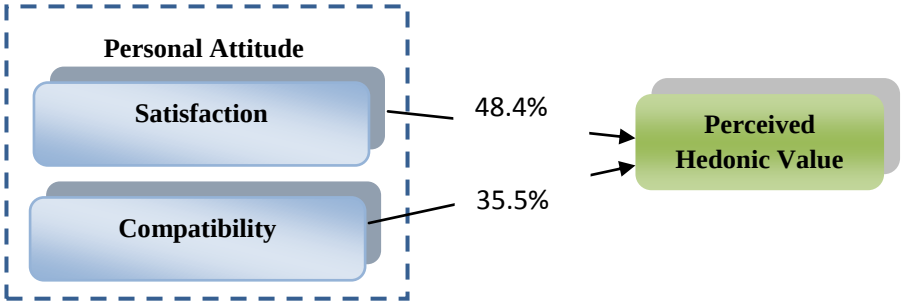

Figure 6-2: Model fit of personal attitude and the perceived hedonic value.

Interestingly and somehow surprisingly, the utilitarian value came insignificant with both the level of satisfaction and compatibility, where the model fit = (-.002) which indicates a negative influence and irrelevancy. It appeared that even though users are satisfied with Facebook, and Facebook does well-suit their life styles, they are not interested and do not intend to participate on Facebook searching for knowledge or looking for instrumental information related to problem solving dilemmas and other practical queries.

Most of the focus groups members did confirm this statistical result and explained that Facebook is an online space for socialisers, and lurkers for satisfying internal desires but not any close to learners, problem solvers and solution seekers. For instance, one person sarcastically stated: ***"who would sign in Facebook looking for any kind of knowledge? That is why it is a place to escape from boredom"***. Another person exemplified: ***"our professors are trying to make Facebook a place where we can share courses, exchange papers, and discuss topics, but that was not successful, I mean, some students did join these groups, but did not take part in it in any way".*** Most participants appeared to be signing in Facebook for lurking, social networking and other hedonic desires.

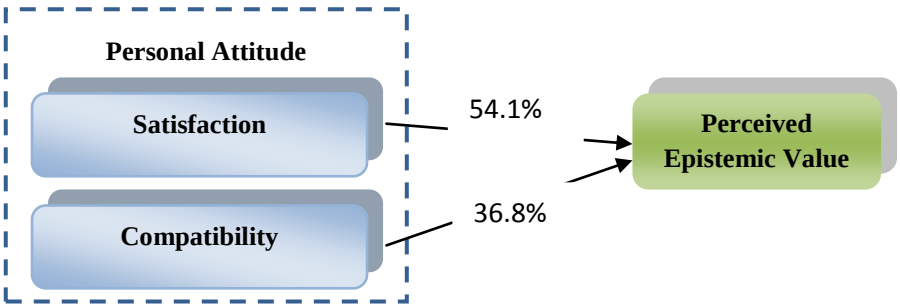

Figure 6-3: Model fit of personal attitude and the perceived epistemic value.

The perceived epistemic value has proved to be the most highly relevant value amongst all the previously mentioned values (see Figure 6-3). The level of significance in accordance with the independent variable (Satisfaction and compatibility) was high (model fit = 67.6%). Data expressed that users' appeared to be mentally desired to discover, know, and explore on high levels as a result to satisfy their curiosity. Because of the high levels of satisfaction and compatibility, users seemed more driven to perceive epistemic values on Facebook.

Facebook is a public space, packed with all these pictures, videos, personal information, that motivates users' to spend much time on it to gain this kind of information. It can be related to the high percentage of lurkers appearing to be on Facebook, as these lurkers came in the first place of type of users that are interested in surfing Facebook to explore personal information, read updates, comments, posts, watch videos, and kill the curiosity of the secondly updated news feed. This kind of value did steam up the focus group sessions, participants who admitted to be looking for this kind of information only, did admit to be lurkers in the first place.

Few others explained that**: *"our community is a community where there is not much of a personal privacy, people are always keen to know what that friend posted, what this relative's photo looked like, who is on my sister's friend list, what is the status of my boyfriend, etc".*** Another member did make us laugh during one focus group session by saying that: ***"in Jordan it should be called the Gossip book and not Facebook!".*** So quantitatively, users' of Facebook in Jordan appeared to satisfied and adopting Facebook as part of their daily lives.

6.2.3. SUBJECTIVE NORMS AND PERCEIVED VALUES TO BE DELIVERED

Subjective norms had an explanatory power of (78.8%), which proves its significance to the perceived social value to be delivered (see Figure 6-4). Compliance ranked the highest in influencing and predicting the change in the dependent variable (i.e. the social value). This could be explained that users would not tend to socialise and network in any way if not joined by important people to them, that is friends and family's impressions and actual behaviours would influence and affect users' perception of the perceived social value. The more family members and friends hung out online, the more likely users as individuals will seek for social values.

Informational influences followed by the critical mass came second in its significance to the perceived social value, informational influences may play a major role in the levels of critical mass and therefore, both key variables would affect the social value users tend to perceive. After all, it is not all about the number of Facebook users participating on it, neither is it the influence mass media and informational reports places on the perceived social value, this value element is mainly driven and predicted by the significant power of the normative influence (i.e. the compliance).

To support that from the focus groups, interpretations indicated that compliance and critical mass do influence the perceived social value at most, participants did disagree that informational influences do have a significant effect and explanatory power in predicting the dependent variable. They all assured that Facebook has become a social phenomenon because of the massive number of people joining it and participating on it in Jordan, and as a result, every person gets to connect to his own personal network online. Despite of the informational influences of all kinds, users seemed unaffected by it, and placed more emphasis on the personal and normative influence in perceiving social values on Facebook.

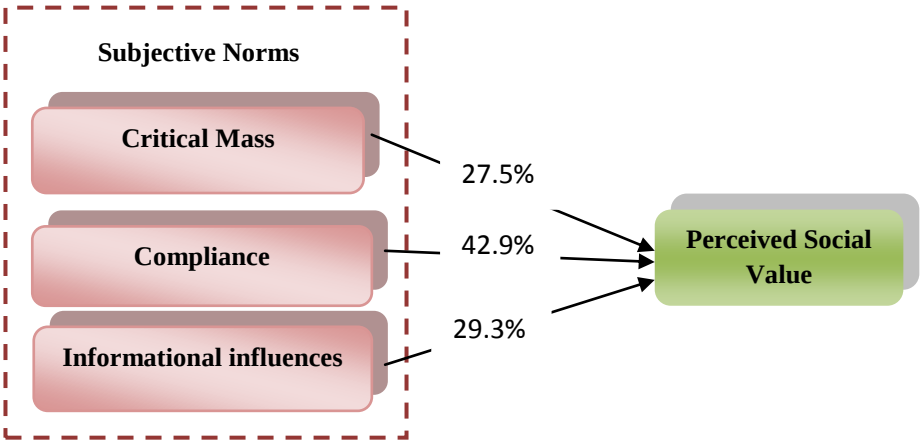

Figure 6-4: Model fit of subjective norms and the perceived social value.

For the hedonic value (see Figure 6-5), the three independent variables were significant with a model fit of (74.9%). Informational influences came first in its explanatory power of influencing the perceived hedonic values, followed by the compliance, and then with the critical mass at its lowest. Informational influences and the compliance influence did seem to be highly effective on motivating users into perceiving hedonic values on Facebook. Users

are encouraged to join Facebook entertaining groups, and other games and applications because of the positive feedback and impact the informational influences do offer. They are driven as well to perceive enjoyment and pleasure when other family and friends are too; perceiving this hedonic value can be achieved through the personal networks connecting openly in chat rooms, game societies, and other group applications.

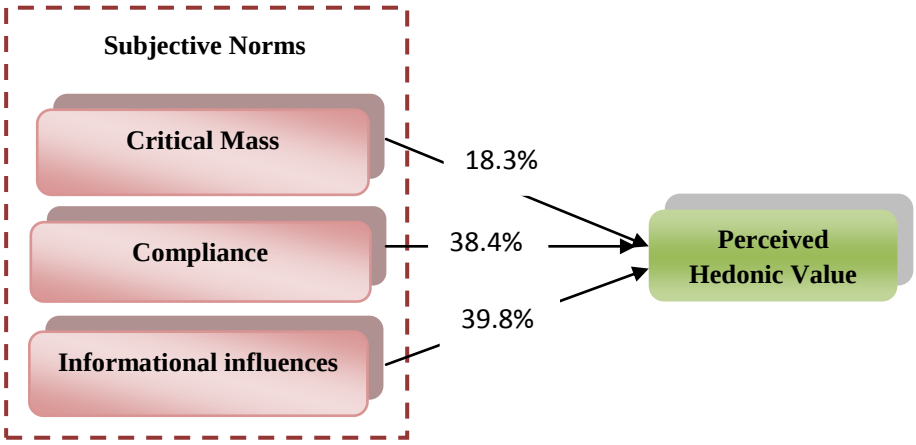

Figure 6-5: Model fit of subjective norms and the perceived hedonic value.

Again, the critical mass has the lowest explanatory power in influencing the perceived hedonic value, which is sensible, as users would not be influenced by the number of users using a certain application to use it, it is the important people that matters to use it. Most interviewees for example, discussed the fact that most if not all of the entertaining applications they use on Facebook are used because their friends are on it too. You would hear about what is enjoyable and what is not on Facebook through personal and non-personal information, but it would not be entertaining and would not deliver its hedonic value if not shared with others.

Furthermore, the utilitarian value was insignificant (see Figure 6-6), as it has been to the personal attitude. The model fit of it was (2.4%), which is noticeably very low. Unexpectedly, the informational influences came insignificant, but on the other hand, the compliance and critical mass were significant. There is an interesting point to raise here, the critical mass although significant; it has proved a reverse value, which means a negative relationship in predicting the perceived utilitarian value. In other words the more the level of critical mass gets higher, the less the effect would be on the perceived utilitarian value.

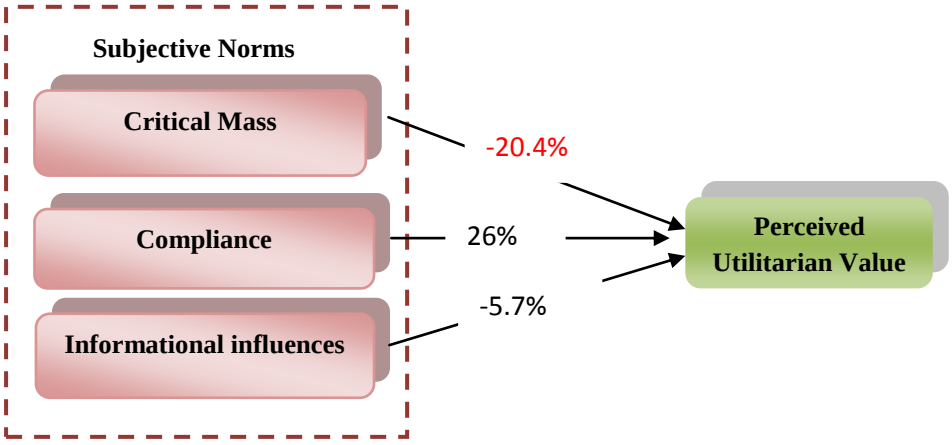

Figure 6-6: Model fit of subjective norms and the perceived utilitarian value.

The epistemic value came with the highest model fit of (79.4%), and mostly affected by the compliance, then informational influences, then critical mass in a row (see Figure 6-7). The high explanatory power of the compliance is explained by its relevancy to the motivations users are driven by in gaining the epistemic value of sneaking online searching for family and friends' own news, updates and information. An average person would not seek to perceive an epistemic value from strangers at most times, it is people that are important to you that drive your intentions into gaining this kind of information and satisfying this internal desire.

Interpretations of the focus groups appeared to be highly supportive to this result, all interviewees assured that they lurk, to satisfy their curiosity, and reach information that you may not know about your friends in real life. Information of this kind (as explained before) has shown to be highly affected by the influence of family and friends, like if there was no family members or friends on Facebook, users would not formulate and be driven to satisfy epistemic value. To mention what one interviewee said: ***"I do not care about what other people do, look like, or post, the fun is in what relatives and friends are on!".***

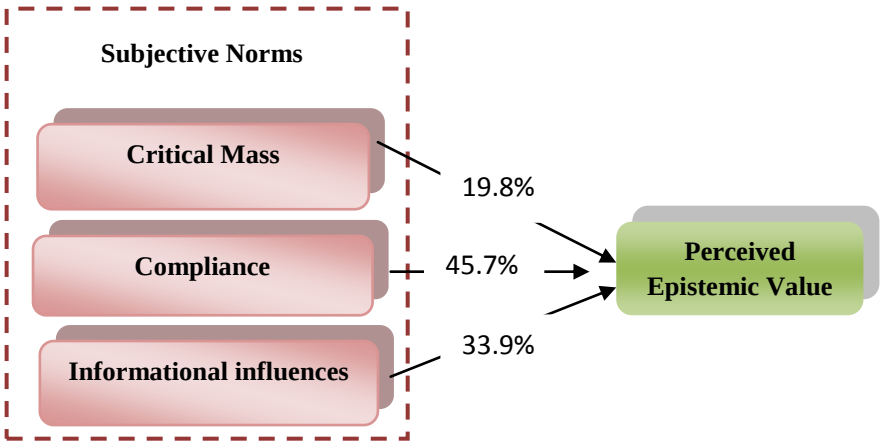

Figure 6-7: Model fit of subjective norms and the perceived epistemic value.

6.2.4. PERCEIVED BEHAVIOURAL CONTROL AND PERCEIVED VALUES TO BE DELIVERED

The third behavioural antecedent of the theory of planned behaviour (i.e. Perceived behavioural control) has shown a high model fit with the social value of (80.8%) (see Figure 6-8). The self efficacy has proved to be affecting the social value the most, followed by the level of controllability, and then although facilitating conditions came significant but very low (11.4%).

Users did not lack any kind of resource or technology facilitating conditions, they all have access to the Internet nowadays anywhere and anytime, therefore this variable was close to irrelevancy. One of the interviewees confirmed here this result by saying: ***"Who does not have any Internet access nowadays?"*** Participants did all assure that during their daily lives Internet is available in so many ways and access to it is really easy and reachable at any time, any place. As the sample was taken from the capital city Amman, every person on an average own at least a personal computer, if not a mobile that has Internet access therefore that was not an issue for this construct.

Most as well had significant levels of self-efficacy, results has proved that users possess internal confidence of the ability to deal with their personal accounts on Facebook and handle any unexpected failures in the system itself. Controllability levels that users have on facebook appeared to be highly relevant as well in perceiving social values, users are driven to satisfy social values if they had considerable levels of controllability on their Facebook accounts, to

be able to control their networks, personal information, and other profile related information. Not to mention that once users' lose this level of controllability, the perceived social values over Facebook would be negatively affected, and users would not intend to satisfy those values on Facebook, and might turn over to another online community.

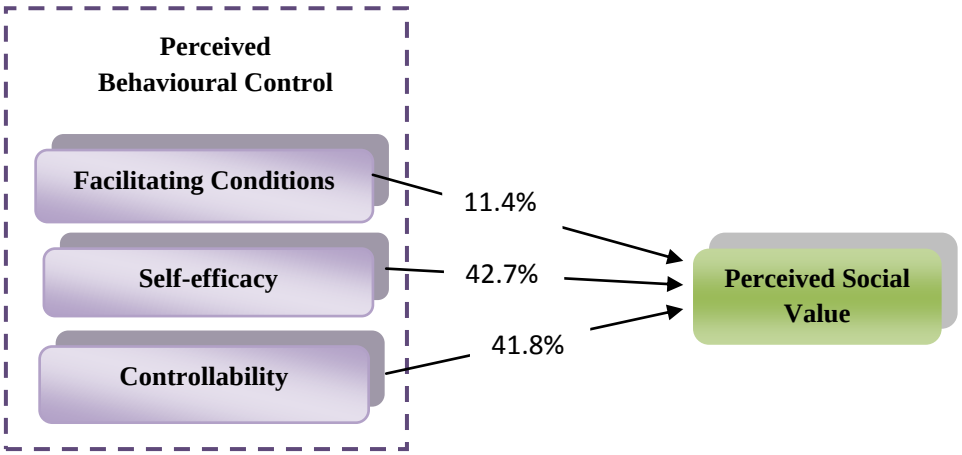

Figure 6-8: Model fit of perceived behavioural control and the perceived social value.

For the hedonic value, the model fit is (84%) which is high as well (see Figure 6-9). Self-efficacy came again at its highest, but in this case followed by the facilitating conditions, then the controllability levels. This result is reasonable, as users would not sign in Facebook for entertainment purposes unless they are familiar with how it works and sure of their ability to deal with it, as well as the resource facilitating conditions from time, effort, money are available, as these services are considered complimentary, users would not use them at anytime and anywhere.

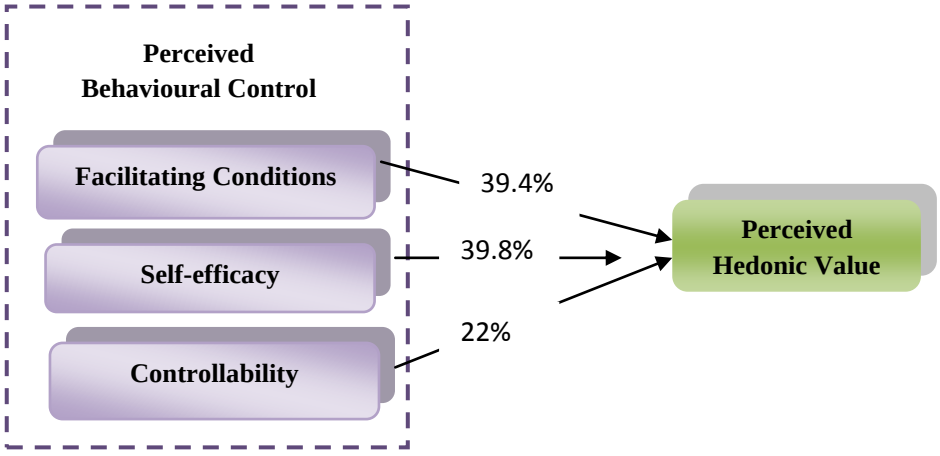

Figure 6-9: Model fit of perceived behavioural control and the perceived hedonic value.

For the utilitarian value, the three independent variables came all insignificant, with a model fit of (-0.4%). Moreover, and not surprising, the epistemic value had the highest model fit (89.3%), controllability came at its highest (50.7%) (see Figure 6-10), which is explained by users as an issue related to privacy where the user has his own control over his personal account and network, then followed by users' self-efficacy where it has been proved that most if not all interviewees were very familiar and aware of how to use Facebook along with its applications, and were confident of trying even anything new. Then the facilitating conditions ranked third in its explanatory power influencing the perceived epistemic value at somehow a low but considerable value.

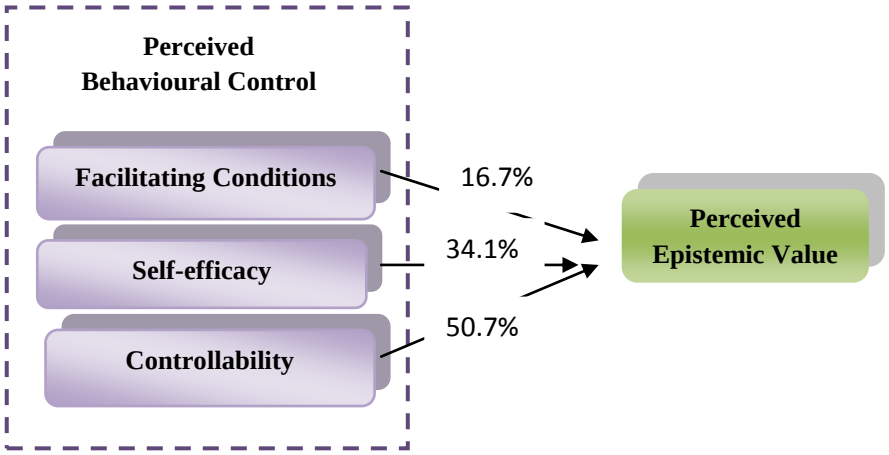

Figure 6-10: Model fit of perceived behavioural control and the perceived epistemic value.

6.2.5. *THE ROLE OF CULTURE ON CONTINUOUS PARTICIPATION ON FACEBOOK*

Responses on the study's cultural dimensions came all positive. Participants answered positively on the questions covering the cultural dimensions in Jordan. The three dimensions (Masculinity vs. Femininity, Collectivism vs. Individualism, and Long-term vs. Short-term orientation) had a total mean of (4.04), and individually has shown high means (4.07, 4.0, and 4.04 in a row, see Table 6-1). These results totally agree and support Hofstede's scale of the cultural dimensions. On the other hand, and based on the Analysis of Variance (ANOVA) test, these dimensions have proved their insignificance in this research, to the perceived value elements (as shown in Table 6-3), and to users' intentions to continue participating on Facebook (as shown in Table 6-4). Therefore, the cultural dimensions are not moderating variables in the framework of this research.

Possible interpretations for this could be that Jordan, although was once ranked as a third-world country might not be anymore within the cultural standards of the previously mentioned dimensions. Jordan has developed massively within the last couple of years, and has been highly affected by and adaptive to globalization. This openness has changed the culture of this society and people are becoming less conservative in some issues they used to be closed-minded about. The society has become a one where men and women are equal, a cosmopolitan society were the uptight norms and values the Jordanian once used to hold, and that were not understandable in most cases have changed.

Interpretations of the focus groups have shown that masculinity versus femininity came "surprisingly to the researcher" irrelevant. Few of the participants stated that: ***"there no difference between a man and a woman these days",*** and ***"there is nothing wrong with a female posting her photos on Facebook as long as she can control her account's privacy?"*** While on the other hand, some others disagreed with that, and noted that: ***"there is still discrimination in our culture between males and females".*** Another participant did agree with the last statement, notifying that ***"females are still criticised when posting personal photos, I mean, why would you post photos with you only pausing for people?".*** That of course can be traced back to the personality, religion and/or personal background of every person (i.e. the norms and values of his/her family).

Having discussed the first cultural element, and moving on to the next, collectivism was relevant as results of the focus groups indicated. Participants have shown a great attention to this construct, claiming that we live in a somehow conservative community, where people should care about what other think. In this community, people should act in a way that satisfies the community as a whole, in a way that satisfies the norms and values people in this community are raised with. Follows that came the short-term orientation, short-term orientation which are associated with respect for tradition, fulfilling social obligations, and protecting one's 'face'. Using Facebook in Jordan appears to be to satisfy mostly some social obligations and act in a way that respects tradition.

These results did contradict with the statistics and the quantitative results of the ANOVA test which have shown their insignificance, but were consistent with the results of the t-test. However, the researcher did intend to discuss them to support what Hofstede discussed in his

cultural dimensions and how he described communities, and prove that Jordan as a developing country is still a masculine society characterised by being collectivism, and having a population that is oriented towards short-term time scale.

6.2.6. PERCEIVED VALUES TO BE DELIVERED AND INTENTIONS TO CONTINUE PARTICIPATING ON FACEBOOK

The perceived social value, hedonic value, and epistemic value proved to be highly significant to users' intentions to continue participating on Facebook (model fit = 93.4%). This high explanatory power (i.e. R Square) of those three values indicates that users perceiving social, hedonic, and epistemic value elements on Facebook are commonly intending to continue participating on it (see Figure 6-11). Epistemic value ranked first in motivating users' intentions to continue participating on Facebook, followed by the social, and then hedonic value. Facebook has proved to enable users to get a feeling of support, togetherness, and belongingness, allow active sharing of ideas and personal experiences, moreover, the positive and enjoyable experience gained out of the platform' dynamic interaction. Those three values are as a result a key function of value and can influence behavioural intentions at most, but in variation.

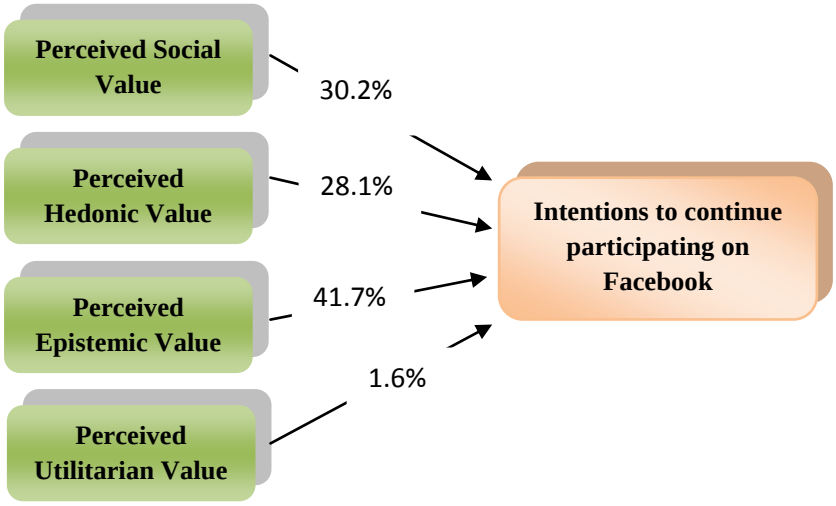

Figure 6-11: Model fit of the perceived value elements and users' intentions to continue participating on Facebook.

As the utilitarian value has shown to be insignificant, it proved its insignificance as well to the intentions to continue participating on Facebook. Furthermore, focus groups also confirmed these statistical results, all members assured that if they are driven and motivated to perceive and satisfy these three value elements, they would most probably intend to continue participating on Facebook. They explained that their continuous participation would satisfy their internal desires and needs, and therefore, attract them to re-participate again and again. To sum up and give few examples, below are some of the quotations recorded during the focus group sessions:

"As long as I am satisfied with Facebook, and it is meeting my own needs and desires, why wouldn't I continue participating on it?".

"Once Facebook stops meeting what I am looking for, I would not continue participating on it".

"I joined Facebook to see what value can be achieved out of it, it turned out to be satisfying my in all ways"

"The fun and entertainment Facebook delivers to you is massive"

"In my point of view, the social and epistemic value Facebook offers, makes it hedonic"

For this part of the statistical analysis, the researcher's personal impressions were quite similar, in accordance with the literature analysis on the perceived value elements delivered out of Web 2.0 communities, statistics has proved the high relevancy of them, and this after all supports this research contributions.

6.3. THE RELATIONSHIP BETWEEN PERCEIVED VALUE ELEMENTS AND USERS' ACTUAL BEHAVIOUR

In accordance to the literature analysis conducted in previous stages of this research (see chapter 2), and based on that, the researcher did categorize the value elements users may

perceive on Web 2.0 communities, along with the behavioural roles they might play or adopt in perceiving these value elements. Therefore, the researcher has run some analysis in order to investigate these relationships and explain the correlation amongst the value elements to be perceived and the behavioural roles of users online (see table 6-1).

Statistics \ Roles	Lurker	Newbie	Insider	Leader
Mean	3.43	2.77	3.20	2.42
Standard Deviation	0.552	0.657	0.753	0.673
Mode	4	3	3	2
Count of Users	268	126	216	84
Rank	1	3	2	4

Table 6-1: Descriptive Analysis of the Behavioural Roles of the Questionnaire Participants.

Responses were positive to the lurker and the insider behavioural roles, both came highly relevant but with the lurker hitting the top of the scale. Not surprisingly, lurkers presented the biggest chunk of the pie (as previous research indicates) with a staggering percentage of 91.2% (as analysed by the focus groups). Lurkers as explained by most of the interviewees are to describe users when they read, surf, sneak around, and any other activity that does not include any type of communication. Most admitted that they all have been once lurkers, and are still being lurkers now and then, they explained that by not being in the mood to communicate, or the lack of time to be active, or the curiosity of reading the news feed and what friends have updated.

Participants on the other hand have shown negative impressions to the newbie and leader behavioural roles, so the ranking of these roles came as follows: 1. Lurker, 2. Insider, 3. Newbie, and 4. Leader. These results were expected and not surprising according to what previous literature has investigated. During the focus group sessions, the researcher purposively tended to explain and investigate the characteristics of the leading role (i.e. leaders), there appeared to be very few adopting the role of a leader on Facebook.

Although the average of time users were spending on Facebook was high, most participants explained that there is little that could be appealing on Facebook to drive them to contribute on a high level on Facebook. Most of them connect daily through their iPhones and black

berry phones to have a chat with friends online, they argued that posting comments and hits on friends' walls, photos and/or videos cannot be on a daily basis. Few also explained that Facebook is a community where all users are similar and on the same level, where there is no space for leaders to lead and conduct the space.

Out of the 315 participants, 268 answered positively on lurkers, which make that in percentage approximately (85%). This percentage is noticeably high, and supports previous literature on this topic. For the insider, 216 positive responses were returned, that makes approximately (69%) insiders, followed by the newbie behavioural role, where 126 participants answered positively on that, making approximately 39% Newbies, and at last ranked was the leader role with 84 positive responses, which is approximately 27% were leaders. However, it is worth mentioning here, that these percentages are not accumulative out of 100%, to explain this more, the users do not exclusively play a certain role and only that role; users adopt and act upon certain roles in certain situations and at certain time, but has proved and has shown that they act upon other roles at other times. In other words, they may behave in two roles or more, whether at the same time, or at different times in different situations and contexts.

Speaking of the correlations between the perceived value elements and the behavioural roles presented in Table 6.5, there has been proven that there is a positive relationship between the perceived social, hedonic, and epistemic values with the lurker and insider behavioural roles. But all the three correlations were higher with the lurker role. Amongst the three correlated perceived value elements, the highest correlation has proven to be between the perceived epistemic value and the lurker behavioural role.

Role/ Perceived Value		Social Value	Hedonic Value	Utilitarian Value	Epistemic Value
Lurker	Pearson Correlation	.613**	.621**	-.046-	.644**
	Sig. (2-tailed)	0.000	0.000	0.421	0.000
Newbie	Pearson Correlation	0.059	0.074	0.036	0.095
	Sig. (2-tailed)	0.296	0.191	0.52	0.092
Insider	Pearson Correlation	.455**	.425**	0.002	.461**

	Sig. (2-tailed)	0.000	0.000	0.977	0.000
Leader	Pearson Correlation	0.051	0.054	.518**	0.074
	Sig. (2-tailed)	0.363	0.34	0.000	0.188

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Table 6-2: Bivariate Correlation amongst Perceived Value Elements and Behavioural Roles.

Although the perceived utilitarian value has shown its insignificance for this research, the researcher did run a correlation analysis on it, as part of the categorised value elements, to investigate and determine the related behavioural role, which turned out to be in this case the leader behavioural role. This kind of analysis has proven that users perceive different types of value elements out of Web 2.0 communities (the case of Facebook in this research), and that they act and behave upon certain behavioural roles in order to achieve and satisfy these value elements.

After testing the relationships and the strength of linear association amongst the perceived value elements and behavioural roles of Facebook users by utilizing Bivariate correlation analysis, The researcher now moves a step forward to test the exploratory power or the strength of predictions of perceived value elements on Facebook users' behavioural roles by employing multiple regression analysis.

Value Elements/Roles	**Lurker**			**Newbie**			**Insider**			**Leader**		
Statistics	β	t	Sig.	β	t	Sig.	β	t	Sig.	β	t	Sig.
Social Value	0.080	0.721	0.472	-0.158	-1.089	0.277	0.208	1.606	0.109	-0.035	-0.282	0.778
Hedonic Value	0.190	1.826	0.069	-0.017	-0.124	0.902	-0.014	-0.116	0.908	-0.041	-0.348	0.728

Value Elements/Roles	Lurker			Newbie			Insider			Leader		
Statistics	β	t	Sig.	β	t	Sig.	β	t	Sig.	β	t	Sig.
Utilitarian Value	-0.083	-1.919	0.056	0.028	0.495	0.621	-0.023	-0.463	0.644	0.515	10.589	0.000
Epistemic Value	0.405	3.296	0.001	0.253	1.567	0.118	0.286	1.989	0.048	0.112	0.808	0.420

Table 6-3: Multiple Regression Analysis amongst Perceived Value Elements and Behavioural Roles

The regression analysis of this model (see Table 6-6) did show that amongst all the perceived value elements, the perceived epistemic value was the only significant perceived value and with the highest explanatory power of significance with the lurker behavioural role (40.5%). This means that variations in perceived epistemic value explain 40.5% of the variation in the lurker behavioural role. The analysis also showed significance between the perceived epistemic value element the insider behavioural role but on a lower value of explanatory power (i.e. 28.6%). This means that perceived epistemic value element can predict 28.6% of the variations in the insider behavioural role. The four perceived value elements did seem to be insignificant at all with the newbie behavioural role, and the utilitarian amongst the other three was the only significant value element to the leader behavioural role (51.5%).

6.4. CROSS-VALIDATION OF THE QUANTITATIVE AND QUALITATIVE TOOLS

As explained before, this research had two phases of data collection; it applied a triangulation of data collection methods for the reason of strengthening the validity and reliability of the collected data and their results. Phase one applied a quantitative method for collecting data, this was applied to reach as much parts of the population as possible, and therefore cover a reasonable and reliable sample. Phase two applied a qualitative method of data collection, it aimed at focusing on major parts of the research framework that could not be understood on a larger scale. This narrowed scope (i.e. phase two) of getting an in-depth explanation and understanding of the phenomenon, did assure the results and confirmed the statistical findings of phase one.

The triangulation of methods applied in this research have shown a positive cross-validation amongst the two phases, results and findings of phase one was confirmed and thoroughly explained on a wider and larger level, and as a result did validate each other. What has been found in the quantitative analysis matches and validates the qualitative data and vice versa. This explains the validity of the tools used in both phases, and the validity of results and findings of this research.

It is normal and reasonable in any research applying triangulation in methods differences in some of the findings of the different phases of data collection. However, this slight difference (as the case of the focus groups of this research) is due to the interviews' circumstances and surroundings, and the nature of these sessions where participants get the opportunity of brain storming and lots of ideas are generated and exchanged. This does not affect the validity of the major findings the researcher has investigated in both phases, and this chapter has shown and presented these validations and exemplified that through different quotations.

In other words, the validation of the quantitative and qualitative tools applied in this research has been tested previously through the pilot study done in the early stages of this research. Both tools have been tested, assured, and modified in order to measure the same content which is the focus of this study, and as a result the findings did compliment and were consistent with each other. Therefore, the reliability of responses is significant as there was no contradiction at any stage of examining and investigating the phenomenon that is being under research.

6.5. SUMMARY

It is noticeable that most of the qualitative data assures what have been proved out of the quantitative data analysis, however, it is expectable to have some differences in few of the results and findings, especially when the sample of the qualitative collection process is a bit limited and results might be insufficient to generalise. However, on the other hand, it has been significant and sufficient in other parts of the hypothesis being tested. Results have proven the significance of the previous findings from the quantitative data in most of the tested hypothesis, but have proven the opposite in some other. However, the researcher mentioned earlier in this chapter that limitations of having two focus groups with 19 participants might in a way or another limit the ability to generalise the results of this phase.

Having presented the results of the quantitative and qualitative analysis separately in each chapter, the following chapter, that is chapter seven relates these data all together and compares the findings with this research initial literature and other related research within the field of information systems. Furthermore, it discusses research limitations and highlights the research main contributions; at last it suggests future implications.

Chapter Seven

RESEARCH FINDINGS, CONTRIBUTIONS AND FUTURE AVENUES

- **CONTENTS** **PAGE**

7.1. OVERVIEW

This thesis is a valuable result of the scientific research that has been carried out for the aim of fulfilling the certain aims and objectives mentioned previously in chapter one, and the "trustworthiness" of it depends on "What counts as knowledge" (Lincoln and Guba, 1985). This research aimed at developing a theoretical framework that best explains the continuous participation of users in Web 2.0 communities. More specifically, it applied that in the context of Facebook users in the Hashemite Kingdom of Jordan, as an exemplary case study.

Moreover, this thesis has been structured as seven main chapters, reaching to the final chapter; a brief overview of the previous six chapters is summarized below.

Chapter one introduces readers to the field of interest and research area. It explains how the wide spread of Web 2.0 communities and their mass adoption is traced back to the increasing number of Internet users all over the globe. Due to this expansion and massive growth, these communities have become a subject of interest to researchers of multiple disciplines. The success of these communities is however determined by the active users and their level of engagement and participation in these communities. The chapter explains the importance of examining and explaining the social and cultural influences affecting users' intentions on the decision of continuous participation.

It has been argued that the lack of research covering the social-related influences and not the technological related influences has been neglected previously in the research of the area of online communities and the level of participation of users of these communities. The chapter then continues to detail the different types of online communities, their definitions, and the evolution behind these technologies. It then signifies the motivations behind this research, develops its questions, defines the objectives, and provides a preface to the methodology being used in testing the developed framework. It further confirms the multi-fold contributions of the research, theoretically and practically.

Exploring the area of interest and defining the research problem

Chapter two introduces the theoretical background of this research. The chapter overviews the relevant theories of the theory of planned behaviour; the building theory of the framework of this research, it then explains the reasons behind choosing this theory in specific as the foundation of the developed framework. Furthermore, it details the conceptual framework developed in this research, outlines the behavioural influences, the moderating cultural influences, and based on the author's own literature analysis a categorization of the perceived value elements and the behavioural roles of users online are presented.

Thereafter, the hypotheses of the developed framework are built. The constructs forming the hypotheses along with their elements are discussed in details, explaining what has been included and for what reasons and what has been omitted due to the nature and focus of this

research and for what reasons. For further understanding of the theoretical background of this research, the author also summarises few examples of the applications of the theory of planned behaviour, and Hofstede's cultural dimensions within the information systems field.

Developing the research initial framework and defining the hypotheses

In chapter three, the author explains the triangulation of research methodological approaches applied in order to solve the research problem and achieve its aims and objectives. The author firstly classifies the different research paradigms and explains why this research fits the positivist interpretive paradigm. The chapter then moves on to the different phases of the research design, named as the exploration phase, the testing phase, and the evaluation phase. The design sums up the research objectives and explains how these three phases satisfies these objectives trough the different research methodologies used.

The author then shows the triangulation of methods applied in this research and for what reason, the approaches used for the qualitative and quantitative part of data collection are detailed, as well as the pros and cons of these methods are further mentioned. The methods of data analysis are explained in the sections to be followed. Furthermore, the sampling frame and unit of analysis which is the case of Facebook is illustrated, explaining the reasons behind choosing this sampling frame that is due to the increasing usage of this technology. The author finalises the chapter with a tabled literature analysis presenting the few examples of the methods and approaches used by other studies on Web 2.0 communities and within the field of information systems.

Choosing the method of research, instruments, sampling frame and unit of analysis

Chapter four narrates the pilot study the author has conducted prior to the conduction of the main research. The chapter begins with identifying the reader with what pilot studies are, and why they have been used in this research. It then, introduces and exemplifies the studied case of Brunel's placement and careers centre along with its Facebook Web page. Digging deep, the author details the process of pre-testing the research hypotheses, starting with the three focus groups and what resulted out of them (i.e. the aim of the Web page, the problem facing

it, and the possible solutions suggested), along with the online questionnaire uploaded on their Web page. Initial findings of the three focus groups and the 48 online respondents have resulted in adjusting the instruments used in testing the framework, the framework itself and process of testing the framework.

Pre-mature testing of research instruments, framework, and hypotheses

Chapter five presents the quantitative part of testing the hypotheses of this study; it begins with an introduction of the sampling frame and unit of Facebook in the Hashemite Kingdom of Jordan. Graphs and charts are illustrated showing the massive adoption of Facebook in Jordan, listing the percentages of male and female users. Then within the next section, the author explains the quantitative method used for this phase of data collection, afterwards, the method of data analysis along with the analysis are presented. Moreover, it explains the qualitative part of data collection talking about the two focus groups and the semi-structured interviews that took place. The chapter overviews the interviewed focus groups, the process, the place, the timing, and the nature of participants. Lists examples of the topics and questions discussed at hand. The next section further introduces the method of analysis; which is the deductive thematic analysis, explains the approach in details and presents examples of research's own qualitative interpretations and results of the focus groups. Then, the results of the testing of the hypotheses are then discussed and summarised.

The quantitative and qualitative testing of research hypotheses and methods of analysis

In chapter 6, the researcher provides an in-depth discussion of the results and findings of this research. Discussion on how these quantitative and qualitative results relate to the theoretical base and literature foundation of the research is detailed as well in this chapter.

General Discussion on research findings

Having developed the final framework of this research and testing it, this chapter discusses the quantitative and qualitative research findings, and summarizes the research conclusions

and presents possible future research. It starts by summarizing the research along with its findings. Thereafter, the research contributions are discussed subdivided into *contributions to theory*, *contributions to methodology*, and *contributions to practice*. Next, the limitations faced by the researcher are mentioned, and finally significant future research avenues that would provide further development to this important area of interest are suggested, possible suggestions and improvements could be to the developed framework of this research, the methodology applied, the case study investigated, and the context in which the study has been carried out.

Summing up research findings and conclusions, and what signifies and limits this research

7.2. FINDINGS AND CONCLUSIONS

Research findings conclude that most Facebook users in Jordan are random users of the age between 18-24 years old who tend to be using computers on daily basis on an average of (4.36 hours/day). Almost half of the targeted sample has been using Facebook exclusively for a time period of 1-3 years.

Personal attitude, subjective norms, and perceived behavioural control has shown to be all significant and highly influential on affecting users' intentions to continue participating on Facebook, perceived behavioural control (i.e. facilitating conditions, controllability) ranked the highest in its significance towards examining users' intentions to continue participating on Facebook. Followed by the subjective norms (i.e. critical mass, compliance, and informational influences), then ranked the personal attitude (i.e. satisfaction, compatibility).

Results have shown that most Facebook users in Jordan do participate on this site in the first place to deliver epistemic value elements, not with a much difference came the social value after, then ranked the hedonic third. The utilitarian value proved to be insignificant by all means, therefore, users intend to continue participating on Facebook despite of the perceived value elements to be delivered. Therefore, the epistemic, social and hedonic value elements have proved their significance in motivating users' intentions to continue participating on Facebook.

Although responses on the cultural dimensions came all positive, analysis have proved the insignificance of the three cultural dimensions (i.e. masculinity vs. Femininity, individualism vs. Collectivism, and long-term vs. Short-term orientation), therefore, it has not been considered moderating in the framework of this research.

Regarding the descriptive analysis of the behavioural roles of users on Facebook, responses were highly positive to lurkers and insiders, on the other hand participants have shown negative impressions to the newbie and leader roles and as a result insignificant. So the behavioural roles could be ranked as follows: 1. Lurker, Insider, newbie, and leader.

Correlations between the perceived value elements and the behavioural roles have proved that there is a positive relationship between the social, epistemic, hedonic values and the lurker and insider behavioural roles, and that users perceiving those three values and more likely to behave as lurkers and/or insiders. The utilitarian value although insignificant to this research, has shown a positive correlation to the leaders' role. However, the highest correlation was between the perceived epistemic value and the behavioural role of lurkers, where the highest value of significance indicates that users perceiving epistemic value are most likely to be lurkers.

7.3. SIGNIFICANCE OF RESEARCH

The contributions made throughout this research are diverse covering theoretical, methodological, and practical facets. This thesis adds value to research and practice communities of interest with any kind of Web 2.0 communities and digitally engaged networks. The novel integration of these relevant research domains also enhanced the value of contributions made in this research.

The current thesis develops a harmonized theoretical framework extending current research and taking an important step towards explaining what drives continuous participation of users in Web 2.0 communities. To this end, the research develops a theoretical framework that investigates the social precedents influencing human intentions, and as a result develops a categorization of those perceived value elements driving members into continuous participation on Facebook, leading to the final categorization of the roles and behaviour played by those users.

7.3.1. CONTRIBUTION TO THEORY

The contributions of the current research to theory are one of the most important contributions of this research and therefore multifold (see table 7-1). The accomplishment of the research main objectives have been made possibly after the synthesis of multiple intentional and behavioural theories and developing a framework based on a decomposed theory of planned behaviour for explaining continuous participation of users in Web 2.0 communities. This research offers generalisation to theory, as it has developed a theoretical framework that can guide future studies in the same research areas. The outcome of this research makes multi-fold contributions to the body of literature on online communities in the Middle East in general and on Facebook in specific in Jordan.

From a theoretical point of view it tests the theory of planned behaviour within the context of continuous participation and engagement on Facebook, taking solely into consideration the social and cultural related antecedents that would influence users' intentions and behaviour towards continuous participation. Based on an extensive literature analysis, it further develops a comprehensive taxonomy classifying the perceived value elements driving users' intentions into participating and engaging on Facebook in Jordan as they are expected to be gained and achieved as a result. The framework uniquely tests these perceived value elements as moderators between the social antecedents influencing users' intentions and users' actual intentions on whether to continue participating on Facebook or not. It also develops an inclusive categorization of the various behavioural roles adopted and played by users and members of Facebook in Jordan. These categorizations are of a significant value added to the theoretical base of research.

Thus, the theoretical framework aims at investigating the effect of the attitudinal determinants on users' intentions to continue participating and engaging on Facebook, and as a result that intentional influence on determining users' actual behaviour based on the examination of the relationships flowing within. The theory of planned behaviour is simple in content, but the nature and focus of this study urged the author to decompose the building constructs of the theory into a more complex nature, explaining the effect culture could have on people's various intentions and actual behaviour as segmented by the author's own literature analysis.

Contribution to Theory		
	Previous Research	This Research
1.	Theory of planned behaviour in testing the pre-adoption behaviour of users.	Decomposed theory of planned behaviour in testing users' post-adoption intentions of continuous participation.
2.	Examining the technological and social related influences of human intentions.	Examining the social related influences only of human intentions.
3.	.....	Examining the effect of cultural dimensions on human intentions to continue participating on Facebook.
4.	Considering the social and technological factors as antecedents of human intentions.	A comprehensive taxonomy of the perceived value elements driving users' intentions into continuous participation.
5.	Considering the actual behaviour as a single construct.	An inclusive categorization of the behavioural roles played by users online.

Table 7-1: Contribution to Theory.

7.3.2. CONTRIBUTION TO METHODOLOGY

This research has contributed to methodology in the method of analysis it has applied to its qualitative approach. Having conducted this research in one of the countries of the Middle East, and more specifically in Jordan is one major contribution. There is lack of studies in this region applying both qualitative and quantitative methods in parallelism. Moreover, the method of analysis; the thematic analysis is rarely used, if not at all in studies covering Jordan. Researchers in Jordan are not familiar at all with thematic analysis, so this study adds a value to the research in general in Jordan in terms of the methodology and method of analysis that is used. It offers a reference point to other researchers interested in applying thematic analysis to their qualitative work, and proves to them that qualitative methods are feasible and not as what they believe.

Furthermore, most studies of information systems on Web 2.0 communities as argued in previous chapters (see chapter 3) did apply online surveys along with ethnography using text-

based analysis or content analysis in most cases. Those cases had a more limited sample and unit of analysis where ethnographers can easily lurk upon a certain group of users' and observe their attitudes and behaviours online. Even studies that applied qualitative methods of interviews and focus groups did run that online, and as arguably known, there are many limitations for that, therefore, having the interviews face-to-face; as in the case of this research guarantees that gestures and facial expressions, and body language of participants are visible and not ignored, and play and active role in the analysis of the interviews. So this study comes new and adds a valuable base into research of all kinds of Web 2.0 communities in the research methods applied.

7.3.3. CONTRIBUTION TO PRACTICE

Practically, the theoretical framework developed by this research is a model that would provide insights on the individual, organizational, and the societal levels for decision and policy makers, service providers, users, and developers. More importantly it contributes to the field of information systems and offers other researchers whom are interested in studying participation in Web 2.0 communities, the success of Web 2.0 communities, values created and exchanged in Web 2.0 communities, and users' roles and behaviour in such communities. This framework offers a strong base to rely upon and extend from when and if used in other contexts.

Consequently, the contribution this research gives to the relative parties of practice is that for *decision and policy makers* it helps them in building and managing strategic plans for sustaining a successful online community, plans that would motivate and enhance a sustainable and continuous participation and engagement of users signing in Facebook and other Web 2.0 communities. According to that, policies and regulations might need re-management and re-engineering for the sake of supporting certain users on the long run and guarantee achieving the purpose behind that community in satisfying what users are looking for.

In addition, it aids *service providers* in knowing what factors to examine, whom to support and whom to watch, it eases up their ability of recognizing which parts of the online community to correct, balance, protect, and to focus on for re-enhancement purposes. This would help them along with decision and policy makers in providing the right content, the

right way, and at the right time. As for *users*, they can understand what motivations drive them into participating on a certain Web community, and exactly know which perceived value element they would gain and acquire when acting upon a certain role and vice versa. That is depending on their own attitudinal characteristics, social beliefs, and the situational and cultural influences accompanied and surrounded by every user and thus affecting their decision on whether to re-participate again or not.

Furthermore, it inspires *developers* in knowing and meeting the exact needs and intentional values of users according to their different behavioural roles, taking into consideration the attitudinal, societal, control, and cultural differences affecting their intentions and actual behaviours. But as individuals' needs and desires change in each stage of the online community evolution over time, developers require re-designing the tools, features, mechanisms, and technologies, and therefore need to be updated with decision and policy makers, along with the service or content providers as a working team.

They have to identify carefully each behavioural role played within the community, and know what kind of perceived value elements are related to it, and thus add the right technology components that will satisfy users of different personal, social, and cultural backgrounds to better support the community, in a way a sustainable information system life cycle prescribes.

7.4. RESEARCH LIMITATIONS

To start with, as it has been previously analyzed, interpretive research is often criticised for the subjective influence the researcher's interpretation might have on the findings. The main limitation in an interpretive analysis research is that the collection of the data and consequently the empirical results will depend heavily on the researcher's own way of interpreting and analyzing the extracted data, and the extent of the access of information the interviewees give to the researcher. In some cases they can either hide important information or even decide to not provide any information at all due to their own reasons.

Speaking of which, only few participants were motivated to come along and take part in the focus groups, although the researcher tried to offer rewards of different kinds but it was hardly managed to get the two focus groups that the researcher has interviewed. People seemed to be a bit worried about getting involved in an interview or giving their personal

opinion about a certain topic. They seemed unwilling to express themselves in front of one another; they could have been described as conservative in some way or another. In the researcher's point of view, more focus groups could have been managed if the time-scale was longer, in that case few more participants could have been approached and invited to the group interviews.

Furthermore, limiting the results of explaining continuous participation in Web 2.0 communities on the case of Facebook in Jordan might not be the case of all Web 2.0 communities. Therefore, investigating a much larger sampling frame and unit of two or more Web 2.0 communities within different geographical contexts for example might prove to be of a higher validity and reliability.

Moreover, this study aimed at examining solely the social-related influences into explaining continuous participation in Web 2.0 communities without considering the technological influences that proved by previous studies to have a considerable influence on this behaviour in different types of Web 2.0 communities. However, the lack of research approaching the social-related influences (i.e. the personal, social, situational, and cultural) has been the biggest motivation behind this research

7.5. FUTURE AVENUES

An important issue related to the contribution of this research is how the results of it can be generalised and prove usefulness in other research contexts (see Table 7-2). In other words it is important for future researchers to be able to use the conclusions of this piece of research but in a different context, on a different sampling frame and unit of analysis, using a different research method. What is to recommend, is that further work can be done in terms of *improving or extending the developed framework* with factors related to the technology itself such as privacy and security, systems usefulness and ease of use, accessibility, flexibility, and system reliability and design characteristics.

The findings of this study are context-specific, therefore, *taking the study into another geographical context* is another issue to recommend, as applying the same framework in another geographical area can result in different findings due to people's personal, social, situational, and cultural characteristics. More interestingly, if not taken within a specific context, the scope of the study can be changed and *applied on a certain group or domain*

within Facebook, such as examining a certain political, educational, or social group. This way the scope of the study can be limited on a certain sample without the need to consider any cultural influences. Additionally, the developed framework can be applied to *examine other Web 2.0 communities* of different types and purposes, but has to be within the same cultural or geographical context and compare the results of the studies together. This way the results of the developed framework can be generalised to examine continuous participation in Web 2.0 communities in general.

In terms of the methodology used, triangulation of methods such as the case of this research is proved to be the best way of satisfying a study of such nature. However, it can be enhanced with *online ethnography*, where the researcher can live as part of the sample unit online, communicate with them and act as one of the community for a quite suitable period of time. This way the researcher can get a closer and deeper look by both observing and lurking on people's attitudes and behaviour online or by taking an active part and communicate with them to understand the issue directly and on the spot. This way text-based analysis or content analysis of the online conversations, comments and chat has to be the method of analysis.

Furthermore, the *sample unit of analysis* could be extended to interview service or content providers (if possible) and have them as a part of the focus groups to investigate their point of view of the problem of how to maintain continuous participation in Web 2.0 communities.

	Current research	**Possible future research**
Focus of study	Examining social-related influences affecting continuous participation in Web 2.0 communities	Examining social-related influences and/or technology-related influences affecting continuous participation in Web 2.0 communities
Theory	Theory of planned behaviour	An extended theory of planned behaviour with technology acceptance model, IS success model and/or diffusion of innovation theory
Methodology	Quantitative and qualitative	Quantitative and qualitative
Instruments	Survey and focus groups	Survey, focus groups, and ethnography
Context	Jordan	Any other geographical context

Scope	Facebook in general	Certain social group on Facebook
Sampling frame	Facebook	Twitter, LinkedIn
Unit of analysis	Random users	Random users, service providers and/or content providers

Table 7-2.: Possible future avenues.

REFLECTION

Having pursued my PhD degree was one of the most wonderful experiences I could ever go through. I have learned what it is like to do proper research, and how enjoyable it could be if taken one step at a time.

This 3 year experience has changed me in so many ways. The way I view life has changed, mentally I feel so much wiser and am so proud of it. The way I perceive things and analyze facts has deepened so much in level.

I feel like I could never get enough of doing research. I really cannot wait to start my career life, and enhance my research journey. Explore the unexplored and analyze the uniqueness of scientific research.

This thesis is my biggest achievement so far. I did enjoy writing every word of it. However, it is only the beginning of my practical life and educational career.

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Appendix A

RESEARCH QUESTIONNAIRE

Today's Date: _____

QUESTIONNAIRE

The following questionnaire has been prepared for research purposes of pursuing a PhD doctoral thesis. The study aims at explaining why do users continue or discontinue using Facebook in Jordan. Please do not type your name on the template since all responses are confidential and will be used for statistical purposes only. Kindly note that the questionnaire is strictly voluntary; do not feel obligated to take part if you are uncomfortable to do so. Thank you for your cooperation, your honesty would be appreciated.

Questionnaire Number: ----

SECTION ONE

A1. PERSONAL BACKGROUND

7. ***Gender:***

☐ Male ☐ Female

8. ***Age:***

☐ 18-24 ☐ 25-34 ☐ 35-44 ☐ 45 and above

9. ***Religion***:

☐ Islam ☐ Christian

10. ***Educational Level*:**

☐ Undergraduate school ☐ Graduate school

SECTION TWO

A2. CYBERSPACE EXPERIENCE

1. ***How many hours per day do you use computers on average?***

…… Hours

2. ***Do you use any social networking site other than Facebook? (If no, please proceed to question 4).***

☐ Yes ☐ No

3. ***Which other social networking communities do you use:***

☐ MySpace ☐ Flickr

☐ Twitter ☐ Bebo ☐ Other

4. ***For how long have you been using Facebook?***

☐ Less than a year ☐ 1-5 Years

☐ 6 years ☐ more

SECTION THREE

A3.1 CULTURAL INFLUENCES

Please indicate your Degree of Preference (DoP) for each of the following questions indicating your answer with a score from a scale of (Strongly Agree=5, Agree=4, Neutral=3, Disagree=2, strongly Disagree=1):

	Question	***DoP***
1.	In our society, males have more power and freedom to use Facebook than females.	
2.	In Jordan, females are criticized for sharing photos, posting, or chatting on Facebook.	
3.	I respect our norms, values and tradition when using Facebook.	
4.	Parents and men have more authority in using Facebook than young people and women.	
5.	Facebook is important for delivering social greetings and obligations between people.	
6.	My family affect my usage of facebook, as family is the basis of our Jordanian society.	

A3.2 PERSONAL INFLUENCES

	Question	***DoP***
1.	Joining Facebook fits my lifestyle	
2.	Using Facebook is pleasant	
3.	I feel comfortable taking part in Facebook	
4.	I like the idea of using Facebook	
5.	Using Facebook somehow is a foolish idea	
6.	Getting involved in Facebook makes me feel excited	
7.	Facebook appeared to be up to my expectations	

A3.3 SOCIAL INFLUENCES

Please indicate your Degree of Preference (DoP) for each of the following questions indicating your answer with a score from a scale of (Strongly Agree=5, Agree=4, Neutral=3, Disagree=2, strongly Disagree=1):

	Question	***DoP***
1.	I continue using Facebook because my family and friends do	
2.	I continue using Facebook because most people do	
3.	My decision to continue using Facebook is influenced by my family and friends	
4.	People who are important to me think I should continue using Facebook	
5.	People who are important to me encourage me to continue using Facebook	
6.	Generally, I want to do what my family and friends think I should do	
7.	I read/saw news reports that using Facebook is pleasant and useful	
8.	Advertisements and leaflets depict a positive sentiment for using Facebook	

A3.4 SITUATIONAL INFLUENCES

	Question	***DoP***
1.	I can use Facebook whenever I want	
2.	I have the time needed to use Facebook	
3.	Resources (Internet/computer hardware and software) required to use Facebook are available to me	
4.	I am confident of using Facebook even if I have never used such a thing before	
5.	I believe I have the ability to edit profiles in Facebook	
6.	I believe I have the ability to add, manage, and delete friends in my online network.	
7.	I believe I have the ability to send and reply to messages on Facebook	

8.	I believe I have the ability to upload and share photos on Facebook	
9.	I could easily operate Facebook	
10.	Using Facebook is entirely within my control	
11.	I believe Facebook settings can be easily managed and controlled	
12.	Facebook provides me with the ability to configure my profile according to my preferences	
13.	Security features can be easily managed on Facebook	

SECTION FOUR

A4. PERCEIVED VALUE ELEMENTS

Please indicate your Degree of Preference (DoP) for each of the following questions indicating your answer with a score from a scale of (Strongly Agree=5, Agree=4, Neutral=3, Disagree=2, strongly Disagree=1):

	Question	***DoP***
1.	Facebook is a good place for meeting new people	
2.	Facebook helped me keep in contact with old friends	
3.	I have complete trust of other people on Facebook	
4.	I feel comfortable asking for support online	
5.	I tend to find emotional support and encouragement from other members on Facebook	
6.	I feel a strong sense of being part of Facebook	
7.	Using Facebook improves my image	
8.	Using Facebook gives me more confidence	
9.	I find applications within Facebook joyful and entertaining	
10.	Using Facebook is fun	

11.	Facebook is very interesting site	
12.	Using Facebook gives me the opportunity to find solutions to problems and dilemmas	
13.	I have realised that seeking help and advice on Facebook in any matter is just a waste of time	
14.	I gain benefits by using Facebook	
15.	Facebook is useful for troubleshooting	
16.	Using Facebook has helped me in acquiring new information and knowledge about people whom I care about	
17.	Using Facebook satisfies my curiosity needs	
18.	Using Facebook introduces me to new technologies and this is important to me	

SECTION FIVE

A5. INTENTIONS TO CONTINUE PARTICIPATING ON FACEBOOK AND ACTUAL BEHAVIOUR

Please indicate your Degree of Preference (DoP) for each of the following questions indicating your answer with a score from a scale of (Strongly Agree=5, Agree=4, Neutral=3, Disagree=2, strongly Disagree=1):

	Question	***DoP***
1.	I intend to continue using Facebook in the future	
2.	I strongly recommend using Facebook to others	
3.	I plan to continue using Facebook in the future	
4.	I would add Facebook to my favourite links	
5.	Personally, I quickly adapt and engage into online interactions	
6.	I don't feel comfortable posting (messages, comments, photos, videos) online	
7.	I tend to contribute frequently to discussions taking place on my Facebook network	
8.	I don't find any reason to post messages, comments, or photos on Facebook	

9.	I often observe web pages on Facebook without any kind of engagement	
10.	I would classify myself as a conversationalist on Facebook	
11.	I would like to participate on Facebook events and activities	
12.	I would dominate the space with my heavy contributions	
13.	I would like to initiate events and activities on Facebook	

END OF QUESTIONNAIRE

Appendix B

Appendix B

LITERATURE REVIEW ON THE FRAMEWORK CONSTRUCTS

1. ATTITUDES

(BEHAVIOURAL BELEIFS)

Variable	Operational Definition	Brief Description	Representative Literature
Attitudes	Perceived Accessibility	Terminal accessibility, information accessibility, and system accessibility.	(Culnan, 1984, Rice and Shook, 1988; Teo et al., 2003)
	System Reliability	Able to be trusted and dependable.	(Teo et al., 2003)
	System Adaptability	The ability of users and systems to change the rules, structures and content.	(Teo et al., 2003)
	System Flexibility	The flexibility and adaptability of system features that facilitate navigation and retrieval of appropriate information.	(Teo et al., 2003)
	Perceived Usefulness	The degree to which a person believes that using a particular system would enhance his/her performance. It is also described as an extrinsic motivation	(Fishbein and Ajzen, 1975; Davis, 1989; Teo et al., 1999; Lin and Lu, 2000; Gefen, 2000; Pavlou, 2001; Lee et al., 2001; Moon and Kim, 2001; Featherman, 2001; Featherman and Pavlou, 2002; Chen et al., 2002; Gefen et al., 2002; Lee et al., 2005; Lin, 2006; Guo and Barnes, 2007).
	Perceived Ease of Use	The extent to which a person believes that using a system will be free of effort. It is also described as an extrinsic motivation.	(Teo et al., 1999; Liao et al., 1999; Gefen, 2000; Lin and Lu, 2000; Pavlou, 2001; Lee et al., 2001; Moon and Kim, 2001; Featherman, 2001; Featherman and Pavlou, 2002; Chen et al., 2002; Gefen et al., 2002; Lee et al., 2005;

Variable	Operational Definition	Brief Description	Representative Literature
			Lin, 2006; Hsu and Lu, 2007; Guo and Barnes, 2007)
	Performance Expectancy	The degree to which an individual believes that using the system will help to attain gains in job performance.	(Venkatesh et al., 2003)
	Effort Expectancy	The degree of ease associated with the use of the system.	(Venkatesh et al., 2003)
	Perceived Enjoyment	The extent to which the activity of using the computer is perceived to be enjoyable in its own right apart from any performance consequence that may be anticipated. It is also described as an intrinsic motivation.	(Davis et al., 1992; Teo et al., 1999; Koufaris, 2002; Lee et al., 2005; Hsu and Lu, 2007; Guo and Barnes, 2007)
	Complexity	The degree to which an innovation is perceived to be difficult to understand, to learn, or operate.	(Rogers, 1983; Tan and Teo, 2000; Shih and Fang, 2004)
	Perceived Trust (Credibility)	The subjective probability with which community adopters believe that an online transaction will occur in a manner consistent with their expectations.	(Jarvenpaa, 1999; Pavlou, 2001; Gefen et al., 2002; Suh and Han, 2002; Wang et al., 2003; Luarn and Lin, 2005; Lin, 2006)
	Perceived Risk	Perceptions of uncertainty and adverse consequences of engaging into an activity.	(Fishbein and Ajzen, 1975; Dowling and Staelin, 1994; Jarvenpaa, 1999; Liao et al., 1999; Lee et al., 2001; Featherman, 2001; Featherman and Pavlou, 2002)

Variable	Operational Definition	Brief Description	Representative Literature
	Compatibility	The degree to which an innovation fits with the potential adopter's previous experience and current needs.	(Fishbein and Ajzen, 1975; Rogers, 1983; Liao et al., 1999; Tan and Teo, 2000; Chen et al., 2002; Shih and Fang, 2004; Fu et al., 2006)
	Relative Advantage	The degree to which an innovation provides benefits which supersede those of its precursor and may incorporate factors such as economic benefits, image, enhancement, convenience and satisfaction related to a specific task.	(Fishbein and Ajzen, 1975; Rogers, 1983; Liao et al., 1999; Tan and Teo, 2000; Shih and Fang, 2004)
	Perceived Playfulness	The extent to which an activity of using a computer is perceived as being playful and enjoyable.	(Fishbein and Ajzen, 1975; Moon and Kim, 2001; Lee et al., 2005)
	Trialability	The degree to which one can experiment with an innovation on a limited basis before making an adoption or a rejection decision.	(Fishbein and Ajzen, 1975; Rogers, 1983; Liao et al., 1999; Tan and Teo, 2000)
	Privacy and Security	The extent to which individuals control their own information.	(George, 2004)
	System Design Characteristics	Templates design, user-friendly interface.	(Fishbein and Ajzen, 1975)
	Satisfaction (Gratification)	Positive, indifferent, or negative feeling of an ex-post experience.	(Anderson, 1977; Oliver, 1980; Coughlan et al., 2001; Hsu and Chiu, 2004; Sangwan, 2005; Hsu et al., 2006; Huang and Chuang,

Variable	Operational Definition	Brief Description	Representative Literature
			2007)
	User Characteristics	Gender, age, educational level, employment status.	(Fishbein and Ajzen, 1975; Brown et al., 2003)

2. SUBJECTIVE NORMS

(NORMATIVE BELIEFS)

Variable	Operational Definition	Brief Description	Representative Literature
Subjective Norms	Beliefs of Image	----------	(Liao et al., 1999)
	Visibility	----------	(Liao et al., 1999)
	Critical Mass	Minimal number of adopters of an interactive innovation.	(Mahler and Rogers, 1999; Liao et al., 1999; Guo and Barnes, 2007)
	Compliance	The normative influence of others' expectations about engaging into a certain attitude and performing certain behaviour.	(Dholakia et al., 2004)
	Social Norms and Influences	The degree to which an individual perceives that important others believe he/she should use the new system.	(Venkatesh et al., 2003; Lin, 2006; Guo and Barnes, 2007)
	Normative Influences	The influences of the personal and societal norms and values about engaging in certain behaviour.	(George, 2004; Shih and Fang, 2004)
	Mass Media Reports, Expert Opinions	External influences on one's behaviour from non-personal parties.	(Bhattacherjee, 2000; Hsu and Chiu, 2004)

	Social Expectations (Friends, Family Members, Colleagues, Supervisors, Experienced Individuals)	The degree to which the user perceives that others approve of their participating in an online community (Internal Influences)	(Bhattacherjee, 2000; Tan and Teo, 2000; Gefen et al., 2002; George, 2004; Hsu and Chiu, 2004)

3. PERCEIVED BEHAVIOURAL CONTROL

(CONTROL BELIEFS)

Variable	Operational Definition	Brief Description	Representative Literature
Perceived Behavioural Control	Self-Efficacy and Abilities	Being internally confident of the ability to behave successfully in the situation. It refers to the ease or difficulty of performing certain behaviour.	(Compeau and Higgins, 1991; Bhattacherjee, 2000; Tan and Teo, 2000; Ajzen, 2002; George, 2004; Shih and Fang, 2004; Guo and Barnes, 2007)
	Resource Facilitation Conditions	External Factors (i.e. money, time, effort).	(Guo and Barnes, 2007)
	Character Competence	Individual's internal perceived behavioural control, sense of achievement, skills and experience.	(Guo and Barnes, 2007)
	Internet Self-Efficacy	Individual's judgement and self-assessment of one's capability to use a WWW application or service within the domain of general computing.	(Torkzadeh and Van Dyke, 2002; Hsu and Chiu, 2004; George, 2004; Lin, 2006)
	Internet Resource	The availability of	(Lin, 2006)

Variable	Operational Definition	Brief Description	Representative Literature
	Availability	internet anytime, and anywhere.	
	Facilitating Conditions	The availability of resources needed to facilitate the performance of a particular behaviour.	(Triandis, 1979; Bhattacherjee, 2000; Tan and Teo, 2000; Shih and Fang, 2004; Lin, 2006)
	Controllability	Having control over the behaviour. It also refers to the beliefs about the extent to which performing the behaviour is up to the actor.	(Ajzen, 2002; Hsu and Chiu, 2004; George, 2004)
	Voluntariness	The degree of individual's voluntariness in engaging in an online community (a non-mandatory adoption).	(Liao et al., 1999)
	Perceived Information Asymmetry	It is the external influence of resource facilitation conditions, and the perception of whether or not an individual lacks enough information resources to perform an intended behaviour.	(Guo and Barnes, 2007)
	Technology Facilitating Conditions	Internet availability.	(Triandis, 1979; Taylor and Tod, 1995; Fu et al., 2006).

Appendix C

SYNONYMS

SYNONYMS

Synonym	Abbreviation
Online Communities	OCs
Online Networks	------
Virtual Communities	VCs
Cyberspaces	CSs
Social Networks	SNs
Social-Media Networks	SMNs
Social Networking Services	SNW
Internet Sites	------
Digital Communities	DCs
Web-Based Communities	------
Web-Based Services	------
Electronic Networks	------
Networking Spaces	------
Internet-Centred Communities	------
Internet-Based Communities	------

SYNONYMS OF VALUES IN WEB 2.0 COMMUNITIES

Drive, Desire, Wish, Need, Goal, Intention

SYNONYMS OF ROLES IN WEB 2.0 COMMUNITIES

Attitude, Behaviour, Action

Appendix D

OPERATIONAL DEFINITIONS

Personal Influences

Compatibility:

1. Joining Facebook fits my lifestyle
2. Using Facebook is pleasant
3. I feel comfortable taking part in Facebook

Satisfaction:

1. I like the idea of using Facebook
2. Using Facebook somehow is a foolish idea
3. Getting involved in Facebook makes me feel excited
4. Facebook appeared to be up to my expectations

Social Influences

Critical Mass:

1. I continue using Facebook because my family and friends do
2. I continue using Facebook because most people do

Compliance:

1. My decision to continue using Facebook is influenced by my family and friends
2. People who are important to me think I should continue using Facebook
3. People who are important to me encourage me to continue using Facebook
4. Generally, I want to do what my family and friends think I should do

Informational influences:

1. I read/saw news reports that using Facebook is pleasant and useful

2. Advertisements and leaflets depict a positive sentiment for using Facebook

Situational Influences

Facilitating conditions:

1. I can use Facebook whenever I want
2. I have the time needed to use Facebook
3. Resources (Internet/computer hardware and software) required to use Facebook are available to me

Self-Efficacy:

1. I am confident of using Facebook even if I have never used such a thing before
2. I believe I have the ability to edit profiles in Facebook
3. I believe I have the ability to add, manage, and delete friends in my online network.
4. I believe I have the ability to send and reply to messages on Facebook
5. I believe I have the ability to upload and share photos on Facebook
6. I could easily operate Facebook

Controllability:

1. Using Facebook is entirely within my control
2. I believe Facebook settings can be easily managed and controlled
3. Facebook provides me with the ability to configure my profile according to my preferences
4. Security features can be easily managed on Facebook

Cultural influences

Masculinity vs. Femininity:

1. In our society, males have more power and freedom to use Facebook than females
2. In Jordan, females are criticised for sharing photos, posting, or chatting on Facebook

Collectivism vs. Individualism:

1. I respect our norms, values, and tradition when using Facebook
2. Parents and men have more authority in using Facebook than young people and women

Long term vs. short term orientation:

1. Facebook is important for delivering social greetings and obligations between people
2. My family affect my usage of Facebook as family is the basis of our Jordanian society

Perceived Value Elements

Social value:

1. Facebook is a good place for meeting new people
2. Facebook helped me keep in contact with old friends
3. I have complete trust of other people on Facebook
4. I feel comfortable asking for support online
5. I tend to find emotional support and encouragement from other members on Facebook
6. I feel a strong sense of being part of Facebook
7. Using Facebook improves my image
8. Using Facebook gives me more confidence

Hedonic value:

1. I find applications within Facebook joyful and entertaining
2. Using Facebook is fun
3. Facebook is very interesting site

Utilitarian value:

1. Using Facebook gives me the opportunity to find solutions to problems and dilemmas
2. I have realised that seeking help and advice on Facebook in any matter is just a waste of time
3. I gain benefits by using Facebook
4. Facebook is useful for troubleshooting

Epistemic value:

1. Using Facebook has helped me in acquiring new information and knowledge about people whom I care about
2. Using Facebook satisfies my curiosity needs
3. Using Facebook introduces me to new technologies and this is important to me

Intention to Continue Participating on Facebook

1. I intend to continue using Facebook in the future
2. I strongly recommend using Facebook to others
3. I plan to continue using Facebook in the future
4. I would add Facebook to my favourite links

Actual Behaviour (Roles)

Newbie:

1. Personally, I quickly adapt and engage into online interactions
2. I don't feel comfortable posting (messages, comments, photos, videos) online
3. I tend to contribute frequently to discussions taking place on my Facebook network

Lurker:

1. I don't find any reason to post messages, comments, or photos on Facebook
2. I often observe web pages on Facebook without any kind of engagement

Insider:

1. I would classify myself as a conversationalist on Facebook
2. I would like to participate on Facebook events and activities

Leader:

1. I would dominate the space with my heavy contributions
2. I would like to initiate events and activities on Facebook

Appendix E

Appendix E

COLLINEARITY STATISTICS

```
REGRESSION
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS R ANOVA COLLIN TOL CHANGE
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT SVALUE

  /METHOD=ENTER SATISFACTION COMPATABILITY.
```

Regression

[DataSet1] C:\Documents and Settings\Admin\Desktop\Ch5\F F- 19052011.sav

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	COMPATABILITY, SATISFACTION[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: SVALUE

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.819[a]	.670	.668	.435	.670	316.879	2	312	.000

a. Predictors: (Constant), COMPATABILITY, SATISFACTION

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	119.679	2	59.840	316.879	.000[a]
	Residual	58.918	312	.189		
	Total	178.597	314			

a. Predictors: (Constant), COMPATABILITY, SATISFACTION

b. Dependent Variable: SVALUE

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.827	.113		7.319	.000		

	SATISFACTION	.463	.038	.515	12.295	.000	.603	1.660
	COMPATABILITY	.324	.035	.390	9.302	.000	.603	1.660

a. Dependent Variable: SVALUE

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions		
				(Constant)	SATISFACTION	COMPATABILITY
1	1	2.947	1.000	.01	.00	.00
	2	.032	9.577	.94	.07	.33
	3	.021	11.883	.05	.93	.67

a. Dependent Variable: SVALUE

REGRESSION

/MISSING LISTWISE

/STATISTICS COEFF OUTS R ANOVA COLLIN TOL CHANGE

/CRITERIA=PIN(.05) POUT(.10)

/NOORIGIN

/DEPENDENT HVALUE

/METHOD=ENTER SATISFACTION COMPATABILITY.

Regression

[DataSet1] C:\Documents and Settings\Admin\Desktop\Ch5\F F- 19052011.sav

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	COMPATABILITY, SATISFACTION[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: HVALUE

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.760[a]	.577	.574	.527	.577	212.666	2	312	.000

a. Predictors: (Constant), COMPATABILITY, SATISFACTION

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	117.956	2	58.978	212.666	.000[a]
	Residual	86.526	312	.277		
	Total	204.482	314			

a. Predictors: (Constant), COMPATABILITY, SATISFACTION

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	117.956	2	58.978	212.666	.000[a]
	Residual	86.526	312	.277		
	Total	204.482	314			

b. Dependent Variable: HVALUE

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.838	.137		6.119	.000		
	SATISFACTION	.465	.046	.484	10.192	.000	.603	1.660

	COMPATABILITY	.316	.042	.355	7.492	.000	.603	1.660

a. Dependent Variable: HVALUE

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions		
				(Constant)	SATISFACTION	COMPATABILITY
1	1	2.947	1.000	.01	.00	.00
	2	.032	9.577	.94	.07	.33
	3	.021	11.883	.05	.93	.67

a. Dependent Variable: HVALUE

```
REGRESSION
  /MISSING LISTWISE
```

```
/STATISTICS COEFF OUTS R ANOVA COLLIN TOL CHANGE

/CRITERIA=PIN(.05) POUT(.10)

/NOORIGIN

/DEPENDENT UVALUE

/METHOD=ENTER SATISFACTION COMPATABILITY.
```

Regression

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Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	COMPATABILITY, SATISFACTION[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: UVALUE

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.065[a]	.004	-.002-	.550	.004	.664	2	312	.515

a. Predictors: (Constant), COMPATABILITY, SATISFACTION

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.402	2	.201	.664	.515[a]
	Residual	94.480	312	.303		
	Total	94.882	314			

a. Predictors: (Constant), COMPATABILITY, SATISFACTION

b. Dependent Variable: UVALUE

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2.033	.143		14.201	.000		
	SATISFACTION	.016	.048	.024	.326	.744	.603	1.660
	COMPATABILITY	.029	.044	.047	.652	.515	.603	1.660

a. Dependent Variable: UVALUE

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions		
				(Constant)	SATISFACTION	COMPATABILITY
1	1	2.947	1.000	.01	.00	.00
	2	.032	9.577	.94	.07	.33
	3	.021	11.883	.05	.93	.67

a. Dependent Variable: UVALUE

```
REGRESSION
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS R ANOVA COLLIN TOL CHANGE
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT EVALUE
```

/METHOD=ENTER SATISFACTION COMPATABILITY.

Regression

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Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	COMPATABILITY, SATISFACTION[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: EVALUE

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.823[a]	.678	.676	.475	.678	328.542	2	312	.000

a. Predictors: (Constant), COMPATABILITY, SATISFACTION

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	148.215	2	74.108	328.542	.000[a]
	Residual	70.376	312	.226		
	Total	218.592	314			

a. Predictors: (Constant), COMPATABILITY, SATISFACTION

b. Dependent Variable: EVALUE

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.461	.124		3.730	.000		
	SATISFACTION	.538	.041	.541	13.063	.000	.603	1.660
	COMPATABILITY	.338	.038	.368	8.886	.000	.603	1.660

a. Dependent Variable: EVALUE

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions		
				(Constant)	SATISFACTION	COMPATABILITY
1	1	2.947	1.000	.01	.00	.00

2	.032	9.577	.94	.07	.33
3	.021	11.883	.05	.93	.67

a. Dependent Variable: EVALUE

```
REGRESSION
 /MISSING LISTWISE
 /STATISTICS COEFF OUTS R ANOVA COLLIN TOL CHANGE
 /CRITERIA=PIN(.05) POUT(.10)
 /NOORIGIN
 /DEPENDENT SVALUE
 /METHOD=ENTER CMASS COMPLIANCE IINFLUENCES.
```

Regression

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Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	IINFLUENCES, CMASS, COMPLIANCE[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: SVALUE

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.889[a]	.791	.788	.347	.791	391.199	3	311	.000

a. Predictors: (Constant), IINFLUENCES, CMASS, COMPLIANCE

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	141.184	3	47.061	391.199	.000[a]
	Residual	37.413	311	.120		
	Total	178.597	314			

a. Predictors: (Constant), IINFLUENCES, CMASS, COMPLIANCE

b. Dependent Variable: SVALUE

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.661	.090		7.333	.000		

	CMASS	.213	.028	.275	7.541	.000	.505	1.981
	COMPLIANCE	.401	.039	.429	10.255	.000	.385	2.598
	IINFLUENCES	.216	.029	.293	7.428	.000	.433	2.307

a. Dependent Variable: SVALUE

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions			
				(Constant)	CMASS	COMPLIANCE	IINFLUENCES
1	1	3.917	1.000	.00	.00	.00	.00
	2	.041	9.736	.78	.12	.00	.14
	3	.028	11.801	.00	.76	.01	.48
	4	.014	16.877	.21	.12	.99	.38

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions			
				(Constant)	CMASS	COMPLIANCE	IINFLUENCES
1	1	3.917	1.000	.00	.00	.00	.00
	2	.041	9.736	.78	.12	.00	.14
	3	.028	11.801	.00	.76	.01	.48
	4	.014	16.877	.21	.12	.99	.38

a. Dependent Variable: SVALUE

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REGRESSION
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS R ANOVA COLLIN TOL CHANGE
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT HVALUE
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/METHOD=ENTER CMASS COMPLIANCE IINFLUENCES.

Regression

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Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	IINFLUENCES, CMASS, COMPLIANCE[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: HVALUE

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.867[a]	.751	.749	.405	.751	312.518	3	311	.000

a. Predictors: (Constant), IINFLUENCES, CMASS, COMPLIANCE

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	153.548	3	51.183	312.518	.000[a]
	Residual	50.934	311	.164		
	Total	204.482	314			

a. Predictors: (Constant), IINFLUENCES, CMASS, COMPLIANCE

b. Dependent Variable: HVALUE

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.570	.105		5.420	.000		
	CMASS	.151	.033	.183	4.598	.000	.505	1.981
	COMPLIANCE	.385	.046	.384	8.426	.000	.385	2.598
	IINFLUENCES	.314	.034	.398	9.271	.000	.433	2.307

a. Dependent Variable: HVALUE

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions			
				(Constant)	CMASS	COMPLIANCE	IINFLUENCES
1	1	3.917	1.000	.00	.00	.00	.00
	2	.041	9.736	.78	.12	.00	.14
	3	.028	11.801	.00	.76	.01	.48
	4	.014	16.877	.21	.12	.99	.38

a. Dependent Variable: HVALUE

```
REGRESSION
 /MISSING LISTWISE
 /STATISTICS COEFF OUTS R ANOVA COLLIN TOL CHANGE
 /CRITERIA=PIN(.05) POUT(.10)
 /NOORIGIN
 /DEPENDENT UVALUE
 /METHOD=ENTER CMASS COMPLIANCE IINFLUENCES.
```

Regression

[DataSet1] C:\Documents and Settings\Admin\Desktop\Ch5\F F- 19052011.sav

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	IINFLUENCES, CMASS, COMPLIANCE[a]	.	Enter

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	IINFLUENCES, CMASS, COMPLIANCE[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: UVALUE

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.183[a]	.034	.024	.543	.034	3.596	3	311	.014

a. Predictors: (Constant), IINFLUENCES, CMASS, COMPLIANCE

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.181	3	1.060	3.596	.014[a]
	Residual	91.701	311	.295		
	Total	94.882	314			

a. Predictors: (Constant), IINFLUENCES, CMASS, COMPLIANCE

b. Dependent Variable: UVALUE

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF

1	(Constant)	2.063	.141		14.611	.000		
	CMASS	-.115-	.044	-.204-	-2.603-	.010	.505	1.981
	COMPLIANCE	.178	.061	.260	2.899	.004	.385	2.598
	IINFLUENCES	-.031-	.045	-.057-	-.678-	.498	.433	2.307

a. Dependent Variable: UVALUE

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions			
				(Constant)	CMASS	COMPLIANCE	IINFLUENCES
1	1	3.917	1.000	.00	.00	.00	.00
	2	.041	9.736	.78	.12	.00	.14
	3	.028	11.801	.00	.76	.01	.48
	4	.014	16.877	.21	.12	.99	.38

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions			
				(Constant)	CMASS	COMPLIANCE	IINFLUENCES
1	1	3.917	1.000	.00	.00	.00	.00
	2	.041	9.736	.78	.12	.00	.14
	3	.028	11.801	.00	.76	.01	.48
	4	.014	16.877	.21	.12	.99	.38

a. Dependent Variable: UVALUE

```
REGRESSION
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS R ANOVA COLLIN TOL CHANGE
```

/CRITERIA=PIN(.05) POUT(.10)

/NOORIGIN

/DEPENDENT EVALUE

/METHOD=ENTER CMASS COMPLIANCE IINFLUENCES.

Regression

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Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	IINFLUENCES, CMASS, COMPLIANCE[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: EVALUE

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.892[a]	.796	.794	.379	.796	403.536	3	311	.000

a. Predictors: (Constant), IINFLUENCES, CMASS, COMPLIANCE

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	173.914	3	57.971	403.536	.000[a]
	Residual	44.678	311	.144		
	Total	218.592	314			

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	173.914	3	57.971	403.536	.000[a]
	Residual	44.678	311	.144		
	Total	218.592	314			

a. Predictors: (Constant), IINFLUENCES, CMASS, COMPLIANCE

b. Dependent Variable: EVALUE

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.286	.099		2.903	.004		

	CMASS	.169	.031	.198	5.481	.000	.505	1.981
	COMPLIANCE	.472	.043	.457	11.051	.000	.385	2.598
	IINFLUENCES	.276	.032	.339	8.710	.000	.433	2.307

a. Dependent Variable: EVALUE

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions			
				(Constant)	CMASS	COMPLIANCE	IINFLUENCES
1	1	3.917	1.000	.00	.00	.00	.00
	2	.041	9.736	.78	.12	.00	.14
	3	.028	11.801	.00	.76	.01	.48
	4	.014	16.877	.21	.12	.99	.38

a. Dependent Variable: EVALUE

```
REGRESSION
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS R ANOVA COLLIN TOL CHANGE
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT SVALUE
  /METHOD=ENTER FCONDTIONS SEFFICACY CONTROLABILITY.
```

Regression

[DataSet1] C:\Documents and Settings\Admin\Desktop\Ch5\F F- 19052011.sav

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	CONTROLABILITY, FCONDTIONS, SEFFICACY[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: SVALUE

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.900[a]	.809	.808	.331	.809	440.341	3	311	.000

a. Predictors: (Constant), CONTROLABILITY, FCONDTIONS, SEFFICACY

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	144.564	3	48.188	440.341	.000[a]
	Residual	34.034	311	.109		
	Total	178.597	314			

a. Predictors: (Constant), CONTROLABILITY, FCONDTIONS, SEFFICACY

b. Dependent Variable: SVALUE

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF

1	(Constant)	.373	.092		4.043	.000		
	FCONDTIONS	.098	.031	.114	3.221	.001	.489	2.045
	SEFFICACY	.408	.047	.427	8.663	.000	.252	3.966
	CONTROLABILITY	.388	.049	.418	7.900	.000	.219	4.568

a. Dependent Variable: SVALUE

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions			
				(Constant)	FCONDTIONS	SEFFICACY	CONTROLABILITY
1	1	3.943	1.000	.00	.00	.00	.00
	2	.031	11.289	.99	.08	.02	.03
	3	.019	14.237	.00	.87	.15	.06

4	.006	25.175	.01	.05	.83	.91

a. Dependent Variable: SVALUE

```
REGRESSION
 /MISSING LISTWISE
 /STATISTICS COEFF OUTS R ANOVA COLLIN TOL CHANGE
 /CRITERIA=PIN(.05) POUT(.10)
 /NOORIGIN
 /DEPENDENT HVALUE
 /METHOD=ENTER FCONDTIONS SEFFICACY CONTROLABILITY.
```

Regression

[DataSet1] C:\Documents and Settings\Admin\Desktop\Ch5\F F- 19052011.sav

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	CONTROLABILITY, FCONDTIONS, SEFFICACY[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: HVALUE

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.917[a]	.842	.840	.323	.842	551.044	3	311	.000

a. Predictors: (Constant), CONTROLABILITY, FCONDTIONS, SEFFICACY

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	172.104	3	57.368	551.044	.000[a]
	Residual	32.378	311	.104		
	Total	204.482	314			

a. Predictors: (Constant), CONTROLABILITY, FCONDTIONS, SEFFICACY

b. Dependent Variable: HVALUE

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.014	.090		.161	.872		
	FCONDTIONS	.364	.030	.394	12.218	.000	.489	2.045
	SEFFICACY	.408	.046	.398	8.862	.000	.252	3.966
	CONTROLABILITY	.218	.048	.220	4.553	.000	.219	4.568

a. Dependent Variable: HVALUE

Collinearity Diagnostics[a]

Model	Dimensi	Eigenvalue	Condition Index	Variance Proportions

	on			(Constant)	FCONDTIONS	SEFFICACY	CONTROLABILITY
1	1	3.943	1.000	.00	.00	.00	.00
	2	.031	11.289	.99	.08	.02	.03
	3	.019	14.237	.00	.87	.15	.06
	4	.006	25.175	.01	.05	.83	.91

a. Dependent Variable: HVALUE

```
REGRESSION
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS R ANOVA COLLIN TOL CHANGE
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT UVALUE
  /METHOD=ENTER FCONDTIONS SEFFICACY CONTROLABILITY.
```

Regression

[DataSet1] C:\Documents and Settings\Admin\Desktop\Ch5\F F- 19052011.sav

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	CONTROLABILITY, FCONDTIONS, SEFFICACY[a]	.	Enter

a. All requested variables entered.

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	CONTROLABILITY, FCONDTIONS, SEFFICACY[a]	.	Enter

b. Dependent Variable: UVALUE

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.076[a]	.006	-.004-	.551	.006	.602	3	311	.614

a. Predictors: (Constant), CONTROLABILITY, FCONDTIONS, SEFFICACY

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.548	3	.183	.602	.614[a]
	Residual	94.334	311	.303		
	Total	94.882	314			

a. Predictors: (Constant), CONTROLABILITY, FCONDTIONS, SEFFICACY

b. Dependent Variable: UVALUE

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2.012	.154		13.091	.000		
	FCONDTIONS	.041	.051	.064	.797	.426	.489	2.045
	SEFFICACY	-.014-	.079	-.020-	-.180-	.857	.252	3.966
	CONTROLABILITY	.022	.082	.033	.271	.787	.219	4.568

a. Dependent Variable: UVALUE

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions			
				(Constant)	FCONDTIONS	SEFFICACY	CONTROLABILITY
1	1	3.943	1.000	.00	.00	.00	.00

2	.031	11.289	.99	.08	.02	.03
3	.019	14.237	.00	.87	.15	.06
4	.006	25.175	.01	.05	.83	.91

a. Dependent Variable: UVALUE

```
REGRESSION
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS R ANOVA COLLIN TOL CHANGE
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT EVALUE
  /METHOD=ENTER FCONDTIONS SEFFICACY CONTROLABILITY.
```

Regression

[DataSet1] C:\Documents and Settings\Admin\Desktop\Ch5\F F- 19052011.sav

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	CONTROLABILITY, FCONDTIONS, SEFFICACY[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: EVALUE

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change

1	.945[a]	.894	.893	.273	.894	871.714	3	311	.000

a. Predictors: (Constant), CONTROLABILITY, FCONDTIONS, SEFFICACY

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	195.359	3	65.120	871.714	.000[a]
	Residual	23.233	311	.075		
	Total	218.592	314			

a. Predictors: (Constant), CONTROLABILITY, FCONDTIONS, SEFFICACY

b. Dependent Variable: EVALUE

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-.214-	.076		-2.809-	.005		
	FCONDTIONS	.159	.025	.167	6.314	.000	.489	2.045
	SEFFICACY	.360	.039	.341	9.250	.000	.252	3.966
	CONTROLABILITY	.521	.041	.507	12.836	.000	.219	4.568

a. Dependent Variable: EVALUE

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions			
				(Constant)	FCONDTIONS	SEFFICACY	CONTROLABILITY
1	1	3.943	1.000	.00	.00	.00	.00

2	.031	11.289	.99	.08	.02	.03
3	.019	14.237	.00	.87	.15	.06
4	.006	25.175	.01	.05	.83	.91

a. Dependent Variable: EVALUE

```
REGRESSION
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS R ANOVA COLLIN TOL CHANGE
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT ICPARTICIPATION
  /METHOD=ENTER SVALUE HVALUE UVALUE EVALUE.
```

Regression

[DataSet1] C:\Documents and Settings\Admin\Desktop\Ch5\F F- 19052011.sav

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	EVALUE, UVALUE, HVALUE, SVALUE[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: ICPARTICIPATION

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change

1	.967[a]	.935	.934	.213	.935	1120.682	4	310	.000

a. Predictors: (Constant), EVALUE, UVALUE, HVALUE, SVALUE

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	204.170	4	51.042	1.121E3	.000[a]
	Residual	14.119	310	.046		
	Total	218.289	314			

a. Predictors: (Constant), EVALUE, UVALUE, HVALUE, SVALUE

b. Dependent Variable: ICPARTICIPATION

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-.146-	.075		-1.936-	.054		
	SVALUE	.333	.041	.302	8.125	.000	.151	6.604
	HVALUE	.290	.036	.281	7.999	.000	.169	5.901
	UVALUE	.024	.022	.016	1.071	.285	.995	1.005
	EVALUE	.417	.041	.417	10.106	.000	.122	8.177

a. Dependent Variable: ICPARTICIPATION

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions				
				(Constant)	SVALUE	HVALUE	UVALUE	EVALUE
1	1	4.893	1.000	.00	.00	.00	.00	.00
	2	.076	8.001	.02	.01	.01	.48	.01
	3	.021	15.227	.89	.00	.01	.51	.02
	4	.006	29.401	.00	.34	.89	.00	.08
	5	.004	35.474	.09	.65	.09	.01	.90

a. Dependent Variable: ICPARTICIPATION