Innovation for Women and Economic Development: Facilitating Women's Livelihood Development and Resilience with ICT

Phase Two Study Report

M SCE 03 2013A

Policy Partnership on Women and Economy

08/2015

Chinese Taipei

Table of Contents

Tables

Figures

Chapter 1　　Introduction

1.1 Background

To promote awareness of the need among women in the APEC region to embrace new ICT devices and related services for livelihood development, Chinese Taipei initiated a multi-year project (MYP) entitled "Innovation for Women and Economic Development: Facilitating Women's Livelihood Development and Resilience with ICT" in June 2012 in the Women and Economy Forum (WEF) in St. Petersburg. This project was later endorsed by 14 member economies, PPWE, and SMEWG, and funding was approved by the APEC in May 2013.

This project consists of three phases. The first phase aims to study the effectiveness of ICT-related projects in facilitating women's economic empowerment. The second phase is to prepare possible tools and supporting measures targeted at women-owned businesses and to exchange good/new models. The third phase will combine the findings into a toolkit to promote women's economic empowerment through ICT. It serves to promote the awareness of potential productivity of women entrepreneurs and to discover policy guidelines and powerful ICT tools to economically empower more women in this region.

The first-year report of the MYP consists of a preliminary inventory and a comparative case study that examines, among the four partner economies (Chile, Republic of Korea, the Philippines, and Chinese Taipei), past and ongoing projects seeking to facilitate women's economic empowerment by harnessing ICT-enabled tools. We found that ICT-related projects positive influenced female entrepreneurs in many respects, such as access to market, building networks, and access to capital. We also identified the difficulties women entrepreneurs faced when acquiring knowledge and access to capital were considered to be the root causes behind all difficulties.

In the second-year study, we conducted an experimental study on the effectiveness of deploying ICT-enabled tools to raise women's business potentials using an e-learning program specifically designed for women business. We also explored lessons drawn from recent experiences in crowdfunding as a new innovative ICT platform for startups run by women. We expect the results of these two pilot studies will help us identify the future direction for empowering women through ICT-related tools.

1.2 E-Learning Program

In this experimental study, we used a focus-group approach by selecting 20 women

entrepreneurs participating in a BPW Business Incubator ONLINE Training and Mentoring APEC Project. We conducted two surveys, before and after their e-learning courses, to evaluate the effectiveness of the program, in particular how it is used to connect women to new and wider markets, broaden their social networks and provide them with information that opens up important economic opportunities. These findings will become an important knowledge base and reference that will help in developing e-learning related approaches and tools in the third phase.

According to the research of the first phase in this MYT, ICTs and their related services can provide new opportunities for women's economic empowerment by:

- Creating an environment where women feel comfortable participating in community-based development activities and advocating for their needs and priorities;
- Creating business and employment opportunities for women as owners and managers; and
- Creating business-enabling networks that address women's specific needs, e.g., participating in the "She Economic" program and establish the "Kaohsiung Association of Women Entrepreneurs.

Moreover, e-learning is more cost-effective than most face-to–face teaching lessons if we take into account the course coverage and the opportunity cost of commuting (Strother, 2002; Bates, 2005). E-learning can also provide lifelong learning, social access, and better quality of education as well. Therefore, e-learning has been strongly advocated by governments and private sectors for its potentials to facilitate social and economic development for women (Bates, 2005).

Considering the advantages of e-learning, it seems that e-learning has its potential to become the right approach which could be applied to help women entrepreneurs to conquer their difficulties and fulfill the ultimate goal of economically empowered. Study (Markocić, Porter, and Omolaja, 2012) also argued that women showed better interest toward learning online than men because e-learning is much more flexible than traditional learning. It also shows that women and elderly learners are better motivated and perform better than men during the learning processes.

However, the advantages of e-learning may sometimes turn into barriers for women. For example, lack of face-to-face interaction may decrease their motivation. The requirement of computer and internet connections may cause economic burden, and insufficient self-regulated learning ability may lower the learning effect. Therefore, in order to evaluate whether e-learning could become an effective tool to improve

women's economic status, we adopted an experimental approach and designed two surveys (pre-test and post-test) for our study.

1.3 Crowdfunding Platform

Following the conclusion of the first phase, we discovered that financial barriers are a common problem for women entrepreneurs in APEC region. Moreover, from the first phase research, we found that the rapid deployment of ICTs in the formal banking and financing sectors has not yet become a tool for successively solving the problem of formal financial access to women. Thus, we wanted to find some novel form of funding access for women in need. The nascent "crowdfunding" phenomenon, which came from the idea of "public fundraising" and gradually became a craze in the West, may serve as a new means for women to access funds. Therefore, we conducted a pilot study on whether this new online crowdfunding approach has the potential to become a platform for women startups to obtain the credit they need.

1.4 Team Members

For our e-learning experiment, we contacted a few online learning programs on serving as potential partners in this cross-economy comparison project. We selected the BPW Business Incubator: Online Training and Mentoring Project (BPW Business Incubator Project) because it specializes in business improvement and provides online support for women entrepreneurs/managers running small businesses in Australia. The BPW project was originally supported by Belmont BEC, TCF Global, and Australian Federation of BPW. Through the help of Ms. Carol Hanlon, the founding manager and facilitator at the Belmont Business Enterprise Centre Inc. (BEC), as well as Textile Clothing Footwear Resource Centre of Western Australia Inc. (TCFWA), we obtained cooperation to launch the "BPW Business Incubator ONLINE Training and Mentoring APEC Project" in order to conduct our study examining the effectiveness of e-learning for women.[1]

For the crowdfunding platform, we obtained the support and cooperation from one of the most well-known crowdfunding platforms in Chinese Taipei, FlyingV. Tim Cheng, the CEO of FlyingV, assisted us on identifying project creators for our study.

---

[1] This training and mentoring program provided 20 hours of free on-line business tutoring and one–to-one mentoring with a designated mentor. There was also an additional 200 hours of small business training, while the program covered more than 100 topics to meet various types of business-related needs. Also, a self-assessment form was provided before the participants entered the program for self-evaluation.

We held three seminars during the period of the second phase research, introducing crowdfunding platform to women entrepreneurs, and assisted participants who were interested in using crowdfunding to raise startup capital for their projects. To discover the difficulties women entrepreneurs faced using crowdfunding, we observed the process of creating the projects in the platform. We hoped to have several cases to complete our study, but the number of successful cases was lower than expected.

1.5 Structure of the Report

This report focuses on the outcome of two experimental studies. Chapter 2 provides the survey design of our e-learning experimental study on e-learning. Chapter 3 describes the outcomes of the pre-learning survey. Chapter 4 discusses the survey results, including the feedback from women entrepreneurs, after joining the e-learning program. Chapter 5 discusses the results of crowdfunding. Chapter 6 concludes with the future plan and policy recommendations.

Chapter 2   Survey Design

For the study of the e-learning/mentoring program, we used a quasi-experimental design with a pre-test and post-test survey but no comparison group. In other words, instead of comparing women who participated with those who did not, we compared the participants before and after they participated in the e-learning/mentoring program. This was partly due to our time and budget constraints and partly because our study area covered several member economies. Therefore, our results may not be used to infer directly the causal relationship between e-learning and the enhancement of these participants' businesses.

To minimize the data limitation problem, we carefully selected our participants for the focus group. Our participants came from 20 women-led SMEs, all carefully selected by our research partners in five member economies (Australia, Chile, Republic of Korea, the Philippines, Chinese Taipei) and screened by their filling a self-assessment form (see footnote 1) before entering the experiment. Some of the participants were interviewees in our Phase I case studies. The program offered more than 50 courses on different topics, and participants could choose topics based on their needs and the advice from the mentor. Each of them completed 20 hours of online courses and 1 hour of online mentoring within the span of six months.

Because we needed to conduct both pre-test and post-test surveys, the data collection took place from August 2014 through January 2015. All participants filled up a pre-test questionnaire at the beginning and a post-test questionnaire after they finished all courses. The questionnaires were composed of both quantitative and open questions. The former could help us collect data for quantitative analysis and the latter could help us collect different opinions. This chapter will thus provide details of our survey design and the characteristics of the 20 women participants.

2.1 Questionnaire of the Pre-test Survey

The main purpose of the pre-test questionnaire was to reveal what barriers existed before these participants started a business and what challenges they encountered afterwards. A recent study by Rey-Martí, Tur Porcar and Mas-Tur (2015) found that women's entrepreneurial motivations relating to business concepts (such as risk propensity) instead of family concerns (such as work-life balance) make business survival likelihood much greater. Therefore, we also collected items of personal background information including their family and line of their business, as well as their level of exposure to business networks and preferences in ICT devices.

In the San Francisco Declaration, four "dimensions" are identified as hampering women from full participation in business: access to capital, access to markets, capacity and skills building, and women's leadership. Therefore, we tried to cover all four of these dimensions in our questionnaires. In Table 2.1, we grouped the questions and provided a mapping of the questions with the four dimensions identified in the San Francisco Declaration. The pre-test questionnaire may be found in Appendix A.

Table 2.1 Mapping of challenges in the pre-test questionnaire with those in the San Francisco Declaration

Challenges in San Francisco Declaration	Challenges in pre-test questionnaire
• Access to capital	• Financing • Growth performance
• Access to market	• Access to business information • Find the right contacts
• Skills and capacity building	• Skill for foreign market • Marketing advices
• Women's leadership	• Management skill • Gender discrimination • Self-confidence • Family support • Work-life balance

2.2 Questionnaire of the Post-test Survey

The post-test survey was designed to answer the following three sets of questions:
1. How does this e-learning platform function?
2. What were participants' expectations and how effectively have they been met?
3. How do participants interact with their mentors, facilitators, and other participants?

To answer these three questions, the post-test survey was divided into sections on their experience of interaction with ICT devices, attitudes toward interaction with other participants and mentors, learning results, and their satisfaction with and expectations for e-learning. In addition, to better understand their needs, suggestions, and expectation to e-learning, the post-test included both qualitative and quantitative questions. The mapping of questions for three core questions is shown in Table 2.2.

Table 2.2 Mapping of Questions for Three Core Questions

Q1: How did this e-learning platform function?
A. Function of E-learning System
1.1 Was it easy to sign onto the system?
1.2 Was it easy to navigate the system?
1.3 Was it easy to access course materials?
1.4 Was it easy to send/receive emails?
B. Human-ICT Interaction
2.1 My internet connection and computer are sufficient for me to take this e-learning program.
2.2 I need technical support to access my online material.
2.3 This e-learning program linkage is always workable.
2.4 Learning via the Internet allowed me to manage my time more flexibly.
2.5 Learning via the Internet is more comfortable than learning with people.
Q2: What were participants' expectations and how effectively have they been met?
A. Course Content
4.1 Filling the self-assessment form was helpful before I started the course.
4.2 The list of topics I could choose from was sufficient to meet my needs.
4.3 The course materials were well organized and sequenced properly.
4.4 The course materials were clear and understandable.
4.5 The language used was at an appropriate reading/listening level.
4.6 The course materials were interesting and engaging.
4.7 The course materials can really help my business.
4.8 The course materials helped me to improve my communication skills.
4.9 The 20 hour e-learning program is suitable.
B. Satisfaction
5.1 I have the satisfaction of improving my personal knowledge and skill.
5.2 I have completed the challenging course activities.
5.3 I enjoyed learning about an interesting subject.
5.4 I feel more confident after completing the e-learning program
5.5 I am willing to use e-learning in the future.
5.6 I will recommend e-learning to others.
Q3: How did participants interact with their mentors, facilitators, and other participants?
A. Interaction with Facilitators/Mentors
3.1 Facilitators/mentors could be contacted by emails or Skype for questions easily during the program.
3.2 Facilitators/mentors provided me with helpful information and explanations regarding my questions within a reasonable time.
3.3 Facilitators/mentors' advice was workable.
3.4 I needed more time to contact with facilitators/mentors.
B. Interaction with Participants
3.5 Networking with other participants of the program is necessary.

According to Table 2.2, we evaluated the effectiveness of the e-learning program from two aspects: the function of e-learning platform and the interaction between the participants and the platform. The former focused on whether the hardware and software used in the e-learning platform were in line with the participants' business needs, while the latter tried to compare the on-line learning environment with the traditional face-to-face classroom experience. The comprehensive post-test questionnaire may be found in Appendix B.

2.3 Characteristics of the participants

This section presents basic information on our 20 participants, including their demographic and family background, business status, and ICT literacy.

2.3.1 Demographic background

Generally, most of our participants were aged between 20 and 60 years of age. According to Figure 2.1, the age 30-39 group made up the largest proportion (45 %) while the age 40-49 and 20-29 group took 25% each.
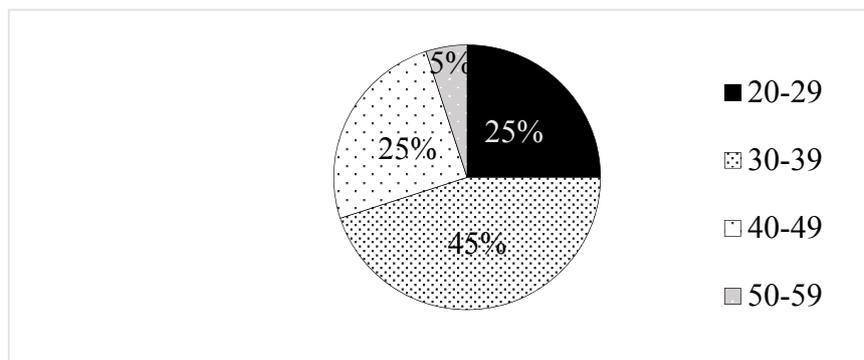
Figure 2.1: Ages of Participants

As for educational background, as shown in Figure 2.2, more than half (55%) of them had bachelor's degrees, and another 30% had master or higher degrees. In other words, about 85% of them already had a relatively high level of education.
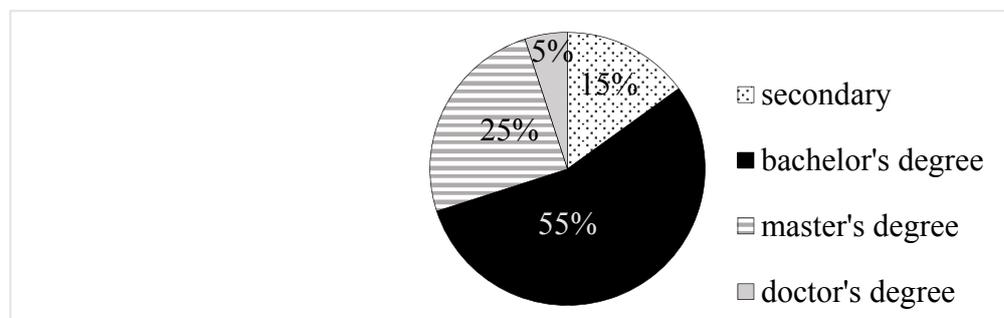
Figure 2.2: Level of Education

11
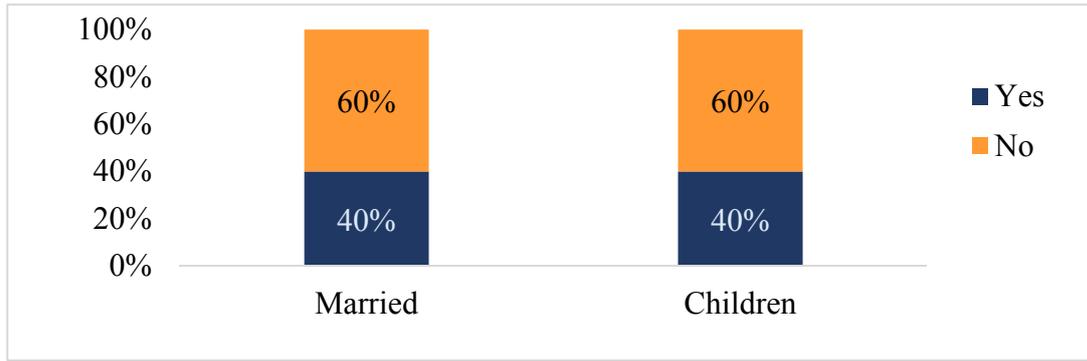
Figure 2.3: Marital Status and Children

Figure 2.3 shows that about 40% of our participants were married, and 40% of them had children. There were also a few single mothers in our sample.
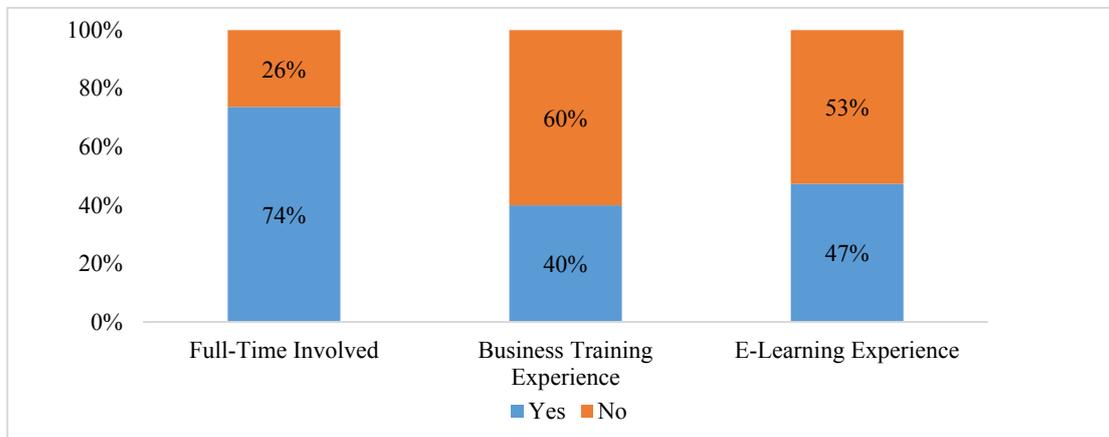
Figure 2.4: Time Usage and Learning Experience

We also asked participants about prior training experience on running their business. In the questionnaire, questions on business training experience were limited to a certain period (the previous year) while the question on e-learning experience did not specify the time period. Figure 2.4 shows that about 74% of participants were devoted full-time to their business, but less than half had recent business training, and only 47% had prior e-learning experience.

2.3.2 Business Status

The business status of our participants is presented in Figure 2.5. Generally speaking, the majority of the businesses were first-time startups, and most were legally registered, under sole ownership, and had employees. However, less than half of them engaged in international trade or had joined a business organization. The sample

average of the duration of their business is about 41 months.[2]
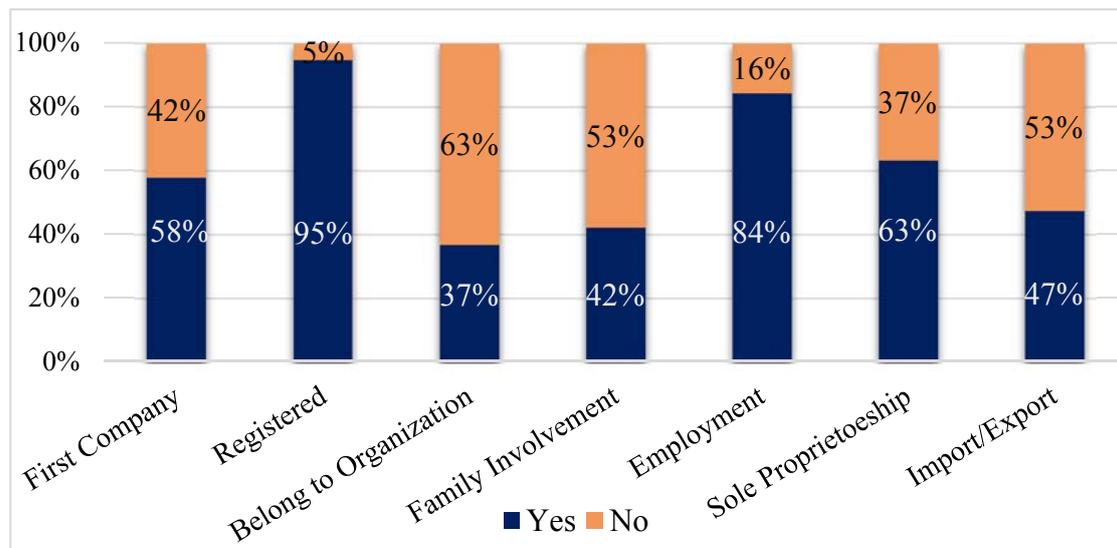
Figure 2.5: General Business Status
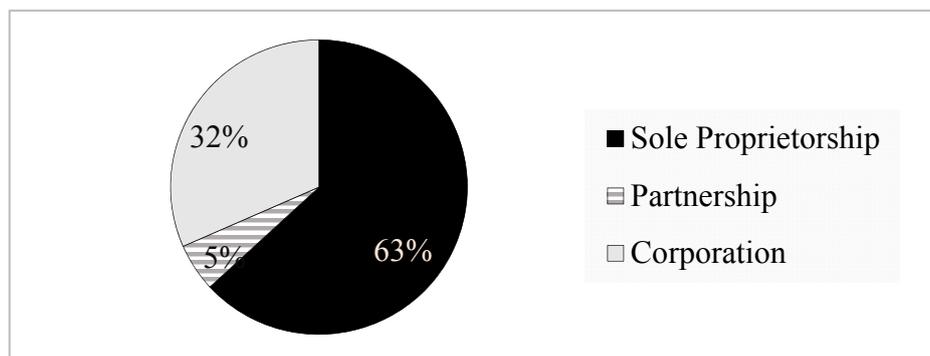
Figure 2.6: Ownership
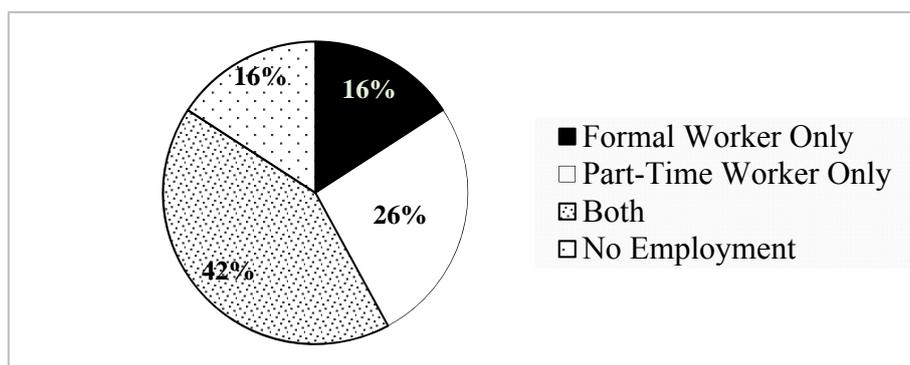
Figure 2.7: Employment

---

[2] The longest duration of the participant's business was 114 months, and the shortest one had just started her business one month before the experiment. While the average period of their business was 41 months, the standard deviation was 38 months.

Figure 2.6 shows three main kinds of ownership among our participants: sole, partnership, and corporation. Sole ownership accounted for 58%, corporate 32%, and partnership only 10%.

As shown in Figure 2.7, approximately 84% had hired at least one employee, with 26% of them hiring part-time workers. Only 16% of them had no employees. Furthermore, 60% of the participants who hired employees reported that they hired fewer than five workers. In other words, according to the definition by Australian Bureau of Statistics[3], most of our participants were micro-businesses.
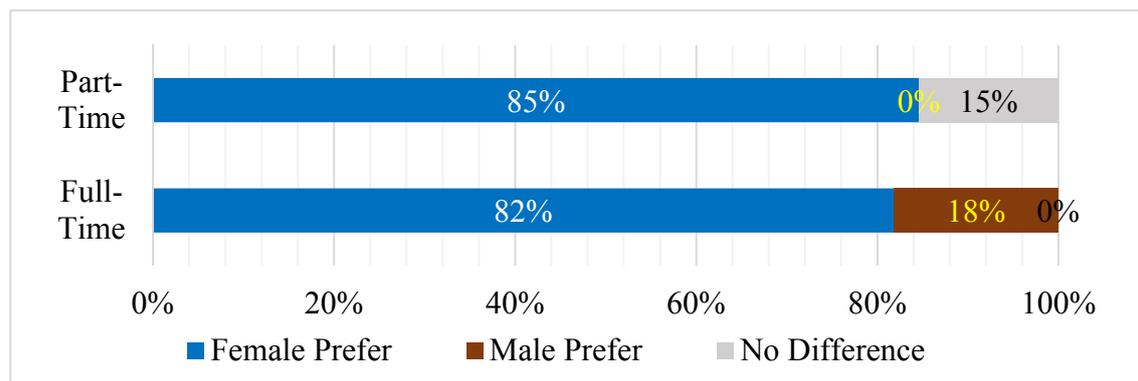
Figure 2.8: Gender Composition of Employment[*]

(*"No difference" indicates that participants hired the same number of male and female workers.)

As indicated in Figure 2.8, 82% of the participants hired females as full-time workers. As for the part-time workers, females also accounted for 85%. Figure 2.8 shows that our participants were more likely to give employment opportunities to female workers.
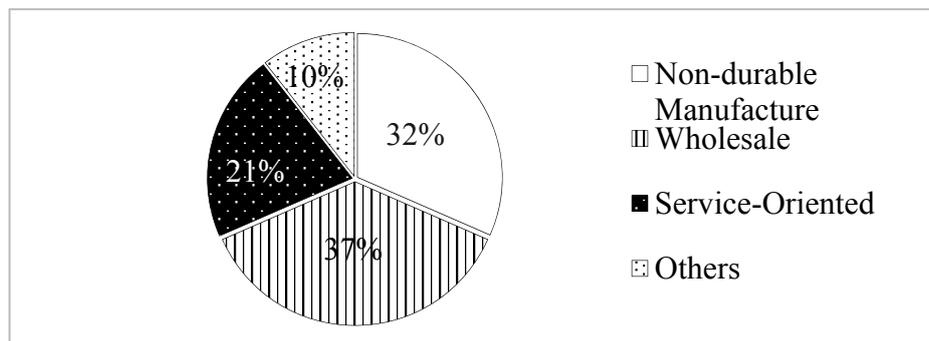
Figure 2.9: Industries

---

[3] A "small" business refers to business hiring 5 to 19 employees, while a "micro" business has fewer than 5 employees or consists only of a self-employed individual owner. See: Australian Bureau of Statistics (http://www.abs.gov.au/ausstats/abs@.nsf/mf/1321.0), Accessed at 2015,6,22.

Participants classified their businesses lines in one of four categories: manufacturing, wholesale, service-oriented, and others. Figure 2.9 shows that wholesale accounted for 37%, manufacturing 32%, and services 21%.
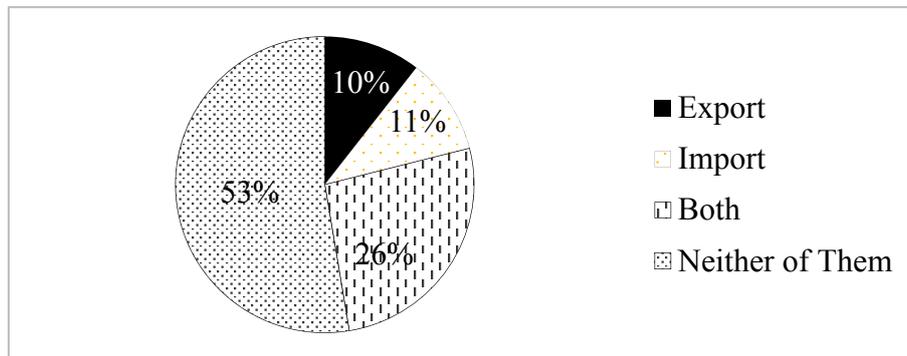
Figure 2.10: Import/Export

Most of our participants targeted their business at the domestic market. As shown in Figure 2.10, about 53% of them did no importing or exporting business. Only 11% engaged in importing, 10% exporting, and 26% both importing and exporting.

2.3.3 Utilization of ICTs

Figure 2.11 shows that our participants not only had a high level of ICT literacy but also significant preferences concerning ICT devices. More than 70% of them used smart phones and 90% used personal computers frequently. Tablet computers, telephones, or fax machines were not used as frequently.
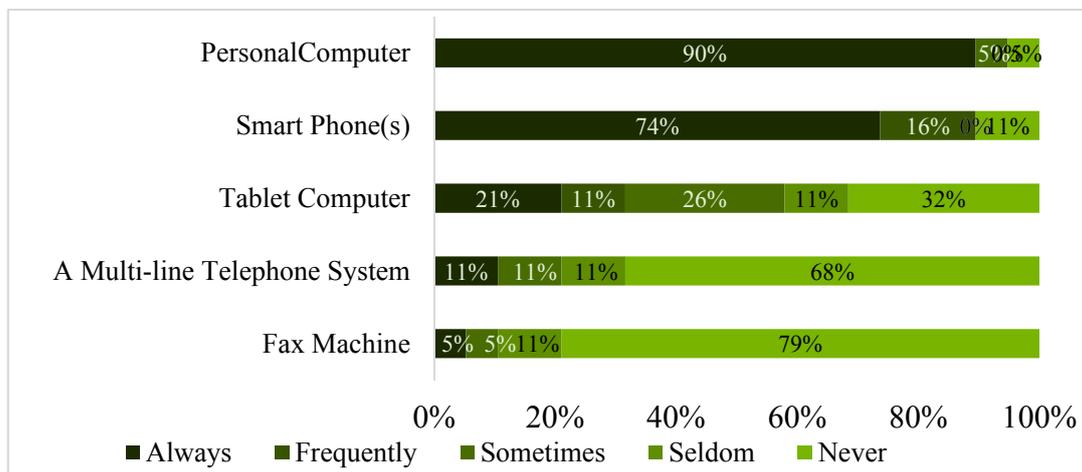
Figure 2.11: Frequency of Utilization of ICTs

Figures 2.12 and 2.13 show how often the participants' use ICT to promote their business and search for suppliers. Figure 2.12 shows a significant gap between the use of online social media versus other methods. About 90% of the participants frequently

used online social media for promotion. However, only 44% to 50% frequently promoted their business through public relations or printed media. Furthermore, almost 90% of them seldom or never used mobiles as promotion tools.
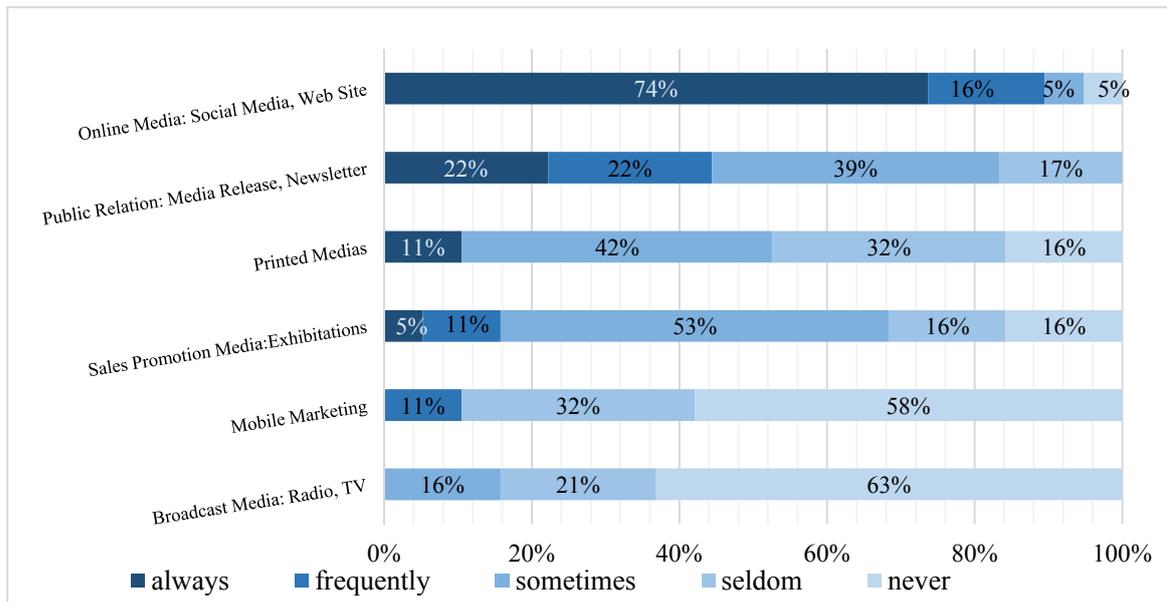
Figure 2.12: Business Promotion Approaches
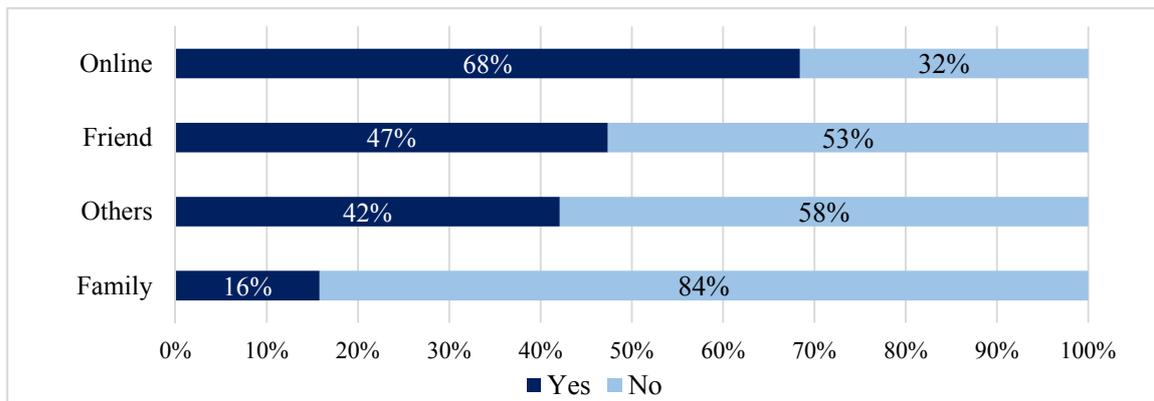
Figure 2.13: Searching for Potential Suppliers*

(*"Others" includes business network, trade show, CEO course…etc., methods other than the listed alternatives)

Figure 2.13 shows that 68% of participants used online methods to search for suppliers; 47% of participants relied on friends, and 42% on other contacts. Therefore, besides online surfing, participants relied significantly on their social networks to gather information on potential suppliers.

16

To conclude, the general portrait of our participants could be described as below:

30-50 years old		Domestic business
Well-educated		Micro scale
Preferred female workers		Sole proprietorship
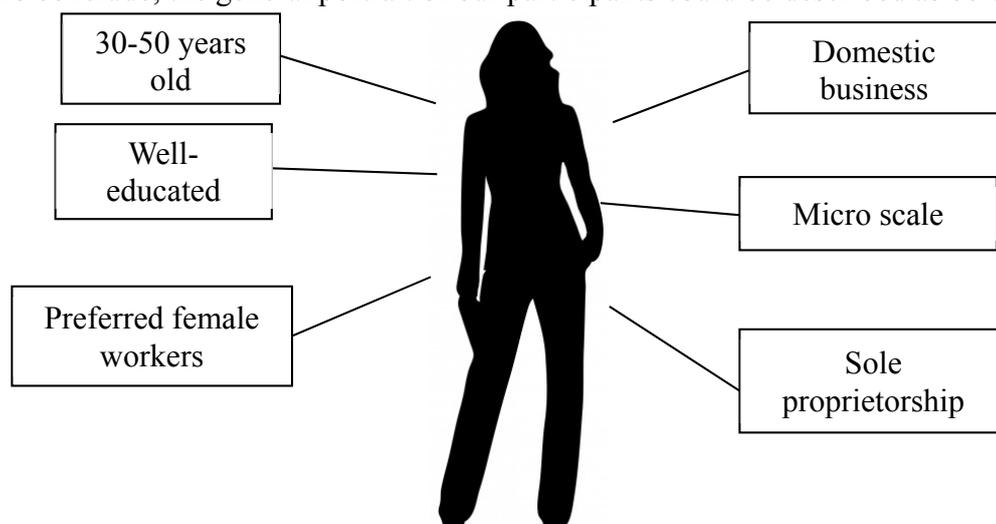
This profile is quite similar to those developed in various studies in the developing world (Chen, 2001; National Sample Survey Organization, 1999; Peebles, 2005; Wasihun and Paul, 2010) that suggest that women-led business are mostly home-based microenterprises under sole proprietorships. However, we wished to enrich our sample with women-led businesses not yet at the "livelihood" or "survival" levels that might exhibit ICT-enabled growth. Therefore, our participants in general had higher education levels, high ICT literacy, and had hired one or more workers.

WHY NOT MOBILES?

Although our sample size is too small to explore to what degree ICTs enable women-led small and micro businesses, we can still identify some linkages between ICT usage and their business activities by comparing Figures 2.11~2.13. Most participants were familiar with personal computers (90%), and up to 85% used online social media to promote their business. We also found that 68% of them used online contacts to search for potential suppliers. However, 90% of them did not utilize mobile devices for marketing their products despite their high degree of familiarity with mobile phones (85%). These results suggest that future programs should pay greater attention on keeping women entrepreneurs up to speed with ICT-related (esp. mobile phone) technological advances. Program designers, moreover, should find specific factors that can mitigate the impact of ICTs on women-led businesses.

Chapter 3   Pre-Test Survey Results

The focus of this chapter is to use the results from our pre-test survey to analyze the major obstacles that participants face before and after they build their business. Our analyses basically follow the four dimensions identified in the San Francisco Declaration: access to capital, access to market, skill and capacity building, and women's leadership.

3.1 Obstacles to Starting a Business

Figure 3.1 shows the percentages for the expectation of various obstacles related to building a business, ranked in decreasing degrees of severity: "very severe," "major," "moderate," "minor," or "not at all." "Lack of financing" clearly had the highest percentages as a "very severe" and "major" obstacle. Because most of the participants had small-scale businesses, this result is in line with other studies in which lack of financing is found to be the most important obstacle for small firms.

Participants also listed "Find the right contacts," "Access to business information," and "Lack of advice," and "Lack of management skill" as common obstacles for their businesses. This illustrates that the participants understood that beyond having a product, it is important to have connections and do networking. In comparison, less than 50% of participants considered "Work-life balance," "Lack of skill in foreign markets," "Gender discrimination," and "Lack of self-confidence" as major or moderate obstacles.
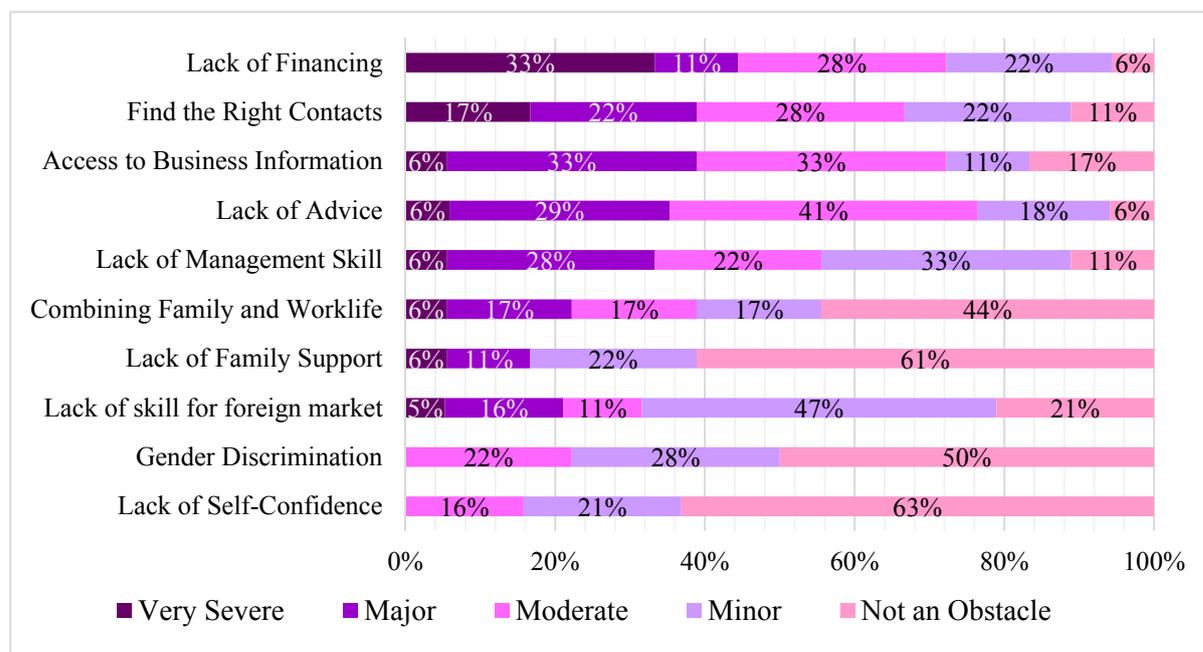
Figure 3.1: Obstacles before Starting Business

If we compare these results with the four barriers in the San Francisco Declaration, "lack of financing" corresponds to the barrier of "access to capital", while "lack of contacts and information" corresponds to "access to markets." Also, "lack of advice" corresponds to the barrier of "capacity and skills building," and "lack of management skill" to "women's leadership." Therefore, the obstacles most participants identified were very much in line with the San Francisco Declaration's four priority areas for the success of APEC women entrepreneurs.

3.2 Obstacles in Running a Business

This section presents the obstacles participants perceived after they set up their business. Because of the different situation (starting a business versus running a business), the obstacles in the questionnaire were slightly different from those listed in Figure 3.1. Figure 3.2 shows that "find the right contacts" (16%), "lack of growth" (11%), and "lack of time for training" (11%) were the most severe obstacles they faced after starting their business. Among the three most severe obstacles, 47% of participants also selected "lack of time for training" (39%) as a major obstacle, followed by "lack of growth" (22%) and "access to business information" (17%).
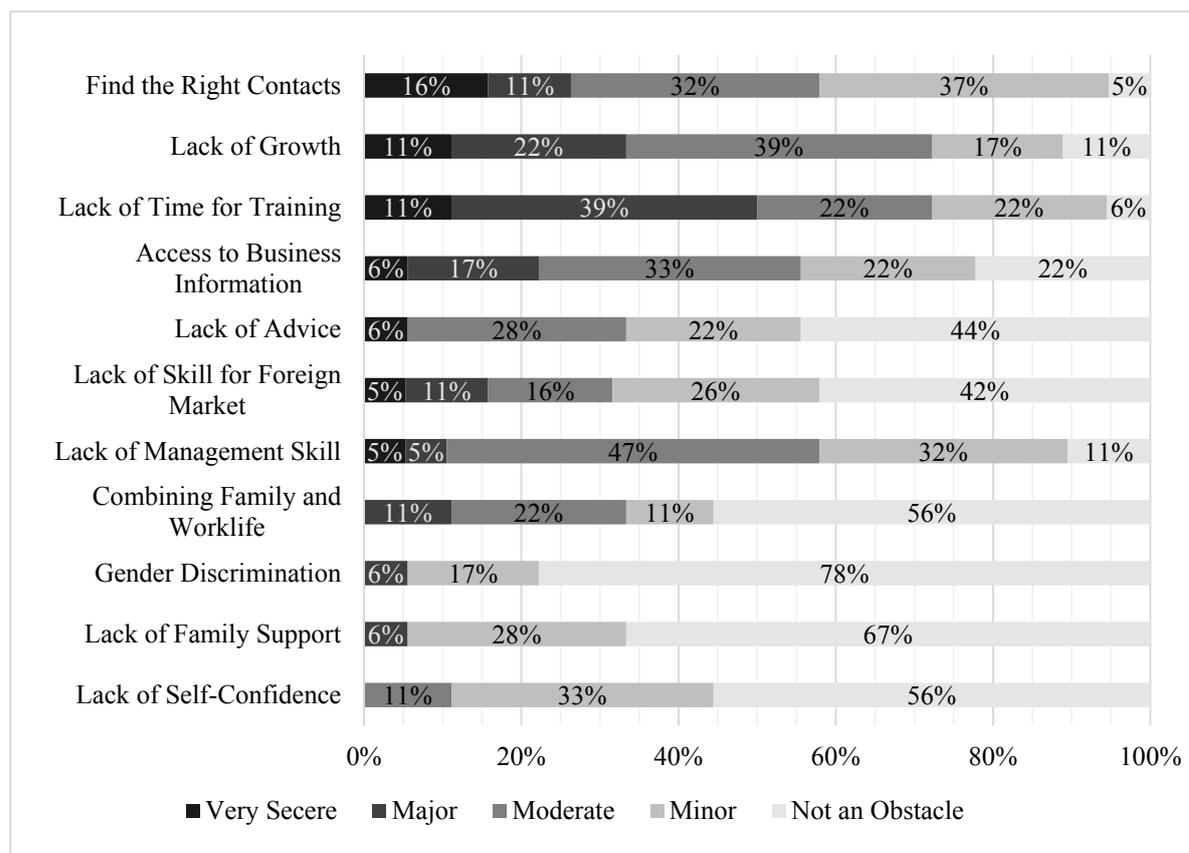
Figure 3.2: Obstacles after Starting a Business

To sum up, the main obstacles these participants encountered after business started include "find the right contacts", "lack of growth", "lack of time for training", and "access to business information". These four obstacles can be mapped into four barriers in the San Francisco Declaration (access to market, capacity building, and women's leadership).

3.3 Comparison: Before and After

In this section, we shall compare the obstacles before and after participants build their businesses. As shown in Figure 3.3, "finding the right contacts" and "access to business information" were listed as common obstacles before the business started and were still perceived as the main obstacles afterwards. No significant change in this regard is observed. This finding suggests that although these participants had high ICT literacy, they had not yet learned or become familiar with how to use ICTs to search for market information or enable an expansion of their businesses.
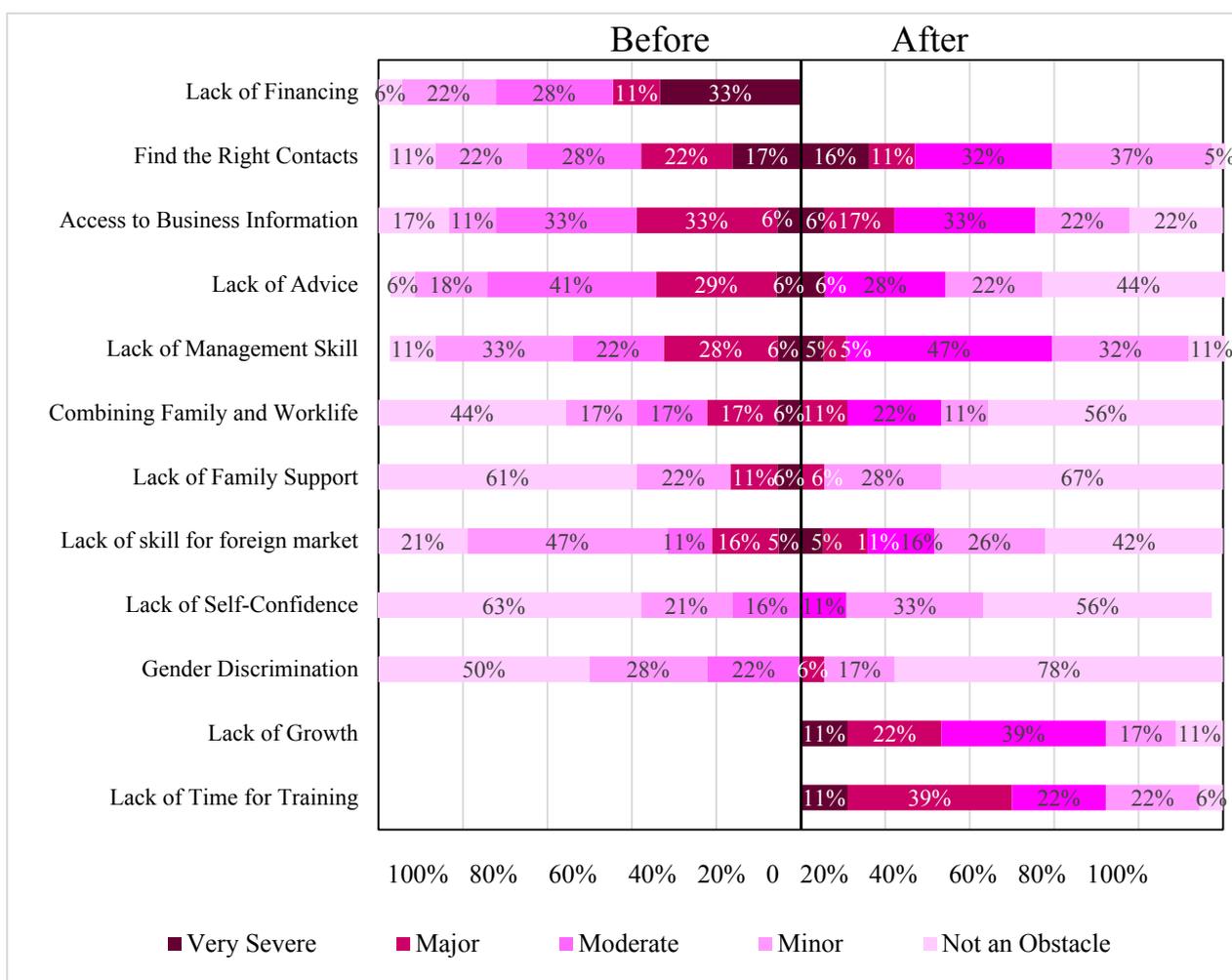
Figure 3.3: General Comparison of the Obstacles: Before and After

Next, although "lack of advice" and "lack of management skills" were perceived as main obstacles by a majority of participants before their businesses started, they were no longer main obstacles afterward. However, they were replaced by "lack of growth" and "lack of time for training." Therefore, our results highlight the importance of enhancing women's entrepreneurship in the areas of business expansion and continuity skills.

Third, as shown in Figure 3.3, the percentage of participants considering "gender discrimination" a serious obstacle drops from 22% to 6% after start-up. Participants who reported lack of self-confidence decreased from 16% to 11%, and up to 89% of them did not consider themselves to lack self-confidence. No participants considered "lack of family support" an obstacle after their business started, but 17% of them had this problem before the start-up.

Work-life balance is often regarded as the main obstacle for women building their own business. From Figure 3.3, however, we see that the percentage of participants who considered "combining family and work life" as a severe/major obstacle decreased from 23% to 11% after the start-up. This decrease suggests that combining family and work-life ceases being a big concern as long as they can obtain good management skills. Further research should be done to explore how ICTs might improve women's productivity and their lives when they own a small business.

3.4 Conclusions

A recent study by Rey-Martí et al. (2015) examines the role of five key motives that drive women to create businesses: propensity for risk, finding a work-life balance, desire to develop business skills, need to seek self-employment, and desire to earn more than in paid employment. Their results shows that women's entrepreneurial motivations relating to business concepts (such as desire to develop business skills) instead of family concerns (such as finding a work-life balance) make business survival likelihood much greater. Although we have a limited sample, the results of our pre-test survey can still reflect some facts about the role of e-learning in starting and upgrading women-led business.

From our survey results, we found that the main obstacles participants had are as follows:

1. Before participants started up their business, they considered "lack of financing," finding the right contacts," "access to business information," "lack of advice," and "lack of management skill" the major obstacles.

2. After they started up their business, they found "lack of growth," "finding the right contacts," "access to business information," "lack of time for training," and "lack of management skill" to be major obstacles.

3. These obstacles are in line with the four barriers in the San Francisco Declaration: access to capital, access to market, capacity and skills building, and women's leadership. Most of the participants had problems with financing, access to market, business skills, and leadership both before and after, but the rankings varied slightly before and after they started the business.

Chapter 4　Post-Test Survey Results

In this chapter, we report the results of the post-test survey. We also evaluate the effect of the e-learning by comparing the pre-test and post-test results. The three main questions in the post-test survey are:

1. How did this e-learning platform function?
2. What were participants' expectations and how effectively were they met?
3. How did the participants interact with their mentors, facilitators, and other participants?

In our questionnaire design, a typical 5-level Likert scale was used to provide close-ended responses. The results of the post-test are presented in section 4.1 and the evaluation of the e-learning and the comparison in section 4.2. In section 4.3, the open questions will be discussed.

4.1 Function of the E-learning Platform

One of the core questions in the post-test was how did this e-learning platform function? To answer it, we examined two areas: how the e-learning platform functioned, and the interaction between participants and e-learning platform (human and ICT). The results are presented in Tables 4.1 and 4.2 respectively.

Table 4.1: Function of E-learning Platform

	Very Easy to Use	Easy to Use	Undecided	Hard to Use	Very Hard to Use
1.1 Was it easy to sign onto the system?	35%	45%	10%	10%	0%
1.2 Was it easy to navigate the system?	35%	55%	10%	0%	0%
1.3 Was it easy to access course materials?	35%	30%	20%	15%	0%
1.4 Was it easy to send and receive emails?	55%	35%	10%	0%	0%

Table 4.2: Human-ICT Interaction

	Totally Agree	Agree	Undecided	Disagree	Totally Disagree
2.1 My Internet connection and computer are sufficient for me to take this e-learning program.	50%	35%	10%	0%	5%
2.2 I need technical support to access my online material.	15%	25%	0%	35%	25%
2.3 This e-learning program linkage is always workable.	35%	25%	15%	25%	0%
2.4 Learning via the Internet allowed me to manage my time more flexibly.	65%	25%	0%	10%	0%
2.5 Learning via the Internet is more comfortable than learning with people.	35%	20%	20%	25%	0%

I.   Function of the E-learning Platform

According to Table 4.1, most of participants appreciated the stability of the e-learning system platform. Over 80% of them agreed that it was easy to sign on to and navigate the e-learning system, as well as send and receive emails. Access to course material earned less satisfaction from participants, and 65% of them had problems with accessibility.

II.   Human-ICT Interaction

Table 4.2 shows that 85% of the participants agreed they had sufficient Internet connection and computer devices to join the e-learning program. Around 60% of them also agreed their connection to the program was workable. Only 40% reported a need for technical support to access their online materials. Overall, participants had no serious problem accessing the e-learning platform. Up to 90% of participants also agreed that learning via the Internet helped them to manage their time more flexibly.

However, only 55% of the participants agreed that learning via the Internet was more comfortable than learning with people. Some may have had technical barriers to using the Internet as a learning tool, and others may have needed more time to adapt to the e-leaning environment.

4.2 Learning Outcomes

To understand participants' level of satisfaction and expectations for e-learning, we designed both quantitative and qualitative questions. We present the results of the quantitative questions in two areas, satisfaction with course content and satisfaction with the e-learning program, in Tables 4.3 and 4.4 respectively.

I.   Course Content

Table 4.3 shows that 90% of our participants agreed the self-assessment form they filled before starting the program was indeed helpful. This form was originally designed to help them understand their needs. As for the diversity of the course material, 90% of the participants agreed they had sufficient course topics in the material of the e-learning program. Almost 70% also agreed that the materials were well-organized and sequenced properly. Similarly, 80% considered the course materials to be clear and understandable, 65% thought the course materials were interesting and engaging, and 75% agreed the language used was at an appropriate level. However, it should be mentioned that although 80% agreed that e-learning could help their business, only 60% agreed that the course improved their communication skills. Finally, 75% agreed that 20 hours' e-learning per week was suitable for them.

Table 4.3: Satisfaction of Course Materials

	Totally Agree	Agree	Undecided	Disagree	Totally Disagree
4.1 Filling the self -assessment form is helpful before I starts the course	30%	60%	5%	5%	0%
4.2 The list of topics I can choose from is sufficient to meet my needs.	25%	65%	5%	5%	0%
4.3 The course material were well organized and sequenced properly.	30%	40%	20%	10%	0%
4.4 The course materials were clear and understandable.	35%	45%	10%	10%	0%
4.5 The language used were at an appropriate reading/listening level.	35%	40%	20%	5%	0%
4.6 The course material were interesting and engaging.	35%	30%	30%	5%	0%
4.7 The course material can really help my business.	40%	40%	15%	5%	0%
4.8 The course material help me to improve my communication skills.	30%	30%	20%	20%	0%
4.9 A 20 hours e-learning program is suitable.	45%	30%	10%	15%	0%

II.   Satisfaction of e-learning program

We also survey their satisfaction over e-learning program. From Table 3.4, we find participants in general are highly satisfied with this e-learning experience. Up to 95% of them are satisfied with their knowledge and skill improvements, and 70% of them meet the challenges from the course activities. Almost all participants consider the topics are all interesting and 70% of them thought they have more confidence after taking this e-learning program. Therefore, it is not surprising that up to 95% of them are willing to use e-learning in the future and would recommend it to others.

Table 4.4: Satisfaction with the E-learning System

	Totally Agree	Agree	Undecided	Disagree	Totally Disagree
5.1 I have the satisfaction of improving my personal knowledge and skill.	45%	40%	5%	10%	0%
5.2 I have completed the challenging course activities.	35%	40%	15%	5%	5%
5.3 I enjoy learning about an interesting subject.	55%	45%	0%	0%	0%
5.4 I feel more confident after having e-learning program	30%	40%	20%	10%	0%
5.5 I am willing to use e-learning in the future.	55%	40%	5%	0%	0%
5.6 I will recommend e-learning to others	50%	45%	5%	0%	0%

4.3 Interactions and Networking

Table 4.5 presents the survey results on human interaction in this e-learning program. We learned that most of our participants were satisfied with the interaction experience in e-learning. First, as for interaction with their mentor/facilitators, up to 95% agreed that the program mentors were easy to contact. Second, 85% also agreed that mentors in the e-learning program provided a great help to their business, and about 70% agreed that the interaction with other members was necessary. Again, 85% considered the information and advice from mentors were indeed workable.

Finally, there were diverse opinions regarding the time available for interaction. Table 4.5 shows that about 45% of the participants thought they needed more time to interact with the facilitator/mentor, while 55% did not think so. Also, 35% of the participants were either not sure of or did not need to have more interactions with other participants. Therefore, the human-to-human interactions were helpful for learning, but the needs varied among individuals.

Table 4.5: Satisfaction with Mentoring and Networking

	Totally Agree	Agree	Undecided	Disagree	Totally Disagree
3.1 Facilitators/mentors can be contacted by emails or skype for questions easily during program.	70%	25%	5%	0%	0%
3.2 Facilitator/mentors provide me with helpful information and explanations regarding my questions within reasonable time.	60%	25%	15%	0%	0%
3.3 Facilitator/mentors' advice was workable.	60%	25%	15%	0%	0%
3.4 I need more time to contact with facilitators/mentors.	20%	25%	0%	55%	0%
3.5 Networking with other participants of the program is necessary.	35%	35%	10%	20%	0%

4.4 Cross-Comparison between Pre-test and Post-test

In this section, a cross-comparison will be made between the pre-test and the post-test results. This comparison mainly focuses on the following three questions in the post-test survey:

1. How does this e-learning platform function?

2. What were participants' expectations and how effectively were they met?

3. How did the participants interact with their mentors, facilitators, and other participants?

4.4.1 Function of the E-learning Platform

I.   Flexibility of E-learning

On the basis of the pre-test results in Chapter Two, although participants needed less advice after they started their business (drop from 76% to 34%), they still had a continuous need for skills with foreign markets (32%) and management (52%). Furthermore, up to 72% of participants reported lack of time for training. In the post-test, 90% of participants agreed that e-learning could help them flexibly manage their time, and 75% of them agreed that 20 hours' e-learning is suitable.

By comparing the pre-test and the post-test results, we find that e-learning can serve to solve the "time" problem. One of the most important functions of online e-learning is that it allows users to obtain needed information or tools without the limitations of time and place. Women entrepreneurs often find it more convenient and can thus manage their time more flexibly.

II.   Work-life Balance

In the pre-test, we find that our participants did not consider work-life balance as a serious problem for their business. In the pre-test, about 40% of participants considered "combining family and work life" as an obstacle, but the percentage dropped to 33% after their business start-up. In the post-test, we find that only one-fifth of participants selected work-life balance among their e-learning materials. Therefore, we believe that work-life balance is a continuing problem for some participants but not a major issue for most of them.

4.4.2 Learning Outcomes

I.   ICT Usage and Promotion

The pre-test results indicate that most of our participants were familiar with smart phones (90%), computers and laptops (90%), but they rarely used smart phones to promote their business (11%). Comparing these pre-test results with the course topics which were chosen, many of our participants chose courses on how to promote their business through smart phones (the topic: App Your Business). Therefore, although mobiles can help users to reach out anytime and anywhere, our finding suggests that there are still some barriers for women entrepreneurs in adopting mobiles as business tools or marketing devices.

II.   Need for Marketing Skill

Many participants chose marketing- related courses in the e-learning program. In

the pre-test, about 80% of participants reported social media to be their most familiar promotion tools. In the post-test, about 80% of them agreed that e-learning could really help their business. Hence courses like "Get Noticed by the Media" and "Tips on Using Social Media in Your Business" were welcomed by many participants, and 65% (13 out of 20) of our participants chose these courses. From the comparison, we learn that our participants perceived marketing as important and tried to use e-learning and social media to help themselves perform better.

III. Human Resource Management

In the pre-test, we found that participants who expected to study human resources usually had hired more than three employees in their business (including formal employees and part-time workers). In the post-test, some participants expressed needs to learn more about how to manage human resources, but the e-learning program covered fewer issues in human resource management. This result indicates that the women entrepreneurs perceived human resource management as critical to their business continuity. Thus the e-learning program should cover broader and more practical human resource topics.

IV. Management Skill

In the pre-test, 56% of the pre-start-up participants and 57% of the after start-up participants considered lack of management skill as an obstacle. In the post-test, some participants reported that their expectation of learning management skills was satisfied. In addition, in the course topic selection, we find that up to 75% of participants chose management-related courses like "Writing Your Business Plan" and "Building a Successful Business." This suggests that women entrepreneurs perceived management skills to be essential, and that e-learning can be an effective tool for helping them to upgrade their skills in this area.

V. Solution for Financial Problems

The pre-test results show that financing was one of the most serious problems for most participants. Up to 72% of them lacked enough capital to start their business, and 72% reported having difficulty increasing their revenue. In the post-test survey, we also find that the courses about financing were very much welcome by women entrepreneurs. For example, 75% (15 out of 20) of the participants selected "How to Grow Your Business", 80% (16 out of 20) chose financial courses such as "Building a Successful Business," "Marketing on a Budget," and "Pricing Costing Cashflow." Therefore, financing literacy and skills should be a foundation and a priority in designing the e-learning program for women-led small businesses.

VI. Self-Confidence

According to the pre-test, about 16% and 11% of participants considered "lack of self-confidence" to be an obstacle. In the post-test, however, about 70% agreed that the online e-learning courses made them feel more confident. Comparing the pre-test and post-test results in this regard shows that e-learning has the potential for women entrepreneurs to enhance their confidence and equip them with greater competence in using their knowledge and skills to build/expand their business.

4.4.3 Interaction and Networking

I. Human Interactions

In the previous sections, we learned that our participants were in general satisfied with having interaction with their facilitators and mentors. Up to 85% of the participants agreed that the mentors and their advice were helpful. However, their opinions varied on the importance of the human interactions.

Although 85% of participants agreed the mentors were helpful and 70% regarded networking with others as also very important, when we compare e-learning with traditional learning, around 45% of the participants could not determine which one was more helpful for them, especially when human interactions were involved. Nevertheless, 45% of them did not think they needed more time to interact with the mentors. Therefore, their attitudes toward the importance of human interaction in e-learning showed a certain amount of ambivalence.

II. Business Connections

The pre-test indicated that 37% of our participants were in wholesale, 32% in manufacturing, and 21% in service-oriented business, and that they had to interact with their suppliers and customers frequently via mobiles or the Internet. Many of them also relied on social networks for suppliers and information. In the post-test, some participants also reported the need to interact with other participants, and some chose courses on dealing with customers, such as "Customer Experience Competitive Edge." This reflects a need for advancing women entrepreneurs' knowledge and skills in human interaction and communications in the e-learning program.

III. Market Access

The pre-test data showed that 60% of our participants were in micro-businesses and more than half of them had no experience in importing and exporting. Also, very few participants showed interest in exploring the international market in the post-test

questionnaire. Interestingly, however, more than one-fifth of our participants took courses on transnational business. Furthermore, the participants who took transnational business courses were the ones who either did not indicate any interest in them or had done international trade before.

As illustrated in Figure 4.1, approximately 45% of the participants were interested in international business. More specifically, 35% who showed interest in transnational business had not conducted transnational business before, while the remaining 10% had already conducted some business via international trade.
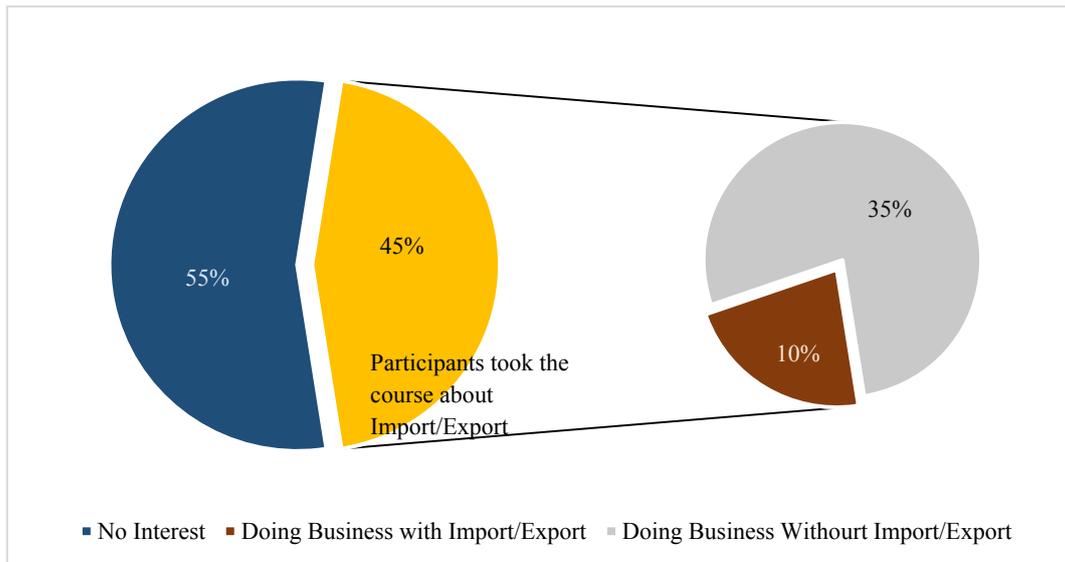
Figure 4.1: Participants' Needs in Access to Foreign Markets

WHY DID THEY DROP OUT?

During the study period, several participants dropped out of the e-learning program; some left in the early stage for individual reasons and some failed to complete the e-learning program later on. Most of those who dropped out later on usually cited a lack of time for learning, even via the Internet. These women usually held two jobs simultaneously—their own business and a part-time job—while shouldering responsibility for their families. Those who did not actively engage in the e-learning program cited lack of time and lack of interest in the courses (if the course topics did not relate well to their line of business) as the main reasons. In conclusion, lack of time was the main cause preventing participants from finishing the online e-learning, while course content was a major determinant for active participation.

4.5 Feedback from Open Questions

In this section, we present feedback from the open questions in the post-test survey. Open question 6.1 and 6.2 were questions about the expectations and satisfaction, question 6.3 concerned participant preferences in this program. Open question 6.4 and 6.5 surveyed how this e-learning program could be improved and asked for additional comments. The highly diverse nature of the participants' feedback makes it impossible to display all the comments, so we focus here only on common themes for presentation here. The full version is attached in Appendix C. In addition, some partner economies conducted face-to-face group discussions and produced reports; these are presented in Appendix D.

I.   Question 6.1

Open question 6.1 asked whether participants' expectations were satisfied. Fifteen of the 20, or 75%, reported that they thought their expectations were effectively met. A few participants who indicated having no particular expectation about the courses beforehand reported that they felt surprised after taking the course:

> *…I had no expectations, because it was my first time in an on-line capacitation course. I never imagined it was so near and nice…..*

II.   Question 6.2

Question 6.2 asked about participants' expectations and needs. Responses were highly diverse. Their expectations generally concerned two areas: courses related to their type of business, and topics related to the essentials of running a business. The course topics they mentioned were mostly covered by the e-learning program. The essential topics for running a business as mentioned by most participants were human resource management and marketing.

III.   Question 6.3

Question 6.3 asked our participants what they liked about this program and which part of the program they liked the most. Sixty percent (12 out of 20) reported that they really appreciated the mentor in the program. Most of them thought the mentor provided a great help for their business and learning choices in the e-learning program. The rest of them stated time flexibility and low cost.[4]

---

[4] We provided this e-learning program free for our participants since we had invited them to join this research project. However, they did express their concern about the generally high cost of e-learning programs in the private sector.

IV. Question 6.4

This question asked participants to provide suggestions for improving the e-learning program. The widely varying suggestions from our participants reflected their diverse individual needs. Some hoped for greater interaction with other persons, some hoped for more advanced courses in the program, and some thought the system could be further refined.

V. Question 6.5

Question 6.5 simply asked for additional comments. Some participants complained about the high price of e-learning programs in the market and Internet connections. Some expressed appreciation for being recruited for the project.

4.6 Conclusion

From our quantitative and qualitative survey results, we can conclude that there was a high rate of satisfaction toward the e-learning program, but some improvements are still needed:

First, some participants suggested that the platform interface should be refined, requirements on peripheral equipment should be avoided, system compatibility problems should be addressed, and the required hours for completing the course should be reduced. Beautiful design and a friendly interface would increase motivation, but requirements on peripheral equipment may increase the hardware barrier, while designing for system compatibility would lower the software barrier. Furthermore, participants who were short of time preferred a program requiring fewer learning hours.

Second, although most of our participants reported high satisfaction with the course materials and topics, including many that our participants expected, their suggestions and responses indicated that the program could be improved through more advanced courses, more human resource courses, and more courses relating to women-focused industries. Some also indicated an expectation for more cases, examples, and practices in the course materials. Furthermore, course offerings more directly relating to their areas of interest would increase motivation and prevent drop-outs. Nevertheless, many of our participants agreed that they would be willing to recommend e-learning to other women entrepreneurs and continue to use the e-learning program for further learning

Third, most of the participants affirmed the necessity of interaction with others and the usefulness of advice from mentors. The excellent comments on the mentors' effectiveness indicate that e-learning programs should include mentors who can provide

consultation and assist with study plans. Furthermore, it is recommended that e-learning programs for women should include a peer contact feature for interaction with other learners, since many express the need for greater human interaction. The interaction system on the platform should be very flexible, depending on participants' individual needs.

We should also note that the suggestions we received from participants varied depending on their personal background. Different ICT environments also impacted their e-learning in different ways. Therefore, the impact of different ICT environments on e-learning outcomes for women entrepreneurs should be an area for further study.

Chapter 5   Innovation in Financing: the Case of Crowdfunding

5.1 Access to Capital through ICTs

Our Phase I study has shown that ICTs could become powerful tools to help women entrepreneurs through provision of knowledge and business contacts. However, ICTs also have some limitations on solving financial problems, especially for start-ups and micro businesses. Our Phase I study demonstrated that women entrepreneurs had to rely on their own savings and assistance from families to launch their business. When they tried to raise funds from formal financial sources, women still need to confront problems such as gaining consensus from families, traditional collateral, lower income levels (relative to men), lack of credit records or guarantees, etc. Even worse, culture, social norms, and legal rules in some regions also prevent women from receiving funding from banks or the public sector (Narain, 2009).

Research suggests that women entrepreneurs, especially those who prefer funding from investors with the same gender, also seek "angel investors" and venture capitalists for funding (Marom, Robb and Sade, 2015). The term "angel investors" ("angels" for short) refers to individuals who are willing to invest in entrepreneurial business. Unlike venture capitalists, angels may invest for both interest and profit. "Angels" may be motivated by entrepreneurs' determination and foresight.[5]

There are more female angels than female venture capitalists. However, relatively fewer funds from angel investors went to female entrepreneurs, compared with male entrepreneurs, since women angels represent only 21.5% of the angel community (Sohl, 2014). Meanwhile, women entrepreneurs get even less funding from venture capitalists. For venture capitalists, gender plays an important factor in the evaluation progress (Kaneshige, 2015; Brooks, Huang, Kearney and Murray, 2014) and male entrepreneurs are more likely to receive funding because of the predomination of male venture capitalists in the venture capital community (Ruef, Aldrich, and Carter, 2003; Stuart and Sorenson, 2008).

5.2 How Crowdfunding Can Help Women

Although women usually are less likely to get funding from banks, venture capitalists or angel investors, with the development of the online social community a

---

[5] "Entrepreneur", http://www.entrepreneur.com/encyclopedia/angel-investor.(accessed on 2015.6.10).

nascent social platform, crowdfunding, has emerged to fill the gap. "Crowdfunding" means raising capital from the public. By this means, people with new ideas and entrepreneurs can turn to the public, via the Internet, for financial support.

Crowdfunding through ICTs provides a new channel for fundraising as well as an opportunity for start-ups to present their new ideas and business plans. Unlike traditional financing, in which entrepreneurs must approach and rely on larger entities like banks, angel funds, and venture capitalist funds, crowdfunding provides a means for entrepreneurs to reach many smaller investors at once. For women starting a business, therefore, crowdfunding becomes a new likely source of opportunity.

There are four types of crowdfunding: landing-based crowdfunding, equity-based crowdfunding, donation-based crowdfunding, and reward-based crowdfunding (Lin, 2014). The most famous crowdfunding platform in Western countries, Kickstarter and Indiegogo, operate on the reward-based crowdfunding model, whereby investors on the platform invest in projects posted by project-launchers and in turn receive rewards from the project-launchers.

The success rate of female-led projects through crowdfunding, 69.5%, has already demonstrated crowdfunding to be an effective tool. Moreover, the success of female entrepreneurs seems to be less affected by the gender structure of members on the platform. According to the research by Marom, Robb and Sade (2015) on Kickstarter.com, men still dominate the investors among website members; women account for 40% of the members. However, 22.5% of the male members on the crowdfunding platform are willing to invest in female-led projects, and more than 40% of the funds from female funders went to female-led projects (Mollick, 2013). These statistics differ significantly from those compiled on financing from traditional sources, which show that only 3% of total venture capital went to companies with a woman CEO (Brush et al., 2014), and only 4% of angel investment funding was received by women (Sohl, 2014).

Crowdfunding has several salient features for women seeking capital. First of all, crowdfunding platforms create a "democratic" process for both fundraisers and funders. The open system reduces much of the possible bias in traditional formal financing. Raising capital from the "crowd" also means that women do not have to rely on certain pools of investors for funding. This feature makes crowdfunding a powerful tool for overcoming gender bias in financing.

A second salient feature in crowdfunding is the role-switching between "consumer" and "philanthropist" (Gerber, Hui, and Kuo, 2011), which means that funders can

choose to support a project in different ways depending on its nature. Members on the platform may play "consumer" to fund this project and play "philanthropist" to fund another project. Funders or investors will determine whether they evaluate a project based on a "consumer" perspective or a "philanthropist" perspective. Their role-switching makes them different from profit-oriented angel investors and venture capitalists. The "philanthropist" role suggests possibilities for less-profitable projects and thus lowers the pressure for people with creative ideas. However, social expectations and perceived femininity/masculinity may still have negative effects on the project's funding. A study on investors on the site DonorsChoose.org (a philanthropic crowdfunding platform for education) shows that investors prefer to pour their money on "masculine" projects designed by masculine people located in urban areas (Jason and Mollick, 2014).

Finally, the success of funding has positive effects on project launchers. Project launchers generate awareness of their work through the funding process. They can confirm the value of their projects, receive trust from and communicate with the funders directly on the platform. Furthermore, they can gain confidence in themselves through the funding process (Gerber, Hui, and Kuo, 2011). If women entrepreneurs are successful in using crowdfunding for obtaining funds, they benefit not only from raising capital but also from building confidence.

5.3 The Platform of FlyingV

"Flying V," the biggest crowdfunding platform in Chinese Taipei, helped us to identify target cases and provided contacts with project launchers for our research. "Flying V" was set up at 2011. It is a reward-based crowdfunding platform in the all-or-nothing mode.

Like other crowdfunding platforms in Chinese Taipei, Flying V can operate only as a reward-based system for domestic legal reasons. Project launchers can obtain funds only if they reach their funding goal within a limited time. The reward-based system plus the all-or-nothing funding rules require that project-launchers estimate their funding goal carefully in order to increase the probability of success.

Flying V does not ask project-launchers to pay if the project does not reach the funding goal, but an 8% commission will be charged once the project succeeds. According to the statics provided by Flying V, the success rate of projects in 2014 was about 45%. [6] Compared with other modes of crowdfunding, the equity-based

---

[6] Information source comes from flying V at: https://www.flyingv.cc/faq. (Accessed at 2015,04,23)

crowdfunding mode takes only 4.8 weeks on average to reach funding goals, while the reward-based and donation-based crowdfunding modes need 10 weeks or more to reach funding goals (Lin, 2014).

For this study, "Flying V" provided us with two women-led cases, both of which successfully reached the funding goals within a limited time. The first case concerned a single mother who wanted to start up a food stand to make a living for her family. The second case concerned cooperation between a female designer and a small enterprise. We hope to present their successful experience and some insights.

5.4 Case Studies

5.4.1 Case 1: Mother PI's Fantastic Journey

In this case, a single mother wanted to launch her own business, a food stand, to support her family. However, she faced financial problems because she was a "foreign spouse" (immigrant) who lost her husband a few years earlier, and she had to take care of her two children and her husband's mother. She also had a physical disability after a car accident. Her day job as a cook could hardly ease her economic pressure. Thus, she wanted to have her own business to better support her family.

Since she had worked as a cook for a long time, she wanted to start by owning a food stand. She had been supported by a local non-government organization (NGO) for several years, but figuring how to make her economically independent was a challenge for the NGO. Crowdfunding seemed to be a good solution for her, so they helped her by introducing the project to the crowdfunding platform for fund raising. Although the NGO brought the project to Flying V, they also knew very little about crowdfunding at first. Both the NGO and the woman learned the concept of "crowdfunding" after being introduced to it by Flying V employees.

However, they encountered some problems when they proposed the project. Flying V usually recommends that fund-raisers provide articles, pictures, photos, and films to present their ideas to persuade investors. However, workers in the NGO had no experience filming videos to present such a project. This problem was later resolved through volunteers working in the NGO.

The second problem was determining how to make the project successful. The NGO workers and volunteers considered the key would be showing their honesty and sincerity on the one hand and setting a modest funding goal on the other. Consequently, in the video they presented the woman's efforts, her difficulties, and her "practical" need in order to persuade investors. The project finally reached the funding goal in time

(two months), and she started running her food stand soon after.

The food stand, which started in 2013, has been running since then. It became a very successful experience for both the NGO and the mother. For the NGO, this case opened the possibility of using a new way of fund-raising to help other women and their families. For the woman, this success enabled her to become economically independent. She also became more self-confident, less physically stressed, and most importantly, had more time to accompany her children and families because the food stand was located near her house. In this case, successful crowdfunding became a turning point for a family.

5.4.2 Case 2: Coplay Bag X Only Two

This case concerns the establishment of cooperation between a female fashion designer, Only Two, and a nascent small business, Coplay, which mainly produces women's bags and is run by women. This cooperation was initiated by an idea from Coplay to attract more female customers. The female designer, Only Two, came into their view since her design principles were compatible with Coplay's brand idea. They agreed to propose a project to sell a series of special-designed bags targeted at women aged around 30 years old.

This project was designed by women and for women. Nevertheless, the project was rather adventurous since it limited its target group to women patrons instead of everyone on the crowdfunding platform. They measured the risks and still determined to launch the project on the platform. Despite the possible risk, this project successfully reached the funding goal within two months. Though the project itself was a promotion of the designer's ideas, the management of the project was mainly carried out by Coplay.

Despite the success, they encountered several difficulties in the funding process. First, they did not really understand the concept of crowdfunding. Second, they faced the problem of filming for promotion purposes. Third, they refused to promote their project in the traditional "business" way.

The fact that they got their information on crowdfunding and Flying V from Taiwan Culturaland Creative Center indicates that crowdfunding is still not well-known to the public and easily accessed. The project team (composed of female workers) decided to use all possible means to convince their potential funders, but they found themselves short of professional filming skills. This forced them them to struggle to come up with a film for the project.

Furthermore, they presumed this cooperation project should strengthen the

"designer's idea" rather than the designed products, so they refused to "market" it even though the project could fail without promotion. They thought the project would be degraded if it was widely broadcasted or marketed because the project itself was appealing to "identity," not merchandise business. Therefore, online media was rarely used (only twice in Facebook) when the project was launched on the platform.

In the end, however, this project successfully reached its target. This success confirmed the validity of their initial idea of using crowdfunding to build identity. Coplay succeeded in promoting its brand name. The woman designer also successfully built her reputation for her design work. Most importantly, their businesses were sustained through targeted customers' support and recognition.

5.5 Conclusion

These two cases illustrate that crowdfunding is still an unfamiliar funding source for most women entrepreneurs, mostly because there exists an entry barrier in terms of designing and completing the project independently. Outside help is always needed. The two cases also show the two sides of crowdfunding, i.e., through consumers and philanthropists. Brand identity was an important aspect of the marketing strategies.

From our review of the literture and our case studies, we have four main observations. First and the most important one is crowdfunding platform opens a new possibility for small scale and young talented women entrepreneurs to raise start-up funds. The successful examples of our two cases provide inspiring experience for other women. According to previous research (Gerber, Hui, and Kuo, 2011), members on a crowdfunding platform are motivated to launch their own projects by others' successful experience. Thus, successful experience and projects in crowdfunding can be used to provide positive motivation for potential women entrepreneurs.

Second, we also find a greater possibility of women-related or women-oriented projects to succeed on crowdfunding platforms. Previous research (Marom, Robb and Sade, 2015) indicated that women on crowdfunding platforms are more investors than entrepreneurs. In addition, women are twice more likely than male investors to invest in projects initiated by women. In the two cases above, the first received 44.8% of its funds from women investors, and the second 70%. Other female-led projects also had more funding from women than men.[7] Thus the "women help women circle" can be created among platform members. Women not only play the role of funders who help

---

[7] These figures were provided by Flying V. Besides the two cases in the study, two other female-led projects also had attracted more funding from women. One project had more than 62% and another project had funding more than 77% from women investors.

women project-launchers, they can also encourage women to pursue their dreams and launch their own projects.

Furthermore, the role-switching of funding providers on crowdfunding platforms suggest that "less-profitable" businesses also become possible on such platforms. This possibility may benefit small-scale, home-based, women-led businesses. The projects on the crowdfunding platform should not be highly profit-oriented. Instead, projects should more or less project their own unique identities. This feature may be an advantage for women without good marketing skills since they do not need to persuade the members on the crowdfunding platform how profitable their business might be. They just need to show their future plans, effort, integrity, and identity to attract attention and support. Crowdfunding's less profit-driven orientation (compared with traditional funding sources) is one of the main reasons why crowdfunding can help women start up a small business. Since women usually have low credibility before venture capitalists, angel investors, and bankers, crowdfunding platforms give women more choices.

The final observation relates to the barriers preventing women entrepreneurs from presenting their projects on the platform. In both of our case studies, significant technical problems were encountered when filming a promotional video, not only by the single mother and designer but also the workers in the NGO and the design team. It should be noted also that these two cases took place in a very supportive environment in an area with high ICT literacy and education levels. Hence, we can predict that women in less developed or remote areas may have problems constructing a presentation for their project on a crowdfunding platform. Furthermore, since crowdfunding platforms are essentially an ICT-based phenomenon, they would present obstacles to women with lower levels of education or ICT literacy.

In sum, although women entrepreneurs can definitely use crowdfunding platforms for funding, crowdfunding still present certain obstacles, so the most important solutions would lie in the area of facilitation: building a more supportive environment for women among crowdfunding platforms. Building better network readiness, SME (small and medium-sized enterprise) training and incubation and the promotion of internet use should continue to be emphasized in APEC member economies. For example, the Japanese crowdfunding platform "Campfire" has launched a series of events called the "campfire academy." These events are targeted at college students and invite successful project-launchers to share their experiences.[8] While there are many

---

[8] On "Campfire Academy," see: http://camp-fire.jp/pages/academy/

similar efforts and resources in the region to support women entrepreneurship, policy efforts to correct the widespread neglect or disregard among traditional investment sources to women entrepreneurs should still be continued.

Chapter 6   Summary and Concluding Remarks

This chapter will summarize our main findings in the Phase 1 and Phase 2 research. Policy implications on the efficacy of e-learning and crowdfunding in empowering women entrepreneurs in the APEC region are drawn before we discuss linkages to other APEC initiatives and future research directions.

6.1 Main Results of Phase One

On June 2012, Chinese Taipei launched a multi-year project (MYP) in APEC entitled "Innovation for Women and Economic Development: Facilitating Women's Livelihood Development and Resilience with ICT" to promote awareness of women's needs with regard to embracing new devices and services for livelihood development. This project was co-sponsored by 14 member economies and endorsed by PPWE and SMEWG.

The research part of the project consists of three phases. In Phase One, we conducted an inventory and a comparative case study that examined past and ongoing projects seeking to facilitate women's economic empowerments through the harnessing of ICT-enabled tools in four partner economies in the APEC region. The main findings can be summarized as follows:

1. Skills and Capacity Building: Reducing the digital literacy gap can change how women see themselves as their social circles enlarge. The integration of gender sensitivities into course design is especially important when the target participants are marginalized women.

2. Access to Market: Implementing e-commerce platforms is not unusual, but the degree of uptake of this form of trade varies across different economies. The costs of exploring international markets and of maintaining an e-commerce platform remain obstacles for women entrepreneurs to take full advantages of e-commerce.

3. Access to Capital: Although access to capital is identified as a main barrier for women entrepreneurs, especially at their early start-up stage, no innovative ICT solutions appeared during this phase of the research that would solve the problem. This absence leaves rooms for improvements in later project design.

4. Women's Leadership: ICT-enabled tools are very useful for fostering networking among women entrepreneurs, as well as between women entrepreneurs and aspirant entrepreneurs. Networking events bring in a degree of emotional assurance and support for start-ups. As women grow their businesses, networking

becomes more relevant in terms of seeking business cooperation or matching opportunities.

6.2 Main Results of Phase Two

In the second phase, we conducted a quasi-experiment, two surveys, and interviews in a selected sample in five partner APEC member economies to discover possibilities for e-learning and crowdfunding to empower women entrepreneurs. Due to time and budget limitations, we focused on the needs of women entrepreneurs who already had sufficient ICT literacy, own a small business, and were ready to explore wider markets or were interested in international trade. The main findings can be summarized as follows:

1. Skills and Capacity Building: Using ICT to search for market information is unfamiliar to women entrepreneurs. Even though many women entrepreneurs have a high level of ICT literacy, this is not the same as being able to access market information or convert information into benefit. Therefore, effort should be made to strengthen small women-led businesses' access to quality market information using ICT-enabled tools and services.

2. Access to Market: Domestic business is preferred by small-scale women entrepreneurs because of the high transaction costs to reach international customers. However, they still show a high level of interest in approaching the international market. E-learning could serve as a learning tool to help them build the knowledge base for doing transnational business.

3. Access to Capital: Crowdfunding offers a new channel for access to capital, and its open, flexible nature also makes "less profit-oriented" fundraising possible for start-ups. However, the main difficulty that women face in exploring crowdfunding is the high technical barriers to constructing the promotional material. For marginalized women, NGOs can play a very important role assisting them to form and propose the projects.

4. Women's Leadership: Women entrepreneurs often face the challenges of effective communication and relationship-building. A combination of virtual and face-to-face interactions during the e-learning process can facilitate this relationship-building and motivate learners to use ICT in managing their business.

Based on these findings, we provide a few policy recommendations as follows:

1). **Create more affordable and sustainable e-learning systems.** Although many existing e-learning programs have pursued various strategies to bring practical

benefits to women entrepreneurs, most of them face limitations in scaling up to match the diversified needs of women for their business development. Collective actions and institutional supports are needed to realign resources to make these existing programs more tangible and effective.

2). **Design e-learning programs that also encourage person-to-person interaction.** Women entrepreneurs generally benefited from interactions with mentors and consider interaction with others as vital not only for learning but also for networking. Higher rates of participation and satisfaction will be expected if e-learning programs can be designed to address the face-to-face networking needs of women entrepreneurs.

3). **Expand course content while retaining time flexibility in e-learning programs.** Many participants agreed that time flexibility was one of the most attractive features that led to their decision to enter the e-learning program. However, once they entered the program, their differing priorities became very crucial in deciding whether they completed the e-learning process. Therefore, in developing e-learning programs, emphasis should be given on adaptive ways of learning, in terms of learning objectives, courses, and individual learning processes, as well as a broad diversity of course options, including more advanced-level course options as skill levels develop.

4). **Encourage women specializing in ICT or women in ICT-related businesses to design e-learning programs tailored for women entrepreneurs' real needs.** Work-life balance and gender discrimination are no longer the main obstacles for women entrepreneurs. Our case study showed that women entrepreneurs perceived access to capital and access to market to be their major challenges in business survival and/or expansion. Since e-learning provides opportunities that might not be otherwise available, we recommend greater involvement of women specializing in ICT or women in ICT-related businesses to design e-learning programs that will help women entrepreneurs overcome those challenges.

6.3 Linkages with Other APEC Initiatives

Our report complements a number of other APEC reports on women's economy and ICT, such as the "Role of ICT in Women HRD: Report on the Initiative for APEC Women's Participation in the Digital Economy," from the Asia-Pacific Women's Information Network Center in 2009. That and the present study echo the initiatives of APEC/PPWE Women and the Economy Dashboard[9] on the inclusion of e-learning,

---

[9] "APEC Policy Partnership on Women and the Economy: the Women and the Economy Dashboard," Nathan Associates Inc. for the United States Agency for International Development, 2015.

crowdfunding, e-commerce, and other related measures into the content of the Dashboard. APEC member economies can jointly contribute to promoting mobile technology, Internet use, and network readiness for women's economic empowerment. This promotional effort can also facilitate the development of e-learning and crowdfunding platforms that empower women entrepreneurs.

Our study results not only echo the priority areas in PPWE but also relate to the work of three APEC Working Groups, namely the SMEWG, HRDWG and TELWG. For example, the SMEWG's Strategic Plan, 2013-2016[10] aims, among other things, to promote the entrepreneurship and management capabilities of SMEs, MEs, youth, women and minority-owned SMEs and MEs. Our e-learning results suggests that women are innovative and interested in adopting ICTs to make their business competitive. However, their learning attitudes are pragmatic, which suggests that ICT training programs must be more targeted and shaped more closely to match their practical business development needs. Both technical support and financial infrastructure are equally important for them to adopt new technologies in their businesses. Therefore, we support the idea expressed in the SMEWG's Strategic Plan of "raising awareness of different forms of financing and increasing availability of technical assistance funds to facilitate access to credit" by providing case studies on exploring the crowdfunding platform for marginalized women and young start-ups.

Our research also supports the APEC HRDWG Action Plan, 2015-2018,[11] which aims at "enhancing the participation of women in the economy, ensuring the needs of youth, women and other vulnerable minorities, and promoting the importance of gender equity." Based on our study, women usually face more barriers than men in starting or running a business, and ICT can make a difference especially for the marginalized women and young start-ups. The promotion of e-learning not only encourages women's lifelong learning, but also equips them with a needed knowledge base when they enter the re-learning programs to pursue their career development.

Finally, in the 2016-2020 Strategic Action Plan of TELWG, [12] enhancing telecommunications connectivity is a necessary precursor for the development of a robust regional digital economy. The TELWG Action Plan focuses on developing and supporting ICT innovations, as well as promoting a secure, resilient, and trusted ICT

---

[10] "APEC Small and Medium Enterprises Working Group Strategic Plan, 2013-2016," 35th Small and Medium Enterprises Working Group Meeting, 2012.
[11] "APEC Human Resources Development Working Group Action Plan, 2015-2018," APEC Human Resources Development Ministerial Meeting, 2014.
[12] "APEC Telecommunications and Information Working Group Strategic Action Plan, 2016-2020," 10th APEC Telecommunications and Information Ministers Meeting, 2015.

environment. Based on our study, investing in gender-friendly ICT technology, infrastructure and ICT-enabled services can play a major role in the provision of financial resources and market information for women-led businesses, as well as job creation to improve their livelihood.

6.4 Future Research

1. A game-based learning tool

In response to the recommendations from the Phase 1 and Phase 2 studies, we will launch an innovative business learning tool specifically designed for women entrepreneurs. This tool will be a game-based application, so that women entrepreneurs can enjoy the learning process on their smart phones, notebooks, tablets, or computers anytime anywhere. The main functions will be as follows:

1). Overcoming Challenges: Through gameplay, women build up self-confidence by learning how obstacles can be overcome.

2). Self-Learning: Games create a 24-hour learning environment that can lower the time costs. They can also create compelling needs to learn, ask, examine, assimilate and master certain skills and content areas.

3). Failure Simulation: Gameplay can make learners experience failure within a friendly environment that allows for learning by trial and error. They can also boost the motivation to explore the rules of running a business and acquire problem-solving skills.

4). Entertainment: The application will simulate interactive scenarios that reflect real-life situations, thus making learning fun and entertaining.

5). Easy Access: Beside online access, an offline application will be provided to facilitate a countable learning tool in all environments. In addition, the user-friendly design and illustration will make the application easy to follow.

2. Toolkit

Enhancing women's entrepreneurship depends on what kind of enabling environment exists. An e-learning program can provide a pragmatic supporting system, but the question that remains is how female entrepreneurs can be guided to surmount the existing limitations and stereotypical impressions often conveyed via ICT. Many case studies have shown that high rates of entrepreneurial activity among women can bring sustained job creation and boost the development of livelihoods through the creation of micro and small businesses. Therefore, determining how to

strengthen their business performance has become a key public policy issue for all governments. In this light, we will take the conclusions of our two-phase study and summarize them into a toolkit that aims to promote female entrepreneurs' ICT capacity.

This toolkit will aim to provide guidelines and recommendations for policy makers, NGOs, and female startup entrepreneurs. In addition, the toolkit will offer gender impact assessments as well as relevant case studies with suggestions for decision makers in stipulating policies and business models beneficial to female entrepreneurs. We will also address the collaborative and supportive role of NGOs in promoting creative ICT learning approaches.

To make the toolkit attractive, we will focus on the following three questions:

1). What are the potential benefits of ICT-learning by women entrepreneurs in the Asia-Pacific region?

2). What are the common features of ICT-learning tools that unlock female entrepreneurs' potential for business success, and what are the barriers that female entrepreneurs encounter when using them?

3). What can be done to accelerate the use of ICT-learning tools/platform by women entrepreneurs who have limited opportunities to explore or who have not yet explored the new trends?

References

Australian Bureau of Statistics (http://www.abs.gov.au/ausstats/abs@.nsf/mf/1321.0) Accessed on 2015.6.22.

Bates, A. T. 2005. *Technology, e-learning and distance education*. Routledge.

Brooks, Alison W., Laura Huang, Kearney, Sarah W., and Murray, Fiona E. "Investors prefer entrepreneurial ventures pitched by attractive men," *PNAS* 2014 111 (12) 4427-4431; published ahead of print March 10, 2014, doi:10.1073/pnas.1321202111(http://www.pnas.org/content/111/12/4427.abstract)

Brush, Candida, et al. 2014. *Women Entrepreneurs 2014: Bridging the Gender Gap in Venture Capital*. Arthur M. Blank Center for Entrepreneurship.

"CAMPFIRE Academy" (http://camp-fire.jp/pages/academy/).

Chatzara, K., Karagiannidis, C., Stamatis, D. 2012. "Emotional Interaction in e-Learning." *Research on e-Learning and ICT in Education,* 253-265.

Chen, M. A. 2001. "Women and informality: A global picture, the global movement." *Sais Review*, 21(1), 71-82.

Crenzel, S., Cruz, F., and Nojima, V. 2007. "The human side of e-learning: Real people subjective experiences in virtual classrooms." *Conference ICL2007, September 26-28, 2007* (6 pages). Kassel University Press.

"Entrepreneur, Angel-Investor." (http://www.entrepreneur.com/encyclopedia/angel-investor). Accessed on 2015.6.10.

Gerber, E. M., Hui, J. S., and Kuo, P. Y. 2012. "Crowdfunding: Why people are motivated to post and fund projects on crowdfunding platforms." *Proceedings of the International Workshop on Design, Influence, and Social Technologies: Techniques, Impacts and Ethics*.

Jason, G. and Mollick, E. R. "Leaning In or Leaning On? Gender, Homophily, and Activism in Crowdfunding" (July 3, 2014). Available at SSRN: http://ssrn.com/abstract=2462254.

Kaneshige, T. 2015. "Why Venture Capitalists Don't Fund Women-Led Startups," Available at CIO.com: http://www.cio.com/article/2882826/venture-capital/why-venture-capitalists-dont-fund-women-led-startups.html. (Dated 2.15.2015; accessed on 2015.4.23)

Marom, D., Robb, A. and Sade, O. 2015. "Gender Dynamics in Crowdfunding (Kickstarter): Evidence on Entrepreneurs, Investors, Deals and Taste Based Discrimination." Available at SSRN: http://ssrn.com/abstract=2442954 or

http://dx.doi.org/10.2139/ssrn.2442954.

Ruef, M., Aldrich, H. E., and Carter, N. M. 2003. "The structure of founding teams: Homophily, strong ties, and isolation among U.S. entrepreneurs." *American Sociological Review*.

Mollick, E. 2013. "Swept Away by the Crowd? Crowdfunding, Venture Capital, and the Selection of Entrepreneurs." SSRN working paper, available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2239204.

Narain, S. 2009. "Gender and access to finance." *The World Bank*.

National Sample Survey. 1999-2000 (55th round) - Schedule 1.0 - Household Consumer Expenditure. (1999). National Sample Survey Office (NSSO) - Ministry of Statistics and Programme Implementation, Government of India, http://catalog.ihsn.org/index.php/catalog/2606/study-description.

Peebles, D., Darwazeh, N., Ghosheh, H., and Sabbagh, A. 2005. "Factors affecting women's participation in the private sector in Jordan." National Centre for Human Resource Development, Amman, Jordan.

Radović-Marković, M., Nelson-Porter, B., and Omolaja, M. 2012. The new alternative women's entrepreneurship education: e-learning and virtual universities. *International Women Online Journal of Distance Education,* 1(2), 46-52.

Rey-Martí, A., Tur Porcar, A. and Mas-Tur, A. (2015), "Linking female entrepreneurs' motivation to business survival," *Journal of Business Research*, 68(4), 810-814, http://EconPapers.repec.org/RePEc:eee:jbrese:v:68:y:2015:i:4:p:810-814.

Sohl, J. 2004. *The Angel Investment Market in Q1Q2 2014: Market Growth But Deal Size Decrease*. Center for Venture Research.

Strother, J. B. 2002. "An assessment of the effectiveness of e-learning in corporate training programs." *The International Review of Research in Open and Distributed Learning*, 3(1).

Stuart, T. E., and Sorenson, O. 2007. "Strategic networks and entrepreneurial ventures." *Strategic Entrepreneurship Journal*, 1(3-4), 211-227.

Wasihun, R., and Paul, I. 2010. "Growth determinants of women operated micro and small enterprises in Addis Ababa." *Journal of Sustainable Development in Africa*, 12(6), 233-246.

Lin, Y-Y. 2014. "A New Fund-Raising Approach—Preliminary Survey of Crowdfunding Behavior." *Economic Research*, 13, 152-172.

Yilmaz, E., Özdemir, G., and Oraman, Y. 2012. "Women entrepreneurs: Their problems and entrepreneurial ideas." *African Journal of Business Management*,

6(26), 7896-7904.

Appendix A: Pre-test Questionnaire

This questionnaire seeks to undertake a pre-training inquiry on the participants of the online training program implemented by Foundation for Women's Rights, Promotion, and Development (WRP) in collaboration with the Belmont Business Enterprise Centre Inc. (BEC Global), TCF Global and the BPW Business Incubator Training and Mentoring Program.

Your response is important for further research on designing online business training platforms to meet women entrepreneurs' needs effectively.   Thank you very much for your time.

I. General Information

1. **Age**
   □ <20   □ 20–29   □ 30–39   □ 40–49   □ 50–59   □ >59

2. **Education**
   □ Primary education   □ secondary education   □ Bachelor's degree
   □ Master's degree   □ Doctorate degree   □ Other (please specify)

   _____

3. What is your marital status?   □ married   □ single
4. Do you have children?   □ No   □Yes
   If **Yes**, how many children need your financial supports? ____ persons

II. Business

5. How long have you been operating this business?   ____year(s)____month(s)
6. Is your present business the first company that you own?
   □ Yes   □ No
   If **No**, what happened to the company(s) you have owned previously?
   □ Went out of business   □ Sold to others   □ Other (please specify): _____
7. Is your business formally registered?
   □ Yes   □ No
8. Which industry does your business belong to?
   □ Agriculture   □ Natural resources development (oil, gas, coal)
   □ Non-durable manufacturing (food, clothing, crafts)
   □ Durable manufacturing (machines, steel, tires, other)
   □ Wholesale/retail/trade   □ Services - travel/tourism
   □ Services - business services   □ Services - personal services
   □ Technology/ICT   □ Others (please describe)_____
9. Do you work full-time or part-time for your business?
   □ Full-time   □ Part-time
10. How many hours do you spend on your business per day? _____hour (s)
11. How many **full-time** employees does your business employ?____ men __ women
    How many **part-time** employees does your business employ? ___ men __ women
12. Do you export or import any goods or services in your business?
    □ Yes, export goods/services   □ Yes, import goods/services
    □ Yes, both import and export goods/services   □ No, I do not export or import.
13. What is the form of your business ownership?

□ Individual (Sole ownership) □ Partnership   □ Corporation

14. Is there any family member involved in the ownership and management of your business? (Tick all that applied)
□ Husband   □ Parents □ Parents-in-laws □ Children □ Other family members

15. **When you started your business**, what **were** the obstacles/problems you faced? (Tick the box that applied)

	Not an obstacle	Minor obstacle	Moderate obstacle	Major obstacle	Very severe obstacle
Lack of self-confidence					
Lack of family support					
Lack of start-up financing/credits					
Lack of advice on starting business					
Lack of management skills					
Lack of cultural and language skills for foreign markets					
Finding the right contacts					
Access to business information					
Combining family and work life					
Gender discrimination					
Other (please specify): _____					

16. What **are** the obstacles/problems **you are facing now** in running your business? (Tick the box that applied)

	Not an obstacle	Minor obstacle	Moderate obstacle	Major obstacle	Very severe obstacle
Low or no revenue growth					
Lack of self-confidence					
Lack of family support					
Lack of advice on starting business					
Lack of management skills					
Lack of cultural and language skills for foreign markets					
Lack of time for training/upgrade skills					
Finding the right contacts					
Access to business					

information					
Combining family and work life					
Gender discrimination					
Other (please specify): _					

III. Networking

17. How do you search for potential **supplier**?

  □ Online   □ Recommendation from friends   □ Recommended family

  □ Other (please specify)_____

18. Please tick the box that best reflect your frequency of using ICT-enabled tools to promote/advertise your products/services.

	Never	Seldom	sometimes	Frequently	Always
Broadcast media: Radio, TV					
Online media: Social media (e.g. Facebook, twitters etc.); Official websites					
Mobile marketing: e.g. QR Code					
Public Relation (PR): Media releases, articles, newsletters					
Printed media: e.g. Flyers, brochures					
Sales promotion media: e.g. Giveaways, Exhibitions and trade fairs					
Other (please specify): _					

19. Do you belong to any entrepreneurial organization?

  □ No □ Yes

    If **Yes**, please answer the following:

      Please list your organizations _____

      What services do you receive from them? _____

      Is the organization only open for women entrepreneurs?   □ Yes   □ No

IV. Information and Communication technology (ICTs)

20. How often do you use the following ICT tools in your business? Please tick the box for each tool that matches your situation.

	Never	Seldom	sometimes	Frequently	Always
Smart phone(s)					
Personal computer					
A multi-line telephone system					
Fax machine					
Tablet Computers (e.g. iPad)					
Other (please specify): _____					

V. Online Training

21. Have you taken **business training** courses for the past year? Please tick the box that most closely match your situation.

	Yes	price _____ USD/per course
		Free course
	No	

22. Have you ever taken **e-learning business courses** before?

□ No   □ Yes

If **Yes,** please tick the box that best reflects how useful the e-learning courses are for scaling up/improving your business.

	Not very useful	Somewhat useful	Moderate Useful	Very useful	Extremely useful
Financing and credit management					
Marketing skills					
Budgeting, bookkeeping, and pricing					
Digital literacy					
Foreign language conversation/writing skills.					
Leadership and Management					
Product development					
Industrial Competition analysis					
Other (please specify): _____					

Thank you for participating in this survey.

Appendix B: Post-test Questionnaire

The overall objectives of this research is to understand the attitudes, impacts and using experiences, of women entrepreneurs from five different APEC economies, who participated in this online mentoring program designed especially for women entrepreneurs.

To achieve these objectives, the following questions will be posed：
- — How does this e-learning platform function?
- — What were your expectations and how effectively have they been met?
- — How do you interact with your mentor, facilitator, and other participants?

This survey is part of an APEC multi-year project about the use of Information and Communication Technologies tools (ICT) for women entrepreneurship development conducted within the APEC-funding project *NO. M SCE 03 2013A*.

This survey includes questions about the effectiveness of the ICT tools you are currently using in your online mentoring program. All the information you provide is *confidential* and will be published only in summary statistical form. You will not be identified in any way.

I. Background Information
1. Name: (First) _____ (Family)_____

2. What best describes the area in which your business is located?
   ☐ Urban (city area)   ☐ Peri-urban   ☐ Rural

II. Experience Sharing
Section I. Interactions between Human and ICT

1. Rate the following by indicating whether the e-learning system was easy to use:

Statement	Very easy to use	Easy to use	Undecided	Hard to use	Very hard to use
1.1 Signing onto the system					
1.2 Navigating the system					
1.3 Accessing course materials					
1.4 Sending/receiving emails					

2. To what degree do you agree with the following statement:

Statement	Totally agree	Agree	Undecided	Disagree	Totally disagree
2.1 My internet connection and computer are sufficient for me to take this e-learning program					
2.2 I need technical support					

	Totally agree	Agree	Undecided	Disagree	Totally disagree
to access my online material					
2.3 This e-learning program linkage is always workable					
2.4 Learning via internet allowed me to manage my time more flexibly.					
2.5 Learning via internet is more comfortable than learning with people.					

Section II.   Interactions between Human and Human

3. To what degree do you agree with the following statement:					
Statement	Totally agree	Agree	Undecided	Disagree	Totally disagree
3.1 Facilitators/mentors can be contacted by emails or skype for questions easily during program.					
3.2 Facilitator/mentors provide me with helpful information and explanations regarding my questions within reasonable time.					
3.3 Facilitator/mentors' advises were workable for me.					
3.4 I needed more time to contact with facilitator/mentors.					
3.5 Networking with other participants of the program is necessary.					

Section III.   Course Content

4. To what degree do you agree with the following statement:					
Statement	Totally agree	Agree	Undecided	Disagree	Totally disagree
4.1 Filling the self-assessment form is helpful before I started the course.					
4.2 The list of topics I can choose from is sufficient to meet my needs.					
4.3 The course materials were well organized and sequenced properly.					
4.4 The course materials were clear and understandable.					
4.5 The language used was at an appropriate reading/listening level.					

4.6 The course materials were interesting and engaging.					
4.7 The course materials can really help my business.					
4.8 The course materials help me to improve my communication skills					
4.9 A 20-hours-long e-learning program is suitable.					

Section IV. Satisfaction

5. To what degree do you agree with the following statement:

Statement	Totally agree	Agree	Undecided	Disagree	Totally disagree
5.1 I have the satisfaction of improving my personal knowledge and skills.					
5.2 I have completed the challenging course activities					
5.3 I enjoy learning about an interesting subject					
5.4 I feel more confident after having e-learning program.					
5.5 I am willing to use e-learning in the future.					
5.6 I will recommend e-learning to others (especially women)					

III. Overall Comments and Suggestions

6.1 What were your expectations for this program? How effectively have they been met?
6.2 What topics were you expecting? What you would like to address that we didn't?
6.3 What did you like about this program? Which components of the courses do you like best? Please explain.
6.4 Which parts of the program do you think are most in need of improvement? How?
6.5 Please make any additional comments you may have in the remaining space.

Thank you for your participation and completing this survey!

Appendix C: Answers from Open Questions in the Post-test

Question 6.1

What were your expectations for this program? How effectively have they been met?

Australia1: I was hoping to learn new ways of doing things in business. I was setting up a new business so I was really interested in revisiting writing a business plan. Marketing for small business and on a budget, social media, and time management and there were courses that addressed this which was great.

Austratria2: My expectations were to receive further knowledge and guidance to assist me in more efficient and effective operation of my business. The program certainly helped me in many areas that I needed either knowledge from scratch, or review of previously learned concepts. I have been able to implement many of the teachings into my business already.

Australia3: I was expecting a structured 12 month program with monthly topics, application, feedback and follow up, much like an educational program. Mentoring was great for one session I had.

Australia4: I was hoping to be able to gain the skills to move my business forward as I felt I was very alone in my business being a sole trader and not having access to help. It was wondering to have some help.

Chile1: I had a lot of expectation about the program and all of them were completed. My mentor helped me so much.

Chile2: My expectation were to receive useful information beyond the basis. My business is already working so the information I needed had to be related to grow up what I have. Also, my business is related to exportation I hoped to receive information that allow me to keep up with international business, that is what more I struggled to find in the course that are taught in my country. My expectation were covered in a 100% because I received very specific courses that are not so easy to find.

Chile3: I was looking for a program that help me to manage my time and my team. With the support of the mentor I took big decisions on that.

Chile4: Sincerely I had no expectations, because it was my first time in an on-line capacitation course. I never imagined it was so near and nice. I had easy access to the provided tools by the course and I received help in each stage of the learning by trained people who were patient to advise me.

Korea1: To gain practical knowledge of running and launching a business. Through interesting courses it fulfills my need.

Korea2: Topic on "Importing and Exporting" was very good. The lecture taught basic concepts on importing and exporting. It was easy and simple to understand. Presentation materials on each of the topics were very well organized.

Korea3: "Pricing Costing Cashflow" program is good. I was not exactly know about pricing. I read more 10 books but I really didn't know about How make a pricing in my business. Which one is better to make a balance to my business. This program is so simple to understand easy to me. Thanks

Korea4: I actually did not have expectations for this program as I came into this program later than most. I was not sure exactly what the program was or entailed when I was nominated to participate. An overview/introductory session would probably be helpful for new participants as well as a detailed e-mail with the program description, mission, goal, etc.

Philipine1: I was not able to attend much of the online seminars and such, much less "complete" the program. I did not have much expectations, but thought it would be like a more focused mentorship with Coursera-like components.

Philipine2: I expect the program to develop my knowledge, skills, and abilities to handle challenges in business. I also expected the program to update me with the latest trends in doing business locally and globally. They were effectively met by the organization presenting/suggesting programs based on the results of my self-assessment. If there are also more interesting topics along the way, the organization is willing or flexible enough for me to allow to take those topics.

Philipine3: I expected to learn business concepts that will help me improve in running my business and learn things that I didn't have the time to learn when I started the business because I had business partners who helped me do it. Through the program, I learned new things on the financial side of the business and re-learned concepts on customer service. The program is very helpful for young entrepreneurs and I would highly recommend it. Some lessons also overlap in topic so certain business concepts are reinforced.

Philipine4: I expected to gain more knowledge in humans and confidence in most of my understanding. I am happy to say my expectations were met and I was even given tips on how to handle my growing business.

Chinese Taipei1: The project brought me an expectation for learning new international management skill. Through online lessons and Skype with my mentor Jeya. I tried to write a new business plan and followed down the course I took, than I found some questions. It's great to have a mentor that we can discuss and maybe could get more inspiration or find out the way to solve problems.

Chinese Taipei2: I hoped to get more creative ideas for management through the online courses. I did receive information I did not know before.

Chinese Taipei3: It would be better if we could have one discussion with mentor knowing local language. Because of my limited language ability, I could not ask the questions I want to ask.

Chinese Taipei4: My expectation was to gain some new knowledge in the area that I did not know and to refresh my memory in others. Some of the topics covered during the seminar is too easy. It will need some further in deep discussion and learning. It was also interesting to see that different country and in different industry has different prospective in some topic.

Question 6.2

What topics were you expecting? What you would like to address that we didn't?

Australia1: See above the topics I were expecting were met. I can't think of any to add?

Australia2: I was expecting a mix of specific fashion-based as well as more general business topics, which was what was on offer and delivered. Other topics that may be of assistance could be dealing with difficult people – staff, suppliers, customers. Maybe also some more on PR and marketing.

Australia3: Most topics I was expecting were covered. Putting some of the information into practice.

Australia4: Business management, I thought you cover the topic well.

Chile1: I did a lot of topics, near 14 and I think that each one taught me what I need to know. I think it was perfect.

Chile2: As this was an international course I hoped to find related to a global business(how to prepare for tradeshows or how to establish my brand in USA, etc) What I think is missing is a more advanced course related to social network, the one I received only contained basic information.

Chile3: I expected topics about time manager and I found it!

Chile4: I would have lived to have more information on fair trade globally, because in Chile it is still a practical and nonexistent term. Also be able to access shops for products made with recycled materials.

Korea1: I expect global trade and trend which were provided by the program. It would be great if you provides a skill to manage and seek for team members. As a start-up, it is a real struggle to have the good human asset.

Korea2: Very helpful and easy for people who want to start business. Especially for people who want to star global business, very globalized standard. I was expecting topics on understanding global business, Thanks

Korea3: I want to speak with the other country students. They can speaking their business in their countries and conversation about their business in the world. For example, I business for cat supplies. I want to know about the other country cat supplies for they culture. ;)   The topics is "Business conversations"   ;)

Korea4: I think the variety of courses offered are wonderful and diverse. I felt that most of the courses could have gone deeper though. I appreciate the high level overview as it is very important when learning new topic areas, but I feel that a supplemental course with much more details is necessary.

Philipine1: You had a good amount of topics. Perhaps delivery could be better.

Philipine2: I'm expecting topics on increasing client base. On doing business with lean manpower and resources. I also would like to learn topics on best practices of

successful women entrepreneurs.

Philipine3: Perhaps topics on HR and operations-related topics. Human relations is a tough part of running a business and it would be help to get tips on how to find the right people to work for you as well as how to motivate and incentivize staff to work harder. How to increase efficiency when you have a small team is another topic that startups will find useful.

Philipine4: Most of my expected topics/questions were covered.

Chinese Taipei1: I were expecting to learn Import and Export. It might be too difficult for the beginner to learn. If it should list some examples or more detail, I think it might help.

Chinese Taipei2: Course about fashion to provide some ideas for designing products. Because of the culture gap, not all experience are suitable for designing. Thus we will consider the designing progress and the core concern of the products, and reconsider the way we manage the brand.

Chinese Taipei3: Information about foreign exhibitions, feature of those exhibitions, brokerage company and internet information of buyers. Or topics about modern trends, prediction about future or analysis about fashion are also preferred.

Chinese Taipei4: Some other topics could be cover including, for example, how to become a good sales, how to face media or media training, how to set up the franchise etc.

Question 6.3

What did you like about this program? Which components of the courses do you like best? Please explain.

Australia1: I loved the fact that I could move at my own pace and fit it in when I had the time. I loved the e-learning and then the skype sessions with Jeya my mentor, it worked well and it helped to stay on track.

Australia2: I liked that I could complete the modules within my own time frame and in the comfort of my home or office. My favorite course components were "Why are you busy and poor?" and "Time Management". These were areas that I really needed to address personally at the time, and gave me a better understanding of where I was going wrong, and how I could fix the problems I was having a move forward with a better work-life balance.

Australia3: The mentoring was great, very helpful.

Australia4: I love the one on one mentoring so much that I could talk to someone and get immediate response. I like that better than reading as we could bounce off each other.

Chile1: I liked the program because the topics and the mentors were very clear to explain the things I need to grow up my business.

Chile2: What I like the most was that I could set it up to my own schedule. The on-line classes were generally in the early morning, so it was very comfortable for me when they started to send me the records.

Chile3: What I liked the most was the very close relation with the mentor, who always tried to help me giving me advices to solve my actual problems with my project.

Chile4: I liked the promptness and the agility in attendance and help during the program. The capacitation and help from my mentor in Australia. The concern and monitoring from Maria Eliana Verdugo. The flexibility of schedule, and all the updated received information.

Korea1: A mentor and assistance, People who support this program to participants were extremely kind and helpful. They always respond e-mail promptly and encourage to communicate more.

Korea2:"Online one on one communication through Skype was very helpful. Pricing and Costing and Customer Experience Your Competitive Edge section was also very informational and helpful.

Korea3:"Jeya Ramanthan" with communication is really good. She make a guide for business to me. That time is really great!

Korea4: I like the e-learning course. It would be nice to have a face to face session with local mentors and participants. Also, an on-line tool to interact with WW participants would be nice. I had issues with listening to the audio versions.   It would be nice if this were easier to access. Also, I felt like the slides could have gone into more detail, as I like to use them as reference materials.

Philipine1: Hard to say as I didn't get to see the actual content.

Philipine2: I like the idea that if I was not able to join the live webinar, I still have the chance to listen to the pre-recorded topics. I like the idea of having hand-outs which details the sub-topics being discussed. I also like practical example presented while discussion. For me, these are value added learnings that created the most impact on me.

Philipine3： The topics in the program are very relatable and useful to young entrepreneurs. The business concepts were presented and explained in a very comprehensible manner. It was presented in bite-size pieces so as not to overwhelm the students. I think the length of the sessions are also perfect. Some instructors stood out and I particularly enjoyed the Customer Experience Competitive Edge because the points were very clear and the instructor explained each point in a concise manner with good examples. The Time Management topic was also a favorite of mine because the instructor was very articulate and related personal anecdotes that made you feel like you know her. She gave really helpful tips that will help increase my productivity.

Philipine4： I loved discussing with my facilitator, Jeya. She is very knowledgeable but fun, accommodating at the same time. Her skill in mentoring is exceptional!

Chinese Taipei 1: I like the Pricing Costing and Cashflow. Due to the job I work

in UK, I found finance report is very important, and it help me to understand the meaning of professional vocabulary.

Chinese Taipei2: The internet social media and online shop courses were helpful to understand cross culture experiences if we decide to accept foreign orders.

Chinese Taipei3: I liked the topics about resource and recycling.

Chinese Taiipei4: The flexibility which allow me to complete the program at my own timing.

Question 6.4

Which parts of the program do you think are most in need of improvement? How?

Australia 1: I think it would be good to network with the people on the course during the course rather than at the end

Australia 2: I think that some of the speakers could have been more engaging in their tone of voice at times, more expressive perhaps – some a bit monotone at times.

Australia 3: Courses with example of designers who have applied these strategies and how they did it and what result they got. I find the information is readily available on any topic, but how to go about applying it is the hardest part.

Australia 4: I think the format and some of the information needs to be updated to a more current and modern format.

Chile1: Maybe to do it one hour in the week. Because of the time issue it was difficult for me to follow the complete program. When you have a routine is easier to be organized.

Chile2: The platform used to show the class. I have a Mac computer, relatively new

Chile3: It would be nice just to take the topics that we think we need, not a big number. Sometimes I think it were too much topics.

Chile4: Ideally, be able to download the information to study is better, because I live in an area where the internet connection is slow and delayed me a long time to see it and heat it complete.

Korea1: "Get Noticed by the Media" The quality if recording wasn't great. Also, the contents were not something I expected. These contents you can simply learn from a magazine. It would be great if the lecturer provided a practical skill or step to attract the media.

Korea2: No answer.

Korea3: No answer

Korea4: I think there needs to be interactive elements to supplement the course

work. E.g.: local or global events, networking sessions, face to face training sessions. Also, based on business type more information about related events, training sessions, exhibitions, etc. would be nice. An in-person shadowing program with an experienced business professional in the same sector would be a great addition to the program. Even if the participant would have to fund the costs, to be able to work with an experience business owner would be invaluable. Also, I would be interested in a network among participants for sharing job posts, even buying supplies together in bulk, for understanding each other's businesses and needs, sharing talent resources. Most start-ups need the same basic resources like web developers, printers, designers, technical support, etc. If the program could have a center that could assist with some basic support at a lower cost than it would be to hire a freelancer would be extremely helpful. A resource list for manufacturers, suppliers, distributors, PR contacts, etc. for the participants would also be valuable. I would also like to hear more from the successful leaders and entrepreneurs about their personal journey. A taped audio session is fine as far as format.

Philipine1: Engagement, and perhaps the help of interacting with other mentees would help us stay more committed to the project/program.

Philipine2: The way some of the speakers speak. I'm not sure if it's really the audio or how the speaker speaks but sometimes they are inaudible.

You may also consider triggering questions on how we can start using the skills learned on the topics.

Philipine3: Some sessions were taught by instructors with a heavy accent and it was a bit difficult to follow. There was one female instructor with a heavy Portuguese accent and it made it slightly difficult to keep my attention on the session. Technical difficulty is another issue. One professor lost his audio several times during the recorded session.

Philipine4: Making the webinars compatible to Mac.

Chinese Taipei1: Pricing, Costing Cashflow**.** By using the information and skills from the course and set up the SOP to control the costing and cashflow.

Chinese Taipei2: Hope there will be more courses shared by successful women entrepreneurs rather than consultants or lecturers. Besides, I hope there will be advanced courses or experience sharing for certain topics

Chinese Taipei3: It could be better to relate to the course for me if the course have more experience sharing about women entrepreneurship.

Chinese Taipei4: The seminar content is a bit too easy. It is more suited for a start-up small business owner. However, I have been running my own business for 5 years now. I need something that is not on the business concept but more practical advices. My suggestion is to maybe mark the course subject in levels, for example, accounting 1 and accounting 2 etc.

Question 6.5

Please make any additional comments you may have in the remaining

space

Australia1: It was a great course and thank you again for the opportunity!

Australia2: Thank you very much for the learning and development opportunity ☺

Australia3: It would be helpful to have more contact/de briefing in between sessions.

Australia4: I feel very privileged to have been a part of it and hope for many more women to gain access to this information and feel it would be very beneficial to start- up businesses.

Chile1: I think it is a very good initiative to help women that only want two make good business, Thanks for that!

Chile2: No answer.

Chile3: Thanks for letting me be part of the program!

Chile4: These initiatives, online courses, free and easy to practice, made for and by women are fundamental to our superation, because most of these courses are expensive and are focused on urban areas. This makes it difficult to success to specializations that support, clarify and inspire our business vision.

Korea1: It was such a great journey to learn and practice these courses. Thank you so much for all people who contribute this program!

Korea2: Hope this program to be distributed to many females who want to start business.

Korea3: No answer.

Korea4: Thank you again for this amazing opportunity to participate.

Philipine1: Good design (graphic/ communication/ information design) is critical to effective learning.

Philipine2: I would like to thank my local organization, the Network for Enterprising People and my local mentors for endorsing me to this program. Thank you too for Belmont for coming up with this effort to advance the capabilities of women entrepreneurs all over the world.

God bless you all in your future endeavors.

Philipine3: Overall I found the program very helpful and I certainly did learn important business concepts. I am not quite clear on the role of the facilitator/mentor as I only had one session with mine before I started the program. I understand that she may also be busy and that this is only an incubator program. Internet connectivity is also important in doing this program. There were a few occasions when my sessions stopped halfway or it was hard to forward or rewind the recording. It could be that I had connectivity issues or the recording has a limited features. Thank you for the opportunity to be part of this incubator program!

Philipine4: I wish more training like this would be accessible to women in my country. Philippians are naturally born leadersand should have the opportunities to learn more about businessand women entrepreneurship.

Chinese Taipei1: I would like to say thank you to let me join this project. The online course is good and I like to talk to my Mentor which I could get the feedback soon and she answered the questions. Thank you for the APEC TEAM.
Chinese Taipei2: No answer.
Chinese Taipei3: No answer.
Chinese Teipei4: No answer.

Appendix D: Reports from Member Economics

Chile

APEC Multi-Year Project "Innovation for Women and Economic Development: Facilitating Women's Livelihood Development and Resilience with ICTs"

Participants:

- Valentina Lambiasi / Crinkled / http://crinkledprint.tumblr.com/
- Flavia Maguida / Pelham / http://www.pelham.cl/
- Paola Valencia / Kambbur / http://kambbur.blogspot.com/
- Nilda Cerna / BePokerPlayer
  https://www.facebook.com/BePokerPlayer?sk=app_227997314034378

Introduction

In Chile, most of the entrepreneur women have less education, so they want to be capacitated, but they don´t know English. Secondly, most entrepreneur women who know English, have a University Career, even postgraduate studies, so they don't need capacitation courses, because they already have the tools, or at least, they think so. This is why it was very difficult for us to have our 4 participants.

Advantages of the program

- This on-line training program allowed the participants to manage their own time, so that was compatible with their jobs, families, personal activities, etc. All of the participants were looking for a flexible schedule.

- Two of the participants were from outside the capital (Santiago) and one of this two, lived in a rural area and was her first time in an on-line course.

- Instant communication, despite the time difference, and easy to use.

- Great access to information, they only needed a computer and internet connection.

- The four participants were very happy and met their expectations with the course.

- Some of them found specific courses that are not so easy to find in Chile.

- Some of them, expanded their business by creating more products.

- We receive very good comments about the clear explication and the support of the mentors in Australia.

- From our point of view, all of them improved their business in some way.

- We appreciate being able to take part of this course, very well organized and supportive.

Disadvantages of the program

- Some of the participants had some trouble accessing to the link courses.

- Some courses were too basic, maybe a more advanced course in social networks.

- Language (not for our participants, but for Chilean entrepreneurs in general)

- Technical problems, like internet connection or computer issues.

- The platform used looked a bit outdated for one of the participant, what made her think about the validity of information.

- A course about fair trade globally.

Suggestions

- Be able to download the information, in rural areas the internet connection is slow. Also, the time difference between Chile and Australia to schedule appointments via Skype.

- For Chilean entrepreneurs the local language is very important and is very good to have the possibility to translate it.

- It would be good to have one group class, the mentors and the participants, to share experiences etc.

Crinkled   Pelham

Kambbur

BePokerPlayer

Korea

APEC Multi-Year Project "Innovation for Women and Economic Development: Facilitating Women's Livelihood Development and Resilience with ICTs"

[Left to Right] Kio Chung Kim, Ji-Hyun Lee, Teri Ham, Hayoung Oh, Eun Ryoung Lee, and Etoile Ham (via Skype)

Meeting: BPW KOREA CHAPTER MEETING
Date: February 14, 2015

Members:

- Mentor: Professor Kio Chung Kim

- Etoile Ham, Etbe, http://www.ecatshop.co.kr/

- Hayoung Oh, Nalda Design, www.naldadesign.com

- Teri Ham, NALDA LEAD, www.naldalead.com

- Eun Ryoung Lee, VMS Brand, www.vmsbrand.com

- Ji-Hyun Lee, Intern, Mentee

Agenda:

- Participant Introductory Meeting

- Program Feedback Discussion

- Group Results
- Summary (see attached below)

What Worked Well

- The on-line training was perfect for participants with busy schedules as they could complete the training on their own time.

- The program in it of itself has been extremely motivating and inspirational for everyone involved. It has pushed the participants to move their businesses forward at a more rapid pace.

- The mentors have provided invaluable advice and guidance to all of the participants and this is a key part of the program success.

- We have all appreciated the opportunities associated with being part of this program such as: mentoring, Press releases, technical advisement, etc.

- The budget training and top 5 global trends were particularly useful to the participants.

- The organization of the program has been great.   The APEC support team was great at keeping the participants on track and providing all the necessary information in a timely manner.

What Could Have Been Improved Upon

- The network of global mentors and participants is an invaluable resource. The participants would like to leverage this network more.   Some suggestions include: conference calls, global published list of all participants, FB page, LinkedIn group, message board, face to face events, etc.

- Some of the hand-outs had typos, inactive links, and did not contain speaker information (bio, background, intro, contact information)

- Some of the participants wished that the courses had a deep dive option, as some of the courses were more of a basic overview.

- It was not always possible to access the audio files for the courses.

- It would have been nice to have had an introductory overview session (via conference call and ppt) of the program, overview of speakers and content, program history, the program timeline, mission, goal, etc.

- Some courses did not have hand-outs

Suggestions for Improvement

- Provide some options for training in local language AND more courses on local markets/countries

- Create a message board for all participants to interact, network, and communicate with one another

- Create a face to face event by region every year and every other year hold a global face to face event

- Post a global program participant list containing the names, contact information, background/specialties, and business overview of program participants

- Create an alumni community and pair alumni with current participants

- Create an offering of low cost services that all start-ups need, such as: web designers, web technical support, graphic designers, sample makers, financial/accounting advisers, PR support, etc.

- Provide a calendar of events that all participants can choose to participate in (at their own cost).

- Provide a newsletter to the entire group of all speaking opportunities, workshops, and events around the world that all participants may choose to participate in.

The Philippines

APEC Multi-Year Project "Innovation for Women and Economic Development: Facilitating Women's Livelihood Development and Resilience with ICTs"

Analysis of the Feedback of Four Filipino Women Entrepreneurs on the BPW Business Incubator Online Training and Mentoring Program

Submitted by Chiqui Escareal-Go, Women Center for Achievement, Research and Entrepreneurship Philippines (Women CARE PH)

Introduction and Brief Country Background of the Digital Scene in the Philippines
The Philippines has over 39 million internet users growing by 10% from previous year, from a country population of over 100 million in 2014[13]. The internet population in the country in the last five years is the fastest growing in the world at 531% with smartphone ownership expected to increase from 15% to 50% in 2015. As the 8th largest country using Facebook (FB) where 94% of internet users are on FB, compared to only 54% in the US,[14] the Filipinos seem to have a high need for interconnection and information in a social platform that combines both and enables exchanges of ideas and emotions that indicate the pulse of the people.

These positive growth numbers in the digital domain seem to be validated in a report conducted by a US-based research firm, Ambient Insight entitled "The Asia Market for Self-paced e-Learning Products and Services: 2011-2016 Forecast and Analysis," that finds the Philippines as one of the top 10 countries in the world that will grow in terms of e-learning revenues. Based on this study, factors that drive growth in this field include "massive content digitization efforts across school systems, the large-scale deployments of tablets in the academic segments, the explosive growth of online higher education enrollments as well as the strong demand for e-learning in the corporate sector in many countries and the strong demand for digital English-language learning products in both the academic and consumer segments across Asia."[15]

Despite all this plus the prospect of even bigger growth in all things digital in the

---

[13] http://www.internetlivestats.com/internet-users/philippines/
[14] http://www.slideshare.net/OnDevice/philippines-mobile-internet-trends),
[15] http://business.inquirer.net/91820/philippines-cited-for-e-learning-growth)

country, online or e-learning remains an emerging market due to "lack of infrastructure, investment, and a pedagogy applicable to many Filipinos" where many still prefer face-to-face, personal instruction and interaction inside the classroom.   Corporate entities especially multinationals, on the other hand, have strongly advocated and developed online training tools as a means to decrease costs of manpower training while improving systems in human resource development.[16]

It is interesting to note that in the area of e-mentoring and e-learning for entrepreneurs and social enterprises, there seem to be several groups offering online mentoring services for free to start-ups as well as small and medium-size businesses. Telecentre.org's Philippine Community E-Center Network (PhilCeCNet) has a partnership with Cherie Blaire Foundation where women entrepreneurs mostly in microbusinesses or at the grassroots level are taught basic computer skills through local government community e-centers and are matched with businesswomen mentors from all over the world who share their know-how and business guidance for free.[17] Other women's groups in the Philippines such as Network of Enterprising Women or Business and Professional Women (Makati) occasionally offer mentoring sessions or talks for their members either for free or with a membership fee.

In the academe, the University of the Philippines Open University (UPOU) offers some non-formal courses online with topics such as Personal Entrepreneurial Development, Introduction to Electronic Commerce, and Simplified Accounting for Entrepreneurs among other courses.   Other universities with e-learning course include Ateneo de Manila University, De La Salle University and the University of Sto. Tomas.[18]

The Philippine Trade Training Center (PTTC), originally established by the Department of Trade and Industry to assist in the training of Philippine exporters, has since been offering digital courses such as web development, creating catalogues using Photoshop, basic office programs like Powerpoint, Excel, etc. to improve the digital literacy of Filipino entrepreneurs.[19]

Both the UPOU and PTTC charge nominal amounts for their courses.

---

[16] Arimbuyutan, Kim and So, 2007

[17] http://www.aijc.com.ph/content/article/14-sample-data-articles/220-women-entrpreneurs.html
[18] Arimbuyutan, Kim and So, 2007

[19] http://www.pttc.gov.ph/our-history.html

With these in mind, it would be worthy to look into the e-readiness of Filipino women entrepreneurs in using online tools and learning to improve their knowledge for better business results.   Feedback from four Filipino women entrepreneurs who underwent online training and mentoring is shared here based on a questionnaire prepared by the organizers of this project.   Some analysis is presented as well for purpose of context.

Findings and Analysis

The Respondents.   There were four Filipino women entrepreneurs who were invited to join this research project.   Originally, there were two members from the Network of Enterprising Women (Judith and Suzette) and two members from the Business and Professional Women (BPW) Makati (Jen and Lia).   These ladies were chosen to provide an interesting mix of profiles where Judith is the enthusiastic learner always on the look-out for learning opportunities to promote and grow her wholesale and retail watch business; Jen is the young digital native who lives her life and work through a blog that promotes social enterprise, local culture and environmental sustainability; Lia is the former beauty queen who is now in the cosmetic retail business using online channels to offer or promote beauty and lifestyle products, while Suzette is the ever hardworking, typical Filipino woman determined to make family, career and business come together as she has children and a household to manage, while working at a call center and running her meat pie ("empanada") business on the side.   With much on her plate, Suzette eventually dropped out of the program and was replaced by Pia who was earlier suggested by Carol Hanlon, Founding Manager and Business Facilitator of the Belmont Business Enterprise Centre Inc. (Belmont BEC) who is providing the online training and mentoring program.   Pia is a fashion designer whose fashion label bears her name and whose works are available both locally and internationally. (For transparency, this researcher consciously prioritized respondents who had no previous engagement – whether personal or professional, with the existing program organizers, without necessarily implying that this could have undue influence on the outcome of the study.)

At the onset, this researcher had tried to put together respondents with backgrounds as diverse as possible to see how the online and mentoring program would work on different levels, especially on the respondents' challenges in work and home as well their digital readiness for online learning.   On hindsight, it might have been good to define some criteria for choosing respondents beyond just willingness to volunteer for the free program though the randomness of the choices for this study may also provide some areas for reflection.   It would be interesting to find out how the other member

economies involved in this study also chose their respondents and if there were preliminary expectations, if not "self-fulfilling prophecies" given the choices. As for this researcher, there was a conscious effort to truly involve those who were not necessarily internet savvy or whose both business and lifestyle were not mostly online as most Filipinos in small and medium enterprises may not have ready access to the internet. While Judith's business has an online presence, she mainly promotes through a retail space in malls and bazaars while both Lia and Jen are more of the digital natives whose lives and work revolve around the digital sphere. Like Judith, Pia's nature of business requires more of a physical store but with also some online presence in social media.

The Program. Beyond the public flyer initially shared by the organizers, this researcher did not have access to answers of the Self-Assessment form which the respondents emailed directly to the BPW online program coordinator, and as such some information there might also provide interesting insights especially with regards to measuring before-and-after immediate results. For example, the confidence levels in both personal and business levels of the respondents can play a big factor in the receptiveness of the respondents to actively participate and complete the program, and in the case of Suzette and Jen, it would be good to see how their self-assessment before taking on the online course might have indicated anything that would predict their active participation or eventual lack of wholehearted initiative or interest to finish the program.

Also, the list of programs available online for the respondents to choose from was not readily known and if not for the file that Judith sent the organizers and copy furnished this researcher, the knowledge that quite a few of the programs were inclined toward the fashion industry would have been lost. This researcher feels that this fashion-orientation of the online training program may be a strong indicator of the level of interest of the trainee/mentee to stay and finish the program – where we find that those in the fashion business like Pia and whose background is fashion like Lia would have more interest in the choices of topics available. Judith's business may be in retail of watches but this also has some element of fashion. This might explain why Suzette who is in the food business and Jen who is into culture and environment might not have found the program compelling enough, despite the fact that there were some other programs in the list that were more broad or generic.

Respondents' Evaluation on Various Areas

Interactions between Human and ICT. As the Philippines has one of the slowest

internet speed available in Asia[20] at only 2 Megabits per second, the challenge of accessing materials and the workability of linkages is evident in the responses where there are mostly undecided or disagree answers. Pia has mentioned some difficulty in signing on which she attributed to using a Mac instead of a PC. While three respondents indicated that their internet connection and computer are sufficient, it is also true that the connections are dependent on location as mentioned by Lia who shared that she was able to access the material in the office where the connection was faster but not from home. This is important for the respondents to have flexibility in accessing materials at their own time and place as indicated in their agreed importance of item 2.4 of the post-training questionnaire ("Learning via internet allowed me to manage my time more flexibly.")

As the Filipinos are very social beings where interpersonal relationships are important for camaraderie and even social justice and unity,[21] the respondents still preferred learning with other people than learning from the internet as indicated in their responses of three disagree and one undecided to item 2.5 ("Learning is more comfortable than learning with people"). Arimbuyutan, Kim and So (2007) wrote, "Consider the culture of the Filipinos' preference for a face to face interaction as learning process and are used to classroom training." This can also be discerned from Jen's wish for more peer engagement or even offline meet-ups.

Interactions between Human and Human. There is some ambivalence in the respondents' answers to this portion with a 50-50 split on agree-disagree or undecided responses. The mentor Jeya, however, received good reviews from all respondents, including Jen who admitted that her engagement with Jeya was the only bright spot in the program for her. Jen said, "This was my one positive experience from the experience. Rapport and engagement were actually very good. It was a lack on my part that I didn't maximize those initial stages."

Lia and Judith also mentioned appreciating connecting with Jeya and Lia mentioned she would have preferred to have one more mentoring session via Skype. Lia said "Maybe because Jeya felt I was already doing ok that she didn't suggest another session."

---

[20] http://www.abs-cbnnews.com/business/10/02/14/philippines-still-has-one-slowest-internet-speeds-asia

[21] https://www.academia.edu/7763783/FILIPINO_VALUES_Source_PATRICIA_LICUANAN_A_MORAL_RECOVERY_PROGRAM_BUILDING_A_PEOPLE_BUILDING_A_NATION._STRENGTHS_OF_THE_FILIPINO_CHARACTER

In the case of Judith, she wished she also had another session with Jeya, despite having two mentoring sessions. Judith also shared a concern about Jeya's suggestion to consider selling to global business to business in the future but Judith felt she should focus on the local market considering her present resources and available technology, not to mention the fact that since she is not the manufacturer, she cannot compete with the price of China brands.

The inconsistencies in answers here may be more due to the desire of the respondents to have peer or group engagement, which is also related to previous item on the Filipinos desiring more human interaction in learning.

Course Content. Again, some ambivalence or inconsistencies in Judith's evaluation of course content as she agreed in item 4.4. that the content was clear and understandable but was undecided in 4.3 on proper organization and sequence and 4.5 on appropriateness of language use. Lia and Pia were more consistent with their agreement on the course content being helpful with Lia's undecided answer being the same as Judith's with regards to some difficulty following language accents of certain speakers.

Satisfaction. Three out of four respondents mostly agreed on the satisfaction levels of gaining new knowledge and skills and in recommending e-learning to others. It must be noted here that the youngest respondent Jen (age group 20-29), was not satisfied and will not recommend e-learning to others. This is an important feedback for proper market segmentation and the kind of materials that must be developed of the program that will appeal to the correct market segment.

QUALITATIVE FEEDBACK : Likes, Dislikes, Wishlist

LIKES

Expectations. For Judith, Lia and Pia – their expectations going into the program were basically in gaining knowledge, skills and abilities to improve the running of their businesses. Judith wanted to be updated on the latest trends in doing business while Lia felt the program would be helpful for young entrepreneurs and that even a more experienced businesswoman like her learned new things in financial concepts while re-learning old concepts in customer service. Pia provided an additional expectation on gaining confidence that she felt was achieved in the program.

All respondents noted that there is a good amount topics available.

On what respondents liked most in the program, Lia found "the topics in the program very relatable and useful to young entrepreneurs." She added "The business concepts were presented and explained in a very comprehensible manner. It was presented in bite-size pieces so as not to overwhelm the students. I think the length of the sessions is also perfect. Some instructors stood out and I particularly enjoyed the Customer Experience Competitive Edge because the points were very clear and the instructor explained each point in a concise manner with good examples. The Time Management topic was also a favorite of mine because the instructor was very articulate and related personal anecdotes that made you feel like you know her. She gave really helpful tips that will help increase my productivity."

Judith liked the "chance to listen to pre-recorded topics if unable to join live webinar; idea of having handouts which details sub-topics being discussed; like practical example presented while discussion; these are value added learnings that created the most impact on me."

As for Pia, she specifically mentioned her mentor Jeya. "I loved discussing with my facilitator Jeya. She is very knowledgeable but very accommodating at the same time. Her skills in mentoring are exceptional."

DISLIKES

Jen's voice is loudest here as she did not finish the program. While admitting that she had no expectations, she did mention that she thought it would be like a more focused mentorship with Coursera-like components. She said, "I thought it might be like other online training programs with monthly, weekly modules and groups /peers / fellows." She noted that while there is a good amount of topics, mode of delivery could have been better, specifically, Jen noted the importance of good design, like the aesthetics, packaging and user interface as critical to effective learning. Jen added, "Granted though I feel it is not solely the program, (it's just that) from what I saw, I guess I wasn't really compelled to engage more somehow."

Heavy language accent was also an issue as stated by both Judith and Lia who had difficulty understanding, following discussions or maintaining interest.

Technical difficulties were also a problem as some recorded sessions had missing audio parts according to Lia who also added, "Internet connectivity is also important in doing this program. There were a few occasions when my sessions stopped halfway or it was hard to forward or rewind the recording. It could be that I had connectivity issues or the

recording has a limited features." Jen also added, "I think I couldn't access some of the webinars / videos, and then I just gave up and moved on to other tasks." Pia reiterated the need for the webinars to be more Mac-friendly.

WISHLIST

Judith suggested adding topics on increasing client database, doing business with lean manpower and resources and best practices of successful women entrepreneurs.

Jen also hoped to the program could improve engagement like interacting with other mentees who could help each other stay more committed to the program. She said "Peer involvement would probably work, and perhaps quarterly offline meet-up."

Like Judith, Lia had some HR and operational concerns and would therefore like more topics in this area specifically in getting tips on how to find the right people as well as how to motivate and incentivize staff to work harder. She also suggested the topic how to increase efficiency when you have a small team that startups will find useful. It was also Lia who thought another session with the mentor might have helped, "I am not quite clear on the role of the facilitator/mentor as I only had one session with mine before I started the program. I understand that she may also be busy and that this is only an incubator program."

Judith, Lia and Pia were all grateful for the opportunity to be part of the program. Said Pia, "I wish more trainings like this will be accessible to women in my country. Filipinos are naturally born leaders and should have the opportunity to learn more about business and women empowerment."

Summary and Recommendations

This research looked into the experience and feedback of four Filipino women entrepreneurs who took part in an online training and mentoring program sponsored by the APEC Multi-Year Project MSCE 03 2013A and the Foundation for Women's Rights Promotion and Development, Chinese Taipei and supported by Belmont BEC, TCF Global and BPW Business Incubator Training and Incubator Project.

As can be seen from the discussion on the findings and analysis in previous section, three out of four respondents gave favorable feedback and were grateful for the opportunity to have been part of this project. While the number of respondents is clearly small and the profile quite homogenous, this research has revealed interesting insights that can be used as a jumping ground for future studies.

There are areas for improvement in the deployment of this program as suggested by the respondents taking into consideration cultural context and target market segmentation.

In the case of the one participant who did not finish the program, Jen, who is also the most active online, felt that the while there are some Filipino women entrepreneurs who might be ready for e-learning, most are not. She feels that some offline process or preparation before actual participation might help in getting better compliance and reception to such kind of learning. As the youngest in the group, her suggestions on better aesthetics and user interface is worth considering for this particular target market. Needless to say, the Internet infrastructure plays a big role in any e-learning program. The Philippines is in the process of improving its digital infrastructure and intends to provide a more encompassing access in the near future, where the Department of Science and technology (DOST) has announced implementing free Wi-Fi in public places across the country by July 2015.[22] Until then, this is a challenge that even those who can afford higher speed, paid digital services are faced with as can be seen from the feedback of all four respondents on technical issues.

Other insights from this research implies the need to measure the e-readiness of not just the infrastructure but also the learner's educational levels, online and technical experience and the importance of relevance of any online program to fit the needs of its target market especially in this era of globalization. While the internet has enabled interaction across continents at the least cost and energy, access to information is also more readily available, thus, raising expectation that mentors and educators must be more aware of both local and global situations where mentees and students expect mentors to be able to employ global perspectives to local situations for better application.   Not all mentees are able to see these connections readily, as in the case of Judith who wanted to penetrate the local market before even thinking of going international as suggested by her mentor Jeya.

A study by dela Pena-Bandelaria, M. (2007) entitled "Impact of ICTs on Open and Distance Learning in a Developing Country Setting: The Philippine experience" perhaps best summarizes   the lessons learned in any effort to bring online learning forward:

> *"First, those seeking to deploy DE (distance education) must ensure that any technology used is both pedagogically sound and socially-driven. In other words, it is not wise to use technology simply for technology sake, it must be 'relevant.'*
>
> *'Relevance' in this case has two dimensions: the first is process and the second is substance. Kling (2001) asserts that design and implementation processes*

---

[22] https://ph.news.yahoo.com/free-public-wi-fi-across-phl-implemented-2015-042938666.html

must be relevant to the actual social dynamics of a given site of social practice, and that the substance of design and implementation – specifically the actual designs and the actual systems – must be relevant to the lives of the people in which they affect. Kling also said:

    'Technical work, more superficially, should draw attention to functionalities that people value and more fundamentally, should articulate those analytical categories that have been found useful in describing social reality.'"

Bandelaria also suggested the importance of research and evaluation.   She added, "As with any new initiative, the research component of DE projects must inform the selection and subsequent use of any new technology. Projects, therefore, must set goals, means to meet those goals, which must be monitored to ensure their effectiveness and efficiency in meeting those goals."

It is in this context that this researcher would like to ask – what is this program's measure of success?   When asked for expectations, most of the respondents indicated their desire to gain new knowledge, skills and abilities to improve the running of their businesses as well as gaining confidence while being updated on the latest business trends, which they admit to have achieved.   These are basic points any starting learner would readily want to accomplish.   It must be noted here that the Filipinos do not tend to demand anything more like actual ROI (measured more in terms of money instead of resource investment like time and energy) especially when a program is given for free, where receiving favors and gratitude are "highly valued in Philippine society".[23]

The real measure of this program's success may not be immediately realized as implementation and results of learning can only be seen after some time.   At the end of the day, perhaps success can be best expressed, beyond the measures of gaining knowledge and confidence, on how the program has helped the Filipino woman entrepreneur grow her business while making life better for herself and everyone around her.

References:

Arimbuyutan, R. C., Kim, S. S.-g., and So, W. (2007). A Study on e-Learning for
    Philippines. *International Journal of Multimedia and Ubiquitous Engineering, 2*
(4), 49- 54.

---

[23] http://antipinoy.com/is-assertiveness-valued-in-filipino-culture/

dela Pena-Bandelaria, M. (2007). Impact of ICTs on Open and Distance Learning in a Developing Country Setting: The Philippine experience. *International Review of Research in Open and Distance Learning, 8* (1).